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## Keynumbers and Keywords

### A=1

<sup>1</sup> n	20060B05	NUCLEAR REACTIONS <sup>2</sup> H( <sup>26</sup> Ne, <sup>26</sup> Ne'), ( <sup>26</sup> Ne, <sup>25</sup> Ne), ( <sup>26</sup> Ne, <sup>27</sup> Ne), ( <sup>26</sup> Ne, <sup>26</sup> Na), ( <sup>26</sup> Ne, <sup>27</sup> Na), E=9.7 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>25,26,27</sup> Ne, <sup>26,27</sup> Na deduced levels, J, $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305
	2007AC01	NUCLEAR REACTIONS <sup>1</sup> H, <sup>4</sup> He(polarized e, e), E=3 GeV; measured parity-violating asymmetry. <sup>1</sup> n, <sup>1</sup> H; deduced strange form factors. JOUR PRLTA 98 032301
	2007AI01	NUCLEAR REACTIONS <sup>1,2</sup> H(polarized e $^+$ , e $^+$ 'X), E=27.6 GeV; measured polarization observables. <sup>1</sup> n, <sup>1,2</sup> H; deduced spin structure functions. Polarized targets. JOUR PRVDA 75 012007
	2007AL22	NUCLEAR REACTIONS <sup>1,2</sup> H(polarized e, e'), (polarized e, e'p), (polarized e, e'n), (polarized e, e' $\pi$ ), E=850 MeV; measured particle spectra, asymmetries. <sup>1</sup> n, <sup>1</sup> H; deduced electric and magnetic form factors. Polarized targets. JOUR ZAANE 31 588
	2007AN08	NUCLEAR REACTIONS <sup>3</sup> He(polarized e, e'), E=0.778, 1.727 GeV; measured quasielastic transverse asymmetry. <sup>1</sup> n deduced magnetic form factor. Polarized target, nonrelativistic Faddeev calculation. JOUR PRVCA 75 034003
	2007AN11	NUCLEAR REACTIONS <sup>1</sup> H, <sup>4</sup> He(polarized e, e), E not given; measured parity-violating electroweak asymmetry. <sup>1</sup> n, <sup>1</sup> H; deduced strange quark contributions to the nucleon electromagnetic form factors. JOUR ZAANE 31 597
	2007BE38	NUCLEAR REACTIONS <sup>3</sup> He( $\gamma$ , 2pn), ( $\gamma$ , 2p), ( $\gamma$ , pd); <sup>4</sup> He( $\gamma$ , pt), ( $\gamma$ , 2d), E=0.35-1.5 GeV; measured $\sigma$ (E, $\theta$ ). Comparison with model predictions. JOUR NUPAB 790 167c
	2007FR07	NUCLEAR REACTIONS <sup>2</sup> H, <sup>6</sup> Li(polarized $\mu$ , $\mu'$ ), E at 160 GeV / c; measured scattering asymmetries. <sup>1</sup> n, <sup>1</sup> H; deduced spin structure. JOUR ZAANE 31 620
	2007MA60	NUCLEAR REACTIONS <sup>2</sup> H(polarized p, 2p), E=190 MeV; measured $\sigma$ ( $\theta$ ), vector analyzing powers. Comparison with calculations using 3N forces. JOUR NUPAB 790 426c
	2007SA39	NUCLEAR REACTIONS <sup>2</sup> H(p, p), (p, 2p), E=13 MeV; measured Ep, pp-coin, $\sigma$ ( $\theta$ ); calculated $\sigma$ ( $\theta$ ). Watson-Migdal-Faddeev model. JOUR NUPAB 790 348c
	2007SE11	NUCLEAR REACTIONS <sup>1</sup> H(polarized d, 2p), E=270 MeV; measured vector and tensor analyzing powers. Comparison with Faddeev calculations. JOUR NUPAB 790 450c
	2007SEZZ	RADIOACTIVITY <sup>1</sup> n( $\beta^-$ ); measured T <sub>1/2</sub> . Gravitationally trapped ultracold neutrons. PREPRINT nucl-ex/0702009,2/6/2007
	2007TR01	NUCLEAR REACTIONS <sup>1</sup> H( <sup>20</sup> Ne, <sup>20</sup> Na), E=22.3 MeV / nucleon; <sup>2</sup> H( <sup>20</sup> Ne, <sup>21</sup> Na), E=22.3 MeV / nucleon; <sup>1</sup> H( <sup>21</sup> Ne, <sup>21</sup> Na), E=43 MeV / nucleon; measured particle spectra, yields. JOUR NIMAE 572 580
	2007TU02	NUCLEAR REACTIONS <sup>2</sup> H(p, 2p), E=5 MeV; measured cross sections. Analyzed data using the Trojan Horse Method to deduce off-energy shell effects on p-p scattering. JOUR PRLTA 98 252502

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	2007TU04	NUCLEAR REACTIONS $^2\text{H}(\text{p}, 2\text{p})$ , E=5, 6 MeV; measured Ep, Ip, $\sigma(E, \theta)$ . Plane wave impulse approximation, Trojan horse method. JOUR NUPAB 787 337c
	2007TY02	NUCLEAR REACTIONS $^1\text{H}(\text{e}, \text{e}'\pi^+)$ , $(\text{e}, \text{e}'\text{X})$ , E=27.6 GeV; measured pion, pion pair, and $\rho^0 \sigma(Q^2)$ . JOUR ZAANE 31 451
$^1\text{H}$	2006JE09	NUCLEAR REACTIONS $^2\text{H}(^9\text{Li}, ^{10}\text{Li})$ , E=2.36 MeV / nucleon; measured proton spectra, $\sigma(\theta)$ . $^{10}\text{Li}$ deduced spectroscopic factors. Comparison with optical model calculations, post-accelerated radioactive beam. JOUR PYLBB 642 449
	2006OB05	NUCLEAR REACTIONS $^2\text{H}(^{26}\text{Ne}, ^{26}\text{Ne}')$ , $(^{26}\text{Ne}, ^{25}\text{Ne})$ , $(^{26}\text{Ne}, ^{27}\text{Ne})$ , $(^{26}\text{Ne}, ^{26}\text{Na})$ , $(^{26}\text{Ne}, ^{27}\text{Na})$ , E=9.7 MeV / nucleon; measured $E\gamma, I\gamma$ , (particle) $\gamma$ -coin. $^{25,26,27}\text{Ne}$ , $^{26,27}\text{Na}$ deduced levels, J, $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305
	2006SAZQ	NUCLEAR REACTIONS $^1\text{H}(^6\text{He}, ^6\text{He})$ , E=71 MeV / nucleon; measured $\sigma(\theta)$ , $Ay(\theta)$ . Polarized target. REPT CNS-REP-69,P27,Sakaguchi
	2006ST27	NUCLEAR REACTIONS $^1\text{H}(\text{polarized e}, \text{e}'\pi^0)$ , E=855 MeV; measured electron and proton spectra, $\sigma(E, \theta)$ ; deduced magnetic dipole amplitude, pionic contribution. Comparison with model predictions. JOUR ZAANE 30 471
	2007AC01	NUCLEAR REACTIONS $^1\text{H}, ^4\text{He}(\text{polarized e}, \text{e})$ , E=3 GeV; measured parity-violating asymmetry. $^1\text{n}, ^1\text{H}$ ; deduced strange form factors. JOUR PRLTA 98 032301
	2007AI01	NUCLEAR REACTIONS $^{1,2}\text{H}(\text{polarized e}^+, \text{e}'\text{X})$ , E=27.6 GeV; measured polarization observables. $^1\text{n}, ^{1,2}\text{H}$ ; deduced spin structure functions. Polarized targets. JOUR PRVDA 75 012007
	2007AL22	NUCLEAR REACTIONS $^{1,2}\text{H}(\text{polarized e}, \text{e}')$ , $(\text{polarized e}, \text{e}'\text{p})$ , $(\text{polarized e}, \text{e}'\text{n})$ , $(\text{polarized e}, \text{e}'\pi)$ , E=850 MeV; measured particle spectra, asymmetries. $^1\text{n}, ^1\text{H}$ ; deduced electric and magnetic form factors. Polarized targets. JOUR ZAANE 31 588
	2007AN11	NUCLEAR REACTIONS $^1\text{H}, ^4\text{He}(\text{polarized e}, \text{e})$ , E not given; measured parity-violating electroweak asymmetry. $^1\text{n}, ^1\text{H}$ ; deduced strange quark contributions to the nucleon electromagnetic form factors. JOUR ZAANE 31 597
	2007BU05	NUCLEAR REACTIONS $^1\text{H}(\text{polarized p}, \text{p})$ , E(cm)=200 GeV; measured double spin asymmetries. Comparison with theory, polarised target. JOUR PYLBB 647 98
	2007CA35	NUCLEAR REACTIONS $^1\text{H}(^{36}\text{Si}, ^{36}\text{Si}')$ , E < 140 MeV / nucleon; $^1\text{H}(^{38}\text{Si}, ^{38}\text{Si}')$ , E < 140 MeV / nucleon; $^1\text{H}(^{40}\text{Si}, ^{40}\text{Si}')$ , E < 140 MeV / nucleon; measured $E\gamma, I\gamma$ , (particle) $\gamma$ -coinc, inelastic proton scattering cross sections. $^{36,38,40}\text{Si}$ deduced quadrupole deformation parameters. JOUR PYLBB 652 169
	2007CH50	NUCLEAR REACTIONS $^1\text{H}(\text{e}, \text{e}')$ , $(\text{e}^+, \text{e}'')$ , E(cm)=318 MeV; measured D* production $\sigma(Q^2)$ . Comparison with other data and next-to-leading-order QCD calculations. JOUR PYLBB 649 111
	2007CR01	NUCLEAR REACTIONS $^1\text{H}(\text{polarized e}, \text{e}'\text{p})$ , E=high; measured asymmetries. $^1\text{H}$ deduced electric to magnetic form factor ratios. Polarized target. JOUR PRLTA 98 052301

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- 2007DA14 NUCLEAR REACTIONS  $^1\text{H}(\gamma, \gamma')$ , E=2.34, 3.48, 4.62, 5.75 GeV bremsstrahlung; measured Compton scattering  $\sigma$ ,  $\sigma(\theta)$ . JOUR PRLTA 98 152001
- 2007EL02 NUCLEAR REACTIONS  $^2\text{H}(^{22}\text{O}, ^{23}\text{O})$ , E=34 MeV / nucleon; measured excitation energy spectrum.  $^{23}\text{O}$  deduced resonance energies, neutron shell features. JOUR PRLTA 98 102502
- 2007ELZZ NUCLEAR REACTIONS  $^2\text{H}(^{22}\text{O}, ^{23}\text{O})$ , E=34 MeV / nucleon; measured excitation energy spectrum.  $^{23}\text{O}$  deduced resonance energies, neutron shell features. REPT RIKEN-NC-NP-4, Elekes
- 2007FE08 NUCLEAR REACTIONS  $^1\text{H}(\text{e}, \text{e}'\pi^+\pi^-)$ , E=1.5 GeV; measured cross sections for small photon virtualities using the CLAS detector at TJNAF. JOUR BRSPE 71 314
- 2007FR07 NUCLEAR REACTIONS  $^2\text{H}$ ,  $^6\text{Li}$ (polarized  $\mu$ ,  $\mu'$ ), E at 160 GeV / c; measured scattering asymmetries.  $^1\text{n}$ ,  $^1\text{H}$ ; deduced spin structure. JOUR ZAANE 31 620
- 2007GI08 NUCLEAR REACTIONS  $^1\text{H}(^{8}\text{He}, ^{8}\text{He})$ ,  $(^{8}\text{He}, \text{d})$ ,  $(^{8}\text{He}, \text{t})$ , E=15.7, 61.3 MeV / nucleon; analyzed  $\sigma(\theta)$ . Coupled reaction channel calculations, DWBA analysis.  $^2\text{H}(^{26}\text{Ne}, \text{p})$ , E=9.7 MeV / nucleon; measured fragment yield,  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin.  $^{27}\text{Ne}$  deduced levels,  $J$ ,  $\pi$ . Exogam array, Vamos spectrometer. JOUR NUPAB 787 423c
- 2007JA07 NUCLEAR REACTIONS  $^1\text{H}$ (polarized  $\text{e}$ ,  $\text{e}'\gamma$ ), E=854.6 MeV; measured  $E\gamma$ ,  $\text{re}^1\text{H}$  deduced generalized polarizabilities. JOUR ZAANE 31 610
- 2007JIZZ NUCLEAR REACTIONS  $^2\text{H}$ (polarized  $\gamma$ ,  $\text{n}$ ), E=2 GeV; measured angular dependence of recoil proton polarization. Comparison with model predictions. PREPRINT nucl-ex/0702002, 2/2/2007
- 2007KA38 NUCLEAR REACTIONS  $^2\text{H}$ (polarized  $\text{p}$ ,  $\text{p}$ ), E=108, 120, 135, 150, 170, 190 MeV; measured  $\sigma(E, \theta)$ , analyzing powers.  $^1\text{H}$ (polarized  $\text{d}$ ,  $\text{d}$ ), E=180 MeV; measured  $\sigma(\theta)$ , analyzing powers.  $^1\text{H}$ (polarized  $\text{d}$ ,  $\text{np}$ ), E=130 MeV; measured  $\sigma(E, \theta)$ . Comparison with calculations. Faddeev model using 2N and 3N potentials. JOUR NUPAB 790 69c
- 2007KE02 NUCLEAR REACTIONS  $^1\text{H}$ (polarized  $\text{e}$ ,  $\text{e}'\pi^0$ ), E=4531 MeV; measured  $\sigma(E, \theta)$ , recoil polarization, response functions; deduced multipole amplitudes. JOUR PRVCA 75 025201
- 2007MA23 NUCLEAR REACTIONS  $^1\text{H}$ (polarized  $\text{d}$ ,  $\text{d}$ ), E=130, 180 MeV; measured vector and tensor analyzing powers. JOUR ZAANE 31 383
- 2007PA26 NUCLEAR REACTIONS  $^1\text{H}(\text{p}, \text{p}')$ , E=1.30, 1.36, 1.45 GeV; measured  $\text{Ep}$ ,  $\text{Ip}$ , three-pion production  $\sigma$ , pp missing mass distributions. Comparison with other data and statistical model calculations. JOUR PYLBB 649 122
- 2007R024 NUCLEAR REACTIONS  $^1\text{H}$ (polarized  $\text{e}$ ,  $\text{e}'$ ), E=362, 687 MeV; measured proton elastic form factor ratio. JOUR PRLTA 99 202002
- 2007SA14 NUCLEAR REACTIONS  $^1\text{H}(\text{n}, \text{n}'\gamma)$ , E=175-275 MeV; measured  $\text{Ep}$ ,  $\text{En}$ ,  $\sigma(\theta(\text{n}), \theta(\text{p}), \theta(\gamma))$ . Comparison with relativistic soft-photon and nonrelativistic models. JOUR PRVCA 75 031001
- 2007SA38 NUCLEAR REACTIONS  $^1\text{H}(\text{d}, \text{d})$ , E(cm)=135 MeV / nucleon; analyzed  $\sigma(\theta)$ .  $^1\text{H}$ (polarized  $\text{d}$ ,  $\gamma$ ), E(cm)=135 MeV / nucleon; measured analyzing powers. Comparison with calculations. Faddeev model using 2N and 3N potentials. JOUR NUPAB 790 122c

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2007SAZZ	NUCLEAR REACTIONS $^1\text{H}(\text{n}, \text{n}'\gamma)$ , E=175-275 MeV; measured En, Ep, $\sigma(\theta_p, \theta_n, \theta_\gamma)$ . Comparison with model predictions. PREPRINT nucl-ex/0701009,01/05/2007
2007SEZZ	RADIOACTIVITY $^1\text{n}(\beta^-)$ ; measured $T_{1/2}$ . Gravitationally trapped ultracold neutrons. PREPRINT nucl-ex/0702009,2/6/2007
2007SU02	NUCLEAR REACTIONS $^{12}\text{C}(\text{polarized d}, \alpha)$ , E=140, 270 MeV; measured $E\alpha$ , $\sigma(\theta)$ ; deduced beam polarization. $^1\text{H}(\text{polarized d}, \text{d})$ , E=140, 270; measured analyzing powers. JOUR NIMAE 572 745
2007SU23	NUCLEAR REACTIONS $^1\text{H}(\text{polarized } \gamma, \pi^0)$ , E=1.5-2.4 GeV; measured missing mass spectra, $\sigma(E, \theta)$ , beam asymmetry. JOUR PYLBB 657 32
2007TE09	NUCLEAR REACTIONS $^1\text{H}(^{13}\text{N}, ^{13}\text{N})$ , E(cm)=0.4-3.3 MeV; measured elastic scattering $\sigma(\theta)$ and fitted with R-matrix calculation. $^{14}\text{O}$ deduced levels, widths, J, $\pi$ , spectroscopic factor. JOUR PYLBB 650 129
2007VA03	NUCLEAR REACTIONS $^1\text{H}(\gamma, \pi^0)$ , E=0.3-3 GeV; measured $\sigma(E, \theta)$ , $\sigma$ ; deduced resonance features. Comparison with previous results. JOUR ZAANE 31 61
2007WE03	NUCLEAR REACTIONS $^1\text{H}(\text{polarized e}, \text{e})$ , E at 5.755 GeV / c; measured asymmetries. $^1\text{H}$ deduced spin structure functions in resonance region. JOUR PRLTA 98 132003

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$^2\text{n}$	20060B05	NUCLEAR REACTIONS $^2\text{H}(^{26}\text{Ne}, ^{26}\text{Ne}')$ , $(^{26}\text{Ne}, ^{25}\text{Ne})$ , $(^{26}\text{Ne}, ^{27}\text{Ne})$ , $(^{26}\text{Ne}, ^{26}\text{Na})$ , $(^{26}\text{Ne}, ^{27}\text{Na})$ , E=9.7 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{25,26,27}\text{Ne}$ , $^{26,27}\text{Na}$ deduced levels, J, $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305
	2007SIZY	NUCLEAR REACTIONS $^4\text{He}(^6\text{He}, 2\alpha)$ , E=25 MeV / nucleon; measured $E\alpha$ , En, and two neutron momentum distributions. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P43
$^2\text{H}$	2006MAZV	NUCLEAR REACTIONS $^2\text{H}(\text{polarized n}, \text{n})$ , E=250 MeV; measured $\sigma(\theta)$ ; deduced three-nucleon force effects. REPT CNS-REP-69,P17,Maeda
	20060B05	NUCLEAR REACTIONS $^2\text{H}(^{26}\text{Ne}, ^{26}\text{Ne}')$ , $(^{26}\text{Ne}, ^{25}\text{Ne})$ , $(^{26}\text{Ne}, ^{27}\text{Ne})$ , $(^{26}\text{Ne}, ^{26}\text{Na})$ , $(^{26}\text{Ne}, ^{27}\text{Na})$ , E=9.7 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{25,26,27}\text{Ne}$ , $^{26,27}\text{Na}$ deduced levels, J, $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305
	2006PR22	NUCLEAR REACTIONS $^2\text{H}(\text{polarized p}, \text{p})$ , E=135, 200 MeV; measured $\sigma(\theta)$ , analyzing powers, spin correlation coefficients; deduced no three-nucleon force effect. Polarized target, comparison with Faddeev calculations. JOUR PRVCA 74 064003
	2007AI01	NUCLEAR REACTIONS $^{1,2}\text{H}(\text{polarized e}^+, \text{e}^+\text{'X})$ , E=27.6 GeV; measured polarization observables. $^1\text{n}$ , $^{1,2}\text{H}$ ; deduced spin structure functions. Polarized targets. JOUR PRVDA 75 012007

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- 2007AL20 NUCLEAR REACTIONS  $^2\text{H}$ ,  $^6\text{Li}$ (polarized  $\mu^+$ ,  $\mu^+\text{X}$ ), E at 160 GeV / c; measured longitudinal spin asymmetry.  $^2\text{H}$  deduced spin structure function. Comparison with previous results. JOUR PYLBB 647 8
- 2007AL21 NUCLEAR REACTIONS  $^2\text{H}$ ,  $^6\text{Li}$ (polarized  $\mu^+$ ,  $\mu^+\text{X}$ ), E at 160 GeV / c; measured longitudinal spin asymmetry.  $^2\text{H}$  deduced spin structure function. Comparison with previous results. JOUR PYLBB 647 330
- 2007AL22 NUCLEAR REACTIONS  $^{1,2}\text{H}$ (polarized e, e'), (polarized e, e'p), (polarized e, e'n), (polarized e, e' $\pi$ ), E=850 MeV; measured particle spectra, asymmetries.  $^1\text{n}$ ,  $^1\text{H}$ ; deduced electric and magnetic form factors. Polarized targets. JOUR ZAANE 31 588
- 2007AM03 NUCLEAR REACTIONS  $^1\text{H}$ (polarized d, p), E=90 MeV / nucleon; measured cross section, vector and tensor analyzing powers, induced polarization, vector and tensor spin transfer coefficients. JOUR PRVCA 75 041001
- 2007DE31 NUCLEAR REACTIONS  $^2\text{H}$ (p, p), E=1.9-3.0 MeV; measured elastic scattering  $\sigma$  at backward angles. JOUR NIMBE 261 405
- 2007FR07 NUCLEAR REACTIONS  $^2\text{H}$ ,  $^6\text{Li}$ (polarized  $\mu$ ,  $\mu'$ ), E at 160 GeV / c; measured scattering asymmetries.  $^1\text{n}$ ,  $^1\text{H}$ ; deduced spin structure. JOUR ZAANE 31 620
- 2007ILZZ NUCLEAR REACTIONS  $^2\text{H}(\gamma, \pi^0)$ , E  $\approx$  600-800 MeV; measured  $\sigma(\theta)$ ; deduced resonance features. PREPRINT nucl-ex/0703006, 3/5/2007
- 2007KA38 NUCLEAR REACTIONS  $^2\text{H}$ (polarized p, p), E=108, 120, 135, 150, 170, 190 MeV; measured  $\sigma(E, \theta)$ , analyzing powers.  $^1\text{H}$ (polarized d, d), E=180 MeV; measured  $\sigma(\theta)$ , analyzing powers.  $^1\text{H}$ (polarized d, np), E=130 MeV; measured  $\sigma(E, \theta)$ . Comparison with calculations. Faddeev model using 2N and 3N potentials. JOUR NUPAB 790 69c
- 2007K036 NUCLEAR REACTIONS  $^2\text{H}$ ,  $^6\text{Li}$ (polarized  $\mu$ ,  $\mu'$ ), E=160 GeV; measured scattering asymmetry.  $^2\text{H}$ ; deduced spin dependent structure function. JOUR ZAANE 31 606
- 2007MA46 NUCLEAR REACTIONS  $^2\text{H}(n, n)$ , E=248 MeV; measured En,  $\sigma$  and vector analyzing power. JOUR PRVCA 76 014004
- 2007MA61 NUCLEAR REACTIONS  $^2\text{H}$ (polarized n, n), E=250 MeV; measured  $\sigma(\theta)$ , vector analyzing powers. Comparison with Faddeev calculations using 3N forces and other data. JOUR NUPAB 790 430c
- 2007MI15 NUCLEAR REACTIONS  $^2\text{H}(d, d)$ , E=231.8 MeV; measured  $\sigma$ , angular distributions and analyzing powers. Compared results to calculations. JOUR PRVCA 75 054001
- 2007MI31 NUCLEAR REACTIONS  $^2\text{H}(d, pn)$ , E=270 MeV; measured combined proton, neutron energy spectrum at 0°; deduced three and four-body breakup. Plane wave impulse approximation. JOUR NUPAB 790 442c
- 2007SA39 NUCLEAR REACTIONS  $^2\text{H}(p, p)$ , (p, 2p), E=13 MeV; measured Ep, pp-coin,  $\sigma(\theta)$ ; calculated  $\sigma(\theta)$ . Watson-Migdal-Faddeev model. JOUR NUPAB 790 348c

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<sup>3</sup> H	2006OB05	NUCLEAR REACTIONS <sup>2</sup> H( <sup>26</sup> Ne, <sup>26</sup> Ne'), ( <sup>26</sup> Ne, <sup>25</sup> Ne), ( <sup>26</sup> Ne, <sup>27</sup> Ne), ( <sup>26</sup> Ne, <sup>26</sup> Na), ( <sup>26</sup> Ne, <sup>27</sup> Na), E=9.7 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>25,26,27</sup> Ne, <sup>26,27</sup> Na deduced levels, J, $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305
	2007AF02	NUCLEAR REACTIONS <sup>12</sup> C( $\gamma$ , p2 $\alpha$ ), ( $\gamma$ , n2 $\alpha$ ), E < 150 MeV; measured cross sections and angular distributions. JOUR PANUE 70 839
	2007HU06	NUCLEAR REACTIONS <sup>2</sup> H(d, n), (d, p), E=low; measured fusion rates, screening effects for reaction in metals. JOUR NIMBE 256 599
	2007LY01	NUCLEAR REACTIONS <sup>4</sup> He(polarized $\gamma$ , p), (polarized $\gamma$ , n), E=40, 60, 80 MeV; measured $\sigma(\theta)$ , azimuthal asymmetry; deduced multipole strengths, meson exchange current contributions. JOUR NUPAB 781 306
	2007MI25	NUCLEAR REACTIONS <sup>4</sup> He( <sup>22</sup> O, <sup>23</sup> F $\gamma$ ), ( <sup>23</sup> F, <sup>23</sup> F $\gamma$ ), ( <sup>24</sup> F, <sup>23</sup> F $\gamma$ ), ( <sup>25</sup> Ne, <sup>23</sup> F $\gamma$ ), E $\approx$ 35 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin; deduced reaction $\sigma$ . <sup>4</sup> He( <sup>22</sup> O, <sup>23</sup> F $\gamma$ ), E=35 MeV / nucleon; measured $\sigma(\theta)$ . <sup>23</sup> F deduced levels, J, $\pi$ , configurations. Comparison with DWBA and shell model predictions. JOUR NUPAB 787 569c
	2007NAZW	NUCLEAR REACTIONS <sup>4</sup> He( $\gamma$ , X), E < 50 MeV; <sup>12</sup> C( $\alpha$ , $\gamma$ ), E(cm)=1.4-1.6 MeV; <sup>2</sup> H, <sup>62</sup> Ni(n, $\gamma$ ), E= low; measured cross sections. CONF Tokai-mura (Nuclear Data) Proc,PIII.01,Nagai
	2007WA37	NUCLEAR REACTIONS <sup>2</sup> H(d, p), E=10-20 keV; measured thick target proton yields for deuteriated Sm target at low temperatures. Sm deduced electron screening potential. JOUR JPGPE 34 2255
	2007WA38	NUCLEAR REACTIONS <sup>2</sup> H(d, p), E=10-20 keV; measured thick target yields, cross sections, and S-factor, on deuterons implanted in cooled Sm metal target. JOUR CPLEE 24 3103
	2006AN37	NUCLEAR REACTIONS <sup>4</sup> He( $\pi^+$ , $\pi^+$ ), ( $\pi^+$ , $\pi^{+}$ '), ( $\pi^+$ , $\pi^+$ n), ( $\pi^+$ , $\pi^0$ p), ( $\pi^-$ , $\pi^-$ ), ( $\pi^-$ , $\pi^-$ '), ( $\pi^-$ , $\pi^-$ n), E at 218 MeV / c; measured $\sigma(\theta)$ , branching ratios. JOUR NIFBA 121 771
	2007AD02	NUCLEAR REACTIONS <sup>2</sup> H(p, X) <sup>3</sup> He, E at 1.58-1.66 GeV / c; measured $\eta$ -meson production associated $\sigma$ , $\sigma(E, \theta)$ ; deduced final state interaction effects. JOUR PRVCA 75 014004
<sup>3</sup> He	2007AF02	NUCLEAR REACTIONS <sup>12</sup> C( $\gamma$ , p2 $\alpha$ ), ( $\gamma$ , n2 $\alpha$ ), E < 150 MeV; measured cross sections and angular distributions. JOUR PANUE 70 839
	2007AN08	NUCLEAR REACTIONS <sup>3</sup> He(polarized e, e'), E=0.778, 1.727 GeV; measured quasielastic transverse asymmetry. <sup>1</sup> n deduced magnetic form factor. Polarized target, nonrelativistic Fadeev calculation. JOUR PRVCA 75 034003
	2007BE03	NUCLEAR REACTIONS <sup>2</sup> H(p, K <sup>+</sup> K <sup>-</sup> ), E $\approx$ threshold; measured prompt and $\phi$ -meson production associated kaon pair spectra, $\sigma(E, \theta)$ . JOUR PRVCA 75 015204
	2007ESZZ	NUCLEAR MOMENTS <sup>3</sup> He; measured precession frequency in magnetic field; deduced dressed-spin effects. Application to neutron dipole moment measurement discussed. PREPRINT nucl-ex/0703029,3/19/2007

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- 2007HU06 NUCLEAR REACTIONS  $^2\text{H}(\text{d}, \text{n})$ ,  $(\text{d}, \text{p})$ , E=low; measured fusion rates, screening effects for reaction in metals. JOUR NIMBE 256 599
- 2007JA11 NUCLEAR REACTIONS  $^2\text{H}(\text{d}, \text{n})$ , E=270 MeV; measured tensor and vector analyzing powers including angular dependence. Compared results to model calculations. JOUR ZAANE 33 39
- 2007JAZZ NUCLEAR REACTIONS  $^2\text{H}(\text{d}, \text{n})$ , E=270 MeV; measured angular dependence of the vector and tensor analyzing powers. Compared results to model calculations. PREPRINT arXiv.0706.3568v1 [nucl-ex]
- 2007KI02 NUCLEAR REACTIONS  $^3\text{H}(\text{p}, \text{n})$ , E=1.6-3.2 MeV; measured En.  $^{12}\text{C}$ ,  $^{28}\text{Si}(\text{n}, \text{X})$ , E=1.410, 1.479, 2.077, 2.501 MeV; measured total  $\sigma$ . JOUR JRNCD 271 541
- 2007LI04 NUCLEAR REACTIONS  $^2\text{H}(\text{d}, \text{n})$ , E not given; measured neutron spectra, yields. Cluster fusion Induced by femtosecond laser pulse. JOUR CPLEE 24 494
- 2007LY01 NUCLEAR REACTIONS  $^4\text{He}(\text{polarized } \gamma, \text{p})$ ,  $(\text{polarized } \gamma, \text{n})$ , E=40, 60, 80 MeV; measured  $\sigma(\theta)$ , azimuthal asymmetry; deduced multipole strengths, meson exchange current contributions. JOUR NUPAB 781 306
- 2007ME11 NUCLEAR REACTIONS  $^1\text{H}(\text{d}, \text{X})^3\text{He}$ , E not given; measured  $\sigma$  and asymmetry factor for  $\eta$  production. Searched for  $\eta^3\text{He}$  quasibound state. JOUR PRLTA 98 242301
- 2007ME16 NUCLEAR REACTIONS  $^2\text{H}(\text{p}, \gamma)$ , E=190 MeV; measured  $\sigma(\theta)$ .  $^1\text{H}(\text{polarized d}, \gamma)$ , E=55, 66.5, 90 MeV / nucleon; measured  $E\gamma$ , (particle) $\gamma$ -coin, vector and tensor analyzing powers. Comparison with model predictions, Faddeev calculations using 3N forces. JOUR NUPAB 790 434c
- 2007NI03 NUCLEAR REACTIONS  $^4\text{He}(\gamma, \text{n})$ , E=23-70 MeV; measured  $\sigma(\theta)$ ; deduced transition coefficients, angle-integrated  $\sigma$ . Tagged photons. JOUR PRVCA 75 014007
- 2007RY02 NUCLEAR REACTIONS  $^4\text{He}(\gamma, \pi^- \text{p})$ ,  $E\gamma=1.6\text{-}4.5 \text{ GeV}$ ;  $^{12}\text{C}(\text{p}, 2\text{p})$ , Ep=1 GeV; measured  $\sigma$ , compared to model calculations. JOUR ZAANE 31 585
- 2007SA38 NUCLEAR REACTIONS  $^1\text{H}(\text{d}, \text{d})$ , E(cm)=135 MeV / nucleon; analyzed  $\sigma(\theta)$ .  $^1\text{H}(\text{polarized d}, \gamma)$ , E(cm)=135 MeV / nucleon; measured analyzing powers. Comparison with calculations. Faddeev model using 2N and 3N potentials. JOUR NUPAB 790 122c
- 2007SC31 NUCLEAR REACTIONS  $^2\text{H}(\text{p}, \text{X})^3\text{He}$ , E=1360, 1450 MeV; measured missing mass spectra; deduced possible  $\omega$  production. JOUR NUPAB 790 319c
- 2007TA23 NUCLEAR REACTIONS  $^1\text{H}(\text{polarized d}, \gamma)$ , E=137 MeV; measured tensor analyzing powers. Comparison with meson exchange current calculations and other data. JOUR NUPAB 790 446c

**A=4**

- $^4\text{n}$  2007FOZY NUCLEAR REACTIONS  $^2\text{H}(^8\text{He}, \text{p})$ ,  $(^8\text{He}, \alpha)$ ,  $(^8\text{He}, ^6\text{Li})$ , E=15.3 MeV / nucleon; measured charged particle energies and yields. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P3

**A=4 (*continued*)**

<sup>4</sup> H	2007NA18	NUCLEAR REACTIONS <sup>4</sup> He( <sup>7</sup> Li, <sup>7</sup> Be), E=455 MeV; measured $\sigma$ and angular distributions. deduced E1 photodisintegration cross section. JOUR PRVCA 76 021305
<sup>4</sup> He	2006AN37	NUCLEAR REACTIONS <sup>4</sup> He( $\pi^+$ , $\pi^+$ ), ( $\pi^+$ , $\pi^{+ \prime}$ ), ( $\pi^+$ , $\pi^+ n$ ), ( $\pi^+$ , $\pi^0 p$ ), ( $\pi^-$ , $\pi^-$ ), ( $\pi^-$ , $\pi^{- \prime}$ ), ( $\pi^-$ , $\pi^- n$ ), E at 218 MeV / c; measured $\sigma(\theta)$ , branching ratios. JOUR NIFBA 121 771
	2006YA21	NUCLEAR REACTIONS <sup>6</sup> Li(polarized d, $\alpha$ ), (polarized d, p), E=90 keV; measured Ep, E $\alpha$ , vector and tensor analyzing powers; deduced resonance contributions. JOUR PRVCA 74 064606
	2007AC01	NUCLEAR REACTIONS <sup>1</sup> H, <sup>4</sup> He(polarized e, e), E=3 GeV; measured parity-violating asymmetry. <sup>1</sup> n, <sup>1</sup> H; deduced strange form factors. JOUR PRLTA 98 032301
	2007AN11	NUCLEAR REACTIONS <sup>1</sup> H, <sup>4</sup> He(polarized e, e), E not given; measured parity-violating electroweak asymmetry. <sup>1</sup> n, <sup>1</sup> H; deduced strange quark contributions to the nucleon electromagnetic form factors. JOUR ZAANE 31 597
	2007BA61	NUCLEAR REACTIONS <sup>4</sup> He( <sup>14</sup> O, $\alpha^{10}$ C), ( <sup>14</sup> O, 2p <sup>12</sup> C), ( <sup>14</sup> O, p <sup>13</sup> N), E=60 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, excitation energy spectra, $\sigma(\theta)$ . <sup>14</sup> O deduced monopole and dipole strength distributions. Comparison with DWBA calculations. JOUR NUPAB 788 188c
	2007MC06	RADIOACTIVITY <sup>8</sup> Be( $\alpha$ ) [ from <sup>92</sup> Mo( <sup>114</sup> Cd, X), E=50 MeV / nucleon]; measured E $\alpha$ , I $\alpha$ , relative $\alpha$ energies as a function of decay angle. Deduced evidence for tidal effect. Compared results to model calculations. JOUR PRLTA 99 132701
	2007MI25	NUCLEAR REACTIONS <sup>4</sup> He( <sup>22</sup> O, <sup>23</sup> F $\gamma$ ), ( <sup>23</sup> F, <sup>23</sup> F $\gamma$ ), ( <sup>24</sup> F, <sup>23</sup> F $\gamma$ ), ( <sup>25</sup> Ne, <sup>23</sup> F $\gamma$ ), E $\approx$ 35 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin; deduced reaction $\sigma$ . <sup>4</sup> He( <sup>22</sup> O, <sup>23</sup> F $\gamma$ ), E=35 MeV / nucleon; measured $\sigma(\theta)$ . <sup>23</sup> F deduced levels, J, $\pi$ , configurations. Comparison with DWBA and shell model predictions. JOUR NUPAB 787 569c
	2007OS03	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>13</sup> C, $\alpha^{14}$ C), E=89.45 MeV; measured particle energies and coincidences. <sup>8</sup> Be deduced levels. JOUR UKPJA 52 525
	2007PA36	NUCLEAR REACTIONS <sup>4</sup> He(K $^-$ , $\pi^-$ ), E at 750 MeV; measured lifetime and mesonic and nonmesonic hypernuclear decay rates. JOUR PRVCA 76 035501
	2007PAZZ	NUCLEAR REACTIONS <sup>4</sup> He(K $^-$ , $\pi^-$ ), E at 750 MeV / c; measured lifetime, mesonic and non-mesonic decay rates for ${}_{\Lambda}^4$ He hypernucleus. PREPRINT arXiv:0705.3311v1 [nucl-ex]
	2007SH39	NUCLEAR REACTIONS <sup>3</sup> He(polarized p, $\pi^+$ ), E(cm)=200, 300, 400 MeV; measured differential cross sections, spin correlation parameters, excitation energy. Grand Raiden spectrometer, polarized <sup>3</sup> He target, elastic backward scattering. JOUR PRVCA 76 044003

**KEYNUMBERS AND KEYWORDS**

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**A=5**

<sup>5</sup> He	2007BH06	NUCLEAR REACTIONS <sup>5</sup> He, <sup>12</sup> C( $\pi^+$ , K $^+$ ), E at 1.05 GeV / c; measured Ep, En and angular distributions in hypernuclei decay and discussed quenching effect. Comparison with intra-nuclear cascade calculations. JOUR ZAANE 33 259
	2007MI25	NUCLEAR REACTIONS <sup>4</sup> He( <sup>22</sup> O, <sup>23</sup> F $\gamma$ ), ( <sup>23</sup> F, <sup>23</sup> F $\gamma$ ), ( <sup>24</sup> F, <sup>23</sup> F $\gamma$ ), ( <sup>25</sup> Ne, <sup>23</sup> F $\gamma$ ), E $\approx$ 35 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin; deduced reaction $\sigma$ . <sup>4</sup> He( <sup>22</sup> O, <sup>23</sup> F $\gamma$ ), E=35 MeV / nucleon; measured $\sigma(\theta)$ . <sup>23</sup> F deduced levels, J, $\pi$ , configurations. Comparison with DWBA and shell model predictions. JOUR NUPAB 787 569c

**A=6**

<sup>6</sup> H	2007F005	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+$ , $\pi^-$ ), ( $\pi^-$ , $\pi^+$ ), E=120-270 MeV; measured double differential inclusive pion double charge exchange cross sections. Compared results to model calculations. JOUR PRVCA 75 064605
	2007FOZY	NUCLEAR REACTIONS <sup>2</sup> H( <sup>8</sup> He, p), ( <sup>8</sup> He, $\alpha$ ), ( <sup>8</sup> He, <sup>6</sup> Li), E=15.3 MeV / nucleon; measured charged particle energies and yields. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P3
	2007FOZZ	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+$ , $\pi^-$ ), ( $\pi^-$ , $\pi^+$ ), E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007
	2007GU24	NUCLEAR REACTIONS <sup>9</sup> Be( $\pi^-$ , pd), ( $\pi^-$ , 2p), E at rest; <sup>11</sup> B, <sup>12</sup> C( $\pi^-$ , p $\alpha$ ), E at rest; <sup>11</sup> B, <sup>12</sup> C( $\pi^-$ , p <sup>3</sup> He), E at rest; measured missing mass spectra. <sup>6,7</sup> H deduced possible resonance energies, widths. JOUR ZAANE 32 261
<sup>6</sup> He	2007BE19	NUCLEAR REACTIONS <sup>27</sup> Al( <sup>6</sup> He, <sup>6</sup> He), E=9.5, 11.0, 12.0, 13.4 MeV; measured $\sigma$ , $\sigma(\theta)$ . <sup>6</sup> He deduced radius, deformation parameters. <sup>27</sup> Al( <sup>6</sup> Li, <sup>6</sup> Li), ( <sup>7</sup> Li, <sup>7</sup> Li), ( <sup>9</sup> Be, <sup>9</sup> Be), ( <sup>16</sup> O, <sup>16</sup> O), E $\approx$ 7-45 MeV; analysed total $\sigma$ . <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>16</sup> O deduced deformation parameters. Sao Paulo potential. JOUR PYLBB 647 30
	2007GI08	NUCLEAR REACTIONS <sup>1</sup> H( <sup>8</sup> He, <sup>8</sup> He), ( <sup>8</sup> He, d), ( <sup>8</sup> He, t), E=15.7, 61.3 MeV / nucleon; analyzed $\sigma(\theta)$ . Coupled reaction channel calculations, DWBA analysis. <sup>2</sup> H( <sup>26</sup> Ne, p), E=9.7 MeV / nucleon; measured fragment yield, E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>27</sup> Ne deduced levels, J, $\pi$ . Exogam array, Vamos spectrometer. JOUR NUPAB 787 423c
	2007HA13	NUCLEAR REACTIONS <sup>6</sup> Li( $\gamma$ , $\pi^+$ ), E=170-220 MeV; measured pion spectra, $\sigma(E, \theta)$ . Comparison with model predictions, previous results. JOUR PRVCA 75 044311
	2007K023	NUCLEAR REACTIONS <sup>209</sup> Bi( <sup>6</sup> He, 2n $\alpha$ ), E=22.5 MeV; measured En, E $\alpha$ , n $\alpha$ -coin, $\sigma(\theta)$ ; deduced reaction mechanism features. <sup>6</sup> He level deduced B(E2). JOUR PRVCA 75 031302
<sup>6</sup> Li	2005RIZU	NUCLEAR REACTIONS <sup>2</sup> H( <sup>8</sup> He, 4n), ( <sup>8</sup> He, 3n), ( <sup>8</sup> He, 2n), E=15.8 MeV / nucleon; measured En, nn-, (recoil)n-coin; deduced possible tetraneutron cluster. REPT IPNO-T-05-15, Rich

**A=6 (*continued*)**

- 2007BE19 NUCLEAR REACTIONS  $^{27}\text{Al}$ ( $^6\text{He}$ ,  $^6\text{He}$ ), E=9.5, 11.0, 12.0, 13.4 MeV; measured  $\sigma$ ,  $\sigma(\theta)$ .  $^6\text{He}$  deduced radius, deformation parameters.  $^{27}\text{Al}$ ( $^6\text{Li}$ ,  $^6\text{Li}$ ), ( $^7\text{Li}$ ,  $^7\text{Li}$ ), ( $^9\text{Be}$ ,  $^9\text{Be}$ ), ( $^{16}\text{O}$ ,  $^{16}\text{O}$ ), E≈7-45 MeV; analysed total  $\sigma$ .  $^{6,7}\text{Li}$ ,  $^9\text{Be}$ ,  $^{16}\text{O}$  deduced deformation parameters. Sao Paulo potential. JOUR PYLBB 647 30
- 2007FR07 NUCLEAR REACTIONS  $^2\text{H}$ ,  $^6\text{Li}$ (polarized  $\mu$ ,  $\mu'$ ), E at 160 GeV / c; measured scattering asymmetries.  $^1\text{n}$ ,  $^1\text{H}$ ; deduced spin structure. JOUR ZAANE 31 620
- 2007K036 NUCLEAR REACTIONS  $^2\text{H}$ ,  $^6\text{Li}$ (polarized  $\mu$ ,  $\mu'$ ), E=160 GeV; measured scattering asymmetry.  $^2\text{H}$ ; deduced spin dependent structure function. JOUR ZAANE 31 606
- 2007MA72 NUCLEAR REACTIONS  $^6\text{Li}$ ,  $^{12}\text{C}$ ( $\pi^+$ ,  $\text{K}^+$ ), E at 1.05 GeV / c; measured excitation energy and pion spectra, Ep, Ed, En from hypernucleus decay; deduced decay asymmetry parameter. JOUR ZAANE 33 255
- 2007MI25 NUCLEAR REACTIONS  $^4\text{He}$ ( $^{22}\text{O}$ ,  $^{23}\text{F}\gamma$ ), ( $^{23}\text{F}$ ,  $^{23}\text{F}\gamma$ ), ( $^{24}\text{F}$ ,  $^{23}\text{F}\gamma$ ), ( $^{25}\text{Ne}$ ,  $^{23}\text{F}\gamma$ ), E≈35 MeV / nucleon; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced reaction  $\sigma$ .  $^4\text{He}$ ( $^{22}\text{O}$ ,  $^{23}\text{F}\gamma$ ), E=35 MeV / nucleon; measured  $\sigma(\theta)$ .  $^{23}\text{F}$  deduced levels, J,  $\pi$ , configurations. Comparison with DWBA and shell model predictions. JOUR NUPAB 787 569c
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**KEYNUMBERS AND KEYWORDS**

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**A=6 (*continued*)**

<sup>6</sup> B	2007F005	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+$ , $\pi^-$ ), ( $\pi^-$ , $\pi^+$ ), E=120-270 MeV; measured double differential inclusive pion double charge exchange cross sections. Compared results to model calculations. JOUR PRVCA 75 064605
	2007FOZZ	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+$ , $\pi^-$ ), ( $\pi^-$ , $\pi^+$ ), E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007

**A=7**

<sup>7</sup> H	2007CA28	NUCLEAR REACTIONS <sup>12</sup> C( <sup>8</sup> He, p), E=154 MeV / nucleon; measured particle energies and excitation energy distributions. <sup>7</sup> H deduced resonance energies. JOUR PRLTA 99 062502
	2007CAZZ	NUCLEAR REACTIONS <sup>12</sup> C( <sup>8</sup> He, <sup>7</sup> H), E=15.4 MeV / nucleon; measured particle spectra. <sup>7</sup> H deduced resonance energy, width. PREPRINT nucl-ex/0702021,2/9/2007
	2007F005	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+$ , $\pi^-$ ), ( $\pi^-$ , $\pi^+$ ), E=120-270 MeV; measured double differential inclusive pion double charge exchange cross sections. Compared results to model calculations. JOUR PRVCA 75 064605
	2007FOZZ	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+$ , $\pi^-$ ), ( $\pi^-$ , $\pi^+$ ), E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007
	2007GOZY	NUCLEAR REACTIONS <sup>2</sup> H( <sup>8</sup> He, p), ( <sup>8</sup> He, <sup>3</sup> He), E not given; measured cross sections. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P32
	2007GU24	NUCLEAR REACTIONS <sup>9</sup> Be( $\pi^-$ , pd), ( $\pi^-$ , 2p), E at rest; <sup>11</sup> B, <sup>12</sup> C( $\pi^-$ , p $\alpha$ ), E at rest; <sup>11</sup> B, <sup>12</sup> C( $\pi^-$ , p <sup>3</sup> He), E at rest; measured missing mass spectra. <sup>6,7</sup> H deduced possible resonance energies, widths. JOUR ZAANE 32 261
<sup>7</sup> He	2007GI08	NUCLEAR REACTIONS <sup>1</sup> H( <sup>8</sup> He, <sup>8</sup> He), ( <sup>8</sup> He, d), ( <sup>8</sup> He, t), E=15.7, 61.3 MeV / nucleon; analyzed $\sigma(\theta)$ . Coupled reaction channel calculations, DWBA analysis. <sup>2</sup> H( <sup>26</sup> Ne, p), E=9.7 MeV / nucleon; measured fragment yield, E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>27</sup> Ne deduced levels, J, $\pi$ . Exogam array, Vamos spectrometer. JOUR NUPAB 787 423c
	2007GU24	NUCLEAR REACTIONS <sup>9</sup> Be( $\pi^-$ , pd), ( $\pi^-$ , 2p), E at rest; <sup>11</sup> B, <sup>12</sup> C( $\pi^-$ , p $\alpha$ ), E at rest; <sup>11</sup> B, <sup>12</sup> C( $\pi^-$ , p <sup>3</sup> He), E at rest; measured missing mass spectra. <sup>6,7</sup> H deduced possible resonance energies, widths. JOUR ZAANE 32 261
	2007TA25	NUCLEAR REACTIONS <sup>7</sup> Li, <sup>12</sup> C, <sup>28</sup> Si(e, e'K $^+$ ), E not given; measured missing mass spectra. <sup>7</sup> He, <sup>12</sup> B, <sup>28</sup> Al deduced hypernucleus levels. JOUR NUPAB 790 679c
<sup>7</sup> Li	2005RIZU	NUCLEAR REACTIONS <sup>2</sup> H( <sup>8</sup> He, 4n), ( <sup>8</sup> He, 3n), ( <sup>8</sup> He, 2n), E=15.8 MeV / nucleon; measured En, nn-, (recoil)n-coin; deduced possible tetraneutron cluster. REPT IPNO-T-05-15,Rich
	2006YA21	NUCLEAR REACTIONS <sup>6</sup> Li(polarized d, $\alpha$ ), (polarized d, p), E=90 keV; measured Ep, E $\alpha$ , vector and tensor analyzing powers; deduced resonance contributions. JOUR PRVCA 74 064606

**A=7 (continued)**

- 2007BE19 NUCLEAR REACTIONS  $^{27}\text{Al}$ ( $^6\text{He}$ ,  $^6\text{He}$ ), E=9.5, 11.0, 12.0, 13.4 MeV; measured  $\sigma$ ,  $\sigma(\theta)$ .  $^6\text{He}$  deduced radius, deformation parameters.  $^{27}\text{Al}$ ( $^6\text{Li}$ ,  $^6\text{Li}$ ), ( $^7\text{Li}$ ,  $^7\text{Li}$ ), ( $^9\text{Be}$ ,  $^9\text{Be}$ ), ( $^{16}\text{O}$ ,  $^{16}\text{O}$ ), E≈7-45 MeV; analysed total  $\sigma$ .  $^{6,7}\text{Li}$ ,  $^9\text{Be}$ ,  $^{16}\text{O}$  deduced deformation parameters. Sao Paulo potential. JOUR PYLBB 647 30
- 2007HA06 NUCLEAR REACTIONS  $^{10}\text{B}$ (n,  $\alpha$ ), E=0.1-2000 keV; measured E $\alpha$ ,  $\sigma(E)$ , branching ratio for emission to ground, first excited state. JOUR NSENA 156 103
- 2007NI02 RADIOACTIVITY  $^7\text{Be}$ (EC); measured T<sub>1/2</sub> for source in various host materials; deduced no environmental dependence. JOUR PRVCA 75 012801
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007H02 RADIOACTIVITY  $^7\text{Be}$ (EC); measured decay rate in C<sub>60</sub> at liquid helium temperature. Compared results to model calculations. JOUR PRLTA 98 252501
- 2007RU04 NUCLEAR REACTIONS  $^7\text{Li}$ ( $^{18}\text{O}$ ,  $^{18}\text{O}$ ), ( $^{18}\text{O}$ ,  $^{18}\text{O}'$ ), E=114 MeV; measured elastic and inelastic  $\sigma(\theta)$ ; deduced potential parameters, scattering mechanism features.  $^{18}\text{O}$  deduced deformation parameters. Optical model and coupled-reaction-channels analysis. JOUR NUPAB 785 293

**A=7 (*continued*)**

	2007RU13	NUCLEAR REACTIONS ${}^7\text{Li}({}^{10}\text{B}, {}^{10}\text{B})$ , E=51 MeV; measured elastic scattering $\sigma$ and angular distributions. ${}^{10}\text{B}({}^7\text{Li}, {}^7\text{Li})$ , E=24, 39 MeV; ${}^{11}\text{B}({}^7\text{Li}, {}^7\text{Li})$ , E=34 MeV; analyzed elastic scattering $\sigma$ using optical model and coupled channel method. JOUR ZAANE 33 317
${}^7\text{Be}$	2006AMZX	NUCLEAR REACTIONS ${}^1\text{H}({}^7\text{Be}, \text{p})$ , E=7.69 MeV / nucleon; measured Ep, E $\gamma$ , p $\gamma$ -coin. REPT CNS-REP-69,P31,Amadio
	2006YAZT	NUCLEAR REACTIONS ${}^1\text{H}({}^7\text{Be}, \text{p})$ , E=53.8 MeV; measured Ep; deduced excitation function. ${}^8\text{B}$ deduced resonance energy. REPT CNS-REP-69,P14,Yamaguchi
	2007AG08	NUCLEAR REACTIONS ${}^7\text{Li}(K^+, K^0)$ , E at rest; measured $\pi^+$ , $\pi^-$ invariant mass spectra; deduced threshold $\sigma$ upper limit. JOUR PYLBB 649 25
	2007C017	NUCLEAR REACTIONS ${}^3\text{He}(\alpha, \gamma)$ , E=220, 250, 400 keV; measured E $\gamma$ , I $\gamma$ . Dduced cross section and S-factor. JOUR PRVCA 75 065803
	2007COZZ	NUCLEAR REACTIONS ${}^3\text{He}(\alpha, \gamma)$ , E(cm)=86, 106, 170 keV; measured E $\gamma$ , I $\gamma$ and cross section. Deduced s-factor. PREPRINT arXiv:0705.2151v1 [nucl-ex]
	2007F010	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^{12}\text{C}, X){}^7\text{Be} / {}^9\text{Be} / {}^{10}\text{B} / {}^{11}\text{B} / {}^{11}\text{C} / {}^{12}\text{C} / {}^{13}\text{C} / {}^{14}\text{N} / {}^{15}\text{N} / {}^{16}\text{O} / {}^{19}\text{F} / {}^{22}\text{Ne} / {}^{23}\text{Na} / {}^{24}\text{Mg} / {}^{26}\text{Mg} / {}^{26}\text{Al} / {}^{27}\text{Al} / \text{Si}$ , E=156 MeV; ${}^{12}\text{C}({}^{27}\text{Al}, X){}^7\text{Be} / {}^9\text{Be} / {}^{10}\text{B} / {}^{11}\text{B} / {}^{11}\text{C} / {}^{12}\text{C} / {}^{13}\text{C} / {}^{13}\text{N} / {}^{14}\text{N} / {}^{15}\text{N} / {}^{16}\text{O} / {}^{19}\text{F} / {}^{22}\text{Ne} / {}^{23}\text{Na} / {}^{24}\text{Mg} / {}^{26}\text{Mg} / \text{Si}$ , E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, E)$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
	2007GY01	NUCLEAR REACTIONS ${}^3\text{He}(\alpha, \gamma)$ , E=250, 300, 350, 400 keV; measured E $\gamma$ , I $\gamma$ , $\sigma$ ; deduced astrophysical S-factor. JOUR PRVCA 75 035805
	2007KA33	NUCLEAR REACTIONS N, O, Ar(p, X) ${}^7\text{Be} / {}^{11}\text{C} / {}^{13}\text{N} / {}^{15}\text{O} / {}^{18}\text{F} / {}^{22}\text{Na} / {}^{24}\text{Na} / {}^{27}\text{Mg} / {}^{29}\text{Al} / {}^{38}\text{S} / {}^{38}\text{Cl} / {}^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNCD 273 507
	2007LA25	NUCLEAR REACTIONS ${}^2\text{H}({}^{10}\text{B}, n\alpha)$ , E=27 MeV; measured E $\alpha$ , I $\alpha$ , $\sigma$ ; deduced astrophysical S-factor. Trojan horse method, three-body process. JOUR NUPAB 787 309c
	2007NI02	RADIOACTIVITY ${}^7\text{Be}(\text{EC})$ ; measured T <sub>1/2</sub> for source in various host materials; deduced no environmental dependence. JOUR PRVCA 75 012801

**A=7 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007H02	RADIOACTIVITY $^7\text{Be}(\text{EC})$ ; measured decay rate in $\text{C}_{60}$ at liquid helium temperature. Compared results to model calculations. JOUR PRLTA 98 252501
2007SI19	NUCLEAR REACTIONS $\text{C}(\text{n}, \text{X})^7\text{Be}$ , $\text{Si}(\text{n}, \text{X})^{22,24}\text{Na}$ , $^{27}\text{Al}(\text{n}, \text{X})^{197}\text{Au}(\text{n}, \text{X})^{194,196}\text{Au}$ , E=70-160 MeV; measured $E\gamma$ , $I\gamma$ following stacked foil activation. Deduced cross sections. JOUR NIMBE 261 993
2007TI03	NUCLEAR REACTIONS $\text{Pb}$ , $^{208}\text{Pb}$ , $^{209}\text{Bi}(\text{p}, \text{X})^7\text{Be}$ / $^{24}\text{Na}$ / $^{59}\text{Fe}$ / $^{86}\text{Rb}$ / $^{101m}\text{Rh}$ / $^{173}\text{Lu}$ / $^{190}\text{Ir}$ / $^{192}\text{Ir}$ / $^{196}\text{Au}$ / $^{199}\text{Tl}$ / $^{200}\text{Tl}$ / $^{203}\text{Pb}$ , E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289
$^7\text{B}$	NUCLEAR REACTIONS $^{6,7}\text{Li}$ , $^9\text{Be}$ , $^{12}\text{C}(\pi^+, \pi^-)$ , $(\pi^-, \pi^+)$ , E=120-270 MeV; measured double differential inclusive pion double charge exchange cross sections. Compared results to model calculations. JOUR PRVCA 75 064605
2007FO05	NUCLEAR REACTIONS $^{6,7}\text{Li}$ , $^9\text{Be}$ , $^{12}\text{C}(\pi^+, \pi^-)$ , $(\pi^-, \pi^+)$ , E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007
2007FOZZ	NUCLEAR REACTIONS $^{6,7}\text{Li}$ , $^9\text{Be}$ , $^{12}\text{C}(\pi^+, \pi^-)$ , $(\pi^-, \pi^+)$ , E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007

**A=8**

<sup>8</sup> He	2007G024	NUCLEAR REACTIONS ${}^2\text{H}({}^8\text{He}, \text{p})$ , E=25 MeV / nucleon; measured particle energy and missing mass spectra. ${}^8\text{He}$ deduced levels, J, $\pi$ . JOUR PRVCA 76 021605
	2007GU24	NUCLEAR REACTIONS ${}^9\text{Be}(\pi^-, \text{pd})$ , $(\pi^-, 2\text{p})$ , E at rest; ${}^{11}\text{B}$ , ${}^{12}\text{C}(\pi^-, \text{p}\alpha)$ , E at rest; ${}^{11}\text{B}$ , ${}^{12}\text{C}(\pi^-, \text{p}^3\text{He})$ , E at rest; measured missing mass spectra. ${}^{6,7}\text{H}$ deduced possible resonance energies, widths. JOUR ZAANE 32 261
<sup>8</sup> Li	2005RIZU	NUCLEAR REACTIONS ${}^2\text{H}({}^8\text{He}, 4\text{n})$ , $({}^8\text{He}, 3\text{n})$ , $({}^8\text{He}, 2\text{n})$ , E=15.8 MeV / nucleon; measured En, nn-, (recoil)n-coin; deduced possible tetraneutron cluster. REPT IPNO-T-05-15, Rich
	2007GUZY	NUCLEAR REACTIONS ${}^9\text{Be}({}^8\text{Li}, {}^7\text{Li})$ , $({}^8\text{Li}, {}^8\text{Li})$ , $({}^8\text{Li}, {}^9\text{Li})$ , E=27 MeV; measured $\sigma(\theta)$ ; deduced spectroscopic factors. ${}^{7,8}\text{Li}(\text{n}, \gamma)$ , E $\approx$ 0-1.2 MeV; calculated $\sigma$ . PREPRINT nucl-ex/0701046,01/23/2007
	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$ : ${}^6\text{Li} / {}^7\text{Li} / {}^8\text{Li} / {}^9\text{Li} / {}^7\text{Be} / {}^8\text{Be} / {}^9\text{Be} / {}^{10}\text{Be} / {}^{11}\text{Be} / {}^{12}\text{Be} / {}^{10}\text{B} / {}^{11}\text{B} / {}^{12}\text{B} / {}^{13}\text{B} / {}^{14}\text{B} / {}^{15}\text{B} / {}^{11}\text{C} / {}^{12}\text{C} / {}^{13}\text{C} / {}^{14}\text{C} / {}^{15}\text{C} / {}^{16}\text{C} / {}^{17}\text{C} / {}^{18}\text{C} / {}^{13}\text{N} / {}^{14}\text{N} / {}^{15}\text{N} / {}^{16}\text{N} / {}^{17}\text{N} / {}^{18}\text{N} / {}^{19}\text{N} / {}^{20}\text{N} / {}^{21}\text{N} / {}^{15}\text{O} / {}^{16}\text{O} / {}^{17}\text{O} / {}^{18}\text{O} / {}^{19}\text{O} / {}^{20}\text{O} / {}^{21}\text{O} / {}^{22}\text{O} / {}^{23}\text{O} / {}^{24}\text{O} / {}^{17}\text{F} / {}^{18}\text{F} / {}^{19}\text{F} / {}^{20}\text{F} / {}^{21}\text{F} / {}^{22}\text{F} / {}^{23}\text{F} / {}^{24}\text{F} / {}^{25}\text{F} / {}^{26}\text{F} / {}^{27}\text{F} / {}^{19}\text{Ne} / {}^{20}\text{Ne} / {}^{21}\text{Ne} / {}^{22}\text{Ne} / {}^{23}\text{Ne} / {}^{24}\text{Ne} / {}^{25}\text{Ne} / {}^{26}\text{Ne} / {}^{27}\text{Ne} / {}^{28}\text{Ne} / {}^{29}\text{Ne} / {}^{21}\text{Na} / {}^{22}\text{Na} / {}^{23}\text{Na} / {}^{24}\text{Na} / {}^{25}\text{Na} / {}^{26}\text{Na} / {}^{27}\text{Na} / {}^{28}\text{Na} / {}^{29}\text{Na} / {}^{30}\text{Na} / {}^{31}\text{Na} / {}^{32}\text{Na} / {}^{23}\text{Mg} / {}^{24}\text{Mg} / {}^{25}\text{Mg} / {}^{26}\text{Mg} / {}^{27}\text{Mg} / {}^{28}\text{Mg} / {}^{29}\text{Mg} / {}^{30}\text{Mg} / {}^{31}\text{Mg} / {}^{32}\text{Mg} / {}^{33}\text{Mg} / {}^{34}\text{Mg} / {}^{25}\text{Al} / {}^{26}\text{Al} / {}^{27}\text{Al} / {}^{28}\text{Al} / {}^{29}\text{Al} / {}^{30}\text{Al} / {}^{31}\text{Al} / {}^{32}\text{Al} / {}^{33}\text{Al} / {}^{34}\text{Al} / {}^{35}\text{Al} / {}^{36}\text{Al} / {}^{27}\text{Si} / {}^{28}\text{Si} / {}^{29}\text{Si} / {}^{30}\text{Si} / {}^{31}\text{Si} / {}^{32}\text{Si} / {}^{33}\text{Si} / {}^{34}\text{Si} / {}^{35}\text{Si} / {}^{36}\text{Si} / {}^{37}\text{Si} / {}^{38}\text{Si} / {}^{29}\text{P} / {}^{30}\text{P} / {}^{31}\text{P} / {}^{32}\text{P} / {}^{33}\text{P} / {}^{34}\text{P} / {}^{35}\text{P} / {}^{36}\text{P} / {}^{37}\text{P} / {}^{38}\text{P} / {}^{39}\text{P} / {}^{33}\text{S} / {}^{34}\text{S} / {}^{35}\text{S} / {}^{36}\text{S} / {}^{37}\text{S} / {}^{38}\text{S} / {}^{36}\text{Cl} / {}^{37}\text{Cl} / {}^{38}\text{Cl} / {}^{39}\text{Cl} / {}^{39}\text{Ar}, E=100 MeV / nucleon; {}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}): {}^6\text{Li} / {}^7\text{Li} / {}^8\text{Li} / {}^9\text{Be} / {}^{10}\text{Be} / {}^{11}\text{Be} / {}^{10}\text{B} / {}^{11}\text{B} / {}^{12}\text{B} / {}^{13}\text{B} / {}^{14}\text{B} / {}^{11}\text{C} / {}^{12}\text{C} / {}^{13}\text{C} / {}^{14}\text{C} / {}^{15}\text{C} / {}^{16}\text{C} / {}^{17}\text{C} / {}^{13}\text{N} / {}^{14}\text{N} / {}^{15}\text{N} / {}^{16}\text{N} / {}^{17}\text{N} / {}^{18}\text{N} / {}^{19}\text{N} / {}^{15}\text{O} / {}^{16}\text{O} / {}^{17}\text{O} / {}^{18}\text{O} / {}^{19}\text{O} / {}^{20}\text{O} / {}^{21}\text{O} / {}^{17}\text{F} / {}^{18}\text{F} / {}^{19}\text{F} / {}^{20}\text{F} / {}^{21}\text{F} / {}^{22}\text{F} / {}^{23}\text{F} / {}^{24}\text{F} / {}^{25}\text{F} / {}^{26}\text{F} / {}^{27}\text{F} / {}^{19}\text{Ne} / {}^{20}\text{Ne} / {}^{21}\text{Ne} / {}^{22}\text{Ne} / {}^{23}\text{Ne} / {}^{24}\text{Ne} / {}^{25}\text{Ne} / {}^{26}\text{Ne} / {}^{27}\text{Ne} / {}^{28}\text{Ne} / {}^{29}\text{Ne} / {}^{21}\text{Na} / {}^{22}\text{Na} / {}^{23}\text{Na} / {}^{24}\text{Na} / {}^{25}\text{Na} / {}^{26}\text{Na} / {}^{27}\text{Na} / {}^{28}\text{Na} / {}^{29}\text{Na} / {}^{23}\text{Mg} / {}^{24}\text{Mg} / {}^{25}\text{Mg} / {}^{26}\text{Mg} / {}^{27}\text{Mg} / {}^{28}\text{Mg} / {}^{29}\text{Mg} / {}^{30}\text{Mg} / {}^{31}\text{Mg} / {}^{32}\text{Mg} / {}^{33}\text{Mg} / {}^{34}\text{Mg} / {}^{31}\text{Al} / {}^{32}\text{Al} / {}^{33}\text{Al} / {}^{34}\text{Al} / {}^{35}\text{Al} / {}^{36}\text{Al} / {}^{27}\text{Si} / {}^{28}\text{Si} / {}^{29}\text{Si} / {}^{30}\text{Si} / {}^{31}\text{Si} / {}^{32}\text{Si} / {}^{33}\text{Si} / {}^{34}\text{Si} / {}^{35}\text{Si} / {}^{36}\text{Si} / {}^{37}\text{Si} / {}^{38}\text{Si} / {}^{39}\text{Si} / {}^{33}\text{P} / {}^{34}\text{P} / {}^{35}\text{P} / {}^{36}\text{P} / {}^{37}\text{P} / {}^{38}\text{P} / {}^{39}\text{P} / {}^{30}\text{S} / {}^{31}\text{S} / {}^{32}\text{S} / {}^{33}\text{S} / {}^{34}\text{S} / {}^{35}\text{S} / {}^{36}\text{S} / {}^{37}\text{S} / {}^{33}\text{Cl} / {}^{34}\text{Cl} / {}^{35}\text{Cl} / {}^{36}\text{Cl} / {}^{37}\text{Cl} / {}^{35}\text{Ar} / {}^{36}\text{Ar} / {}^{37}\text{Ar} / {}^{38}\text{Ar} / {}^{39}\text{Ar} / {}^{37}\text{K} / {}^{38}\text{K} / {}^{39}\text{K} / {}^{40}\text{K}, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605$
	2007PA39	NUCLEAR REACTIONS ${}^9\text{Be}({}^6\text{He}, {}^7\text{Li})$ , E=25 MeV / nucleon; measured particle energies, yields, inclusive $\sigma$ and angular distributions. JOUR CPLEE 24 2785
	2007VI11	NUCLEAR REACTIONS ${}^{12}\text{C}({}^{48}\text{Ca}, \text{X})$ : ${}^8\text{Li} / {}^9\text{Li} / {}^{25}\text{Na} / {}^{26}\text{Na} / {}^{27}\text{Na} / {}^{29}\text{Al} / {}^{37}\text{K} / {}^{47}\text{K}$ , E=60 MeV / nucleon; measured yield. JOUR NUPAB 787 126c

**A=8 (*continued*)**

<sup>8</sup> Be	2006SA49	NUCLEAR REACTIONS <sup>7</sup> Li(polarized d, n), E=80, 130, 160 keV; measured $\sigma(E, \theta)$ , analyzing powers; deduced transition matrix elements. Finite-range DWBA calculations, coupled reaction channels calculations. JOUR PRVCA 74 064611
	2006TAZW	NUCLEAR REACTIONS <sup>9</sup> Be(n, 2n), E=14 MeV; measured En, nn-coin, $\sigma(\theta, \phi)$ . REPT JAEA-Conf 2006-009, P95, Takaki
	2007GU13	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>8</sup> Li, <sup>8</sup> Li), <sup>9</sup> Be( <sup>8</sup> Li, <sup>7</sup> Li), <sup>9</sup> Be( <sup>8</sup> Li, <sup>9</sup> Li), E=27 MeV; measured $\sigma$ and angular distributions. Deduced spectroscopic factors, compared results to optical model calculations. JOUR PRVCA 75 054602
	2007GUZY	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>8</sup> Li, <sup>7</sup> Li), ( <sup>8</sup> Li, <sup>8</sup> Li), ( <sup>8</sup> Li, <sup>9</sup> Li), E=27 MeV; measured $\sigma(\theta)$ ; deduced spectroscopic factors. <sup>7,8</sup> Li(n, $\gamma$ ), E $\approx$ 0-1.2 MeV; calculated $\sigma$ . PREPRINT nucl-ex/0701046, 01/23/2007
	2007K070	NUCLEAR REACTIONS <sup>10</sup> B(d, $\alpha$ ), E=900-2000 keV; measured $\sigma$ and angular distributions. JOUR NIMBE 263 369
	2007MC06	RADIOACTIVITY <sup>8</sup> Be( $\alpha$ ) [ from <sup>92</sup> Mo( <sup>114</sup> Cd, X), E=50 MeV / nucleon]; measured E $\alpha$ , I $\alpha$ , relative $\alpha$ energies as a function of decay angle. Deduced evidence for tidal effect. Compared results to model calculations. JOUR PRLTA 99 132701
	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>32</sup> Mg / <sup>33</sup> Mg / <sup>34</sup> Mg / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>35</sup> Al / <sup>36</sup> Al / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>35</sup> Si / <sup>36</sup> Si / <sup>37</sup> Si / <sup>38</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>37</sup> P / <sup>38</sup> P / <sup>39</sup> P / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>38</sup> S / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>38</sup> Cl / <sup>39</sup> Cl / <sup>39</sup> Ar, E=100 MeV / nucleon; <sup>181</sup> Ta( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
	2007OS03	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>13</sup> C, $\alpha$ <sup>14</sup> C), E=89.45 MeV; measured particle energies and coincidences. <sup>8</sup> Be deduced levels. JOUR UKPJA 52 525

**A=8 (*continued*)**

<sup>8</sup> B	2006YAZT	NUCLEAR REACTIONS <sup>1</sup> H( <sup>7</sup> Be, p), E=53.8 MeV; measured Ep; deduced excitation function. <sup>8</sup> B deduced resonance energy. REPT CNS-REP-69,P14, Yamaguchi
	2007R001	NUCLEAR REACTIONS <sup>1</sup> H( <sup>8</sup> B, p), E(cm)=0.5-3.2 MeV; measured Ep, $\sigma(\theta)$ , excitation function. <sup>9</sup> C deduced resonance energies, widths, J, $\pi$ . Thick target, R-matrix analysis, continuum shell model calculations. JOUR PRVCA 75 014603
	2007YAZY	NUCLEAR REACTIONS <sup>1</sup> H( <sup>7</sup> Be, $\gamma$ ), E=53.8 MeV; measured excitation function. CONF Geneva(NIC-IX) 049

**A=9**

<sup>9</sup> He	2007F005	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+$ , $\pi^-$ ), ( $\pi^-$ , $\pi^+$ ), E=120-270 MeV; measured double differential inclusive pion double charge exchange cross sections. Compared results to model calculations. JOUR PRVCA 75 064605
	2007FOZY	NUCLEAR REACTIONS <sup>2</sup> H( <sup>8</sup> He, p), ( <sup>8</sup> He, $\alpha$ ), ( <sup>8</sup> He, <sup>6</sup> Li), E=15.3 MeV / nucleon; measured charged particle energies and yields. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P3
	2007FOZZ	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+$ , $\pi^-$ ), ( $\pi^-$ , $\pi^+$ ), E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007
	2007G024	NUCLEAR REACTIONS <sup>2</sup> H( <sup>8</sup> He, p), E=25 MeV / nucleon; measured particle energy and missing mass spectra. <sup>8</sup> He deduced levels, J, $\pi$ . JOUR PRVCA 76 021605
	2007GOZY	NUCLEAR REACTIONS <sup>2</sup> H( <sup>8</sup> He, p), ( <sup>8</sup> He, <sup>3</sup> He), E not given; measured cross sections. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P32
<sup>9</sup> Li	2007GUZY	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>8</sup> Li, <sup>7</sup> Li), ( <sup>8</sup> Li, <sup>8</sup> Li), ( <sup>8</sup> Li, <sup>9</sup> Li), E=27 MeV; measured $\sigma(\theta)$ ; deduced spectroscopic factors. <sup>7,8</sup> Li(n, $\gamma$ ), E ≈ 0-1.2 MeV; calculated $\sigma$ . PREPRINT nucl-ex/0701046,01/23/2007
	2007MAZY	RADIOACTIVITY <sup>9</sup> Li( $\beta^-$ ); measured $\beta$ -delayed Ea. <sup>9</sup> Be; measured breakup of the 2.43 state. CONF Geneva(NIC-IX) 135

**A=9 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
2007VI11	NUCLEAR REACTIONS ${}^{12}\text{C}({}^{48}\text{Ca}, \text{X}){}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{29}\text{Al}$ / ${}^{37}\text{K}$ / ${}^{47}\text{K}$ , E=60 MeV / nucleon; measured yield. JOUR NUPAB 787 126c	
${}^9\text{Be}$	2007BE19	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^6\text{He}, {}^6\text{He})$ , E=9.5, 11.0, 12.0, 13.4 MeV; measured $\sigma$ , $\sigma(\theta)$ . ${}^6\text{He}$ deduced radius, deformation parameters. ${}^{27}\text{Al}({}^6\text{Li}, {}^6\text{Li})$ , $({}^7\text{Li}, {}^7\text{Li})$ , $({}^9\text{Be}, {}^9\text{Be})$ , $({}^{16}\text{O}, {}^{16}\text{O})$ , E≈7-45 MeV; analysed total $\sigma$ . ${}^{6,7}\text{Li}$ , ${}^9\text{Be}$ , ${}^{16}\text{O}$ deduced deformation parameters. Sao Paulo potential. JOUR PYLBB 647 30
2007CH39	NUCLEAR REACTIONS ${}^9\text{Be}({}^{10}\text{C}, {}^{10}\text{C})$ , E=10.7 MeV / nucleon; measured Ep, E $\alpha$ , 2p2 $\alpha$ decay of the excited states; ${}^{10}\text{C}$ ; deduced level energies and intrinsic widths for particle unbound states. JOUR PRVCA 75 051304	
2007F010	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^{12}\text{C}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / Si, E=156 MeV; ${}^{12}\text{C}({}^{27}\text{Al}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / Si, E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, E)$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1	

**A=9 (*continued*)**

- 2007GU13 NUCLEAR REACTIONS  ${}^9\text{Be}({}^8\text{Li}, {}^8\text{Li})$ ,  ${}^9\text{Be}({}^8\text{Li}, {}^7\text{Li})$ ,  ${}^9\text{Be}({}^8\text{Li}, {}^9\text{Li})$ , E=27 MeV; measured  $\sigma$  and angular distributions. Deduced spectroscopic factors, compared results to optical model calculations. JOUR PRVCA 75 054602
- 2007GUZY NUCLEAR REACTIONS  ${}^9\text{Be}({}^8\text{Li}, {}^7\text{Li})$ ,  $({}^8\text{Li}, {}^8\text{Li})$ ,  $({}^8\text{Li}, {}^9\text{Li})$ , E=27 MeV; measured  $\sigma(\theta)$ ; deduced spectroscopic factors.  ${}^{7,8}\text{Li}(n, \gamma)$ , E  $\approx$  0-1.2 MeV; calculated  $\sigma$ . PREPRINT nucl-ex/0701046,01/23/2007
- 2007MAZY RADIOACTIVITY  ${}^9\text{Li}(\beta^-)$ ; measured  $\beta$ -delayed E $\alpha$ .  ${}^9\text{Be}$ ; measured breakup of the 2.43 state. CONF Geneva(NIC-IX) 135
- 2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, X){}^6\text{Li} / {}^7\text{Li} / {}^8\text{Li} / {}^9\text{Li} / {}^7\text{Be} / {}^8\text{Be} / {}^9\text{Be} / {}^{10}\text{Be} / {}^{11}\text{Be} / {}^{12}\text{Be} / {}^{10}\text{B} / {}^{11}\text{B} / {}^{12}\text{B} / {}^{13}\text{B} / {}^{14}\text{B} / {}^{15}\text{B} / {}^{11}\text{C} / {}^{12}\text{C} / {}^{13}\text{C} / {}^{14}\text{C} / {}^{15}\text{C} / {}^{16}\text{C} / {}^{17}\text{C} / {}^{18}\text{C} / {}^{13}\text{N} / {}^{14}\text{N} / {}^{15}\text{N} / {}^{16}\text{N} / {}^{17}\text{N} / {}^{18}\text{N} / {}^{19}\text{N} / {}^{20}\text{N} / {}^{21}\text{N} / {}^{15}\text{O} / {}^{16}\text{O} / {}^{17}\text{O} / {}^{18}\text{O} / {}^{19}\text{O} / {}^{20}\text{O} / {}^{21}\text{O} / {}^{22}\text{O} / {}^{23}\text{O} / {}^{24}\text{O} / {}^{17}\text{F} / {}^{18}\text{F} / {}^{19}\text{F} / {}^{20}\text{F} / {}^{21}\text{F} / {}^{22}\text{F} / {}^{23}\text{F} / {}^{24}\text{F} / {}^{25}\text{F} / {}^{26}\text{F} / {}^{27}\text{F} / {}^{19}\text{Ne} / {}^{20}\text{Ne} / {}^{21}\text{Ne} / {}^{22}\text{Ne} / {}^{23}\text{Ne} / {}^{24}\text{Ne} / {}^{25}\text{Ne} / {}^{26}\text{Ne} / {}^{27}\text{Ne} / {}^{28}\text{Ne} / {}^{29}\text{Ne} / {}^{21}\text{Na} / {}^{22}\text{Na} / {}^{23}\text{Na} / {}^{24}\text{Na} / {}^{25}\text{Na} / {}^{26}\text{Na} / {}^{27}\text{Na} / {}^{28}\text{Na} / {}^{29}\text{Na} / {}^{30}\text{Na} / {}^{31}\text{Na} / {}^{32}\text{Na} / {}^{23}\text{Mg} / {}^{24}\text{Mg} / {}^{25}\text{Mg} / {}^{26}\text{Mg} / {}^{27}\text{Mg} / {}^{28}\text{Mg} / {}^{29}\text{Mg} / {}^{30}\text{Mg} / {}^{31}\text{Mg} / {}^{32}\text{Mg} / {}^{33}\text{Mg} / {}^{34}\text{Mg} / {}^{25}\text{Al} / {}^{26}\text{Al} / {}^{27}\text{Al} / {}^{28}\text{Al} / {}^{29}\text{Al} / {}^{30}\text{Al} / {}^{31}\text{Al} / {}^{32}\text{Al} / {}^{33}\text{Al} / {}^{34}\text{Al} / {}^{35}\text{Al} / {}^{36}\text{Al} / {}^{27}\text{Si} / {}^{28}\text{Si} / {}^{29}\text{Si} / {}^{30}\text{Si} / {}^{31}\text{Si} / {}^{32}\text{Si} / {}^{33}\text{Si} / {}^{34}\text{Si} / {}^{35}\text{Si} / {}^{36}\text{Si} / {}^{37}\text{Si} / {}^{38}\text{Si} / {}^{29}\text{P} / {}^{30}\text{P} / {}^{31}\text{P} / {}^{32}\text{P} / {}^{33}\text{P} / {}^{34}\text{P} / {}^{35}\text{P} / {}^{36}\text{P} / {}^{37}\text{P} / {}^{38}\text{P} / {}^{39}\text{P} / {}^{33}\text{S} / {}^{34}\text{S} / {}^{35}\text{S} / {}^{36}\text{S} / {}^{37}\text{S} / {}^{38}\text{S} / {}^{36}\text{Cl} / {}^{37}\text{Cl} / {}^{38}\text{Cl} / {}^{39}\text{Cl} / {}^{39}\text{Ar}, E=100 \text{ MeV} / \text{nucleon}; {}^{181}\text{Ta}({}^{40}\text{Ar}, X){}^6\text{Li} / {}^7\text{Li} / {}^8\text{Li} / {}^9\text{Be} / {}^{10}\text{Be} / {}^{11}\text{Be} / {}^{10}\text{B} / {}^{11}\text{B} / {}^{12}\text{B} / {}^{13}\text{B} / {}^{14}\text{B} / {}^{11}\text{C} / {}^{12}\text{C} / {}^{13}\text{C} / {}^{14}\text{C} / {}^{15}\text{C} / {}^{16}\text{C} / {}^{17}\text{C} / {}^{13}\text{N} / {}^{14}\text{N} / {}^{15}\text{N} / {}^{16}\text{N} / {}^{17}\text{N} / {}^{18}\text{N} / {}^{19}\text{N} / {}^{15}\text{O} / {}^{16}\text{O} / {}^{17}\text{O} / {}^{18}\text{O} / {}^{20}\text{O} / {}^{21}\text{O} / {}^{17}\text{F} / {}^{18}\text{F} / {}^{19}\text{F} / {}^{20}\text{F} / {}^{21}\text{F} / {}^{22}\text{F} / {}^{23}\text{F} / {}^{24}\text{F} / {}^{25}\text{F} / {}^{26}\text{F} / {}^{27}\text{F} / {}^{19}\text{Ne} / {}^{20}\text{Ne} / {}^{21}\text{Ne} / {}^{22}\text{Ne} / {}^{23}\text{Ne} / {}^{24}\text{Ne} / {}^{25}\text{Ne} / {}^{26}\text{Ne} / {}^{27}\text{Ne} / {}^{21}\text{Na} / {}^{22}\text{Na} / {}^{23}\text{Na} / {}^{24}\text{Na} / {}^{25}\text{Na} / {}^{26}\text{Na} / {}^{27}\text{Na} / {}^{28}\text{Na} / {}^{29}\text{Na} / {}^{23}\text{Mg} / {}^{24}\text{Mg} / {}^{25}\text{Mg} / {}^{26}\text{Mg} / {}^{27}\text{Mg} / {}^{28}\text{Mg} / {}^{29}\text{Mg} / {}^{30}\text{Mg} / {}^{31}\text{Mg} / {}^{24} / {}^{25}\text{Al} / {}^{26}\text{Al} / {}^{27}\text{Al} / {}^{28}\text{Al} / {}^{29}\text{Al} / {}^{30}\text{Al} / {}^{31}\text{Al} / {}^{32}\text{Al} / {}^{33}\text{Al} / {}^{34}\text{Al} / {}^{26}\text{Si} / {}^{27}\text{Si} / {}^{28}\text{Si} / {}^{29}\text{Si} / {}^{30}\text{Si} / {}^{31}\text{Si} / {}^{32}\text{Si} / {}^{33}\text{Si} / {}^{29}\text{P} / {}^{30}\text{P} / {}^{31}\text{P} / {}^{32}\text{P} / {}^{33}\text{P} / {}^{34}\text{P} / {}^{35}\text{P} / {}^{36}\text{P} / {}^{30}\text{S} / {}^{31}\text{S} / {}^{32}\text{S} / {}^{33}\text{S} / {}^{34}\text{S} / {}^{35}\text{S} / {}^{36}\text{S} / {}^{37}\text{S} / {}^{33}\text{Cl} / {}^{34}\text{Cl} / {}^{35}\text{Cl} / {}^{36}\text{Cl} / {}^{37}\text{Cl} / {}^{35}\text{Ar} / {}^{36}\text{Ar} / {}^{37}\text{Ar} / {}^{38}\text{Ar} / {}^{39}\text{Ar} / {}^{37}\text{K} / {}^{38}\text{K} / {}^{39}\text{K} / {}^{40}\text{K}, E=100 \text{ MeV} / \text{nucleon}; \text{measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605}$
- 2007PA21 NUCLEAR REACTIONS  ${}^9\text{Be}({}^6\text{Li}, {}^6\text{Li}')$ , E=60 MeV; measured E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -coin, angular correlations following break-up.  ${}^9\text{Be}$  deduced excited state partial decay widths, branching ratios. Astrophysical implications discussed. JOUR PRVCA 75 045803
- 2007T003 NUCLEAR MOMENTS  ${}^9\text{Be}$ ; measured NMR, Knight shift in UBe<sub>13</sub>; deduced nuclear quadrupole parameters. JOUR JUPSA 76 024705
- <sup>9</sup>B 2007AR21 NUCLEAR REACTIONS  ${}^1\text{H}({}^9\text{Be}, n)$ , E=1.2 GeV / nucleon; measured transverse momentum and pair angle distributions for the  $\alpha$  particle pair. JOUR PANUE 70 1222
- <sup>9</sup>C 2007F005 NUCLEAR REACTIONS  ${}^{6,7}\text{Li}, {}^9\text{Be}, {}^{12}\text{C}(\pi^+, \pi^-), (\pi^-, \pi^+)$ , E=120-270 MeV; measured double differential inclusive pion double charge exchange cross sections. Compared results to model calculations. JOUR PRVCA 75 064605

**A=9 (*continued*)**

2007FOZZ	NUCLEAR REACTIONS ${}^6,{}^7\text{Li}$ , ${}^9\text{Be}$ , ${}^{12}\text{C}(\pi^+, \pi^-)$ , $(\pi^-, \pi^+)$ , E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007
2007R001	NUCLEAR REACTIONS ${}^1\text{H}({}^8\text{B}, \text{p})$ , E(cm)=0.5-3.2 MeV; measured Ep, $\sigma(\theta)$ , excitation function. ${}^9\text{C}$ deduced resonance energies, widths, J, $\pi$ . Thick target, R-matrix analysis, continuum shell model calculations. JOUR PRVCA 75 014603
2007ST17	NUCLEAR REACTIONS ${}^1\text{H}({}^{10}\text{B}, 2\text{n})$ , E=1.2 GeV / nucleon; measured transverse momentum distribution of protons produced in the fragmentatation of ${}^8\text{B}$ . JOUR PANUE 70 1216

**A=10**

${}^{10}\text{Li}$	2006JE09	NUCLEAR REACTIONS ${}^2\text{H}({}^9\text{Li}, {}^{10}\text{Li})$ , E=2.36 MeV / nucleon; measured proton spectra, $\sigma(\theta)$ . ${}^{10}\text{Li}$ deduced spectroscopic factors. Comparison with optical model calculations, post-accelerated radioactive beam. JOUR PYLBB 642 449
	2007SI24	NUCLEAR REACTIONS ${}^1\text{C}({}^{11}\text{Li}, \text{nx})$ , E=264 MeV / nucleon; ${}^1\text{C}({}^{14}\text{Be}, \text{nx})$ , E=287 MeV / nucleon; measured neutron energies and yields, $\sigma$ as a function of core-neutron energy. ${}^{11,10}\text{Li}$ , ${}^{13}\text{Be}$ deduced resonance parameters. JOUR NUPAB 791 267
${}^{10}\text{Be}$	2007B018	NUCLEAR REACTIONS ${}^{12}\text{C}({}^{12}\text{C}, {}^{14}\text{O})$ , E=211.4 MeV; measured $\sigma$ and angular distributions. Deduced level energies, J, $\pi$ . JOUR PRVCA 75 054604
	2007B027	NUCLEAR REACTIONS ${}^{12}\text{C}({}^{12}\text{C}, {}^{14}\text{O})$ , E=211.4 MeV; measured $\sigma(\theta, E)$ . ${}^{10}\text{Be}$ deduced levels, J, $\pi$ . Coupled channel calculations. JOUR NUPAB 787 451c
	2007GR05	RADIOACTIVITY ${}^{10}\text{Be}$ , ${}^{40}\text{K}$ , ${}^{87}\text{Rb}(\beta^-)$ ; measured E $\beta$ ; deduced shape-factor functions, cutoff energy yields, maximum-point energies. Comparison with previous results. JOUR NIMAE 572 760
	2007GU13	NUCLEAR REACTIONS ${}^9\text{Be}({}^8\text{Li}, {}^8\text{Li})$ , ${}^9\text{Be}({}^8\text{Li}, {}^7\text{Li})$ , ${}^9\text{Be}({}^8\text{Li}, {}^9\text{Li})$ , E=27 MeV; measured $\sigma$ and angular distributions. Deduced spectroscopic factors, compared results to optical model calculations. JOUR PRVCA 75 054602
	2007GUZY	NUCLEAR REACTIONS ${}^9\text{Be}({}^8\text{Li}, {}^7\text{Li})$ , $({}^8\text{Li}, {}^8\text{Li})$ , $({}^8\text{Li}, {}^9\text{Li})$ , E=27 MeV; measured $\sigma(\theta)$ ; deduced spectroscopic factors. ${}^{7,8}\text{Li}(\text{n}, \gamma)$ , E ≈ 0-1.2 MeV; calculated $\sigma$ . PREPRINT nucl-ex/0701046,01/23/2007

**A=10 (*continued*)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007PI05	NUCLEAR REACTIONS ${}^{12}\text{C}(\text{e}, \text{e}'\text{p})$ , $(\text{e}, \text{e}'2\text{p})$ , E=4.627 GeV; measured Ep, pp-coin, yield ratio vs missing momentum. JOUR NUPAB 782 207c
2007SHZZ	NUCLEAR REACTIONS ${}^{12}\text{C}(\text{e}, \text{e}'\text{p})$ , $(\text{e}, \text{e}'2\text{p})$ , E=4.627 GeV; measured Ep, pp-coin, angular correlations, missing energy spectra; deduced role of short-range correlations. PREPRINT nucl-ex/0703023,3/15/2007
2007S006	NUCLEAR REACTIONS ${}^{10}\text{B}(\text{n}, \text{p})$ , E=70240 MeV; measured $\sigma(E, \theta)$ . Comparison with zero- and finite-range DWIA predictions. JOUR PRVCA 75 034611
${}^{10}\text{B}$	2007F010 NUCLEAR REACTIONS ${}^{27}\text{Al}({}^{12}\text{C}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / $\text{Si}$ , E=156 MeV; ${}^{12}\text{C}({}^{27}\text{Al}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / $\text{Si}$ , E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, E)$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
2007GR05	RADIOACTIVITY ${}^{10}\text{Be}$ , ${}^{40}\text{K}$ , ${}^{87}\text{Rb}(\beta^-)$ ; measured $E\beta$ ; deduced shape-factor functions, cutoff energy yields, maximum-point energies. Comparison with previous results. JOUR NIMAE 572 760

**A=10 (*continued*)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
2007RU13	NUCLEAR REACTIONS ${}^7\text{Li}({}^{10}\text{B}, {}^{10}\text{B})$ , E=51 MeV; measured elastic scattering $\sigma$ and angular distributions. ${}^{10}\text{B}({}^7\text{Li}, {}^7\text{Li})$ , E=24, 39 MeV; ${}^{11}\text{B}({}^7\text{Li}, {}^7\text{Li})$ , E=34 MeV; analyzed elastic scattering $\sigma$ using optical model and coupled channel method. JOUR ZAANE 33 317	
2007SU02	NUCLEAR REACTIONS ${}^{12}\text{C}(\text{polarized d}, \alpha)$ , E=140, 270 MeV; measured $E\alpha$ , $\sigma(\theta)$ ; deduced beam polarization. ${}^1\text{H}(\text{polarized d}, \text{d})$ , E=140, 270; measured analyzing powers. JOUR NIMAE 572 745	
${}^{10}\text{C}$	2007CH39	NUCLEAR REACTIONS ${}^9\text{Be}({}^{10}\text{C}, {}^{10}\text{C})$ , E=10.7 MeV / nucleon; measured Ep, E $\alpha$ , 2p2 $\alpha$ decay of the excited states; ${}^{10}\text{C}$ ; deduced level energies and intrinsic widths for particle unbound states. JOUR PRVCA 75 051304

**A=11**

${}^{11}\text{Li}$	2006SA52	NUCLEAR MOMENTS ${}^{11}\text{Li}$ ; measured optical isotope shift; deduced charge radius. Laser spectroscopy. JOUR HYIND 171 181
	2007NA22	NUCLEAR REACTIONS $\text{Pb}({}^{11}\text{Li}, 2n)$ , E=69.7 E=70 MeV / nucleon; measured En, In, E(recoil), $\sigma(E)$ . ${}^{11}\text{Li}$ deduced B(E1) distribution. Comparison with three-body model. JOUR NUPAB 788 243c

**A=11 (*continued*)**

	2007SI24	NUCLEAR REACTIONS C( $^{11}\text{Li}$ , nx), E=264 MeV / nucleon; C( $^{14}\text{Be}$ , nx), E=287 MeV / nucleon; measured neutron energies and yields, $\sigma$ as a function of core-neutron energy. $^{11,10}\text{Li}$ , $^{13}\text{Be}$ deduced resonance parameters. JOUR NUPAB 791 267
$^{11}\text{Be}$	2007LI62	NUCLEAR REACTIONS $^{48}\text{Ti}$ ( $^{11}\text{Be}$ , n), E=41 MeV / nucleon; measured En, In, $E\gamma$ , $I\gamma$ , $\sigma(\theta)$ , ( $^{10}\text{Be}$ )n-, $\gamma$ n-coin. $^{11}\text{Be}$ deduced spectroscopic factor, configurations. JOUR NUPAB 795 1
	2007LIZW	NUCLEAR REACTIONS $^{48}\text{Ti}$ ( $^{11}\text{Be}$ , $^{10}\text{Be}$ ), E=41 MeV / nucleon; measured fragment energies and yields, neutron energies, intensities, and angular distributions, and $E\gamma$ , $I\gamma$ . $^{11}\text{Be}$ deduced breakup $\sigma$ .
	2007N013	PREPRINT arXiv:0709.3981v1 [nucl-ex] NUCLEAR REACTIONS $^9\text{Be}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{18}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{20}\text{N}$ / $^{21}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{22}\text{O}$ / $^{23}\text{O}$ / $^{24}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{25}\text{F}$ / $^{26}\text{F}$ / $^{27}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{28}\text{Ne}$ / $^{29}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{30}\text{Na}$ / $^{31}\text{Na}$ / $^{32}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{32}\text{Mg}$ / $^{33}\text{Mg}$ / $^{34}\text{Mg}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{35}\text{Al}$ / $^{36}\text{Al}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{35}\text{Si}$ / $^{36}\text{Si}$ / $^{37}\text{Si}$ / $^{38}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{37}\text{P}$ / $^{38}\text{P}$ / $^{39}\text{P}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{38}\text{S}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{38}\text{Cl}$ / $^{39}\text{Cl}$ / $^{39}\text{Ar}$ , E=100 MeV / nucleon; $^{181}\text{Ta}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
	2007SU18	NUCLEAR REACTIONS $^{208}\text{Pb}$ ( $^{11}\text{Be}$ , $^{11}\text{Be}'$ ), E=38.6 MeV / nucleon; measured Coulomb excitation $\sigma$ . $^{11}\text{Be}$ deduced B(E1) strengths; calculated $\sigma$ . Extended continuum discretized coupled channels method. Comparison with previous data. JOUR PYLBB 650 124
$^{11}\text{B}$	2006KH12	NUCLEAR REACTIONS $^{14}\text{N}$ (n, $\alpha$ ), (n, t), E=5.45-7.2 MeV; measured $\sigma$ . JOUR AENGA 101 307
	2006SAZP	NUCLEAR REACTIONS $^{11}\text{B}$ , $^{13}\text{C}$ ( $\alpha$ , $\alpha'$ ), E=400 MeV; measured $E\alpha$ , $\sigma(E, \theta)$ . $^{11}\text{B}$ deduced B(E0), B(E2), cluster structure. Antisymmetrized molecular dynamics. REPT CNS-REP-69,P33,Sasamoto

**A=11 (*continued*)**

- 2007C001 NUCLEAR REACTIONS  $^{13}\text{C}(\text{d}, \text{p})$ ,  $(\text{d}, \text{t})$ ,  $(\text{d}, \alpha)$ , E=0.5-1.65 MeV; measured  $\sigma(\theta)$ . Comparison with previous results. JOUR NIMBE 254 25
- 2007DE28 NUCLEAR REACTIONS  $^{12}\text{C}(\text{d}, {^2\text{He}})$ ,  $(\text{d}, {^n\text{He}})$ , E=171 MeV; measured En, Ep, pp-coin, pn-coin, excitation energy spectra,  $\sigma(E, \theta)$ , tensor analysing powers.  $^{11}\text{B}$  deduced giant resonance features. JOUR PYLBB 649 35
- 2007F010 NUCLEAR REACTIONS  $^{27}\text{Al}({^{12}\text{C}}, \text{X})^{?}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{O}$  /  $^{19}\text{F}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Na}$  /  $^{24}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  / Si, E=156 MeV;  $^{12}\text{C}({^{27}\text{Al}}, \text{X})^{?}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{O}$  /  $^{19}\text{F}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Na}$  /  $^{24}\text{Mg}$  /  $^{26}\text{Mg}$  / Si, E=348 MeV; measured intermediate mass fragment spectra,  $\sigma(\theta, E)$  from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
- 2007FU07 NUCLEAR REACTIONS  $^{12}\text{C}(\pi^+, \text{K}^+)$ ,  $(\pi^+, \text{K}^+\text{p})$ , E at 1.05 GeV / c; measured  $E\gamma$ ,  $I\gamma$  from  $^{12}\text{C}$ ,  $^{11}\text{B}$  decays. Dduced  $\Lambda$ -N interaction parameters. JOUR CPLEE 24 2216
- 2007K069 NUCLEAR REACTIONS  $^{10}\text{B}(\text{d}, \text{p})$ , E=900-2000 keV; measured  $\sigma$  and angular distributions. JOUR NIMBE 263 357
- 2007MA71 NUCLEAR REACTIONS  $^{12}\text{C}(\pi^+, \text{K}^+)$ , E= MeV; measured hypernuclear mass spectrum,  $E\gamma$ ,  $I\gamma$ .  $^{11}\text{B}$ ,  $^{12}\text{C}$  deduced hypernuclei levels,  $J, \pi$ . Hyperball2 array. JOUR ZAANE 33 243
- 2007N013 NUCLEAR REACTIONS  $^{9}\text{Be}({^{40}\text{Ar}}, \text{X})^{?}\text{Li}$  /  $^{6}\text{Li}$  /  $^{7}\text{Li}$  /  $^{8}\text{Li}$  /  $^{9}\text{Li}$  /  $^{7}\text{Be}$  /  $^{8}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}({^{40}\text{Ar}}, \text{X})^{?}\text{Li}$  /  $^{7}\text{Li}$  /  $^{8}\text{Li}$  /  $^{9}\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{39}\text{Si}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=11 (*continued*)**

- 2007PI05 NUCLEAR REACTIONS  $^{12}\text{C}(\text{e}, \text{e}'\text{p})$ ,  $(\text{e}, \text{e}'2\text{p})$ ,  $E=4.627$  GeV; measured  $\text{Ep}$ , pp-coin, yield ratio vs missing momentum. JOUR NUPAB 782 207c
- 2007RU13 NUCLEAR REACTIONS  $^7\text{Li}(^{10}\text{B}, ^{10}\text{B})$ ,  $E=51$  MeV; measured elastic scattering  $\sigma$  and angular distributions.  $^{10}\text{B}(^7\text{Li}, ^7\text{Li})$ ,  $E=24, 39$  MeV;  $^{11}\text{B}(^7\text{Li}, ^7\text{Li})$ ,  $E=34$  MeV; analyzed elastic scattering  $\sigma$  using optical model and coupled channel method. JOUR ZAANE 33 317
- 2007RY02 NUCLEAR REACTIONS  $^4\text{He}(\gamma, \pi^-\text{p})$ ,  $E\gamma=1.6\text{-}4.5$  GeV;  $^{12}\text{C}(\text{p}, 2\text{p})$ ,  $\text{Ep}=1$  GeV; measured  $\sigma$ , compared to model calculations. JOUR ZAANE 31 585
- 2007SHZZ NUCLEAR REACTIONS  $^{12}\text{C}(\text{e}, \text{e}'\text{p})$ ,  $(\text{e}, \text{e}'2\text{p})$ ,  $E=4.627$  GeV; measured  $\text{Ep}$ , pp-coin, angular correlations, missing energy spectra; deduced role of short-range correlations. PREPRINT nucl-ex/0703023,3/15/2007
- 2007ZI03 NUCLEAR REACTIONS  $^{12}\text{C}(^{17}\text{O}, ^{18}\text{F})^{11}\text{B}$ ,  $E=45$  MeV / nucleon; measured  $E\gamma, I\gamma$ .  $^{18}\text{F}$  deduced  $B(\text{E}1), B(\text{E}2)$ . JOUR NIMAE 579 476
- $^{11}\text{C}$  2007F010 NUCLEAR REACTIONS  $^{27}\text{Al}(^{12}\text{C}, \text{X})^7\text{Be} / ^9\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{O} / ^{19}\text{F} / ^{22}\text{Ne} / ^{23}\text{Na} / ^{24}\text{Mg} / ^{26}\text{Mg} / ^{26}\text{Al} / ^{27}\text{Al} / \text{Si}$ ,  $E=156$  MeV;  $^{12}\text{C}(^{27}\text{Al}, \text{X})^7\text{Be} / ^9\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{O} / ^{19}\text{F} / ^{22}\text{Ne} / ^{23}\text{Na} / ^{24}\text{Mg} / ^{26}\text{Mg} / \text{Si}$ ,  $E=348$  MeV; measured intermediate mass fragment spectra,  $\sigma(\theta, E)$  from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
- 2007GA34 NUCLEAR REACTIONS  $^9\text{Be}(^{38}\text{Si}, ^{36}\text{Mg})$ ,  $E=83$  MeV / nucleon; measured  $E\gamma, I\gamma$ .  $^{36}\text{Mg}$  deduced level energy. Compared results to model calculations. JOUR PRLTA 99 072502
- 2007KA33 NUCLEAR REACTIONS  $\text{N}, \text{O}, \text{Ar}(\text{p}, \text{X})^7\text{Be} / ^{11}\text{C} / ^{13}\text{N} / ^{15}\text{O} / ^{18}\text{F} / ^{22}\text{Na} / ^{24}\text{Na} / ^{27}\text{Mg} / ^{29}\text{Al} / ^{38}\text{S} / ^{38}\text{Cl} / ^{39}\text{Cl}$ ,  $E=12$  GeV; measured radionuclide yields. JOUR JRNCD 273 507

**A=11 (*continued*)**

2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$  ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X})$  ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=12**

${}^{12}\text{Be}$	2006SAZR	NUCLEAR REACTIONS ${}^4\text{He}({}^{12}\text{Be}, \alpha)$ , E=60 MeV / nucleon; measured $\sigma(E, \theta)$ , particle spectra. ${}^{12}\text{Be}$ deduced level energies, J, $\pi$ , widths. REPT CNS-REP-69,P21,Saito
2007F005		NUCLEAR REACTIONS ${}^6,{}^7\text{Li}$ , ${}^9\text{Be}$ , ${}^{12}\text{C}(\pi^+, \pi^-)$ , $(\pi^-, \pi^+)$ , E=120-270 MeV; measured double differential inclusive pion double charge exchange cross sections. Compared results to model calculations. JOUR PRVCA 75 064605
2007FOZZ		NUCLEAR REACTIONS ${}^6,{}^7\text{Li}$ , ${}^9\text{Be}$ , ${}^{12}\text{C}(\pi^+, \pi^-)$ , $(\pi^-, \pi^+)$ , E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007

**A=12 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
2007SH34	NUCLEAR REACTIONS $^9\text{Be}(^{18}\text{O}, \text{X})^{12}\text{Be}$ , E=100 MeV / nucleon; measured delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{12}\text{Be}$ deduced isomeric state energy $J$ , $\pi$ , $T_{1/2}$ , decay branching, B(E2), B(E0). Comparison with shell model calculations. JOUR PYLBB 654 87	
2007SHZY	RADIOACTIVITY $^{12}\text{Be}(\text{IT})$ ; measured $E\gamma$ , $I\gamma$ and lifetimes; deduced level energy, B(E2), B(E0). REPT CNS-REP-71	
$^{12}\text{B}$	2007DE28	NUCLEAR REACTIONS $^{12}\text{C}(\text{d}, ^2\text{He})$ , $(\text{d}, \text{n}^2\text{He})$ , E=171 MeV; measured En, Ep, pp-coin, pn-coin, excitation energy spectra, $\sigma(E, \theta)$ , tensor analysing powers. $^{11}\text{B}$ deduced giant resonance features. JOUR PYLBB 649 35
2007I002	NUCLEAR REACTIONS $^{12}\text{C}(\text{e}, e'K^+)$ , E=3.77 GeV; measured cross sections. $^{12}_\Lambda\text{B}$ deduced level energies. JOUR PRLTA 99 052501	
2007IOZY	NUCLEAR REACTIONS $^{12}\text{C}(\text{e}, e'K^+)$ , E=3.77 GeV; measured cross sections for $^{12}_\Lambda\text{C}$ hypernucleus. Comparisons to theoretical predictions. PREPRINT arXiv:0705.3332v1 [nucl-ex]	

**A=12 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007PEZY	RADIOACTIVITY ${}^{12}\text{B}(\beta^-)$ , ${}^{12}\text{N}(\beta^+)$ ; measured branching $\beta$ -decay ratios. CONF Geneva(NIC-IX) 244
2007TA25	NUCLEAR REACTIONS ${}^7\text{Li}$ , ${}^{12}\text{C}$ , ${}^{28}\text{Si}(e, e'K^+)$ , E not given; measured missing mass spectra. ${}^7\text{He}$ , ${}^{12}\text{B}$ , ${}^{28}\text{Al}$ deduced hypernucleus levels. JOUR NUPAB 790 679c
${}^{12}\text{C}$	NUCLEAR REACTIONS ${}^{14}\text{N}(n, \alpha)$ , $(n, t)$ , E=5.45-7.2 MeV; measured $\sigma$ . JOUR AENGA 101 307
2006LE45	NUCLEAR REACTIONS ${}^{12}\text{C}(p, p)$ , ${}^{12}\text{C}(p, p\gamma)$ E=7.5 MeV; measured $\sigma$ and angular distributions for ground state and low excited states. JOUR BRSPE 70 1883
2007AG14	NUCLEAR REACTIONS ${}^{12}\text{C}(K^-, \pi^-)$ , E at rest; measured negative pion momentum spectrum and Ep, Ip from decaying hypernucleus. Comparison with other data. JOUR ZAANE 33 251
2007ALZZ	NUCLEAR REACTIONS ${}^{10}\text{B}(^3\text{He}, p)$ , E=2.45 MeV; measured excitation spectrum. CONF Geneva(NIC-IX) 067
2007BH06	NUCLEAR REACTIONS ${}^5\text{He}$ , ${}^{12}\text{C}(\pi^+, K^+)$ , E at 1.05 GeV / c; measured Ep, En and angular distributions in hypernuclei decay and discussed quenching effect. Comparison with intra-nuclear cascade calculations. JOUR ZAANE 33 259

**A=12 (continued)**

- 2007BL10 NUCLEAR REACTIONS  $^{12}\text{C}$ ,  $^{208}\text{Pb}(\text{n}, \text{n})$ , E=96 MeV; Fe, Pb, U( $\text{n}$ , pX), ( $\text{n}$ , dX), ( $\text{n}$ , tX), E=96 MeV; measured  $\sigma(\theta)$ .  $^{181}\text{Ta}$ , W,  $^{197}\text{Au}$ , Pb,  $^{208}\text{Pb}(\text{n}, \text{F})$ , E=20-200 MeV; measured fission  $\sigma$ . Cu( $\text{n}$ , X) $^{56}\text{Co}$ , E=50-180 MeV; measured  $\sigma$ . JOUR PRAMC 68 269
- 2007B004 NUCLEAR REACTIONS  $^{12}\text{C}(^{68}\text{Zn}, ^{68}\text{Zn}')$ , E=180, 200 MeV; measured  $E\gamma$ ,  $I\gamma(\theta, H, t)$ , (particle) $\gamma$ -coin following projectile Coulomb excitation.  $^{68}\text{Zn}$  deduced levels, J,  $\pi$ , g. Transient field technique. Comparison with model predictions. JOUR PRVCA 75 021302
- 2007C001 NUCLEAR REACTIONS  $^{13}\text{C}(\text{d}, \text{p})$ , ( $\text{d}, \text{t}$ ), ( $\text{d}, \alpha$ ), E=0.5-1.65 MeV; measured  $\sigma(\theta)$ . Comparison with previous results. JOUR NIMBE 254 25
- 2007F010 NUCLEAR REACTIONS  $^{27}\text{Al}(^{12}\text{C}, \text{X})^{7}\text{Be} / ^{9}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{O} / ^{19}\text{F} / ^{22}\text{Ne} / ^{23}\text{Na} / ^{24}\text{Mg} / ^{26}\text{Mg} / ^{26}\text{Al} / ^{27}\text{Al} / \text{Si}$ , E=156 MeV;  $^{12}\text{C}(^{27}\text{Al}, \text{X})^{7}\text{Be} / ^{9}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{O} / ^{19}\text{F} / ^{22}\text{Ne} / ^{23}\text{Na} / ^{24}\text{Mg} / ^{26}\text{Mg} / \text{Si}$ , E=348 MeV; measured intermediate mass fragment spectra,  $\sigma(\theta, E)$  from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
- 2007FR05 NUCLEAR REACTIONS  $^{12}\text{C}(^{12}\text{C}, 3\alpha)$ , E=104, 106 MeV; measured  $E\alpha$ ,  $\alpha\alpha$ -coin, relative velocity spectra; deduced no strong Coulomb repulsion or quantum statistics effects. JOUR JPGPE 34 789
- 2007FU07 NUCLEAR REACTIONS  $^{12}\text{C}(\pi^+, K^+)$ , ( $\pi^+, K^+\text{p}$ ), E at 1.05 GeV / c; measured  $E\gamma$ ,  $I\gamma$  from  $^{12}\text{C}_\Lambda, ^{11}\text{B}_\lambda$  decays. Deduced  $\Lambda$ -N interaction parameters. JOUR CPLEE 24 2216
- 2007GA07 NUCLEAR REACTIONS  $^{12}\text{C}(\text{d}, \text{d})$ , ( $\text{d}, \text{d}'$ ), E=15.3 MeV; measured  $\sigma(\theta)$ ,  $\sigma(E, \theta)$ , spin-tensor components of density matrix; deduced reaction mechanism features. JOUR PANUE 70 273
- 2007GL01 NUCLEAR REACTIONS  $^{12,13,14}\text{C}(^{16}\text{O}, ^{16}\text{O})$ , E=132 MeV; measured  $\sigma(\theta)$ ; deduced Airy structure, optical model parameters. JOUR PANUE 70 1
- 2007MA58 NUCLEAR REACTIONS  $^{27}\text{Al}, ^{127}\text{I}, ^{206,207,208}\text{Pb}(\text{n}, \text{n}'\gamma)$ , E not give;  $^{10}\text{B}(\alpha, \text{p}\gamma)$ , E=2.27 MeV;  $^9\text{Be}(\alpha, \text{n}\gamma)$ , E=2.27 MeV; measured yields. JOUR PRVCA 76 022801
- 2007MA71 NUCLEAR REACTIONS  $^{12}\text{C}(\pi^+, K^+)$ , E= MeV; measured hypernuclear mass spectrum,  $E\gamma$ ,  $I\gamma$ .  $^{11}\text{B}, ^{12}\text{C}$  deduced hypernuclei levels, J,  $\pi$ . Hyperball2 array. JOUR ZAANE 33 243
- 2007MA72 NUCLEAR REACTIONS  $^6\text{Li}, ^{12}\text{C}(\pi^+, K^+)$ , E at 1.05 GeV / c; measured excitation energy and pion spectra, Ep, Ed, En from hypernucleus decay; deduced decay asymmetry parameter. JOUR ZAANE 33 255

**A=12 (continued)**

- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007PA33 NUCLEAR REACTIONS  $^{12}\text{C}(^7\text{Li}, ^7\text{Li})$ , E=7.5, 9, 12, 15 MeV; measured elastic  $\sigma(\theta)$ ; deduced optical model parameters.  $^{12}\text{C}(^7\text{Li}, \alpha\text{X})$ , E=7.5, 9, 12, 15 MeV; measured  $E\alpha$  and  $\sigma(\theta)$ ; analyzed fusion and direct  $\sigma$ . Comparison with previous data and model calculations. JOUR NUPAB 792 187
- 2007PEZY RADIOACTIVITY  $^{12}\text{B}(\beta^-)$ ,  $^{12}\text{N}(\beta^+)$ ; measured branching  $\beta$ -decay ratios. CONF Geneva(NIC-IX) 244
- 2007PI13 NUCLEAR REACTIONS  $^{12}\text{C}(^{138}\text{Ce}, ^{138}\text{Ce}')$ , E=480 MeV; measured  $E\gamma$ ,  $I\gamma$ , angular distributions following projectile Coulomb excitation.  $^{138}\text{Ce}$  deduced levels,  $J$ ,  $\pi$ ,  $B(M1)$ ,  $B(E2)$ , matrix elements,  $\delta$ , mixed-symmetry state. Gammasphere array. JOUR NUPAB 788 85c
- 2007SU20 NUCLEAR REACTIONS  $^{12}\text{C}(^{14}\text{Be}, 2n^{12}\text{Be})$ , E=68.1 MeV / nucleon; measured relative energy spectra,  $E\gamma$ ,  $I\gamma$ , (residual) $\gamma$ -coin.  $^{14}\text{Be}$  deduced energy level,  $J$ ,  $\pi$ , deformation length, configurations. Comparison with other data and shell model. JOUR PYLBB 654 160
- 2007SUZY NUCLEAR REACTIONS  $^{12}\text{C}(^{14}\text{Be}, ^{14}\text{Be}')$ , E=68 MeV / nucleon; measured particle and neutron energies, cross section and angular distributions.  $^{14}\text{Be}$  deduced level energies,  $J$ ,  $\pi$ . REPT RIKEN-NC-NP-12,Sugimoto
- 2007TA27 NUCLEAR REACTIONS  $^{26}\text{Mg}$ ,  $^{48}\text{Ca}(p, p')$ , E=295 MeV; measured excitation energy spectrum.  $^{12}\text{C}(p, p')$ , E=295 MeV; calculated  $\sigma(\theta)$ . DWIA method. JOUR NUPAB 788 53c

**A=12 (continued)**

<sup>12</sup> N	2007DOZZ	NUCLEAR REACTIONS <sup>12</sup> C(polarized p, n), E=296 MeV; measured $\sigma(E, \theta=0^\circ)$ , polarization transfer observables. PREPRINT arXiv:0704.0670v1 [nucl-ex]
	2007PEZY	RADIOACTIVITY <sup>12</sup> B( $\beta^-$ ), <sup>12</sup> N( $\beta^+$ ); measured branching $\beta$ -decay ratios. CONF Geneva(NIC-IX) 244
	2007SK02	NUCLEAR REACTIONS <sup>1</sup> H( <sup>12</sup> N, p), E(cm)=0.8-2.7 MeV; measured Ep, excitation functions for elastic scattering. <sup>13</sup> O deduced resonance energies, J, $\pi$ , widths. <sup>12</sup> N(p, $\gamma$ ), E=low; calculated astrophysical reaction rates. R-matrix calculations. JOUR PRVCA 75 024607
	2007WA40	NUCLEAR REACTIONS <sup>12</sup> C(polarized p, n), E=296 MeV; measured excitation energy spectrum, $\sigma(\theta)$ , analyzing powers. Comparison with DWIA and RPA calculations. JOUR PYLBB 656 38
	2007WAZY	NUCLEAR REACTIONS <sup>12</sup> C(p, n), E=296 MeV; measured cross section and polarization observables. Compared results to model calculations. PREPRINT ArXiv:0708.2813v1 [nucl-ex]
	2007ZE06	NUCLEAR REACTIONS <sup>12,13</sup> C, <sup>18</sup> O, <sup>26</sup> Mg, <sup>58</sup> Ni, <sup>60</sup> Ni, <sup>90</sup> Zr, <sup>118</sup> Sn, <sup>208</sup> Pb( <sup>3</sup> He, t), E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
	2007ZEZZ	NUCLEAR REACTIONS <sup>12,13</sup> C, <sup>18</sup> O, <sup>26</sup> Mg, <sup>58</sup> Ni, <sup>60</sup> Ni, <sup>90</sup> Zr, <sup>118</sup> Sn, <sup>208</sup> Pb( <sup>3</sup> He, t), E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]
<sup>12</sup> O	2007F005	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+, \pi^-$ ), ( $\pi^-, \pi^+$ ), E=120-270 MeV; measured double differential inclusive pion double charge exchange cross sections. Compared results to model calculations. JOUR PRVCA 75 064605
	2007FOZZ	NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>9</sup> Be, <sup>12</sup> C( $\pi^+, \pi^-$ ), ( $\pi^-, \pi^+$ ), E=120, 180, 240 MeV; measured $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701002,01/03/2007

**A=13**

<sup>13</sup> Be	2007SI24	NUCLEAR REACTIONS C( <sup>11</sup> Li, nx), E=264 MeV / nucleon; C( <sup>14</sup> Be, nx), E=287 MeV / nucleon; measured neutron energies and yields, $\sigma$ as a function of core-neutron energy. <sup>11,10</sup> Li, <sup>13</sup> Be deduced resonance parameters. JOUR NUPAB 791 267
<sup>13</sup> B	2006GE21	NUCLEAR REACTIONS <sup>11</sup> B(t, p), E=2.53-6.95 MeV; measured excitation function. <sup>14</sup> C deduced analog states features. JOUR BRSPE 70 217

**A=13 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
$^{13}\text{C}$	2006GE21 RADIOACTIVITY $^{13}\text{B}(\beta^-)$ [from $^{11}\text{B}(t, p)$ ]; measured $E\beta$ , $E\gamma$ , $T_{1/2}$ . JOUR BRSPE 70 217
2006SAZP	NUCLEAR REACTIONS $^{11}\text{B}$ , $^{13}\text{C}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $\sigma(E, \theta)$ . $^{11}\text{B}$ deduced $B(E0)$ , $B(E2)$ , cluster structure. Antisymmetrized molecular dynamics. REPT CNS-REP-69,P33,Sasamoto
2007F010	NUCLEAR REACTIONS $^{27}\text{Al}(^{12}\text{C}, \text{X})^7\text{Be}$ / $^9\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{O}$ / $^{19}\text{F}$ / $^{22}\text{Ne}$ / $^{23}\text{Na}$ / $^{24}\text{Mg}$ / $^{26}\text{Mg}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / Si, E=156 MeV; $^{12}\text{C}(^{27}\text{Al}, \text{X})^7\text{Be}$ / $^9\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{O}$ / $^{19}\text{F}$ / $^{22}\text{Ne}$ / $^{23}\text{Na}$ / $^{24}\text{Mg}$ / $^{26}\text{Mg}$ / Si, E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, E)$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
2007GL01	NUCLEAR REACTIONS $^{12,13,14}\text{C}(^{16}\text{O}, ^{16}\text{O})$ , E=132 MeV; measured $\sigma(\theta)$ ; deduced Airy structure, optical model parameters. JOUR PANUE 70 1
2007K002	NUCLEAR REACTIONS $^{12}\text{C}(\text{d}, \text{p})$ , E=900-2000 keV; measured $E_p$ , $\sigma(E, \theta)$ . JOUR NIMBE 254 10
2007MA58	NUCLEAR REACTIONS $^{27}\text{Al}$ , $^{127}\text{I}$ , $^{206,207,208}\text{Pb}(n, n'\gamma)$ , E not give; $^{10}\text{B}(\alpha, p\gamma)$ , E=2.27 MeV; $^9\text{Be}(\alpha, n\gamma)$ , E=2.27 MeV; measured yields. JOUR PRVCA 76 022801

**A=13 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{13}\text{N}$	2006TEZW
2007BE47	NUCLEAR REACTIONS ${}^1\text{H}({}^{13}\text{N}, \text{p})$ , E=48.6 MeV; measured Ep, $\sigma(\theta)$ . ${}^{14}\text{O}$ deduced resonance energies, J, $\pi$ , widths. REPT CNS-REP-69,P10,Teranishi
2007CAZZ	NUCLEAR REACTIONS ${}^{12}\text{C}({}^3\text{He}, {}^7\text{H})$ , E=15.4 MeV / nucleon; measured particle spectra. ${}^7\text{H}$ deduced resonance energy, width. PREPRINT nucl-ex/0702021,2/9/2007
2007F010	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^{12}\text{C}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{21}\text{Si}$ , E=156 MeV; ${}^{12}\text{C}({}^{27}\text{Al}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{21}\text{Si}$ , E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, E)$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
2007KA33	NUCLEAR REACTIONS N, O, Ar(p, X) ${}^7\text{Be}$ / ${}^{11}\text{C}$ / ${}^{13}\text{N}$ / ${}^{15}\text{O}$ / ${}^{18}\text{F}$ / ${}^{22}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{27}\text{Mg}$ / ${}^{29}\text{Al}$ / ${}^{38}\text{S}$ / ${}^{38}\text{Cl}$ / ${}^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNC 273 507

**A=13 (continued)**

- 2007LH01 NUCLEAR REACTIONS  $^{13}\text{C}(\text{p}, \text{n})$ , E=20, 25, 40 MeV; measured neutron energy,  $\sigma$  and angular distributions. Compared results to existing data and model calculations. JOUR NIMAE 576 371
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007ZE06 NUCLEAR REACTIONS  $^{12,13}\text{C}$ ,  $^{18}\text{O}$ ,  $^{26}\text{Mg}$ ,  $^{58}\text{Ni}$ ,  $^{60}\text{Ni}$ ,  $^{90}\text{Zr}$ ,  $^{118}\text{Sn}$ ,  $^{208}\text{Pb}(^3\text{He}, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
- 2007ZEZZ NUCLEAR REACTIONS  $^{12,13}\text{C}$ ,  $^{18}\text{O}$ ,  $^{26}\text{Mg}$ ,  $^{58}\text{Ni}$ ,  $^{60}\text{Ni}$ ,  $^{90}\text{Zr}$ ,  $^{118}\text{Sn}$ ,  $^{208}\text{Pb}(^3\text{He}, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]
- $^{13}\text{O}$  2007GUZW NUCLEAR REACTIONS  $^{16}\text{O}(^3\text{He}, ^6\text{He})^{13}\text{O}$ , E=79.9 MeV; measured momentum spectra and  $\sigma$  at 9 laboratory angles.  $^{13}\text{O}$  deduced level energies, energy between the first positive parity state and the proton threshold energy. CONF Iguazu(Nuclear Physics and Applications) Proc,P123,Guimaraes
- 2007SK02 NUCLEAR REACTIONS  $^1\text{H}(^{12}\text{N}, \text{p})$ , E(cm)=0.8-2.7 MeV; measured Ep, excitation functions for elastic scattering.  $^{13}\text{O}$  deduced resonance energies, J,  $\pi$ , widths.  $^{12}\text{N}(\text{p}, \gamma)$ , E=low; calculated astrophysical reaction rates. R-matrix calculations. JOUR PRVCA 75 024607

**A=14**

<sup>14</sup> Be	2007SU20	NUCLEAR REACTIONS <sup>12</sup> C( <sup>14</sup> Be, 2n <sup>12</sup> Be), E=68.1 MeV / nucleon; measured relative energy spectra, E $\gamma$ , I $\gamma$ , (residual) $\gamma$ -coin. <sup>14</sup> Be deduced energy level, J, $\pi$ , deformation length, configurations. Comparison with other data and shell model. JOUR PYLBB 654 160
	2007SUZY	NUCLEAR REACTIONS <sup>12</sup> C( <sup>14</sup> Be, <sup>14</sup> Be'), E=68 MeV / nucleon; measured particle and neutron energies, cross section and angular distributions. <sup>14</sup> Be deduced level energies, J, $\pi$ . REPT RIKEN-NC-NP-12,Sugimoto
<sup>14</sup> B	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>32</sup> Mg / <sup>33</sup> Mg / <sup>34</sup> Mg / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>35</sup> Al / <sup>36</sup> Al / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>35</sup> Si / <sup>36</sup> Si / <sup>37</sup> Si / <sup>38</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>37</sup> P / <sup>38</sup> P / <sup>39</sup> P / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>38</sup> S / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>38</sup> Cl / <sup>39</sup> Cl / <sup>39</sup> Ar, E=100 MeV / nucleon; <sup>181</sup> Ta( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>14</sup> C	2006GE21	NUCLEAR REACTIONS <sup>11</sup> B(t, p), E=2.53-6.95 MeV; measured excitation function. <sup>14</sup> C deduced analog states features. JOUR BRSPE 70 217
	2007C001	NUCLEAR REACTIONS <sup>13</sup> C(d, p), (d, t), (d, $\alpha$ ), E=0.5-1.65 MeV; measured $\sigma(\theta)$ . Comparison with previous results. JOUR NIMBE 254 25
	2007GL01	NUCLEAR REACTIONS <sup>12,13,14</sup> C( <sup>16</sup> O, <sup>16</sup> O), E=132 MeV; measured $\sigma(\theta)$ ; deduced Airy structure, optical model parameters. JOUR PANUE 70 1

**A=14 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
2007PR02	NUCLEAR REACTIONS $^{14}\text{C}(^{14}\text{C}, \alpha^{10}\text{Be})$ , E=98.2 MeV; measured charged particle spectra. $^{14}\text{C}$ deduced excited states energies, J, $\pi$ , $\alpha$ -decay properties. JOUR PRVCA 75 014305	
$^{14}\text{N}$	2007CH25	NUCLEAR REACTIONS $^{14}\text{N}(\alpha, \gamma)$ , E=1620-1775 keV; measured E $\gamma$ , I $\gamma$ ; deduced resonance parameters. $^{17}\text{O}(\text{p}, \alpha)$ , E=194-204 keV; measured E $\alpha$ , $\sigma(E, \theta)$ ; deduced resonance energy, strength. Astrophysical implications discussed. JOUR PRVCA 75 035810
2007F010	NUCLEAR REACTIONS $^{27}\text{Al}(^{12}\text{C}, \text{X})^7\text{Be}$ / $^9\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{O}$ / $^{19}\text{F}$ / $^{22}\text{Ne}$ / $^{23}\text{Na}$ / $^{24}\text{Mg}$ / $^{26}\text{Mg}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / Si, E=156 MeV; $^{12}\text{C}(^{27}\text{Al}, \text{X})^7\text{Be}$ / $^9\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{O}$ / $^{19}\text{F}$ / $^{22}\text{Ne}$ / $^{23}\text{Na}$ / $^{24}\text{Mg}$ / $^{26}\text{Mg}$ / Si, E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, E)$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1	
2007MIZZ	NUCLEAR REACTIONS $^{16}\text{O}(\text{e}, \text{e}'\text{np})$ , E=855 MeV; measured particle spectra, missing energy, $\sigma(E, \theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0701053, 1/24/2007	
2007M020	NUCLEAR REACTIONS $^1\text{H}(^{17}\text{O}, \alpha)^{14}\text{N}$ , E=3.3 MeV; measured resonance energy and strength. Discussed astrophysical implications. JOUR PRVCA 75 065801	

**A=14 (continued)**

- 2007NE08 NUCLEAR REACTIONS  $^{17}\text{O}(\text{p}, \alpha)$ , E=140-210 keV; measured yields and resonance strength for the 193 keV resonance. JOUR PRVCA 75 055808
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- $^{14}\text{O}$  2006TEZW NUCLEAR REACTIONS  $^1\text{H}(^{13}\text{N}, \text{p})$ , E=48.6 MeV; measured Ep,  $\sigma(\theta)$ .  $^{14}\text{O}$  deduced resonance energies, J,  $\pi$ , widths. REPT CNS-REP-69,P10,Teranishi
- 2007BA61 NUCLEAR REACTIONS  $^4\text{He}(^{14}\text{O}, \alpha^{10}\text{C})$ ,  $(^{14}\text{O}, 2\text{p}^{12}\text{C})$ ,  $(^{14}\text{O}, \text{p}^{13}\text{N})$ , E=60 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, excitation energy spectra,  $\sigma(\theta)$ .  $^{14}\text{O}$  deduced monopole and dipole strength distributions. Comparison with DWBA calculations. JOUR NUPAB 788 188c
- 2007TE09 NUCLEAR REACTIONS  $^1\text{H}(^{13}\text{N}, ^{13}\text{N})$ , E(cm)=0.4-3.3 MeV; measured elastic scattering  $\sigma(\theta)$  and fitted with R-matrix calculation.  $^{14}\text{O}$  deduced levels, widths, J,  $\pi$ , spectroscopic factor. JOUR PYLBB 650 129

## *KEYNUMBERS AND KEYWORDS*

A=15

**A=15 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{15}\text{N}$	2007DE47
2007DEZZ	NUCLEAR REACTIONS ${}^2\text{H}({}^{18}\text{F}, \text{p})$ , ( ${}^{18}\text{F}, \text{p}\alpha$ ), E(cm)=1.4 MeV; measured particle energies and yields, cross sections and angular distributions. ${}^{19}\text{F}$ , Ne deduced level energies and decay widths. Discussed astrophysical implications. JOUR NUPAB 791 251
2007F010	NUCLEAR REACTIONS ${}^2\text{H}({}^{18}\text{F}, \text{p})$ , ( ${}^{18}\text{F}, \text{p}\alpha$ ), E=14 MeV; measured Ep, E $\alpha$ , $\sigma(\theta)$ . ${}^{19}\text{F}$ deduced level energies, J, $\pi$ , spectroscopic factors, analog states features. PREPRINT nucl-ex/0702034,2/16/2007
2007I004	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^{12}\text{C}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / Si, E=156 MeV; ${}^{12}\text{C}({}^{27}\text{Al}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / Si, E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, E)$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
2007I02Z	NUCLEAR REACTIONS ${}^{16}\text{O}(\text{e}, \text{e}'\text{p})$ , E=575 MeV; measured $\sigma(E, \theta)$ , missing energy dependence. Comparison with model calculations. JOUR PYLBB 653 392
	NUCLEAR REACTIONS ${}^{16}\text{O}(\text{e}, \text{e}'\text{p})$ , E=575 MeV; measured missing energy spectra, $\sigma(E, \theta)$ ; deduced role of two-body currents, short-range correlations. PREPRINT nucl-ex/0703007,3/5/2007

**A=15 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
2007R017	NUCLEAR REACTIONS ${}^{12}\text{N}({}^7\text{Li}, \alpha)$ , E=34 MeV; measured E $\alpha$ , cross sections, angular distributions and analyzing powers. ${}^{15}\text{N}$ deduced levels, J, $\pi$ . JOUR NIMBE 261 1005	
${}^{15}\text{O}$	2007CHZW	NUCLEAR REACTIONS ${}^{18}\text{F}(\text{p}, \alpha)$ , E(cm)=663-877 keV; measured cross section and excitation function. Deduced interference effects and astrophysical S-factor. CONF Geneva(NIC-IX) 273
	2007DEZT	NUCLEAR REACTIONS ${}^1\text{H}({}^{18}\text{F}, \alpha)$ , E=8.6-13.8 MeV; measured E $\alpha$ in coincidence with ${}^{15}\text{O}$ . ${}^{18}\text{F}(\text{p}, \alpha)$ ; deduced cross sections. CONF Geneva(NIC-IX) 005
	2007IM02	NUCLEAR REACTIONS ${}^{14}\text{N}(\text{p}, \gamma)$ , E not given; measured cross section at LUNA accelerator facility. JOUR PPNPD 59 193
	2007KA33	NUCLEAR REACTIONS N, O, Ar(p, X) ${}^7\text{Be}$ / ${}^{11}\text{C}$ / ${}^{13}\text{N}$ / ${}^{15}\text{O}$ / ${}^{18}\text{F}$ / ${}^{22}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{27}\text{Mg}$ / ${}^{29}\text{Al}$ / ${}^{38}\text{S}$ / ${}^{38}\text{Cl}$ / ${}^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNC 273 507
	2007LE26	NUCLEAR REACTIONS ${}^1\text{H}({}^{15}\text{O}, \text{p})$ , E=120 MeV; measured excitation function. ${}^{16}\text{F}$ deduced level widths. JOUR PRVCA 76 024314

**A=15 (continued)**

- 2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007R017 NUCLEAR REACTIONS  ${}^{12}\text{N}({}^7\text{Li}, \alpha)$ , E=34 MeV; measured E $\alpha$ , cross sections, angular distributions and analyzing powers.  ${}^{15}\text{N}$  deduced levels, J,  $\pi$ . JOUR NIMBE 261 1005
- 2007TA13 RADIOACTIVITY  ${}^{19}\text{Ne}(\alpha)$  [from  ${}^{19}\text{F}({}^3\text{He}, t)$ ]; measured E $\alpha$ , I $\alpha$ ,  ${}^{15}\text{O}(\alpha, \gamma)$ ; deduced reaction rate at astrophysical energies. JOUR PRLTA 98 242503
- 2007TRZX NUCLEAR REACTIONS  ${}^{14}\text{N}(p, \gamma)$ , E=360, 380, 400 keV; measured E $\gamma$ , I $\gamma$ . Deduced s-factor. PREPRINT ArXiv:0708.3376v1 [nucl-ex]

**A=16**

<sup>16</sup> C	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{18}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{22}\text{O}$ / ${}^{23}\text{O}$ / ${}^{24}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{25}\text{F}$ / ${}^{26}\text{F}$ / ${}^{27}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>16</sup> N	2007FR11	RADIOACTIVITY ${}^{16}\text{N}(\beta^-)$ ; measured delayed $\alpha$ spectrum. Compared results to existing data. JOUR PRVCA 75 065802
	2007FRZY	RADIOACTIVITY ${}^{16}\text{N}(\beta^-)$ [from ${}^2\text{H}({}^{15}\text{N}, \text{p})$ ]; measured $\beta$ -delayed $\alpha$ spectra. Comparison with previous results. PREPRINT nucl-ex/0702018,2/8/2007

**A=16 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
2007RE17	RADIOACTIVITY ${}^{16}\text{N}(\beta^-)$ [from ${}^2\text{H}({}^{15}\text{N}, {}^{16}\text{N})$ , E=82 MeV]; measured E $\alpha$ , I $\alpha$ , (particle) $\alpha$ -coin; deduced astrophysical S-factor. JOUR NUPAB 787 289c	
${}^{16}\text{O}$	2006FUZW	NUCLEAR REACTIONS ${}^4\text{He}({}^{16}\text{O}, \alpha)$ , E < 32.5 MeV; measured E $\alpha$ , $\sigma(\theta)$ . ${}^{20}\text{Ne}$ deduced resonance parameters. REPT CNS-REP-69, P37, Fujikawa
2007BE19	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^6\text{He}, {}^6\text{He})$ , E=9.5, 11.0, 12.0, 13.4 MeV; measured $\sigma$ , $\sigma(\theta)$ . ${}^6\text{He}$ deduced radius, deformation parameters. ${}^{27}\text{Al}({}^6\text{Li}, {}^6\text{Li})$ , $({}^7\text{Li}, {}^7\text{Li})$ , $({}^9\text{Be}, {}^9\text{Be})$ , $({}^{16}\text{O}, {}^{16}\text{O})$ , E≈7-45 MeV; analysed total $\sigma$ . ${}^{6,7}\text{Li}$ , ${}^9\text{Be}$ , ${}^{16}\text{O}$ deduced deformation parameters. Sao Paulo potential. JOUR PYLBB 647 30	
2007BE45	NUCLEAR REACTIONS ${}^{12}\text{C}({}^6\text{Li}, \text{d})$ , E=48.2 MeV; measured Ed, $\sigma(\theta)$ to first eleven states of ${}^{16}\text{O}$ ; deduced level energies, widths, spectroscopic factors. DWBA analysis. ${}^{12}\text{C}(\alpha, \gamma)$ , E(cm)≈ 0-3 MeV; analyzed $\sigma$ ; deduced resonance parameters. R-Matrix calculations. Astrophysical implications discussed. JOUR NUPAB 793 178	
2007BE47	NUCLEAR REACTIONS ${}^{12}\text{C}$ , ${}^{16}\text{O}$ , ${}^{24}\text{Mg}$ , Fe(p, $\gamma$ ), e=5-25 meV; ${}^{12}\text{C}$ , ${}^{16}\text{O}$ , ${}^{24}\text{Mg}$ , Fe( $\alpha$ , $\gamma$ ), E=5-40 MeV; measured E $\gamma$ , I $\gamma$ , angular distributions, cross sections and excitation functions. Compared results to model calculations. JOUR PRVCA 76 034607	

**A=16 (*continued*)**

- 2007COZY NUCLEAR REACTIONS  $^{19}\text{F}(\text{p}, \gamma)$ ,  $(\text{p}, \alpha\gamma)$ , E=200-800 keV; measured yields, resonance parameters and interference terms. CONF Geneva(NIC-IX) 082
- 2007F010 NUCLEAR REACTIONS  $^{27}\text{Al}(\text{C}, \text{X})^{7}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{O}$  /  $^{19}\text{F}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Na}$  /  $^{24}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  / Si, E=156 MeV;  $^{12}\text{C}(\text{Al}, \text{X})^{7}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{O}$  /  $^{19}\text{F}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Na}$  /  $^{24}\text{Mg}$  /  $^{26}\text{Mg}$  / Si, E=348 MeV; measured intermediate mass fragment spectra,  $\sigma(\theta, E)$  from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
- 2007FR11 RADIOACTIVITY  $^{16}\text{N}(\beta^-)$ ; measured delayed  $\alpha$  spectrum. Compared results to existing data. JOUR PRVCA 75 065802
- 2007FRZY RADIOACTIVITY  $^{16}\text{N}(\beta^-)$  [from  $^2\text{H}(^{15}\text{N}, \text{p})$ ]; measured  $\beta$ -delayed  $\alpha$  spectra. Comparison with previous results. PREPRINT nucl-ex/0702018,2/8/2007
- 2007FU09 NUCLEAR REACTIONS  $^4\text{He}(\text{O}, \text{X})^{16}\text{O}$ , E=32.7 MeV; measured yields and excitation function. JOUR PRVCA 76 021603
- 2007MAZX NUCLEAR REACTIONS  $^{12}\text{C}(\alpha, \gamma)$ , E(cm)=1.4, 1.6 MeV; measured  $E\gamma$ , angular distribution from direct  $\alpha$  capture. Deduced cross sections. CONF Geneva(NIC-IX) 136
- 2007NAZW NUCLEAR REACTIONS  $^4\text{He}(\gamma, \text{X})$ , E < 50 MeV;  $^{12}\text{C}(\alpha, \gamma)$ , E(cm)=1.4-1.6 MeV;  $^2\text{H}$ ,  $^{62}\text{Ni}(\text{n}, \gamma)$ , E= low; measured cross sections. CONF Tokai-mura (Nuclear Data) Proc,PIII.01,Nagai

**A=16 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007PEZZ	NUCLEAR REACTIONS ${}^{13}\text{C}({}^7\text{Li}, \text{t})$ , E=28, 34 MeV; measured $\sigma$ and angular distributions. ${}^{13}\text{C}(\alpha, \text{n})$ ; deduced S $\alpha$ factor. CONF Geneva(NIC-IX) 161
2007RE17	RADIOACTIVITY ${}^{16}\text{N}(\beta^-)$ [from ${}^2\text{H}({}^{15}\text{N}, {}^{16}\text{N})$ , E=82 MeV]; measured E $\alpha$ , I $\alpha$ , (particle) $\alpha$ -coin; deduced astrophysical S-factor. JOUR NUPAB 787 289c
2007RU01	NUCLEAR REACTIONS ${}^{16}\text{O}(\text{polarized } {}^7\text{Li}, {}^7\text{Li})$ , E=42 MeV; measured $\sigma(\theta)$ , tensor analyzing powers. ${}^{16}\text{O}({}^7\text{Li}, {}^7\text{Li})$ , ( ${}^7\text{Li}, {}^7\text{Li}'$ ), E(cm)=6.26-34.78 MeV; analyzed data; deduced parameters. ${}^{16}\text{O}({}^7\text{Li}, \text{t})$ , E=15-38 MeV; calculated $\sigma(\theta)$ . Coupled reaction channels method. JOUR PRVCA 75 024612
2007UK01	NUCLEAR REACTIONS ${}^{16}\text{O}(K^-, \pi^-)$ , E at 0.93 GeV / c; measured E $\gamma$ , I $\gamma$ from decaying hypernucleus. ${}^{16}\text{O}$ deduced hypernucleus levels, J, $\pi$ . Hyperball array. JOUR ZAANE 33 247
2007ZY01	NUCLEAR REACTIONS ${}^4\text{He}({}^{12}\text{C}, \gamma)$ , E=1.068 MeV / nucleon; measured beam and recoil charge state distributions. JOUR NIMBE 254 17
${}^{16}\text{F}$	NUCLEAR REACTIONS ${}^1\text{H}({}^{15}\text{O}, \text{p})$ , E=120 MeV; measured excitation function. ${}^{16}\text{F}$ deduced level widths. JOUR PRVCA 76 024314
2007LE26	

**A=17**

- <sup>17</sup>C      2007B010      NUCLEAR REACTIONS  $^{12,14}\text{C}$ ( $^{12}\text{C}$ ,  $^9\text{C}$ ), E=231 MeV; measured particle spectra,  $\sigma(E, \theta)$ .  $^{15,17}\text{C}$  deduced levels, J,  $\pi$ , configurations. JOUR ZAANE 31 279
- 2007N013      NUCLEAR REACTIONS  $^9\text{Be}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=17 (continued)**

<sup>17</sup> N	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
	2007RI15	NUCLEAR REACTIONS Pb(p, X) ${}^{17}\text{N}$ / ${}^{87}\text{Br}$ / ${}^{88}\text{Br}$ , E=1 GeV; measured delayed neutron yields and precursor production cross sections. JOUR ZAANE 32 1
<sup>17</sup> O	2007MU15	RADIOACTIVITY ${}^{19}\text{Ne}(2\text{p})$ [from ${}^9\text{Be}({}^{20}\text{Mg}, {}^{19}\text{Mg})$ , E=450 meV / nucleon]; measured Ep, Ip, ( ${}^{17}\text{Ne}$ )p-coinc, angular correlations. ${}^{19}\text{Ne}$ deduced T <sub>1/2</sub> , 2p-decay Q-value. JOUR PRLTA 99 182501

**A=17 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007PEZZ	NUCLEAR REACTIONS $^{13}\text{C}(^7\text{Li}, \text{t})$ , E=28, 34 MeV; measured $\sigma$ and angular distributions. $^{13}\text{C}(\alpha, \text{n})$ ; deduced S $\alpha$ factor. CONF Geneva(NIC-IX) 161
2007ZH03	RADIOACTIVITY $^{17}\text{F}(\beta^+)$ , (EC) [from $^{16}\text{O}(\text{d}, \text{n})$ ]; measured $\beta$ -NMR spectra from polarized source. $^{17}\text{F}$ deduced quadrupole moment, halo features. JOUR JPGPE 34 523
$^{17}\text{F}$	2007BE47 NUCLEAR REACTIONS $^{12}\text{C}$ , $^{16}\text{O}$ , $^{24}\text{Mg}$ , Fe(p, $\gamma$ ), e=5-25 meV; $^{12}\text{C}$ , $^{16}\text{O}$ , $^{24}\text{Mg}$ , Fe( $\alpha$ , $\gamma$ ), E=5-40 MeV; measured E $\gamma$ , I $\gamma$ , angular distributions, cross sections and excitation functions. Compared results to model calculations. JOUR PRVCA 76 034607

**A=17 (*continued*)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{18}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007ZH03	RADIOACTIVITY $^{17}\text{F}(\beta^+)$ , (EC) [from $^{16}\text{O}(\text{d}, \text{n})$ ]; measured $\beta$ -NMR spectra from polarized source. $^{17}\text{F}$ deduced quadrupole moment, halo features. JOUR JPGPE 34 523

**A=18**

<sup>18</sup> C	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>18</sup> N	2007BU01	RADIOACTIVITY ${}^{18}\text{N}(\beta^-)$ ; measured $\beta$ -delayed E $\alpha$ , $\beta\alpha$ -coin. ${}^{18}\text{O}$ deduced level energies, J, $\pi$ , widths. Astrophysical implications discussed. JOUR PRVCA 75 012804
	2007L005	RADIOACTIVITY ${}^{18}\text{N}(\beta^-)$ ; measured $\beta$ -delayed neutron spectra. ${}^{18}\text{O}$ ; deduced level energies, J, $\pi$ . Deduced B(GT), compared to shell model calculations. JOUR PRVCA 75 057302

**A=18 (*continued*)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{18}\text{O}$	2007BU01	RADIOACTIVITY ${}^{18}\text{N}(\beta^-)$ ; measured $\beta$ -delayed E $\alpha$ , $\beta\alpha$ -coin. ${}^{18}\text{O}$ deduced level energies, J, $\pi$ , widths. Astrophysical implications discussed. JOUR PRVCA 75 012804
	2007L005	RADIOACTIVITY ${}^{18}\text{N}(\beta^-)$ ; measured $\beta$ -delayed neutron spectra. ${}^{18}\text{O}$ ; deduced level energies, J, $\pi$ . Deduced B(GT), compared to shell model calculations. JOUR PRVCA 75 057302

**A=18 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007RU04	NUCLEAR REACTIONS $^7\text{Li}(^{18}\text{O}, ^{18}\text{O}')$ , $(^{18}\text{O}, ^{18}\text{O}')$ , E=114 MeV; measured elastic and inelastic $\sigma(\theta)$ ; deduced potential parameters, scattering mechanism features. $^{18}\text{O}$ deduced deformation parameters. Optical model and coupled-reaction-channels analysis. JOUR NUPAB 785 293
$^{18}\text{F}$	2007CH25 NUCLEAR REACTIONS $^{14}\text{N}(\alpha, \gamma)$ , E=1620-1775 keV; measured E $\gamma$ , I $\gamma$ ; deduced resonance parameters. $^{17}\text{O}(\text{p}, \alpha)$ , E=194-204 keV; measured E $\alpha$ , $\sigma(E, \theta)$ ; deduced resonance energy, strength. Astrophysical implications discussed. JOUR PRVCA 75 035810
2007GR18	RADIOACTIVITY $^{18}\text{Ne}(\beta^+)$ ; measured $\beta$ -delayed $\gamma$ -decays, T <sub>1/2</sub> . JOUR PRVCA 76 025503
2007KA33	NUCLEAR REACTIONS N, O, Ar(p, X) $^7\text{Be}$ / $^{11}\text{C}$ / $^{13}\text{N}$ / $^{15}\text{O}$ / $^{18}\text{F}$ / $^{22}\text{Na}$ / $^{24}\text{Na}$ / $^{27}\text{Mg}$ / $^{29}\text{Al}$ / $^{38}\text{S}$ / $^{38}\text{Cl}$ / $^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNC 273 507
2007LEZY	NUCLEAR REACTIONS $^{18}\text{F}(\alpha, \text{p})$ , E(cm)=1.4-2.3 MeV; measured excitation function. $^{21}\text{Ne}(\text{p}, \alpha)$ , E=2.5-3.5 MeV; measured cross section. CONF Geneva(NIC-IX) 131

**A=18 (*continued*)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007ZE06	NUCLEAR REACTIONS $^{12,13}\text{C}$ , $^{18}\text{O}$ , $^{26}\text{Mg}$ , $^{58}\text{Ni}$ , $^{60}\text{Ni}$ , $^{90}\text{Zr}$ , $^{118}\text{Sn}$ , $^{208}\text{Pb}(\text{He}, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
2007ZEZZ	NUCLEAR REACTIONS $^{12,13}\text{C}$ , $^{18}\text{O}$ , $^{26}\text{Mg}$ , $^{58}\text{Ni}$ , $^{60}\text{Ni}$ , $^{90}\text{Zr}$ , $^{118}\text{Sn}$ , $^{208}\text{Pb}(\text{He}, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]
2007ZI03	NUCLEAR REACTIONS $^{12}\text{C}(\text{He}, \text{t})^{11}\text{B}$ , E=45 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{18}\text{F}$ deduced B(E1), B(E2). JOUR NIMAE 579 476
$^{18}\text{Ne}$	2006SK09      NUCLEAR REACTIONS $^1\text{H}(^{18}\text{Ne}, \text{p})$ , E=56 MeV; measured $E_\text{p}$ , $\sigma(\theta)$ , elastic scattering excitation function. $^{19}\text{Na}$ deduced resonance energy, $J$ , $\pi$ . Astrophysical implications discussed. JOUR PANUE 69 1979
	2007GR18      RADIOACTIVITY $^{18}\text{Ne}(\beta^+)$ ; measured $\beta$ -delayed $\gamma$ -decays, $T_{1/2}$ . JOUR PRVCA 76 025503

**A=19**

$^{19}\text{N}$	2007CA28	NUCLEAR REACTIONS $^{12}\text{C}(\text{He}, \text{p})$ , E=154 MeV / nucleon; measured particle energies and excitation energy distributions. $^7\text{H}$ deduced resonance energies. JOUR PRLTA 99 062502
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**A=19 (*continued*)**

2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=19 (*continued*)**

<sup>19</sup> O	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>19</sup> F	2007DE47	NUCLEAR REACTIONS ${}^2\text{H}({}^{18}\text{F}, \text{p})$ , $({}^{18}\text{F}, \text{p}\alpha)$ , E(cm)=1.4 MeV; measured particle energies and yields, cross sections and angular distributions. ${}^{19}\text{F}$ , Ne deduced level energies and decay widths. Discussed astrophysical implications. JOUR NUPAB 791 251
2007DEZZ		NUCLEAR REACTIONS ${}^2\text{H}({}^{18}\text{F}, \text{p})$ , $({}^{18}\text{F}, \text{p}\alpha)$ , E=14 MeV; measured Ep, E $\alpha$ , $\sigma(\theta)$ . ${}^{19}\text{F}$ deduced level energies, J, $\pi$ , spectroscopic factors, analog states features. PREPRINT nucl-ex/0702034,2/16/2007
2007F010		NUCLEAR REACTIONS ${}^{27}\text{Al}({}^{12}\text{C}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / Si, E=156 MeV; ${}^{12}\text{C}({}^{27}\text{Al}, \text{X}){}^7\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{O}$ / ${}^{19}\text{F}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Mg}$ / ${}^{26}\text{Mg}$ / Si, E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, \text{E})$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1

**A=19 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{19}\text{Ne}$	2007HOZY
	NUCLEAR REACTIONS ${}^{17}\text{O}({}^3\text{He}, \text{n})$ , E=4.2 MeV; measured $\sigma$ using the NTOF technique. CONF Geneva(NIC-IX) 119
	2007MU15
	RADIOACTIVITY ${}^{19}\text{Ne}(2\text{p})$ [from ${}^9\text{Be}({}^{20}\text{Mg}, {}^{19}\text{Mg})$ , E=450 meV / nucleon]; measured Ep, Ip, ( ${}^{17}\text{Ne}$ )p-coinc, angular correlations. ${}^{19}\text{Ne}$ deduced $T_{1/2}$ , 2p-decay Q-value. JOUR PRLTA 99 182501

**A=19 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007TA13	RADIOACTIVITY ${}^{19}\text{Ne}(\alpha)$ [from ${}^{19}\text{F}({}^3\text{He}, \text{t})$ ]; measured E $\alpha$ , I $\alpha$ . ${}^{15}\text{O}(\alpha, \gamma)$ ; deduced reaction rate at astrophysical energies. JOUR PRLTA 98 242503
2007TAZK	NUCLEAR REACTIONS ${}^{19}\text{F}({}^3\text{He}, \text{t})$ , E=24 MeV; measured $\alpha$ -decay branching ratio for the astrophysically important 4.03 MeV state. ${}^{15}\text{O}(\alpha, \gamma)$ ; deduced reaction rate. CONF Geneva(NIC-IX) 023
${}^{19}\text{Na}$	NUCLEAR REACTIONS ${}^1\text{H}({}^{18}\text{Ne}, \text{p})$ , E=56 MeV; measured Ep, $\sigma(\theta)$ , elastic scattering excitation function. ${}^{19}\text{Na}$ deduced resonance energy, J, $\pi$ . Astrophysical implications discussed. JOUR PANUE 69 1979
2006SK09	

**A=20**

<sup>20</sup>N            2007N013            NUCLEAR REACTIONS <sup>9</sup>Be(<sup>40</sup>Ar, X)<sup>6</sup>Li / <sup>7</sup>Li / <sup>8</sup>Li / <sup>9</sup>Li / <sup>7</sup>Be / <sup>8</sup>Be / <sup>9</sup>Be / <sup>10</sup>Be / <sup>11</sup>Be / <sup>12</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>12</sup>B / <sup>13</sup>B / <sup>14</sup>B / <sup>15</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>C / <sup>15</sup>C / <sup>16</sup>C / <sup>17</sup>C / <sup>18</sup>C / <sup>13</sup>N / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>N / <sup>17</sup>N / <sup>18</sup>N / <sup>19</sup>N / <sup>20</sup>N / <sup>21</sup>N / <sup>15</sup>O / <sup>16</sup>O / <sup>17</sup>O / <sup>18</sup>O / <sup>19</sup>O / <sup>20</sup>O / <sup>21</sup>O / <sup>22</sup>O / <sup>23</sup>O / <sup>24</sup>O / <sup>17</sup>F / <sup>18</sup>F / <sup>19</sup>F / <sup>20</sup>F / <sup>21</sup>F / <sup>22</sup>F / <sup>23</sup>F / <sup>24</sup>F / <sup>25</sup>F / <sup>26</sup>F / <sup>27</sup>F / <sup>19</sup>Ne / <sup>20</sup>Ne / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>23</sup>Ne / <sup>24</sup>Ne / <sup>25</sup>Ne / <sup>26</sup>Ne / <sup>27</sup>Ne / <sup>28</sup>Ne / <sup>29</sup>Ne / <sup>21</sup>Na / <sup>22</sup>Na / <sup>23</sup>Na / <sup>24</sup>Na / <sup>25</sup>Na / <sup>26</sup>Na / <sup>27</sup>Na / <sup>28</sup>Na / <sup>29</sup>Na / <sup>30</sup>Na / <sup>31</sup>Na / <sup>32</sup>Na / <sup>23</sup>Mg / <sup>24</sup>Mg / <sup>25</sup>Mg / <sup>26</sup>Mg / <sup>27</sup>Mg / <sup>28</sup>Mg / <sup>29</sup>Mg / <sup>30</sup>Mg / <sup>31</sup>Mg / <sup>32</sup>Mg / <sup>33</sup>Mg / <sup>34</sup>Mg / <sup>25</sup>Al / <sup>26</sup>Al / <sup>27</sup>Al / <sup>28</sup>Al / <sup>29</sup>Al / <sup>30</sup>Al / <sup>31</sup>Al / <sup>32</sup>Al / <sup>33</sup>Al / <sup>34</sup>Al / <sup>35</sup>Al / <sup>36</sup>Al / <sup>27</sup>Si / <sup>28</sup>Si / <sup>29</sup>Si / <sup>30</sup>Si / <sup>31</sup>Si / <sup>32</sup>Si / <sup>33</sup>Si / <sup>34</sup>Si / <sup>35</sup>Si / <sup>36</sup>Si / <sup>37</sup>Si / <sup>38</sup>Si / <sup>29</sup>P / <sup>30</sup>P / <sup>31</sup>P / <sup>32</sup>P / <sup>33</sup>P / <sup>34</sup>P / <sup>35</sup>P / <sup>36</sup>P / <sup>37</sup>P / <sup>38</sup>P / <sup>39</sup>P / <sup>33</sup>S / <sup>34</sup>S / <sup>35</sup>S / <sup>36</sup>S / <sup>37</sup>S / <sup>38</sup>S / <sup>36</sup>Cl / <sup>37</sup>Cl / <sup>38</sup>Cl / <sup>39</sup>Cl / <sup>39</sup>Ar, E=100 MeV / nucleon; <sup>181</sup>Ta(<sup>40</sup>Ar, X)<sup>6</sup>Li / <sup>7</sup>Li / <sup>8</sup>Li / <sup>9</sup>Be / <sup>10</sup>Be / <sup>11</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>12</sup>B / <sup>13</sup>B / <sup>14</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>C / <sup>15</sup>C / <sup>16</sup>C / <sup>17</sup>C / <sup>13</sup>N / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>N / <sup>17</sup>N / <sup>18</sup>N / <sup>19</sup>N / <sup>15</sup>O / <sup>16</sup>O / <sup>17</sup>O / <sup>18</sup>O / <sup>19</sup>O / <sup>20</sup>O / <sup>21</sup>O / <sup>17</sup>F / <sup>18</sup>F / <sup>19</sup>F / <sup>20</sup>F / <sup>21</sup>F / <sup>22</sup>F / <sup>23</sup>F / <sup>24</sup>F / <sup>19</sup>Ne / <sup>20</sup>Ne / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>23</sup>Ne / <sup>24</sup>Ne / <sup>25</sup>Ne / <sup>26</sup>Ne / <sup>27</sup>Ne / <sup>21</sup>Na / <sup>22</sup>Na / <sup>23</sup>Na / <sup>24</sup>Na / <sup>25</sup>Na / <sup>26</sup>Na / <sup>27</sup>Na / <sup>28</sup>Na / <sup>29</sup>Na / <sup>23</sup>Mg / <sup>24</sup>Mg / <sup>25</sup>Mg / <sup>26</sup>Mg / <sup>27</sup>Mg / <sup>28</sup>Mg / <sup>29</sup>Mg / <sup>30</sup>Mg / <sup>31</sup>Mg / <sup>24</sup> / <sup>25</sup>Al / <sup>26</sup>Al / <sup>27</sup>Al / <sup>28</sup>Al / <sup>29</sup>Al / <sup>30</sup>Al / <sup>31</sup>Al / <sup>32</sup>Al / <sup>33</sup>Al / <sup>34</sup>Al / <sup>26</sup>Si / <sup>27</sup>Si / <sup>28</sup>Si / <sup>29</sup>Si / <sup>30</sup>Si / <sup>31</sup>Si / <sup>32</sup>Si / <sup>33</sup>Si / <sup>34</sup>Si / <sup>29</sup>P / <sup>30</sup>P / <sup>31</sup>P / <sup>32</sup>P / <sup>33</sup>P / <sup>34</sup>P / <sup>35</sup>P / <sup>36</sup>P / <sup>30</sup>S / <sup>31</sup>S / <sup>32</sup>S / <sup>33</sup>S / <sup>34</sup>S / <sup>35</sup>S / <sup>36</sup>S / <sup>37</sup>S / <sup>33</sup>Cl / <sup>34</sup>Cl / <sup>35</sup>Cl / <sup>36</sup>Cl / <sup>37</sup>Cl / <sup>35</sup>Ar / <sup>36</sup>Ar / <sup>37</sup>Ar / <sup>38</sup>Ar / <sup>39</sup>Ar / <sup>37</sup>K / <sup>38</sup>K / <sup>39</sup>K / <sup>40</sup>K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=20 (*continued*)**

<sup>20</sup>O      2007N013      NUCLEAR REACTIONS <sup>9</sup>Be(<sup>40</sup>Ar, X)<sup>6</sup>Li / <sup>7</sup>Li / <sup>8</sup>Li / <sup>9</sup>Li / <sup>7</sup>Be / <sup>8</sup>Be / <sup>9</sup>Be / <sup>10</sup>Be / <sup>11</sup>Be / <sup>12</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>12</sup>B / <sup>13</sup>B / <sup>14</sup>B / <sup>15</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>C / <sup>15</sup>C / <sup>16</sup>C / <sup>17</sup>C / <sup>18</sup>C / <sup>13</sup>N / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>N / <sup>17</sup>N / <sup>18</sup>N / <sup>19</sup>N / <sup>20</sup>N / <sup>21</sup>N / <sup>15</sup>O / <sup>16</sup>O / <sup>17</sup>O / <sup>18</sup>O / <sup>19</sup>O / <sup>20</sup>O / <sup>21</sup>O / <sup>22</sup>O / <sup>23</sup>O / <sup>24</sup>O / <sup>17</sup>F / <sup>18</sup>F / <sup>19</sup>F / <sup>20</sup>F / <sup>21</sup>F / <sup>22</sup>F / <sup>23</sup>F / <sup>24</sup>F / <sup>25</sup>F / <sup>26</sup>F / <sup>27</sup>F / <sup>19</sup>Ne / <sup>20</sup>Ne / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>23</sup>Ne / <sup>24</sup>Ne / <sup>25</sup>Ne / <sup>26</sup>Ne / <sup>27</sup>Ne / <sup>28</sup>Ne / <sup>29</sup>Ne / <sup>21</sup>Na / <sup>22</sup>Na / <sup>23</sup>Na / <sup>24</sup>Na / <sup>25</sup>Na / <sup>26</sup>Na / <sup>27</sup>Na / <sup>28</sup>Na / <sup>29</sup>Na / <sup>30</sup>Na / <sup>31</sup>Na / <sup>32</sup>Na / <sup>23</sup>Mg / <sup>24</sup>Mg / <sup>25</sup>Mg / <sup>26</sup>Mg / <sup>27</sup>Mg / <sup>28</sup>Mg / <sup>29</sup>Mg / <sup>30</sup>Mg / <sup>31</sup>Mg / <sup>32</sup>Mg / <sup>33</sup>Mg / <sup>34</sup>Mg / <sup>25</sup>Al / <sup>26</sup>Al / <sup>27</sup>Al / <sup>28</sup>Al / <sup>29</sup>Al / <sup>30</sup>Al / <sup>31</sup>Al / <sup>32</sup>Al / <sup>33</sup>Al / <sup>34</sup>Al / <sup>35</sup>Al / <sup>36</sup>Al / <sup>27</sup>Si / <sup>28</sup>Si / <sup>29</sup>Si / <sup>30</sup>Si / <sup>31</sup>Si / <sup>32</sup>Si / <sup>33</sup>Si / <sup>34</sup>Si / <sup>35</sup>Si / <sup>36</sup>Si / <sup>37</sup>Si / <sup>38</sup>Si / <sup>29</sup>P / <sup>30</sup>P / <sup>31</sup>P / <sup>32</sup>P / <sup>33</sup>P / <sup>34</sup>P / <sup>35</sup>P / <sup>36</sup>P / <sup>37</sup>P / <sup>38</sup>P / <sup>39</sup>P / <sup>33</sup>S / <sup>34</sup>S / <sup>35</sup>S / <sup>36</sup>S / <sup>37</sup>S / <sup>38</sup>S / <sup>36</sup>Cl / <sup>37</sup>Cl / <sup>38</sup>Cl / <sup>39</sup>Cl / <sup>39</sup>Ar, E=100 MeV / nucleon; <sup>181</sup>Ta(<sup>40</sup>Ar, X)<sup>6</sup>Li / <sup>7</sup>Li / <sup>8</sup>Li / <sup>9</sup>Be / <sup>10</sup>Be / <sup>11</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>12</sup>B / <sup>13</sup>B / <sup>14</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>C / <sup>15</sup>C / <sup>16</sup>C / <sup>17</sup>C / <sup>13</sup>N / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>N / <sup>17</sup>N / <sup>18</sup>N / <sup>19</sup>N / <sup>15</sup>O / <sup>16</sup>O / <sup>17</sup>O / <sup>18</sup>O / <sup>19</sup>O / <sup>20</sup>O / <sup>21</sup>O / <sup>17</sup>F / <sup>18</sup>F / <sup>19</sup>F / <sup>20</sup>F / <sup>21</sup>F / <sup>22</sup>F / <sup>23</sup>F / <sup>24</sup>F / <sup>19</sup>Ne / <sup>20</sup>Ne / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>23</sup>Ne / <sup>24</sup>Ne / <sup>25</sup>Ne / <sup>26</sup>Ne / <sup>27</sup>Ne / <sup>21</sup>Na / <sup>22</sup>Na / <sup>23</sup>Na / <sup>24</sup>Na / <sup>25</sup>Na / <sup>26</sup>Na / <sup>27</sup>Na / <sup>28</sup>Na / <sup>29</sup>Na / <sup>23</sup>Mg / <sup>24</sup>Mg / <sup>25</sup>Mg / <sup>26</sup>Mg / <sup>27</sup>Mg / <sup>28</sup>Mg / <sup>29</sup>Mg / <sup>30</sup>Mg / <sup>31</sup>Mg / <sup>24</sup> / <sup>25</sup>Al / <sup>26</sup>Al / <sup>27</sup>Al / <sup>28</sup>Al / <sup>29</sup>Al / <sup>30</sup>Al / <sup>31</sup>Al / <sup>32</sup>Al / <sup>33</sup>Al / <sup>34</sup>Al / <sup>26</sup>Si / <sup>27</sup>Si / <sup>28</sup>Si / <sup>29</sup>Si / <sup>30</sup>Si / <sup>31</sup>Si / <sup>32</sup>Si / <sup>33</sup>Si / <sup>34</sup>Si / <sup>29</sup>P / <sup>30</sup>P / <sup>31</sup>P / <sup>32</sup>P / <sup>33</sup>P / <sup>34</sup>P / <sup>35</sup>P / <sup>36</sup>P / <sup>30</sup>S / <sup>31</sup>S / <sup>32</sup>S / <sup>33</sup>S / <sup>34</sup>S / <sup>35</sup>S / <sup>36</sup>S / <sup>37</sup>S / <sup>33</sup>Cl / <sup>34</sup>Cl / <sup>35</sup>Cl / <sup>36</sup>Cl / <sup>37</sup>Cl / <sup>35</sup>Ar / <sup>36</sup>Ar / <sup>37</sup>Ar / <sup>38</sup>Ar / <sup>39</sup>Ar / <sup>37</sup>K / <sup>38</sup>K / <sup>39</sup>K / <sup>40</sup>K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=20 (continued)**

<sup>20</sup> F	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
	2007UB01	NUCLEAR REACTIONS ${}^{19}\text{F}(\text{n}, \gamma)$ , E=spectrum; measured $E\gamma$ , $I\gamma$ , Maxwellian averaged $\sigma$ . Astrophysical implications discussed. JOUR PRVCA 75 035801
	2007UBZZ	NUCLEAR REACTIONS ${}^{19}\text{F}(\text{n}, \gamma)$ , E=spectrum; measured yield, cross section using activation technique. CONF Geneva(NIC-IX) 186
	2007WI09	RADIOACTIVITY ${}^{20}\text{F}(\beta^-)$ ; measured $E\beta$ , $E\gamma$ , $E\alpha$ . Deduced first forbidden decay branching ratios. JOUR PRVCA 76 018501
<sup>20</sup> Ne	2006FUZW	NUCLEAR REACTIONS ${}^4\text{He}({}^{16}\text{O}, \alpha)$ , E < 32.5 MeV; measured $E\alpha$ , $\sigma(\theta)$ . ${}^{20}\text{Ne}$ deduced resonance parameters. REPT CNS-REP-69,P37,Fujikawa
	2006TAZU	NUCLEAR REACTIONS ${}^{24}\text{Mg}(\text{e}, \text{e}'\alpha)$ , E=199.31 MeV; measured energy and angular distributions; deduced strength distribution for individual multipolarities. JOUR KKYHB 39 21
	2007BE47	NUCLEAR REACTIONS ${}^{12}\text{C}$ , ${}^{16}\text{O}$ , ${}^{24}\text{Mg}$ , $\text{Fe}(\text{p}, \gamma)$ , $e=5-25$ meV; ${}^{12}\text{C}$ , ${}^{16}\text{O}$ , ${}^{24}\text{Mg}$ , $\text{Fe}(\alpha, \gamma)$ , E=5-40 MeV; measured $E\gamma$ , $I\gamma$ , angular distributions, cross sections and excitation functions. Compared results to model calculations. JOUR PRVCA 76 034607
	2007COZY	NUCLEAR REACTIONS ${}^{19}\text{F}(\text{p}, \gamma)$ , $(\text{p}, \alpha\gamma)$ , E=200-800 keV; measured yields, resonance parameters and interference terms. CONF Geneva(NIC-IX) 082

**A=20 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007RU01	NUCLEAR REACTIONS ${}^{16}\text{O}(\text{polarized } {}^7\text{Li}, {}^7\text{Li}), \text{E}=42 \text{ MeV}$ ; measured $\sigma(\theta)$ , tensor analyzing powers. ${}^{16}\text{O}({}^7\text{Li}, {}^7\text{Li}), ({}^7\text{Li}, {}^7\text{Li}')$ , E(cm)=6.26-34.78 MeV; analyzed data; deduced parameters. ${}^{16}\text{O}({}^7\text{Li}, \text{t}), \text{E}=15\text{-}38 \text{ MeV}$ ; calculated $\sigma(\theta)$ . Coupled reaction channels method. JOUR PRVCA 75 024612
2007SP03	NUCLEAR REACTIONS ${}^{12}\text{C}({}^{12}\text{C}, \text{p}), ({}^{12}\text{C}, \alpha), \text{E}=2.1\text{-}4.75 \text{ MeV}$ ; measured $E\gamma$ , $I\gamma$ ; deduced $\sigma$ , astrophysical S-factors, resonance features. JOUR PRLTA 98 122501
2007SPZ2	NUCLEAR REACTIONS ${}^{12}\text{C}({}^{12}\text{C}, \text{p}), ({}^{12}\text{C}, \alpha), \text{E}=2.10\text{-}4.75$ ; measured $E\gamma$ , $I\gamma$ ; deduced astrophysical S-factors, resonance features. PREPRINT nucl-ex/0702023,2/9/2007
2007WI09	RADIOACTIVITY ${}^{20}\text{F}(\beta^-)$ ; measured $E\beta$ , $E\gamma$ , $E\alpha$ . Deduced first forbidden decay branching ratios. JOUR PRVCA 76 018501
${}^{20}\text{Na}$	NUCLEAR REACTIONS ${}^{20}\text{Na}(\text{p}, \text{p}), \text{E(cm)} < 1.6 \text{ MeV}$ ; measured $\sigma$ , excitation function in inverse kinematics using the resonant elastic scattering. ${}^{21}\text{Mg}$ ; deduced level energies and proton decay widths. CONF Geneva(NIC-IX) 146
${}^{20}\text{Mg}$	NUCLEAR REACTIONS ${}^9\text{B}({}^{22}\text{Mg}, \text{X}){}^{20}\text{Mg}$ , E=150 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc. ${}^{20}\text{Mg}$ deduced level energy and mass excess. JOUR PRVCA 76 024317

**A=21**

<sup>21</sup> N	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$ ${}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{22}\text{O}$ / ${}^{23}\text{O}$ / ${}^{24}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{25}\text{F}$ / ${}^{26}\text{F}$ / ${}^{27}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
	2007SU05	RADIOACTIVITY ${}^{23}\text{O}$ , ${}^{21}\text{N}$ , ${}^{24}\text{F}$ , ${}^{26}\text{Ne}(\beta^-)$ [from $\text{Be}({}^{48}\text{Ca}, \text{X})$ ]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin, $T_{1/2}$ . ${}^{23}\text{O}(\beta^-n)$ ; measured $\beta$ -delayed neutron spectra; deduced neutron emission probability. ${}^{23}\text{F}$ , ${}^{26}\text{Na}$ deduced levels, $J$ , $\pi$ , $\beta$ -feeding intensities. JOUR PRVCA 75 024305

**A=21 (*continued*)**

<sup>21</sup> O	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$ ${}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{22}\text{O}$ / ${}^{23}\text{O}$ / ${}^{24}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{25}\text{F}$ / ${}^{26}\text{F}$ / ${}^{27}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
	2007SU05	RADIOACTIVITY ${}^{23}\text{O}$ , ${}^{21}\text{N}$ , ${}^{24}\text{F}$ , ${}^{26}\text{Ne}(\beta^-)$ [from $\text{Be}({}^{48}\text{Ca}, \text{X})$ ]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin, $T_{1/2}$ . ${}^{23}\text{O}(\beta^-n)$ ; measured $\beta$ -delayed neutron spectra; deduced neutron emission probability. ${}^{23}\text{F}$ , ${}^{26}\text{Na}$ deduced levels, $J$ , $\pi$ , $\beta$ -feeding intensities. JOUR PRVCA 75 024305

### A=21 (*continued*)

- |                  |          |  |
|------------------|----------|--|
| <sup>21</sup> F  | 2007N013 | NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>32</sup> Mg / <sup>33</sup> Mg / <sup>34</sup> Mg / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>35</sup> Al / <sup>36</sup> Al / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>35</sup> Si / <sup>36</sup> Si / <sup>37</sup> Si / <sup>38</sup> Si / <sup>39</sup> Si / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>33</sup> Na / <sup>34</sup> Na / <sup>35</sup> Na / <sup>36</sup> Na / <sup>37</sup> Na / <sup>38</sup> Na / <sup>39</sup> Na, E=100 MeV / nucleon; <sup>181</sup> Ta( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>33</sup> Na / <sup>34</sup> Na / <sup>35</sup> Na / <sup>36</sup> Na / <sup>37</sup> Na / <sup>38</sup> Na / <sup>39</sup> Na, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605 |
| <sup>21</sup> Ne | 2007LEZY | NUCLEAR REACTIONS <sup>18</sup> F( <sup>α</sup> , p), E(cm)=1.4-2.3 MeV; measured excitation function. <sup>21</sup> Ne(p, <sup>α</sup> ), E=2.5-3.5 MeV; measured cross section. CONF Geneva(NIC-IX) 131  |

**A=21 (*continued*)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{21}\text{Na}$	2006FAZY NUCLEAR REACTIONS ${}^{20}\text{Ne}(\text{p}, \gamma)$ , E=600-1400 keV; measured $E\gamma$ , $I\gamma$ ; deduced $\sigma$ , resonance strength. Comparison with previous results. REPT GSI 2006-1,P155,Falahat

**A=21 (*continued*)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{21}\text{Mg}$	2007MUZZ	NUCLEAR REACTIONS ${}^{20}\text{Na}(\text{p, p})$ , E(cm)< 1.6 MeV; measured $\sigma$ , excitation function in inverse kinematics using the resonant elastic scattering. ${}^{21}\text{Mg}$ ; deduced level energies and proton decay widths. CONF Geneva(NIC-IX) 146

**A=22**

$^{22}\text{O}$	2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^{6}\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{18}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
$^{22}\text{F}$	2007LE28	NUCLEAR REACTIONS $^9\text{Be}(^{14}\text{C}, \text{p})$ , E=22 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ , $(\text{p})\gamma\text{-coinc.}^{22}\text{F}$ deduced levels, $J$ , $\pi$ . JOUR PRVCA 76 034308

**A=22 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007SU05	RADIOACTIVITY ${}^{23}\text{O}$ , ${}^{21}\text{N}$ , ${}^{24}\text{F}$ , ${}^{26}\text{Ne}(\beta^-)$ [from $\text{Be}({}^{48}\text{Ca}, \text{X})$ ]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin, $T_{1/2}$ . ${}^{23}\text{O}(\beta^-n)$ ; measured $\beta$ -delayed neutron spectra; deduced neutron emission probability. ${}^{23}\text{F}$ , ${}^{26}\text{Na}$ deduced levels, $J$ , $\pi$ , $\beta$ -feeding intensities. JOUR PRVCA 75 024305
${}^{22}\text{Ne}$	NUCLEAR REACTIONS $\text{Ni}({}^{22}\text{Ne}, {}^{22}\text{Ne}')$ , E=2.25 MeV / nucleon; ${}^{107}\text{Ag}({}^{22}\text{Ne}, {}^{22}\text{Ne}')$ , E=2.86 MeV / nucleon; $\text{Ni}({}^{30}\text{Mg}, {}^{30}\text{Mg}')$ , E=2.25 MeV / nucleon; ${}^{60}\text{Ni}$ , ${}^{107}\text{Ag}({}^{30}\text{Mg}, {}^{30}\text{Mg}')$ , E=2.69 MeV / nucleon; $\text{U}(\text{p}, \text{X}){}^{22}\text{Ne}$ / ${}^{30}\text{Mg}$ / ${}^{32}\text{Mg}$ , E=1.01-1.40 GeV; measured $E\gamma$ , $I\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. ${}^{22}\text{Ne}$ , ${}^{30}\text{Mg}$ , ${}^{32}\text{Mg}$ , ${}^{107}\text{Ag}$ deduced levels, $B(E2)$ , half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. ${}^{24}\text{Mg}$ , ${}^{26}\text{Mg}$ , ${}^{28}\text{Mg}$ , ${}^{30}\text{Mg}$ , ${}^{32}\text{Mg}$ , ${}^{34}\text{Mg}$ systematics of $B(E2)$ values. Comparisons with shell-model calculations. THESIS O T Niedermayer, Univ Heidelberg
2006INZY	RADIOACTIVITY ${}^{22}\text{Na}(\text{EC})$ ; measured Auger electron spectra. REPT JINR-E6-2006-106,Inoyatov

**A=22 (continued)**

2007F010	NUCLEAR REACTIONS $^{27}\text{Al}(^{12}\text{C}, \text{X})^{7}\text{Be}$ / $^{9}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{O}$ / $^{19}\text{F}$ / $^{22}\text{Ne}$ / $^{23}\text{Na}$ / $^{24}\text{Mg}$ / $^{26}\text{Mg}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / Si, E=156 MeV; $^{12}\text{C}(^{27}\text{Al}, \text{X})^{7}\text{Be}$ / $^{9}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{O}$ / $^{19}\text{F}$ / $^{22}\text{Ne}$ / $^{23}\text{Na}$ / $^{24}\text{Mg}$ / $^{26}\text{Mg}$ / Si, E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, \text{E})$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
2007N013	NUCLEAR REACTIONS $^{9}\text{Be}(^{40}\text{Ar}, \text{X})^{6}\text{Li}$ / $^{7}\text{Li}$ / $^{8}\text{Li}$ / $^{9}\text{Li}$ / $^{7}\text{Be}$ / $^{8}\text{Be}$ / $^{9}\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{18}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{20}\text{N}$ / $^{21}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{22}\text{O}$ / $^{23}\text{O}$ / $^{24}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{25}\text{F}$ / $^{26}\text{F}$ / $^{27}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{28}\text{Ne}$ / $^{29}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{30}\text{Na}$ / $^{31}\text{Na}$ / $^{32}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{32}\text{Mg}$ / $^{33}\text{Mg}$ / $^{34}\text{Mg}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{35}\text{Al}$ / $^{36}\text{Al}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{35}\text{Si}$ / $^{36}\text{Si}$ / $^{37}\text{Si}$ / $^{38}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{37}\text{P}$ / $^{38}\text{P}$ / $^{39}\text{P}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{38}\text{S}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{38}\text{Cl}$ / $^{39}\text{Cl}$ / $^{39}\text{Ar}$ , E=100 MeV / nucleon; $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^{6}\text{Li}$ / $^{7}\text{Li}$ / $^{8}\text{Li}$ / $^{9}\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
$^{22}\text{Na}$	2006INZY REPT JINR-E6-2006-106,Inoyatov
2007KA33	NUCLEAR REACTIONS N, O, Ar(p, X) $^{7}\text{Be}$ / $^{11}\text{C}$ / $^{13}\text{N}$ / $^{15}\text{O}$ / $^{18}\text{F}$ / $^{22}\text{Na}$ / $^{24}\text{Na}$ / $^{27}\text{Mg}$ / $^{29}\text{Al}$ / $^{38}\text{S}$ / $^{38}\text{Cl}$ / $^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNCD 273 507

**A=22 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{22}\text{Mg}$	2007CLZZ	ATOMIC MASSES ${}^{22}\text{Mg}$ ; measured masses using Canadian penning trap and the Yale spectrograph. ${}^{26}\text{Si}$ ; measured mass using the Yale spectrograph. CONF Geneva(NIC-IX) 081
2007GR11		NUCLEAR REACTIONS ${}^1\text{H}({}^{21}\text{Na}, \gamma)$ , E=1.18 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , yields. ${}^1\text{H}({}^{7}\text{Be}, \text{X})$ , E=4-27 MeV; measured elastic and inelastic scattering $\sigma$ . JOUR NIMBE 261 1089
2007JE03		NUCLEAR REACTIONS ${}^{12}\text{C}({}^{12}\text{C}, 2n)$ , E=50 MeV; measured $E\gamma$ , $I\gamma$ . ${}^{22}\text{Mg}$ deduced level energies. JOUR NIMBE 261 945

**A=23**

${}^{23}\text{N}$	2007JU03	ATOMIC MASSES ${}^{23}\text{N}$ , ${}^{23,24}\text{O}$ , ${}^{25,26,27}\text{F}$ , ${}^{27,28,29,30,31}\text{Ne}$ , ${}^{31,32,33}\text{Na}$ , ${}^{34,35,36}\text{Mg}$ , ${}^{34,35,36,37,38,39}\text{Al}$ , ${}^{36,37,38,39,40,41,42}\text{Si}$ , ${}^{40,41,42,43,44}\text{P}$ , ${}^{40,43,44,45}\text{S}$ , ${}^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
${}^{23}\text{O}$	2006SCZV	NUCLEAR REACTIONS $\text{Be}({}^{26}\text{Ne}, \text{X})$ , E=86 MeV / nucleon; measured En, charged particle spectra, (fragment)n-coin. ${}^{23}\text{O}$ deduced excited state energy. PREPRINT nucl-ex/0612024,12/21/2006
	2007EL02	NUCLEAR REACTIONS ${}^2\text{H}({}^{22}\text{O}, {}^{23}\text{O})$ , E=34 MeV / nucleon; measured excitation energy spectrum. ${}^{23}\text{O}$ deduced resonance energies, neutron shell features. JOUR PRLTA 98 102502

**A=23 (continued)**

- 2007ELZZ NUCLEAR REACTIONS  $^2\text{H}$ ( $^{22}\text{O}$ ,  $^{23}\text{O}$ ), E=34 MeV / nucleon; measured excitation energy spectrum.  $^{23}\text{O}$  deduced resonance energies, neutron shell features. REPT RIKEN-NC-NP-4,Elekes
- 2007FRZW NUCLEAR REACTIONS  $\text{Be}$ ( $^{26}\text{Ne}$ , n2p) $^{23}\text{O}$ , E=86 MeV / nucleon; measured decay energy spectra. PREPRINT ArXiv:0708.2706v1 [nucl-ex]
- 2007JU03 ATOMIC MASSES  $^{23}\text{N}$ ,  $^{23,24}\text{O}$ ,  $^{25,26,27}\text{F}$ ,  $^{27,28,29,30,31}\text{Ne}$ ,  $^{31,32,33}\text{Na}$ ,  $^{34,35,36}\text{Mg}$ ,  $^{34,35,36,37,38,39}\text{Al}$ ,  $^{36,37,38,39,40,41,42}\text{Si}$ ,  $^{40,41,42,43,44}\text{P}$ ,  $^{40,43,44,45}\text{S}$ ,  $^{43,44,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007SC32 NUCLEAR REACTIONS  $\text{Be}$ ( $^{26}\text{Ne}$ , n2p), E=86 MeV / nucleon; measured neutron decay energy spectrum, fragment-neutron-coinc.  $^{23}\text{O}$  deduced level energy, spectroscopic factor. JOUR PRLTA 99 112501
- 2007SU05 RADIOACTIVITY  $^{23}\text{O}$ ,  $^{21}\text{N}$ ,  $^{24}\text{F}$ ,  $^{26}\text{Ne}(\beta^-)$  [from  $\text{Be}$ ( $^{48}\text{Ca}$ , X)]; measured  $E\gamma$ ,  $I\gamma$ ,  $\beta\gamma$ -coin,  $T_{1/2}$ .  $^{23}\text{O}(\beta^-n)$ ; measured  $\beta$ -delayed neutron spectra; deduced neutron emission probability.  $^{23}\text{F}$ ,  $^{26}\text{Na}$  deduced levels,  $J$ ,  $\pi$ ,  $\beta$ -feeding intensities. JOUR PRVCA 75 024305
- $^{23}\text{F}$  2007KWZZ NUCLEAR REACTIONS  $^9\text{Be}$ ,  $\text{Ni}$ ,  $^{181}\text{Ta}$ ( $^{40}\text{Ar}$ , X) $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{29}\text{F}$ , E=140 MeV / nucleon; measured yields, momentum distributions for neutron-rich Fluorine isotope production. CONF Iguazu(Nuclear Physics and Applications) Proc,P213,Kwan

**A=23 (continued)**

- 2007MI25 NUCLEAR REACTIONS  $^4\text{He}(^{22}\text{O}, ^{23}\text{F}\gamma)$ ,  $(^{23}\text{F}, ^{23}\text{F}\gamma)$ ,  $(^{24}\text{F}, ^{23}\text{F}\gamma)$ ,  $(^{25}\text{Ne}, ^{23}\text{F}\gamma)$ , E $\approx$ 35 MeV / nucleon; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced reaction  $\sigma$ .  $^4\text{He}(^{22}\text{O}, ^{23}\text{F}\gamma)$ , E=35 MeV / nucleon; measured  $\sigma(\theta)$ .  $^{23}\text{F}$  deduced levels, J,  $\pi$ , configurations. Comparison with DWBA and shell model predictions. JOUR NUPAB 787 569c
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})$  $^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Li} / ^7\text{Be} / ^8\text{Be} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{12}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{15}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{18}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{20}\text{N} / ^{21}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{22}\text{O} / ^{23}\text{O} / ^{24}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{28}\text{Ne} / ^{29}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{30}\text{Na} / ^{31}\text{Na} / ^{32}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{32}\text{Mg} / ^{33}\text{Mg} / ^{34}\text{Mg} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{35}\text{Si} / ^{36}\text{Si} / ^{37}\text{Si} / ^{38}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{37}\text{P} / ^{38}\text{P} / ^{39}\text{P} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{38}\text{S} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{38}\text{Cl} / ^{39}\text{Cl} / ^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})$  $^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{24} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{30}\text{S} / ^{31}\text{S} / ^{32}\text{S} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{33}\text{Cl} / ^{34}\text{Cl} / ^{35}\text{Cl} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{35}\text{Ar} / ^{36}\text{Ar} / ^{37}\text{Ar} / ^{38}\text{Ar} / ^{39}\text{Ar} / ^{37}\text{K} / ^{38}\text{K} / ^{39}\text{K} / ^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007SU05 RADIOACTIVITY  $^{23}\text{O}$ ,  $^{21}\text{N}$ ,  $^{24}\text{F}$ ,  $^{26}\text{Ne}(\beta^-)$  [from  $\text{Be}(^{48}\text{Ca}, \text{X})$ ]; measured E $\gamma$ , I $\gamma$ ,  $\beta\gamma$ -coin, T $_{1/2}$ .  $^{23}\text{O}(\beta^-n)$ ; measured  $\beta$ -delayed neutron spectra; deduced neutron emission probability.  $^{23}\text{F}$ ,  $^{26}\text{Na}$  deduced levels, J,  $\pi$ ,  $\beta$ -feeding intensities. JOUR PRVCA 75 024305

**A=23 (continued)**

<sup>23</sup> Ne	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>23</sup> Na	2006KA65	NUCLEAR REACTIONS <sup>22</sup> Ne(p, $\gamma$ ), E=0.8-2.5 MeV; measured E $\gamma$ , I $\gamma$ , excitation function, angular distribution; deduced resonance structure. JOUR BRSPE 70 860
	2007DE55	NUCLEAR REACTIONS <sup>26</sup> Al(n, $\alpha$ ), E<100 keV; measured cross-sections. <sup>27</sup> Al deduced resonance energies, widths, areas and spins. <sup>26</sup> Al deduced galactic abundance. JOUR PRVCA 76 045804
	2007F010	NUCLEAR REACTIONS <sup>27</sup> Al( <sup>12</sup> C, X) <sup>7</sup> Be / <sup>9</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> O / <sup>19</sup> F / <sup>22</sup> Ne / <sup>23</sup> Na / <sup>24</sup> Mg / <sup>26</sup> Mg / <sup>26</sup> Al / <sup>27</sup> Al / Si, E=156 MeV; <sup>12</sup> C( <sup>27</sup> Al, X) <sup>7</sup> Be / <sup>9</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> O / <sup>19</sup> F / <sup>22</sup> Ne / <sup>23</sup> Na / <sup>24</sup> Mg / <sup>26</sup> Mg / Si, E=348 MeV; measured intermediate mass fragment spectra, $\sigma(\theta, E)$ from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1

**A=23 (continued)**

- 2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007SP03 NUCLEAR REACTIONS  ${}^{12}\text{C}({}^{12}\text{C}, \text{p})$ ,  $({}^{12}\text{C}, \alpha)$ , E=2.1-4.75 MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced  $\sigma$ , astrophysical S-factors, resonance features. JOUR PRLTA 98 122501
- 2007SPZZ NUCLEAR REACTIONS  ${}^{12}\text{C}({}^{12}\text{C}, \text{p})$ ,  $({}^{12}\text{C}, \alpha)$ , E=2.10-4.75; measured  $E\gamma$ ,  $I\gamma$ ; deduced astrophysical S-factors, resonance features. PREPRINT nucl-ex/0702023, 2/9/2007

**A=23 (continued)**

<sup>23</sup> Mg	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>23</sup> Al	2007GOZV	NUCLEAR REACTIONS <sup>208</sup> Pb( <sup>23</sup> Al, p) <sup>22</sup> Mg), E=48.4 MeV / nucleon; measured particle energies, emission angles, E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc, $\sigma$ . <sup>22</sup> Mg(p, $\gamma$ ); deduced reaction rate. REPT RIKEN-NC-NP-14, Gomi

**A=24**

<sup>24</sup> O	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
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## KEYNUMBERS AND KEYWORDS

### A=24 (*continued*)

**A=24 (*continued*)**

- 2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007SU05 RADIOACTIVITY  ${}^{23}\text{O}$ ,  ${}^{21}\text{N}$ ,  ${}^{24}\text{F}$ ,  ${}^{26}\text{Ne}(\beta^-)$  [from  $\text{Be}({}^{48}\text{Ca}, \text{X})$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $\beta\gamma$ -coin,  $T_{1/2}$ .  ${}^{23}\text{O}(\beta^-n)$ ; measured  $\beta$ -delayed neutron spectra; deduced neutron emission probability.  ${}^{23}\text{F}$ ,  ${}^{26}\text{Na}$  deduced levels,  $J$ ,  $\pi$ ,  $\beta$ -feeding intensities. JOUR PRVCA 75 024305

**A=24 (continued)**

<sup>24</sup> Ne	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
	2007SU05	RADIOACTIVITY <sup>23</sup> O, <sup>21</sup> N, <sup>24</sup> F, <sup>26</sup> Ne( $\beta^-$ ) [from Be( <sup>48</sup> Ca, X)]; measured E $\gamma$ , I $\gamma$ , $\beta\gamma$ -coin, T <sub>1/2</sub> . <sup>23</sup> O( $\beta^-$ n); measured $\beta$ -delayed neutron spectra; deduced neutron emission probability. <sup>23</sup> F, <sup>26</sup> Na deduced levels, J, $\pi$ , $\beta$ -feeding intensities. JOUR PRVCA 75 024305
<sup>24</sup> Na	2006ARZX	NUCLEAR REACTIONS <sup>27</sup> Al(n, $\alpha$ ), E=14 MeV; <sup>144</sup> Sm, <sup>206,208</sup> Pb(n, 2n), E=14 MeV; measured isomer production $\sigma$ . REPT JAEA-Conf 2006-009, P89, Arakita
	2007C018	NUCLEAR REACTIONS <sup>25</sup> Mg( $\gamma$ , p), E not given; measured E $\gamma$ , I $\gamma$ from isomeric decay. JOUR NIMBE 261 822
	2007KA33	NUCLEAR REACTIONS N, O, Ar(p, X) <sup>7</sup> Be / <sup>11</sup> C / <sup>13</sup> N / <sup>15</sup> O / <sup>18</sup> F / <sup>22</sup> Na / <sup>24</sup> Na / <sup>27</sup> Mg / <sup>29</sup> Al / <sup>38</sup> S / <sup>38</sup> Cl / <sup>39</sup> Cl, E=12 GeV; measured radionuclide yields. JOUR JRNCD 273 507

**A=24 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007TI03	NUCLEAR REACTIONS $\text{Pb}, {}^{208}\text{Pb}, {}^{209}\text{Bi}(\text{p}, \text{X}){}^7\text{Be}$ / ${}^{24}\text{Na}$ / ${}^{59}\text{Fe}$ / ${}^{86}\text{Rb}$ / ${}^{101m}\text{Rh}$ / ${}^{173}\text{Lu}$ / ${}^{190}\text{Ir}$ / ${}^{192}\text{Ir}$ / ${}^{196}\text{Au}$ / ${}^{199}\text{Tl}$ / ${}^{200}\text{Tl}$ / ${}^{203}\text{Pb}$ , E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289
2007ZE04	NUCLEAR REACTIONS $\text{Be}({}^{18}\text{O}, \text{tX})$ , E=120 MeV / nucleon; $\text{Be}({}^{16}\text{O}, \text{tX})$ , E=150 MeV / nucleon; measured triton yield vs energy, target thickness. ${}^{24,26}\text{Mg}(\text{t}, {}^3\text{He})$ , E=115 MeV / nucleon; measured excitation energy spectrum. ${}^{26}\text{Mg}({}^3\text{He}, \text{t})$ , E=140 MeV / nucleon; analyzed excitation energy spectrum. ${}^{26}\text{Na}$ , ${}^{26}\text{Al}$ deduced Gamow-Teller strength distribution. Comparison with other results, shell model predictions. JOUR NUPAB 788 61c
${}^{24}\text{Mg}$	2005NIZS NUCLEAR REACTIONS $\text{Ni}({}^{22}\text{Ne}, {}^{22}\text{Ne}')$ , E=2.25 MeV / nucleon; ${}^{107}\text{Ag}({}^{22}\text{Ne}, {}^{22}\text{Ne}')$ , E=2.86 MeV / nucleon; $\text{Ni}({}^{30}\text{Mg}, {}^{30}\text{Mg}')$ , E=2.25 MeV / nucleon; ${}^{60}\text{Ni}$ , ${}^{107}\text{Ag}({}^{30}\text{Mg}, {}^{30}\text{Mg}')$ , E=2.69 MeV / nucleon; $\text{U}(\text{p}, \text{X}){}^{22}\text{Ne}$ / ${}^{30}\text{Mg}$ / ${}^{32}\text{Mg}$ , E=1.01-1.40 GeV; measured $E\gamma$ , $I\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. ${}^{22}\text{Ne}$ , ${}^{30}\text{Mg}$ , ${}^{32}\text{Mg}$ , ${}^{107}\text{Ag}$ deduced levels, B(E2), half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. ${}^{24}\text{Mg}$ , ${}^{26}\text{Mg}$ , ${}^{28}\text{Mg}$ , ${}^{30}\text{Mg}$ , ${}^{32}\text{Mg}$ , ${}^{34}\text{Mg}$ systematics of B(E2) values. Comparisons with shell-model calculations. THESIS O T Niedermaier, Univ Heidelberg

**A=24 (continued)**

- 2006VA20 NUCLEAR REACTIONS  $^{28}\text{Si}(\text{p}, \text{p}'\text{X})^{24}\text{Mg}$ , E=1 GeV; measured  $\text{E}\gamma$ ,  $\text{Ep}$ ,  $\text{p}\gamma$ -coin; deduced  $\sigma$ , reaction mechanism features. JOUR JTPLA 83 433
- 2007F010 NUCLEAR REACTIONS  $^{27}\text{Al}(\text{C}^{12}, \text{X})^{7}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{O}$  /  $^{19}\text{F}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Na}$  /  $^{24}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  / Si, E=156 MeV;  $^{12}\text{C}(\text{C}^{27}\text{Al}, \text{X})^{7}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{O}$  /  $^{19}\text{F}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Na}$  /  $^{24}\text{Mg}$  /  $^{26}\text{Mg}$  / Si, E=348 MeV; measured intermediate mass fragment spectra,  $\sigma(\theta, \text{E})$  from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
- 2007JE08 NUCLEAR REACTIONS  $^{12}\text{C}(\text{C}^{12}, \gamma)$ , E(cm)=6.0, 6.8, 7.5, 8.0 MeV; measured  $\text{E}\gamma$ ,  $\text{I}\gamma$ ,  $\gamma\gamma$ , ( $\text{recoil}\gamma$ )-coin; deduced multipolarities, on and off resonances. TRIUMF-ISAC DRAGON recoil spectrometer, GEANT3 array. JOUR PRVCA 76 044310
- 2007ME18 NUCLEAR REACTIONS  $^{27}\text{Al}$ ,  $^{28}\text{Si}(\mu^-, \nu)$ ,  $(\mu^-, \text{n}\nu)$ ,  $(\mu^-, 2\text{n}\nu)$ ,  $(\mu^-, 3\text{n}\nu)$ ,  $(\mu^-, \text{p}\nu)$ ,  $(\mu^-, \text{n}\text{p}\nu)$ , E not given; measured  $\text{E}\gamma$ ,  $\text{I}\gamma$ , yields. JOUR PRVCA 76 035504
- 2007N013 NUCLEAR REACTIONS  $^{9}\text{Be}(\text{Ar}^{40}, \text{X})^{6}\text{Li}$  /  $^{7}\text{Li}$  /  $^{8}\text{Li}$  /  $^{9}\text{Li}$  /  $^{7}\text{Be}$  /  $^{8}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(\text{Ar}^{40}, \text{X})^{6}\text{Li}$  /  $^{7}\text{Li}$  /  $^{8}\text{Li}$  /  $^{9}\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007VA10 NUCLEAR REACTIONS  $^{28}\text{Si}(\text{p}, \text{X})^{24}\text{Mg}$ , E=1 GeV; measured  $\text{E}\gamma$ ,  $\text{I}\gamma$ ,  $\sigma$ . JOUR PANUE 70 1160

**A=25**

$^{25}\text{F}$	2007JU03	ATOMIC MASSES $^{23}\text{N}$ , $^{23,24}\text{O}$ , $^{25,26,27}\text{F}$ , $^{27,28,29,30,31}\text{Ne}$ , $^{31,32,33}\text{Na}$ , $^{34,35,36}\text{Mg}$ , $^{34,35,36,37,38,39}\text{Al}$ , $^{36,37,38,39,40,41,42}\text{Si}$ , $^{40,41,42,43,44}\text{P}$ , $^{40,43,44,45}\text{S}$ , $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
	2007KWZZ	NUCLEAR REACTIONS $^9\text{Be}$ , $\text{Ni}$ , $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^{23}\text{F}$ / $^{24}\text{F}$ / $^{25}\text{F}$ / $^{26}\text{F}$ / $^{27}\text{F}$ / $^{29}\text{F}$ , E=140 MeV / nucleon; measured yields, momentum distributions for neutron-rich Fluorine isotope production. CONF Iguazu(Nuclear Physics and Applications) Proc,P213,Kwan
	2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{18}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{20}\text{N}$ / $^{21}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{22}\text{O}$ / $^{23}\text{O}$ / $^{24}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{25}\text{F}$ / $^{26}\text{F}$ / $^{27}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{28}\text{Ne}$ / $^{29}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{30}\text{Na}$ / $^{31}\text{Na}$ / $^{32}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{32}\text{Mg}$ / $^{33}\text{Mg}$ / $^{34}\text{Mg}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{35}\text{Al}$ / $^{36}\text{Al}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{35}\text{Si}$ / $^{36}\text{Si}$ / $^{37}\text{Si}$ / $^{38}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{37}\text{P}$ / $^{38}\text{P}$ / $^{39}\text{P}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{38}\text{S}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{38}\text{Cl}$ / $^{39}\text{Cl}$ / $^{39}\text{Ar}$ , E=100 MeV / nucleon; $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{28}\text{Ne}$ / $^{29}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
$^{25}\text{Ne}$	20060B05	NUCLEAR REACTIONS $^2\text{H}(^{26}\text{Ne}, ^{26}\text{Ne}')$ , $(^{26}\text{Ne}, ^{25}\text{Ne})$ , $(^{26}\text{Ne}, ^{27}\text{Ne})$ , $(^{26}\text{Ne}, ^{26}\text{Na})$ , $(^{26}\text{Ne}, ^{27}\text{Na})$ , E=9.7 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{25,26,27}\text{Ne}$ , $^{26,27}\text{Na}$ deduced levels, $J$ , $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305
	2007FE09	NUCLEAR REACTIONS $^2\text{H}(^{24}\text{Ne}, \text{x})$ , E=10 MeV / nucleon; measured $E\gamma$ , (particle) $\gamma$ -coinc using EXOGAM. $^{25}\text{Ne}$ ; deduced level energies, $J$ , $\pi$ and spectroscopic factors. JOUR PPNPD 59 389

### A=25 (*continued*)

2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

$^{25}\text{Na}$  2007ME18 NUCLEAR REACTIONS  $^{27}\text{Al}$ ,  $^{28}\text{Si}(\mu^-, \nu)$ ,  $(\mu^-, n\nu)$ ,  $(\mu^-, 2n\nu)$ ,  $(\mu^-, 3n\nu)$ ,  $(\mu^-, p\nu)$ ,  $(\mu^-, np\nu)$ , E not given; measured  $E\gamma$ ,  $I\gamma$ , yields. JOUR PRVCA 76 035504

### A=25 (*continued*)

**A=25 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{25}\text{Al}$	2006PEZV
2007BE47	NUCLEAR REACTIONS ${}^1\text{H}({}^{25}\text{Al}, \text{p})$ , E=3.43 MeV / nucleon; measured Ep. REPT CNS-REP-69,P8,Pearson
2007ME18	NUCLEAR REACTIONS ${}^{12}\text{C}$ , ${}^{16}\text{O}$ , ${}^{24}\text{Mg}$ , Fe(p, $\gamma$ ), e=5-25 meV; ${}^{12}\text{C}$ , ${}^{16}\text{O}$ , ${}^{24}\text{Mg}$ , Fe( $\alpha$ , $\gamma$ ), E=5-40 MeV; measured E $\gamma$ , I $\gamma$ , angular distributions, cross sections and excitation functions. Compared results to model calculations. JOUR PRVCA 76 034607
	NUCLEAR REACTIONS ${}^{27}\text{Al}$ , ${}^{28}\text{Si}(\mu^-, \nu)$ , $(\mu^-, \text{n}\nu)$ , $(\mu^-, 2\text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , $(\mu^-, \text{p}\nu)$ , $(\mu^-, \text{np}\nu)$ , E not given; measured E $\gamma$ , I $\gamma$ , yields. JOUR PRVCA 76 035504

**A=25 (continued)**

2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=26**

$^{26}\text{F}$  2007JU03 ATOMIC MASSES  $^{23}\text{N}$ ,  $^{23,24}\text{O}$ ,  $^{25,26,27}\text{F}$ ,  $^{27,28,29,30,31}\text{Ne}$ ,  $^{31,32,33}\text{Na}$ ,  $^{34,35,36}\text{Mg}$ ,  $^{34,35,36,37,38,39}\text{Al}$ ,  $^{36,37,38,39,40,41,42}\text{Si}$ ,  $^{40,41,42,43,44}\text{P}$ ,  $^{40,43,44,45}\text{S}$ ,  $^{43,44,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43  
 2007KWZZ NUCLEAR REACTIONS  $^9\text{Be}$ , Ni,  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{29}\text{F}$ , E=140 MeV / nucleon; measured yields, momentum distributions for neutron-rich Fluorine isotope production. CONF Iguazu(Nuclear Physics and Applications) Proc,P213,Kwan

**A=26 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{26}\text{Ne}$	20060B05
2007GI13	NUCLEAR REACTIONS ${}^2\text{H}({}^{26}\text{Ne}, {}^{26}\text{Ne}')$ , ( ${}^{26}\text{Ne}, {}^{25}\text{Ne}$ ), ( ${}^{26}\text{Ne}, {}^{27}\text{Ne}$ ), ( ${}^{26}\text{Ne}, {}^{26}\text{Na}$ ), ( ${}^{26}\text{Ne}, {}^{27}\text{Na}$ ), E=9.7 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. ${}^{25,26,27}\text{Ne}$ , ${}^{26,27}\text{Na}$ deduced levels, J, $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305
2007GIZY	NUCLEAR REACTIONS Al, Pb( ${}^{26}\text{Ne}$ , X), E=58 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , En, In, excitation energy spectra, $\sigma$ , $\sigma(\theta)$ . ${}^{26}\text{Ne}$ deduced B(E1), pygmy resonance parameters. Comparison with quasi-particle RPA calculations. JOUR NUPAB 788 153c
	NUCLEAR REACTIONS Pb( ${}^{26}\text{Ne}$ , ${}^{26}\text{Ne}'$ ), E=54 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, $\sigma(E, \theta)$ . ${}^{26}\text{Ne}$ deduced transition B(E2). REPT RIKEN-NC-NP-5, Gibelin

**A=26 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
2007SU05	RADIOACTIVITY ${}^{23}\text{O}$ , ${}^{21}\text{N}$ , ${}^{24}\text{F}$ , ${}^{26}\text{Ne}(\beta^-)$ [from $\text{Be}({}^{48}\text{Ca}, \text{X})$ ]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin, $T_{1/2}$ . ${}^{23}\text{O}(\beta^-n)$ ; measured $\beta$ -delayed neutron spectra; deduced neutron emission probability. ${}^{23}\text{F}$ , ${}^{26}\text{Na}$ deduced levels, $J$ , $\pi$ , $\beta$ -feeding intensities. JOUR PRVCA 75 024305	
${}^{26}\text{Na}$	20060B05	NUCLEAR REACTIONS ${}^2\text{H}({}^{26}\text{Ne}, {}^{26}\text{Ne}')$ , $({}^{26}\text{Ne}, {}^{25}\text{Ne})$ , $({}^{26}\text{Ne}, {}^{27}\text{Ne})$ , $({}^{26}\text{Ne}, {}^{26}\text{Na})$ , $({}^{26}\text{Ne}, {}^{27}\text{Na})$ , E=9.7 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. ${}^{25,26,27}\text{Ne}$ , ${}^{26,27}\text{Na}$ deduced levels, $J$ , $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305
2007ME18		NUCLEAR REACTIONS ${}^{27}\text{Al}$ , ${}^{28}\text{Si}(\mu^-, \nu)$ , $(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, p\nu)$ , $(\mu^-, np\nu)$ , E not given; measured $E\gamma$ , $I\gamma$ , yields. JOUR PRVCA 76 035504

**A=26 (continued)**

- 2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007SU05 RADIOACTIVITY  ${}^{23}\text{O}$ ,  ${}^{21}\text{N}$ ,  ${}^{24}\text{F}$ ,  ${}^{26}\text{Ne}(\beta^-)$  [from  $\text{Be}({}^{48}\text{Ca}, \text{X})$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $\beta\gamma$ -coin,  $T_{1/2}$ .  ${}^{23}\text{O}(\beta^-n)$ ; measured  $\beta$ -delayed neutron spectra; deduced neutron emission probability.  ${}^{23}\text{F}$ ,  ${}^{26}\text{Na}$  deduced levels,  $J$ ,  $\pi$ ,  $\beta$ -feeding intensities. JOUR PRVCA 75 024305
- 2007VI11 NUCLEAR REACTIONS  ${}^{12}\text{C}({}^{48}\text{Ca}, \text{X}){}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{29}\text{Al}$  /  ${}^{37}\text{K}$  /  ${}^{47}\text{K}$ , E=60 MeV / nucleon; measured yield. JOUR NUPAB 787 126c
- 2007ZE04 NUCLEAR REACTIONS  $\text{Be}({}^{18}\text{O}, \text{tX})$ , E=120 MeV / nucleon;  $\text{Be}({}^{16}\text{O}, \text{tX})$ , E=150 MeV / nucleon; measured triton yield vs energy, target thickness.  ${}^{24,26}\text{Mg}(\text{t}, {}^3\text{He})$ , E=115 MeV / nucleon; measured excitation energy spectrum.  ${}^{26}\text{Mg}({}^3\text{He}, \text{t})$ , E=140 MeV / nucleon; analyzed excitation energy spectrum.  ${}^{26}\text{Na}$ ,  ${}^{26}\text{Al}$  deduced Gamow-Teller strength distribution. Comparison with other results, shell model predictions. JOUR NUPAB 788 61c

**A=26 (continued)**

- <sup>26</sup>Mg      2005NIZS      NUCLEAR REACTIONS Ni(<sup>22</sup>Ne, <sup>22</sup>Ne'), E=2.25 MeV / nucleon; <sup>107</sup>Ag(<sup>22</sup>Ne, <sup>22</sup>Ne'), E=2.86 MeV / nucleon; Ni(<sup>30</sup>Mg, <sup>30</sup>Mg'), E=2.25 MeV / nucleon; <sup>60</sup>Ni, <sup>107</sup>Ag(<sup>30</sup>Mg, <sup>30</sup>Mg'), E=2.69 MeV / nucleon; U(p, X)<sup>22</sup>Ne / <sup>30</sup>Mg / <sup>32</sup>Mg, E=1.01-1.40 GeV; measured E $\gamma$ , I $\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. <sup>22</sup>Ne, <sup>30</sup>Mg, <sup>32</sup>Mg, <sup>107</sup>Ag deduced levels, B(E2), half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. <sup>24</sup>Mg, <sup>26</sup>Mg, <sup>28</sup>Mg, <sup>30</sup>Mg, <sup>32</sup>Mg, <sup>34</sup>Mg systematics of B(E2) values. Comparisons with shell-model calculations. THESIS O T Niedermayer, Univ Heidelberg
- 2007F010      NUCLEAR REACTIONS <sup>27</sup>Al(<sup>12</sup>C, X)<sup>7</sup>Be / <sup>9</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>O / <sup>19</sup>F / <sup>22</sup>Ne / <sup>23</sup>Na / <sup>24</sup>Mg / <sup>26</sup>Mg / <sup>26</sup>Al / <sup>27</sup>Al / Si, E=156 MeV; <sup>12</sup>C(<sup>27</sup>Al, X)<sup>7</sup>Be / <sup>9</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>O / <sup>19</sup>F / <sup>22</sup>Ne / <sup>23</sup>Na / <sup>24</sup>Mg / <sup>26</sup>Mg / Si, E=348 MeV; measured intermediate mass fragment spectra,  $\sigma(\theta, E)$  from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
- 2007GRZY      NUCLEAR REACTIONS <sup>24</sup>Mg(<sup>12</sup>C, <sup>10</sup>C), E=53, 95 MeV / nucleon; measured Ep, E $\alpha$ , 2p2 $\alpha$  correlation functions for decay of the excited states. PREPRINT arXiv.0706.4414v1 [nucl-ex]
- 2007ME18      NUCLEAR REACTIONS <sup>27</sup>Al, <sup>28</sup>Si( $\mu^-$ ,  $\nu$ ), ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , p $\nu$ ), ( $\mu^-$ , np $\nu$ ), E not given; measured E $\gamma$ , I $\gamma$ , yields. JOUR PRVCA 76 035504

**A=26 (continued)**

- 2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007TA27 NUCLEAR REACTIONS  ${}^{26}\text{Mg}$ ,  ${}^{48}\text{Ca}(\text{p}, \text{p}')$ , E=295 MeV; measured excitation energy spectrum.  ${}^{12}\text{C}(\text{p}, \text{p}')$ , E=295 MeV; calculated  $\sigma(\theta)$ . DWIA method. JOUR NUPAB 788 53c
- 2007UG01 NUCLEAR REACTIONS  ${}^{22}\text{Ne}({}^6\text{Li}, \text{d})$ , E=30 MeV; measured deuteron energy spectra.  ${}^{26}\text{Mg}$  deduced level energies. JOUR PRVCA 76 025802
- ${}^{26}\text{Al}$  2007F010 NUCLEAR REACTIONS  ${}^{27}\text{Al}({}^{12}\text{C}, \text{X}){}^7\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{O}$  /  ${}^{19}\text{F}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  / Si, E=156 MeV;  ${}^{12}\text{C}({}^{27}\text{Al}, \text{X}){}^7\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{O}$  /  ${}^{19}\text{F}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Mg}$  /  ${}^{26}\text{Mg}$  / Si, E=348 MeV; measured intermediate mass fragment spectra,  $\sigma(\theta, E)$  from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
- 2007HE13 NUCLEAR REACTIONS  ${}^{14}\text{N}({}^{16}\text{O}, \alpha)$ , E(cm)=7-12 MeV; measured cross section using accelerator mass spectrometry. JOUR NIMBE 259 629
- 2007ME18 NUCLEAR REACTIONS  ${}^{27}\text{Al}$ ,  ${}^{28}\text{Si}(\mu^-, \nu)$ ,  $(\mu^-, \text{n}\nu)$ ,  $(\mu^-, 2\text{n}\nu)$ ,  $(\mu^-, 3\text{n}\nu)$ ,  $(\mu^-, \text{p}\nu)$ ,  $(\mu^-, \text{np}\nu)$ , E not given; measured  $E\gamma$ ,  $I\gamma$ , yields. JOUR PRVCA 76 035504

**A=26 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007ZE04	NUCLEAR REACTIONS $\text{Be}({}^{18}\text{O}, \text{tX})$ , E=120 MeV / nucleon; $\text{Be}({}^{16}\text{O}, \text{tX})$ , E=150 MeV / nucleon; measured triton yield vs energy, target thickness. ${}^{24,26}\text{Mg}(\text{t}, {}^3\text{He})$ , E=115 MeV / nucleon; measured excitation energy spectrum. ${}^{26}\text{Mg}({}^3\text{He}, \text{t})$ , E=140 MeV / nucleon; analyzed excitation energy spectrum. ${}^{26}\text{Na}$ , ${}^{26}\text{Al}$ deduced Gamow-Teller strength distribution. Comparison with other results, shell model predictions. JOUR NUPAB 788 61c
2007ZE06	NUCLEAR REACTIONS ${}^{12,13}\text{C}, {}^{18}\text{O}, {}^{26}\text{Mg}, {}^{58}\text{Ni}, {}^{60}\text{Ni}, {}^{90}\text{Zr}, {}^{118}\text{Sn}, {}^{208}\text{Pb}({}^3\text{He}, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
2007ZEZZ	NUCLEAR REACTIONS ${}^{12,13}\text{C}, {}^{18}\text{O}, {}^{26}\text{Mg}, {}^{58}\text{Ni}, {}^{60}\text{Ni}, {}^{90}\text{Zr}, {}^{118}\text{Sn}, {}^{208}\text{Pb}({}^3\text{He}, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]
${}^{26}\text{Si}$	NUCLEAR REACTIONS ${}^{28}\text{Si}(\alpha, {}^6\text{He})$ , E=120 MeV; measured $\sigma(E, \theta)$ . ${}^{26}\text{Si}$ deduced level energies. REPT CNS-REP-69,P3,Kwon
2007CLZZ	ATOMIC MASSES ${}^{22}\text{Mg}$ ; measured masses using Canadian penning trap and the Yale spectrograph. ${}^{26}\text{Si}$ ; measured mass using the Yale spectrograph. CONF Geneva(NIC-IX) 081
2007KWZY	NUCLEAR REACTIONS ${}^{28}\text{Si}(\alpha, {}^6\text{He})$ , E=120 MeV; measured E $\alpha$ and angular distributions. ${}^{26}\text{Si}$ ; deduced levels, J, $\pi$ . CONF Geneva(NIC-IX) 024

**A=26 (continued)**

- 2007SE02 NUCLEAR REACTIONS  $^{12}\text{C}(^{16}\text{O}, 2\text{n})$ , E=58 MeV; measured  $\text{E}\gamma, \text{I}\gamma, \gamma\gamma$ -coinc using the Gammasphere.  $^{26}\text{Si}$  deduced levels, J,  $\pi$ . Compared results to model calculations and discussed astrophysical implications.  
JOUR PRVCA 75 062801

**A=27**

- $^{27}\text{F}$  2007JU03 ATOMIC MASSES  $^{23}\text{N}, ^{23,24}\text{O}, ^{25,26,27}\text{F}, ^{27,28,29,30,31}\text{Ne}, ^{31,32,33}\text{Na}, ^{34,35,36}\text{Mg}, ^{34,35,36,37,38,39}\text{Al}, ^{36,37,38,39,40,41,42}\text{Si}, ^{40,41,42,43,44}\text{P}, ^{40,43,44,45}\text{S}, ^{43,44,45,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
- 2007KWZZ NUCLEAR REACTIONS  $^9\text{Be}, \text{Ni}, ^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{29}\text{F}$ , E=140 MeV / nucleon; measured yields, momentum distributions for neutron-rich Fluorine isotope production. CONF Iguazu(Nuclear Physics and Applications) Proc,P213,Kwan
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^{6}\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Li} / ^7\text{Be} / ^8\text{Be} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{12}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{15}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{18}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{20}\text{N} / ^{21}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{22}\text{O} / ^{23}\text{O} / ^{24}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{28}\text{Ne} / ^{29}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{30}\text{Na} / ^{31}\text{Na} / ^{32}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{32}\text{Mg} / ^{33}\text{Mg} / ^{34}\text{Mg} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{35}\text{Si} / ^{36}\text{Si} / ^{37}\text{Si} / ^{38}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{37}\text{P} / ^{38}\text{P} / ^{39}\text{P} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{38}\text{S} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{38}\text{Cl} / ^{39}\text{Cl} / ^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^{6}\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{32}\text{Mg} / ^{33}\text{Mg} / ^{34}\text{Mg} / ^{35}\text{Mg} / ^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{39}\text{Mg} / ^{21}\text{Al} / ^{22}\text{Al} / ^{23}\text{Al} / ^{24}\text{Al} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{37}\text{Al} / ^{38}\text{Al} / ^{39}\text{Al} / ^{21}\text{Si} / ^{22}\text{Si} / ^{23}\text{Si} / ^{24}\text{Si} / ^{25}\text{Si} / ^{26}\text{Si} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{35}\text{Si} / ^{36}\text{Si} / ^{37}\text{Si} / ^{38}\text{Si} / ^{39}\text{Si} / ^{21}\text{P} / ^{22}\text{P} / ^{23}\text{P} / ^{24}\text{P} / ^{25}\text{P} / ^{26}\text{P} / ^{27}\text{P} / ^{28}\text{P} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{37}\text{P} / ^{38}\text{P} / ^{39}\text{P} / ^{21}\text{S} / ^{22}\text{S} / ^{23}\text{S} / ^{24}\text{S} / ^{25}\text{S} / ^{26}\text{S} / ^{27}\text{S} / ^{28}\text{S} / ^{29}\text{S} / ^{30}\text{S} / ^{31}\text{S} / ^{32}\text{S} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{38}\text{S} / ^{39}\text{S} / ^{21}\text{Cl} / ^{22}\text{Cl} / ^{23}\text{Cl} / ^{24}\text{Cl} / ^{25}\text{Cl} / ^{26}\text{Cl} / ^{27}\text{Cl} / ^{28}\text{Cl} / ^{29}\text{Cl} / ^{30}\text{Cl} / ^{31}\text{Cl} / ^{32}\text{Cl} / ^{33}\text{Cl} / ^{34}\text{Cl} / ^{35}\text{Cl} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{38}\text{Cl} / ^{39}\text{Cl}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- $^{27}\text{Ne}$  20060B05 NUCLEAR REACTIONS  $^2\text{H}(^{26}\text{Ne}, ^{26}\text{Ne}')$ ,  $(^{26}\text{Ne}, ^{25}\text{Ne})$ ,  $(^{26}\text{Ne}, ^{27}\text{Ne})$ ,  $(^{26}\text{Ne}, ^{26}\text{Na})$ ,  $(^{26}\text{Ne}, ^{27}\text{Na})$ , E=9.7 MeV / nucleon; measured  $\text{E}\gamma, \text{I}\gamma, (\text{particle})\gamma$ -coin.  $^{25,26,27}\text{Ne}$ ,  $^{26,27}\text{Na}$  deduced levels, J,  $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305

**A=27 (continued)**

- 2007GI08 NUCLEAR REACTIONS  $^1\text{H}$ ( $^8\text{He}$ ,  $^8\text{He}$ ), ( $^8\text{He}$ , d), ( $^8\text{He}$ , t), E=15.7, 61.3 MeV / nucleon; analyzed  $\sigma(\theta)$ . Coupled reaction channel calculations, DWBA analysis.  $^2\text{H}$ ( $^{26}\text{Ne}$ , p), E=9.7 MeV / nucleon; measured fragment yield,  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin.  $^{27}\text{Ne}$  deduced levels, J,  $\pi$ . Exogam array, Vamos spectrometer. JOUR NUPAB 787 423c
- 2007JU03 ATOMIC MASSES  $^{23}\text{N}$ ,  $^{23,24}\text{O}$ ,  $^{25,26,27}\text{F}$ ,  $^{27,28,29,30,31}\text{Ne}$ ,  $^{31,32,33}\text{Na}$ ,  $^{34,35,36}\text{Mg}$ ,  $^{34,35,36,37,38,39}\text{Al}$ ,  $^{36,37,38,39,40,41,42}\text{Si}$ ,  $^{40,41,42,43,44}\text{P}$ ,  $^{40,43,44,45}\text{S}$ ,  $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}$ ( $^{40}\text{Ar}$ , X) $^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- $^{27}\text{Na}$  20060B05 NUCLEAR REACTIONS  $^2\text{H}$ ( $^{26}\text{Ne}$ ,  $^{26}\text{Ne}'$ ), ( $^{26}\text{Ne}$ ,  $^{25}\text{Ne}$ ), ( $^{26}\text{Ne}$ ,  $^{27}\text{Ne}$ ), ( $^{26}\text{Ne}$ ,  $^{26}\text{Na}$ ), ( $^{26}\text{Ne}$ ,  $^{27}\text{Na}$ ), E=9.7 MeV / nucleon; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin.  $^{25,26,27}\text{Ne}$ ,  $^{26,27}\text{Na}$  deduced levels, J,  $\pi$ . Exogam array, Vamos spectrometer, comparison with previous results and model predictions. JOUR PRVCA 74 064305

**A=27 (continued)**

2007N013		NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007VI11		NUCLEAR REACTIONS $^{12}\text{C}(^{48}\text{Ca}, \text{X})^8\text{Li}$ / $^9\text{Li}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{29}\text{Al}$ / $^{37}\text{K}$ / $^{47}\text{K}$ , E=60 MeV / nucleon; measured yield. JOUR NUPAB 787 126c
$^{27}\text{Mg}$	2006K055	RADIOACTIVITY $^{27,29,31,33}\text{Mg}(\beta^-)$ [from U(p, X)]; measured $\beta$ -asymmetry and hfs, $\beta$ -NMR spectra from polarized source. $^{31}\text{Mg}$ deduced ground-state J, $\pi$ , $\mu$ , quadrupole moment. JOUR HYIND 171 167
2007KA33		NUCLEAR REACTIONS N, O, Ar(p, X) $^7\text{Be}$ / $^{11}\text{C}$ / $^{13}\text{N}$ / $^{15}\text{O}$ / $^{18}\text{F}$ / $^{22}\text{Na}$ / $^{24}\text{Na}$ / $^{27}\text{Mg}$ / $^{29}\text{Al}$ / $^{38}\text{S}$ / $^{38}\text{Cl}$ / $^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNCD 273 507
2007ME18		NUCLEAR REACTIONS $^{27}\text{Al}$ , $^{28}\text{Si}(\mu^-, \nu)$ , $(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, p\nu)$ , $(\mu^-, np\nu)$ , E not given; measured $E\gamma$ , $I\gamma$ , yields. JOUR PRVCA 76 035504

**A=27 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{27}\text{Al}$	2006K055
2007BE19	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^6\text{He}, {}^6\text{He})$ , E=9.5, 11.0, 12.0, 13.4 MeV; measured $\sigma$ , $\sigma(\theta)$ . ${}^6\text{He}$ deduced radius, deformation parameters. ${}^{27}\text{Al}({}^6\text{Li}, {}^6\text{Li})$ , $({}^7\text{Li}, {}^7\text{Li})$ , $({}^9\text{Be}, {}^9\text{Be})$ , $({}^{16}\text{O}, {}^{16}\text{O})$ , E≈7.45 MeV; analysed total $\sigma$ . ${}^{6,7}\text{Li}$ , ${}^9\text{Be}$ , ${}^{16}\text{O}$ deduced deformation parameters. Sao Paulo potential. JOUR PYLBB 647 30
2007DE55	NUCLEAR REACTIONS ${}^{26}\text{Al}(n, \alpha)$ , E<100 keV; measured cross-sections. ${}^{27}\text{Al}$ deduced resonance energies, widths, areas and spins. ${}^{26}\text{Al}$ deduced galactic abundance. JOUR PRVCA 76 045804
2007FE13	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^6\text{Li}, {}^6\text{Li})$ , E=7, 8, 10, 12, 18 MeV; ${}^{27}\text{Al}({}^7\text{Li}, {}^7\text{Li})$ , E=6, 7, 8, 9, 10, 11, 12, 14, 16, 18 MeV; measured $\sigma(\theta)$ . Optical model analysis, several potentials compared. Breakup threshold anomaly discussed. JOUR NUPAB 787 484c
2007FI01	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^6\text{Li}, {}^6\text{Li})$ , E=7, 8, 10, 12, 18 MeV; measured $\sigma(\theta)$ ; deduced breakup threshold anomaly, optical model parameters. Woods-Saxon optical potential, double-folding Sao Paolo potential. JOUR PRVCA 75 017602

**A=27 (continued)**

- 2007FIZZ NUCLEAR REACTIONS  $^{27}\text{Al}(^{6}\text{Li}, ^{6}\text{Li})$ , E=7-18 MeV;  $^{27}\text{Al}(^{7}\text{Li}, ^{7}\text{Li})$ , E=6-18 MeV; measured  $\sigma(\theta)$  near the Coulomb barrier. CONF Iguazu(Nuclear Physics and Applications) Proc,P185,Figueira
- 2007F010 NUCLEAR REACTIONS  $^{27}\text{Al}(^{12}\text{C}, \text{X})^{7}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{O}$  /  $^{19}\text{F}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Na}$  /  $^{24}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  / Si, E=156 MeV;  $^{12}\text{C}(^{27}\text{Al}, \text{X})^{7}\text{Be}$  /  $^{9}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{O}$  /  $^{19}\text{F}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Na}$  /  $^{24}\text{Mg}$  /  $^{26}\text{Mg}$  / Si, E=348 MeV; measured intermediate mass fragment spectra,  $\sigma(\theta, E)$  from fusion and fragmentation. Comparison with Boltzmann Master Equations theory. JOUR NUPAB 797 1
- 2007LE24 NUCLEAR REACTIONS  $^{27}\text{Al}(^{6}\text{He}, ^{6}\text{He})$ , E=9.5, 11, 12, 13.4 MeV;  $^{51}\text{V}(^{8}\text{Li}, ^{8}\text{Li})$ , E=26 MeV; measured  $\sigma(\theta)$ . Comparison with optical model.  $^{27}\text{Al}$ ,  $^{64}\text{Zn}(^{6}\text{He}, ^{6}\text{He})$ , ( $^{6}\text{Li}, ^{6}\text{Li}$ ), ( $^{7}\text{Li}, ^{7}\text{Li}$ ), ( $^{9}\text{Be}, ^{9}\text{Be}$ ), ( $^{16}\text{O}$ ,  $^{16}\text{O}$ ), E $\approx$ 5-25 MeV; analyzed  $\sigma$ . Comparison with other data. Secondary radioactive beam. JOUR NUPAB 787 94c
- 2007LU14 NUCLEAR REACTIONS  $^{27}\text{Al}(^{7}\text{Li}, ^{7}\text{Li}')$ , ( $^{7}\text{Li}, ^{6}\text{Li}$ ), E=6-18 MeV; measured elastic and one neutron transfer cross sections and angular distributions. Deduced dynamic polarization potential. JOUR NUPAB 791 24
- 2007MA58 NUCLEAR REACTIONS  $^{27}\text{Al}$ ,  $^{127}\text{I}$ ,  $^{206,207,208}\text{Pb}(n, n'\gamma)$ , E not give;  $^{10}\text{B}(\alpha, p\gamma)$ , E=2.27 MeV;  $^{9}\text{Be}(\alpha, n\gamma)$ , E=2.27 MeV; measured yields. JOUR PRVCA 76 022801
- 2007ME18 NUCLEAR REACTIONS  $^{27}\text{Al}$ ,  $^{28}\text{Si}(\mu^-, \nu)$ , ( $\mu^-, n\nu$ ), ( $\mu^-, 2n\nu$ ), ( $\mu^-, 3n\nu$ ), ( $\mu^-, p\nu$ ), ( $\mu^-, np\nu$ ), E not given; measured  $E\gamma$ ,  $I\gamma$ , yields. JOUR PRVCA 76 035504

**A=27 (continued)**

2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=27 (continued)**

<sup>27</sup> Si	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
	2007RUZZ	NUCLEAR REACTIONS <sup>1</sup> H( <sup>26</sup> Al, $\gamma$ ), E=150-1800 keV / nucleon; measured recoils in coincidence with $\gamma$ at DRAGON. <sup>26</sup> Al(p, $\gamma$ ); deduced resonance strength and energy. CONF Geneva(NIC-IX) 004

**A=28**

<sup>28</sup> Ne	2006FAZX	RADIOACTIVITY <sup>28,29,30</sup> Ne; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>28,29,30</sup> Ne deduced level, J, $\pi$ . CONF Tokyo(SENUF 06), P165, Fallon
	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

### A=28 (*continued*)

**A=28 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{28}\text{Mg}$	2005N1ZS	NUCLEAR REACTIONS $\text{Ni}({}^{22}\text{Ne}, {}^{22}\text{Ne}')$ , E=2.25 MeV / nucleon; ${}^{107}\text{Ag}({}^{22}\text{Ne}, {}^{22}\text{Ne}')$ , E=2.86 MeV / nucleon; $\text{Ni}({}^{30}\text{Mg}, {}^{30}\text{Mg}')$ , E=2.25 MeV / nucleon; ${}^{60}\text{Ni}$ , ${}^{107}\text{Ag}({}^{30}\text{Mg}, {}^{30}\text{Mg}')$ , E=2.69 MeV / nucleon; $\text{U}(\text{p}, \text{X}){}^{22}\text{Ne} / {}^{30}\text{Mg} / {}^{32}\text{Mg}$ , E=1.01-1.40 GeV; measured $E\gamma$ , $I\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. ${}^{22}\text{Ne}$ , ${}^{30}\text{Mg}$ , ${}^{32}\text{Mg}$ , ${}^{107}\text{Ag}$ deduced levels, $B(E2)$ , half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. ${}^{24}\text{Mg}$ , ${}^{26}\text{Mg}$ , ${}^{28}\text{Mg}$ , ${}^{30}\text{Mg}$ , ${}^{32}\text{Mg}$ , ${}^{34}\text{Mg}$ systematics of $B(E2)$ values. Comparisons with shell-model calculations. THESIS O T Niedermaier, Univ Heidelberg

**A=28 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{28}\text{Al}$	2006GE20
2007LU14	NUCLEAR REACTIONS B, C, ${}^{27}\text{Al}$ , Cu, ${}^{115}\text{In}$ (polarized n, $\gamma$ ), E=low; measured $E\gamma$ , $I\gamma(\theta)$ ; deduced upper bounds on parity-violating $\gamma$ -ray asymmetry. JOUR PRVCA 74 065503
2007ME18	NUCLEAR REACTIONS ${}^{27}\text{Al}({}^7\text{Li}, {}^7\text{Li}')$ , $({}^7\text{Li}, {}^6\text{Li})$ , E=6-18 MeV; measured elastic and one neutron transfer cross sections and angular distributions. Deduced dynamic polarization potential. JOUR NUPAB 791 24
	NUCLEAR REACTIONS ${}^{27}\text{Al}$ , ${}^{28}\text{Si}(\mu^-, \nu)$ , $(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, p\nu)$ , $(\mu^-, np\nu)$ , E not given; measured $E\gamma$ , $I\gamma$ , yields. JOUR PRVCA 76 035504

**A=28 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
2007TA25	NUCLEAR REACTIONS $^7\text{Li}$ , $^{12}\text{C}$ , $^{28}\text{Si}(e, e'K^+)$ , E not given; measured missing mass spectra. $^7\text{He}$ , $^{12}\text{B}$ , $^{28}\text{Al}$ deduced hypernucleus levels. JOUR NUPAB 790 679c	
$^{28}\text{Si}$	2006BR31	NUCLEAR REACTIONS $^{28}\text{Si}(^6\text{Li}, d\alpha)$ , E=47 MeV; measured Ed, Ea, $d\alpha$ -coin, angular correlations. $^{28}\text{Si}$ , $^{32}\text{S}$ deduced excited states energies. JOUR PHSTB 74 692
2007BE47	NUCLEAR REACTIONS $^{12}\text{C}$ , $^{16}\text{O}$ , $^{24}\text{Mg}$ , $\text{Fe}(p, \gamma)$ , $e=5-25$ meV; $^{12}\text{C}$ , $^{16}\text{O}$ , $^{24}\text{Mg}$ , $\text{Fe}(\alpha, \gamma)$ , E=5-40 MeV; measured $E\gamma$ , $I\gamma$ , angular distributions, cross sections and excitation functions. Compared results to model calculations. JOUR PRVCA 76 034607	
2007KW02	NUCLEAR REACTIONS $^{28}\text{Si}(\alpha, \alpha)$ , E=120 MeV; measured cross sections and angular distributions. Deduced optical potential parameters. JOUR KPSJA 51 1635	

**A=28 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{28}\text{P}$	2007WA10	NUCLEAR REACTIONS ${}^{28}\text{Si}$ (polarized p, n), E=198 MeV; measured excitation energy spectrum, $\sigma$ ; analysed spin-longitudinal and spin-transverse polarized $\sigma$ . Distorted-wave impulse approximation. JOUR PYLBB 645 402
${}^{28}\text{S}$	2007BU15	NUCLEAR REACTIONS $\text{C}({}^{40}\text{Ca}, \text{X}){}^{36}\text{Ca}$ / ${}^{32}\text{Ar}$ / ${}^{28}\text{S}$ , E=95 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . Deduced level energies. JOUR APOBB 38 1353

**A=29**

${}^{29}\text{F}$	2007KWZZ	NUCLEAR REACTIONS ${}^9\text{Be}$ , Ni, ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{25}\text{F}$ / ${}^{26}\text{F}$ / ${}^{27}\text{F}$ / ${}^{29}\text{F}$ , E=140 MeV / nucleon; measured yields, momentum distributions for neutron-rich Fluorine isotope production. CONF Iguazu(Nuclear Physics and Applications) Proc,P213,Kwan
${}^{29}\text{Ne}$	2006FAZX	RADIOACTIVITY ${}^{28,29,30}\text{Ne}$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. ${}^{28,29,30}\text{Ne}$ deduced level, J, $\pi$ . CONF Tokyo(SENUF 06),P165,Fallon

ATOMIC MASSES  ${}^{23}\text{N}$ ,  ${}^{23,24}\text{O}$ ,  ${}^{25,26,27}\text{F}$ ,  ${}^{27,28,29,30,31}\text{Ne}$ ,  ${}^{31,32,33}\text{Na}$ ,  ${}^{34,35,36}\text{Mg}$ ,  ${}^{34,35,36,37,38,39}\text{Al}$ ,  ${}^{36,37,38,39,40,41,42}\text{Si}$ ,  ${}^{40,41,42,43,44}\text{P}$ ,  ${}^{40,43,44,45}\text{S}$ ,  ${}^{43,44,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

### A=29 (*continued*)

**A=29 (*continued*)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{29}\text{Mg}$	2006K055      RADIOACTIVITY ${}^{27,29,31,33}\text{Mg}(\beta^-)$ [from U(p, X)]; measured $\beta$ -asymmetry and hfs, $\beta$ -NMR spectra from polarized source. ${}^{31}\text{Mg}$ deduced ground-state $J$ , $\pi$ , $\mu$ , quadrupole moment. JOUR HYIND 171 167

**A=29 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{18}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
$^{29}\text{Al}$	2006K055	RADIOACTIVITY $^{27,29,31,33}\text{Mg}(\beta^-)$ [from U(p, X)]; measured $\beta$ -asymmetry and hfs, $\beta$ -NMR spectra from polarized source. $^{31}\text{Mg}$ deduced ground-state $J$ , $\pi$ , $\mu$ , quadrupole moment. JOUR HYIND 171 167
2007KA33	NUCLEAR REACTIONS N, O, Ar(p, X) $^7\text{Be}$ / $^{11}\text{C}$ / $^{13}\text{N}$ / $^{15}\text{O}$ / $^{18}\text{F}$ / $^{22}\text{Na}$ / $^{24}\text{Na}$ / $^{27}\text{Mg}$ / $^{29}\text{Al}$ / $^{38}\text{S}$ / $^{38}\text{Cl}$ / $^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNCD 273 507	

**A=29 (continued)**

- 2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007VI11 NUCLEAR REACTIONS  ${}^{12}\text{C}({}^{48}\text{Ca}, \text{X}){}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{29}\text{Al}$  /  ${}^{37}\text{K}$  /  ${}^{47}\text{K}$ , E=60 MeV / nucleon; measured yield. JOUR NUPAB 787 126c

**A=29 (*continued*)**

<sup>29</sup>Si      2007N013      NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=29 (continued)**

<sup>29</sup> P	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
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**A=30**

<sup>30</sup> Ne	2006FAZX	RADIOACTIVITY <sup>28,29,30</sup> Ne; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>28,29,30</sup> Ne deduced level, J, $\pi$ . CONF Tokyo(SENUF 06), P165, Fallon
	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
	2007TR08	RADIOACTIVITY <sup>30</sup> Ne( $\beta^-$ ) [from Be( <sup>48</sup> Ca, X), E=140 MeV / nucleon]; measured E $\gamma$ , I $\gamma$ , $\beta\gamma$ -coinc, T <sub>1/2</sub> . <sup>30</sup> Na deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 021301
	2007TRZZ	RADIOACTIVITY <sup>30</sup> Ne( $\beta^-$ ) [from Be( <sup>48</sup> Ca, X)]; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, $\beta\gamma$ -coin, T <sub>1/2</sub> ; deduced log ft. <sup>30</sup> Na deduced levels, J, $\pi$ . Comparison with model predictions. PREPRINT nucl-ex/0703015, 3/8/2007

**A=30 (*continued*)**

<sup>30</sup> Na	2006FUZX	NUCLEAR REACTIONS He( <sup>28</sup> Na, X), ( <sup>29</sup> Na, X), ( <sup>30</sup> Na, X), ( <sup>31</sup> Na, X), ( <sup>30</sup> Mg, X), ( <sup>31</sup> Mg, X), ( <sup>32</sup> Mg, X), ( <sup>33</sup> Mg, X), ( <sup>32</sup> Al, X), ( <sup>33</sup> Al, X), ( <sup>34</sup> Al, X), ( <sup>35</sup> Al, X), ( <sup>34</sup> Si, X), ( <sup>35</sup> Si, X), ( <sup>36</sup> Si, X), ( <sup>36</sup> P, X), ( <sup>37</sup> P, X), E ≈ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>28,29,30,31</sup> Na, <sup>30,31,32,33</sup> Mg, <sup>32,33,34,35</sup> Al deduced transitions. REPT CNS-REP-69,P19,Fukui
2007N013		NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>32</sup> Mg / <sup>33</sup> Mg / <sup>34</sup> Mg / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>35</sup> Al / <sup>36</sup> Al / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>35</sup> Si / <sup>36</sup> Si / <sup>37</sup> Si / <sup>38</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>37</sup> P / <sup>38</sup> P / <sup>39</sup> P / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>38</sup> S / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>38</sup> Cl / <sup>39</sup> Cl / <sup>39</sup> Ar, E=100 MeV / nucleon; <sup>181</sup> Ta( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007TR08		RADIOACTIVITY <sup>30</sup> Ne( $\beta^-$ ) [from Be( <sup>48</sup> Ca, X), E=140 MeV / nucleon]; measured E $\gamma$ , I $\gamma$ , $\beta\gamma$ -coinc, T <sub>1/2</sub> . <sup>30</sup> Na deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 021301
2007TRZZ		RADIOACTIVITY <sup>30</sup> Ne( $\beta^-$ ) [from Be( <sup>48</sup> Ca, X)]; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, $\beta\gamma$ -coin, T <sub>1/2</sub> ; deduced log ft. <sup>30</sup> Na deduced levels, J, $\pi$ . Comparison with model predictions. PREPRINT nucl-ex/0703015,3/8/2007

**A=30 (continued)**

<sup>30</sup> Mg	2005NIZS	NUCLEAR REACTIONS Ni( <sup>22</sup> Ne, <sup>22</sup> Ne'), E=2.25 MeV / nucleon; <sup>107</sup> Ag( <sup>22</sup> Ne, <sup>22</sup> Ne'), E=2.86 MeV / nucleon; Ni( <sup>30</sup> Mg, <sup>30</sup> Mg'), E=2.25 MeV / nucleon; <sup>60</sup> Ni, <sup>107</sup> Ag( <sup>30</sup> Mg, <sup>30</sup> Mg'), E=2.69 MeV / nucleon; U(p, X) <sup>22</sup> Ne / <sup>30</sup> Mg / <sup>32</sup> Mg, E=1.01-1.40 GeV; measured E $\gamma$ , I $\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. <sup>22</sup> Ne, <sup>30</sup> Mg, <sup>32</sup> Mg, <sup>107</sup> Ag deduced levels, B(E2), half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. <sup>24</sup> Mg, <sup>26</sup> Mg, <sup>28</sup> Mg, <sup>30</sup> Mg, <sup>32</sup> Mg, <sup>34</sup> Mg systematics of B(E2) values. Comparisons with shell-model calculations. THESIS O T Niedermaier, Univ Heidelberg
	2006FUZX	NUCLEAR REACTIONS He( <sup>28</sup> Na, X), ( <sup>29</sup> Na, X), ( <sup>30</sup> Na, X), ( <sup>31</sup> Na, X), ( <sup>30</sup> Mg, X), ( <sup>31</sup> Mg, X), ( <sup>32</sup> Mg, X), ( <sup>33</sup> Mg, X), ( <sup>32</sup> Al, X), ( <sup>33</sup> Al, X), ( <sup>34</sup> Al, X), ( <sup>35</sup> Al, X), ( <sup>34</sup> Si, X), ( <sup>35</sup> Si, X), ( <sup>36</sup> Si, X), ( <sup>36</sup> P, X), ( <sup>37</sup> P, X), E ≈ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>28,29,30,31</sup> Na, <sup>30,31,32,33</sup> Mg, <sup>32,33,34,35</sup> Al deduced transitions. REPT
	2007MA04	CNS-REP-69,P19,Fukui RADIOACTIVITY <sup>32</sup> Na( $\beta^-$ ), ( $\beta^-$ n), ( $\beta^-$ 2n) [from Ta(p, X)]; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, $\beta\gamma$ -coin. <sup>32</sup> Mg deduced levels, J, $\pi$ . <sup>30,31</sup> Mg deduced transitions. JOUR PRVCA 75 017302
	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>32</sup> Mg / <sup>33</sup> Mg / <sup>34</sup> Mg / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>35</sup> Al / <sup>36</sup> Al / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>35</sup> Si / <sup>36</sup> Si / <sup>37</sup> Si / <sup>38</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>37</sup> P / <sup>38</sup> P / <sup>39</sup> P / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>38</sup> S / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>38</sup> Cl / <sup>39</sup> Cl / <sup>39</sup> Ar, E=100 MeV / nucleon; <sup>181</sup> Ta( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=30 (continued)**

<sup>30</sup>Al      2007N013      NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=30 (*continued*)**

<sup>30</sup>Si      2007N013      NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=30 (continued)**

<sup>30</sup> P	2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007RA20		NUCLEAR REACTIONS ${}^{16}\text{O}({}^{16}\text{O}, \text{np})$ , E=40 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc, polarization assymetry. ${}^{30}\text{P}$ deduced levels, $J$ , $\pi$ , branching ratios. JOUR PRVCA 76 034315
<sup>30</sup> S	2007BA69	NUCLEAR REACTIONS ${}^{32}\text{S}(\text{p}, \text{t})$ , E=37 MeV; measured triton energies, angular distributions. ${}^{30}\text{S}$ deduced levels, $J$ , $\pi$ . ${}^{29}\text{P}(\text{p}, \gamma){}^{30}\text{S}$ ; deduced reaction rates of astrophysical significance. JOUR PRVCA 76 045803
2007GA46		NUCLEAR REACTIONS ${}^1\text{H}$ , ${}^{12}\text{C}({}^{31}\text{S}, \text{X})$ , E=71 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . ${}^{30}\text{S}$ deduced levels. JOUR NUPAB 788 381c

**A=31**

<sup>31</sup> Ne	2007JU03	ATOMIC MASSES ${}^{23}\text{N}$ , ${}^{23,24}\text{O}$ , ${}^{25,26,27}\text{F}$ , ${}^{27,28,29,30,31}\text{Ne}$ , ${}^{31,32,33}\text{Na}$ , ${}^{34,35,36}\text{Mg}$ , ${}^{34,35,36,37,38,39}\text{Al}$ , ${}^{36,37,38,39,40,41,42}\text{Si}$ , ${}^{40,41,42,43,44}\text{P}$ , ${}^{40,43,44,45}\text{S}$ , ${}^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
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**A=31 (continued)**

<sup>31</sup> Na	2006FUZX	NUCLEAR REACTIONS He( <sup>28</sup> Na, X), ( <sup>29</sup> Na, X), ( <sup>30</sup> Na, X), ( <sup>31</sup> Na, X), ( <sup>30</sup> Mg, X), ( <sup>31</sup> Mg, X), ( <sup>32</sup> Mg, X), ( <sup>33</sup> Mg, X), ( <sup>32</sup> Al, X), ( <sup>33</sup> Al, X), ( <sup>34</sup> Al, X), ( <sup>35</sup> Al, X), ( <sup>34</sup> Si, X), ( <sup>35</sup> Si, X), ( <sup>36</sup> Si, X), ( <sup>36</sup> P, X), ( <sup>37</sup> P, X), E ≈ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>28,29,30,31</sup> Na, <sup>30,31,32,33</sup> Mg, <sup>32,33,34,35</sup> Al deduced transitions. REPT CNS-REP-69,P19,Fukui
2007JU03		ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
2007N013		NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>32</sup> Mg / <sup>33</sup> Mg / <sup>34</sup> Mg / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>35</sup> Al / <sup>36</sup> Al / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>35</sup> Si / <sup>36</sup> Si / <sup>37</sup> Si / <sup>38</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>37</sup> P / <sup>38</sup> P / <sup>39</sup> P / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>38</sup> S / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>38</sup> Cl / <sup>39</sup> Cl / <sup>39</sup> Ar, E=100 MeV / nucleon; <sup>181</sup> Ta( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>31</sup> Mg	2006FUZX	NUCLEAR REACTIONS He( <sup>28</sup> Na, X), ( <sup>29</sup> Na, X), ( <sup>30</sup> Na, X), ( <sup>31</sup> Na, X), ( <sup>30</sup> Mg, X), ( <sup>31</sup> Mg, X), ( <sup>32</sup> Mg, X), ( <sup>33</sup> Mg, X), ( <sup>32</sup> Al, X), ( <sup>33</sup> Al, X), ( <sup>34</sup> Al, X), ( <sup>35</sup> Al, X), ( <sup>34</sup> Si, X), ( <sup>35</sup> Si, X), ( <sup>36</sup> Si, X), ( <sup>36</sup> P, X), ( <sup>37</sup> P, X), E ≈ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>28,29,30,31</sup> Na, <sup>30,31,32,33</sup> Mg, <sup>32,33,34,35</sup> Al deduced transitions. REPT CNS-REP-69,P19,Fukui
2006K055		RADIOACTIVITY <sup>27,29,31,33</sup> Mg( $\beta^-$ ) [from U(p, X)]; measured $\beta$ -asymmetry and hfs, $\beta$ -NMR spectra from polarized source. <sup>31</sup> Mg deduced ground-state J, $\pi$ , $\mu$ , quadrupole moment. JOUR HYIND 171 167

**A=31 (*continued*)**

- 2007MA04      RADIOACTIVITY  $^{32}\text{Na}(\beta^-)$ ,  $(\beta^-n)$ ,  $(\beta^-2n)$  [from Ta(p, X)]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -,  $\beta\gamma$ -coin.  $^{32}\text{Mg}$  deduced levels, J,  $\pi$ .  $^{30,31}\text{Mg}$  deduced transitions. JOUR PRVCA 75 017302
- 2007N013      NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- $^{31}\text{Al}$       2006K055      RADIOACTIVITY  $^{27,29,31,33}\text{Mg}(\beta^-)$  [from U(p, X)]; measured  $\beta$ -asymmetry and hfs,  $\beta$ -NMR spectra from polarized source.  $^{31}\text{Mg}$  deduced ground-state J,  $\pi$ ,  $\mu$ , quadrupole moment. JOUR HYIND 171 167

**A=31 (*continued*)**

2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=31 (*continued*)**

<sup>31</sup>Si      2007N013      NUCLEAR REACTIONS <sup>9</sup>Be(<sup>40</sup>Ar, X)<sup>6</sup>Li / <sup>7</sup>Li / <sup>8</sup>Li / <sup>9</sup>Li / <sup>7</sup>Be / <sup>8</sup>Be / <sup>9</sup>Be / <sup>10</sup>Be / <sup>11</sup>Be / <sup>12</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>12</sup>B / <sup>13</sup>B / <sup>14</sup>B / <sup>15</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>C / <sup>15</sup>C / <sup>16</sup>C / <sup>17</sup>C / <sup>18</sup>C / <sup>13</sup>N / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>N / <sup>17</sup>N / <sup>18</sup>N / <sup>19</sup>N / <sup>20</sup>N / <sup>21</sup>N / <sup>15</sup>O / <sup>16</sup>O / <sup>17</sup>O / <sup>18</sup>O / <sup>19</sup>O / <sup>20</sup>O / <sup>21</sup>O / <sup>22</sup>O / <sup>23</sup>O / <sup>24</sup>O / <sup>17</sup>F / <sup>18</sup>F / <sup>19</sup>F / <sup>20</sup>F / <sup>21</sup>F / <sup>22</sup>F / <sup>23</sup>F / <sup>24</sup>F / <sup>25</sup>F / <sup>26</sup>F / <sup>27</sup>F / <sup>19</sup>Ne / <sup>20</sup>Ne / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>23</sup>Ne / <sup>24</sup>Ne / <sup>25</sup>Ne / <sup>26</sup>Ne / <sup>27</sup>Ne / <sup>28</sup>Ne / <sup>29</sup>Ne / <sup>21</sup>Na / <sup>22</sup>Na / <sup>23</sup>Na / <sup>24</sup>Na / <sup>25</sup>Na / <sup>26</sup>Na / <sup>27</sup>Na / <sup>28</sup>Na / <sup>29</sup>Na / <sup>30</sup>Na / <sup>31</sup>Na / <sup>32</sup>Na / <sup>23</sup>Mg / <sup>24</sup>Mg / <sup>25</sup>Mg / <sup>26</sup>Mg / <sup>27</sup>Mg / <sup>28</sup>Mg / <sup>29</sup>Mg / <sup>30</sup>Mg / <sup>31</sup>Mg / <sup>32</sup>Mg / <sup>33</sup>Mg / <sup>34</sup>Mg / <sup>25</sup>Al / <sup>26</sup>Al / <sup>27</sup>Al / <sup>28</sup>Al / <sup>29</sup>Al / <sup>30</sup>Al / <sup>31</sup>Al / <sup>32</sup>Al / <sup>33</sup>Al / <sup>34</sup>Al / <sup>35</sup>Al / <sup>36</sup>Al / <sup>27</sup>Si / <sup>28</sup>Si / <sup>29</sup>Si / <sup>30</sup>Si / <sup>31</sup>Si / <sup>32</sup>Si / <sup>33</sup>Si / <sup>34</sup>Si / <sup>35</sup>Si / <sup>36</sup>Si / <sup>37</sup>Si / <sup>38</sup>Si / <sup>29</sup>P / <sup>30</sup>P / <sup>31</sup>P / <sup>32</sup>P / <sup>33</sup>P / <sup>34</sup>P / <sup>35</sup>P / <sup>36</sup>P / <sup>37</sup>P / <sup>38</sup>P / <sup>39</sup>P / <sup>33</sup>S / <sup>34</sup>S / <sup>35</sup>S / <sup>36</sup>S / <sup>37</sup>S / <sup>38</sup>S / <sup>36</sup>Cl / <sup>37</sup>Cl / <sup>38</sup>Cl / <sup>39</sup>Cl / <sup>39</sup>Ar, E=100 MeV / nucleon; <sup>181</sup>Ta(<sup>40</sup>Ar, X)<sup>6</sup>Li / <sup>7</sup>Li / <sup>8</sup>Li / <sup>9</sup>Be / <sup>10</sup>Be / <sup>11</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>12</sup>B / <sup>13</sup>B / <sup>14</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>C / <sup>15</sup>C / <sup>16</sup>C / <sup>17</sup>C / <sup>13</sup>N / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>N / <sup>17</sup>N / <sup>18</sup>N / <sup>19</sup>N / <sup>15</sup>O / <sup>16</sup>O / <sup>17</sup>O / <sup>18</sup>O / <sup>19</sup>O / <sup>20</sup>O / <sup>21</sup>O / <sup>17</sup>F / <sup>18</sup>F / <sup>19</sup>F / <sup>20</sup>F / <sup>21</sup>F / <sup>22</sup>F / <sup>23</sup>F / <sup>24</sup>F / <sup>19</sup>Ne / <sup>20</sup>Ne / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>23</sup>Ne / <sup>24</sup>Ne / <sup>25</sup>Ne / <sup>26</sup>Ne / <sup>27</sup>Ne / <sup>21</sup>Na / <sup>22</sup>Na / <sup>23</sup>Na / <sup>24</sup>Na / <sup>25</sup>Na / <sup>26</sup>Na / <sup>27</sup>Na / <sup>28</sup>Na / <sup>29</sup>Na / <sup>23</sup>Mg / <sup>24</sup>Mg / <sup>25</sup>Mg / <sup>26</sup>Mg / <sup>27</sup>Mg / <sup>28</sup>Mg / <sup>29</sup>Mg / <sup>30</sup>Mg / <sup>31</sup>Mg / <sup>24</sup> / <sup>25</sup>Al / <sup>26</sup>Al / <sup>27</sup>Al / <sup>28</sup>Al / <sup>29</sup>Al / <sup>30</sup>Al / <sup>31</sup>Al / <sup>32</sup>Al / <sup>33</sup>Al / <sup>34</sup>Al / <sup>26</sup>Si / <sup>27</sup>Si / <sup>28</sup>Si / <sup>29</sup>Si / <sup>30</sup>Si / <sup>31</sup>Si / <sup>32</sup>Si / <sup>33</sup>Si / <sup>34</sup>Si / <sup>29</sup>P / <sup>30</sup>P / <sup>31</sup>P / <sup>32</sup>P / <sup>33</sup>P / <sup>34</sup>P / <sup>35</sup>P / <sup>36</sup>P / <sup>30</sup>S / <sup>31</sup>S / <sup>32</sup>S / <sup>33</sup>S / <sup>34</sup>S / <sup>35</sup>S / <sup>36</sup>S / <sup>37</sup>S / <sup>33</sup>Cl / <sup>34</sup>Cl / <sup>35</sup>Cl / <sup>36</sup>Cl / <sup>37</sup>Cl / <sup>35</sup>Ar / <sup>36</sup>Ar / <sup>37</sup>Ar / <sup>38</sup>Ar / <sup>39</sup>Ar / <sup>37</sup>K / <sup>38</sup>K / <sup>39</sup>K / <sup>40</sup>K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=31 (continued)**

<sup>31</sup> P	2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^{6}\text{Li}$ / $^7\text{Li} / ^8\text{Li} / ^9\text{Li} / ^7\text{Be} / ^8\text{Be} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{12}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{15}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{18}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{20}\text{N} / ^{21}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{22}\text{O} / ^{23}\text{O} / ^{24}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{28}\text{Ne} / ^{29}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{30}\text{Na} / ^{31}\text{Na} / ^{32}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{24} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{26}\text{Si} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{30}\text{S} / ^{31}\text{S} / ^{32}\text{S} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{33}\text{Cl} / ^{34}\text{Cl} / ^{35}\text{Cl} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{35}\text{Ar} / ^{36}\text{Ar} / ^{37}\text{Ar} / ^{38}\text{Ar} / ^{39}\text{Ar} / ^{37}\text{K} / ^{38}\text{K} / ^{39}\text{K} / ^{40}\text{K}, E=100 \text{ MeV} / \text{nucleon}; \text{measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605}$
<sup>31</sup> S	2007MA48	NUCLEAR REACTIONS $^{32}\text{S}(\text{p}, \text{d})$ , E=32 MeV; measured Ed, $\sigma$ and angular distributions. $^{31}\text{S}$ deduced level energies and spectroscopic factors. JOUR PRVCA 76 015803

**A=32**

<sup>32</sup> Na	2007JU03	ATOMIC MASSES $^{23}\text{N}$ , $^{23,24}\text{O}$ , $^{25,26,27}\text{F}$ , $^{27,28,29,30,31}\text{Ne}$ , $^{31,32,33}\text{Na}$ , $^{34,35,36}\text{Mg}$ , $^{34,35,36,37,38,39}\text{Al}$ , $^{36,37,38,39,40,41,42}\text{Si}$ , $^{40,41,42,43,44}\text{P}$ , $^{40,43,44,45}\text{S}$ , $^{43,44,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
	2007MA04	RADIOACTIVITY $^{32}\text{Na}(\beta^-)$ , $(\beta^-n)$ , $(\beta^-2n)$ [from Ta(p, X)]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, $\beta\gamma$ -coin. $^{32}\text{Mg}$ deduced levels, $J$ , $\pi$ . $^{30,31}\text{Mg}$ deduced transitions. JOUR PRVCA 75 017302

**A=32 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{32}\text{Mg}$	2005NIZS
2006FUZX	NUCLEAR REACTIONS $\text{Ni}({}^{22}\text{Ne}, {}^{22}\text{Ne}')$ , E=2.25 MeV / nucleon; ${}^{107}\text{Ag}({}^{22}\text{Ne}, {}^{22}\text{Ne}')$ , E=2.86 MeV / nucleon; $\text{Ni}({}^{30}\text{Mg}, {}^{30}\text{Mg}')$ , E=2.25 MeV / nucleon; ${}^{60}\text{Ni}$ , ${}^{107}\text{Ag}({}^{30}\text{Mg}, {}^{30}\text{Mg}')$ , E=2.69 MeV / nucleon; $\text{U}(\text{p}, \text{X}){}^{22}\text{Ne} / {}^{30}\text{Mg} / {}^{32}\text{Mg}$ , E=1.01-1.40 GeV; measured $E\gamma$ , $I\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. ${}^{22}\text{Ne}$ , ${}^{30}\text{Mg}$ , ${}^{32}\text{Mg}$ , ${}^{107}\text{Ag}$ deduced levels, $B(E2)$ , half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. ${}^{24}\text{Mg}$ , ${}^{26}\text{Mg}$ , ${}^{28}\text{Mg}$ , ${}^{30}\text{Mg}$ , ${}^{32}\text{Mg}$ , ${}^{34}\text{Mg}$ systematics of $B(E2)$ values. Comparisons with shell-model calculations. THESIS O T Niedermaier, Univ Heidelberg NUCLEAR REACTIONS $\text{He}({}^{28}\text{Na}, \text{X})$ , $({}^{29}\text{Na}, \text{X})$ , $({}^{30}\text{Na}, \text{X})$ , $({}^{31}\text{Na}, \text{X})$ , $({}^{30}\text{Mg}, \text{X})$ , $({}^{31}\text{Mg}, \text{X})$ , $({}^{32}\text{Mg}, \text{X})$ , $({}^{33}\text{Mg}, \text{X})$ , $({}^{32}\text{Al}, \text{X})$ , $({}^{33}\text{Al}, \text{X})$ , $({}^{34}\text{Al}, \text{X})$ , $({}^{35}\text{Al}, \text{X})$ , $({}^{34}\text{Si}, \text{X})$ , $({}^{35}\text{Si}, \text{X})$ , $({}^{36}\text{Si}, \text{X})$ , $({}^{36}\text{P}, \text{X})$ , $({}^{37}\text{P}, \text{X})$ , E $\approx$ 40 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. ${}^{28,29,30,31}\text{Na}$ , ${}^{30,31,32,33,34,35}\text{Mg}$ deduced transitions. REPT CNS-REP-69,P19,Fukui
2006SUZX	NUCLEAR REACTIONS $\text{Au}({}^{32}\text{Mg}, {}^{32}\text{Mg}')$ , E=26.1 MeV / nucleon; measured Doppler-shifted $E\gamma$ , $I\gamma$ . ${}^{32}\text{Mg}$ level deduced $T_{1/2}$ . REPT CNS-REP-69,P35,Suzuki
2007MA04	RADIOACTIVITY ${}^{32}\text{Na}(\beta^-)$ , $(\beta^-n)$ , $(\beta^-2n)$ [from $\text{Ta}(\text{p}, \text{X})$ ]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, $\beta\gamma$ -coin. ${}^{32}\text{Mg}$ deduced levels, $J$ , $\pi$ . ${}^{30,31}\text{Mg}$ deduced transitions. JOUR PRVCA 75 017302

**A=32 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$ ${}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{25}\text{F}$ / ${}^{26}\text{F}$ / ${}^{27}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
${}^{32}\text{Al}$	2006FUZX
2007KA18	NUCLEAR REACTIONS He( ${}^{28}\text{Na}$ , X), ( ${}^{29}\text{Na}$ , X), ( ${}^{30}\text{Na}$ , X), ( ${}^{31}\text{Na}$ , X), ( ${}^{30}\text{Mg}$ , X), ( ${}^{31}\text{Mg}$ , X), ( ${}^{32}\text{Mg}$ , X), ( ${}^{33}\text{Mg}$ , X), ( ${}^{32}\text{Al}$ , X), ( ${}^{33}\text{Al}$ , X), ( ${}^{34}\text{Al}$ , X), ( ${}^{35}\text{Al}$ , X), ( ${}^{34}\text{Si}$ , X), ( ${}^{35}\text{Si}$ , X), ( ${}^{36}\text{Si}$ , X), ( ${}^{36}\text{P}$ , X), ( ${}^{37}\text{P}$ , X), E $\approx$ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. ${}^{28,29,30,31}\text{Na}$ , ${}^{30,31,32,33}\text{Mg}$ , ${}^{32,33,34,35}\text{Al}$ deduced transitions. REPT CNS-REP-69,P19,Fukui
2007KAZZ	RADIOACTIVITY ${}^{32}\text{Al}(\beta^-)$ [from ${}^{40}\text{Ar}$ fragmentation]; measured $\beta$ -NMR spectra. ${}^{32}\text{Al}$ deduced quadrupole moment. JOUR PYLBB 647 93
2007KAZZ	RADIOACTIVITY ${}^{32}\text{Al}(\beta^-)$ ; measured $\beta$ -NMR spectra; deduced electric quadrupole moment. REPT RIKEN-NC-NP-6,Kameda
2007KAZZ	NUCLEAR MOMENTS ${}^{32}\text{Al}$ ; measured $\beta$ -NMR spectra; deduced electric quadrupole moment. REPT RIKEN-NC-NP-6,Kameda

**A=32 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007Y0ZZ	NUCLEAR REACTIONS $\text{Nb}({}^{40}\text{Ar}, \text{X}){}^{32}\text{Al}$ , E=95 MeV / nucleon; measured quadrupole moment using $\beta$ -NMR method. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P105
${}^{32}\text{Si}$	2007KA18 RADIOACTIVITY ${}^{32}\text{Al}(\beta^-)$ [from ${}^{40}\text{Ar}$ fragmentation]; measured $\beta$ -NMR spectra. ${}^{32}\text{Al}$ deduced quadrupole moment. JOUR PYLBB 647 93
	2007KAZZ RADIOACTIVITY ${}^{32}\text{Al}(\beta^-)$ ; measured $\beta$ -NMR spectra; deduced electric quadrupole moment. REPT RIKEN-NC-NP-6, Kameda

### A=32 (*continued*)

**A=32 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{32}\text{S}$	2006BR31	NUCLEAR REACTIONS ${}^{28}\text{Si}({}^6\text{Li}, \text{d}\alpha)$ , E=47 MeV; measured Ed, E $\alpha$ , $\text{d}\alpha$ -coin, angular correlations. ${}^{28}\text{Si}$ , ${}^{32}\text{S}$ deduced excited states energies. JOUR PHSTB 74 692
${}^{32}\text{Ar}$	2007BU15	NUCLEAR REACTIONS C( ${}^{40}\text{Ca}$ , X) ${}^{36}\text{Ca}$ / ${}^{32}\text{Ar}$ / ${}^{28}\text{S}$ , E=95 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . Deduced level energies. JOUR APOBB 38 1353

**A=33**

${}^{33}\text{Na}$	2007JU03	ATOMIC MASSES ${}^{23}\text{N}$ , ${}^{23,24}\text{O}$ , ${}^{25,26,27}\text{F}$ , ${}^{27,28,29,30,31}\text{Ne}$ , ${}^{31,32,33}\text{Na}$ , ${}^{34,35,36}\text{Mg}$ , ${}^{34,35,36,37,38,39}\text{Al}$ , ${}^{36,37,38,39,40,41,42}\text{Si}$ , ${}^{40,41,42,43,44}\text{P}$ , ${}^{40,43,44,45}\text{S}$ , ${}^{43,44,45,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
${}^{33}\text{Mg}$	2006FUZX	NUCLEAR REACTIONS He( ${}^{28}\text{Na}$ , X), ( ${}^{29}\text{Na}$ , X), ( ${}^{30}\text{Na}$ , X), ( ${}^{31}\text{Na}$ , X), ( ${}^{30}\text{Mg}$ , X), ( ${}^{31}\text{Mg}$ , X), ( ${}^{32}\text{Mg}$ , X), ( ${}^{33}\text{Mg}$ , X), ( ${}^{32}\text{Al}$ , X), ( ${}^{33}\text{Al}$ , X), ( ${}^{34}\text{Al}$ , X), ( ${}^{35}\text{Al}$ , X), ( ${}^{34}\text{Si}$ , X), ( ${}^{35}\text{Si}$ , X), ( ${}^{36}\text{Si}$ , X), ( ${}^{36}\text{P}$ , X), ( ${}^{37}\text{P}$ , X), E $\approx$ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. ${}^{28,29,30,31}\text{Na}$ , ${}^{30,31,32,33}\text{Mg}$ , ${}^{32,33,34,35}\text{Al}$ deduced transitions. REPT CNS-REP-69,P19,Fukui

**A=33 (continued)**

2006K055	RADIOACTIVITY $^{27,29,31,33}\text{Mg}(\beta^-)$ [from U(p, X)]; measured $\beta$ -asymmetry and hfs, $\beta$ -NMR spectra from polarized source. $^{31}\text{Mg}$ deduced ground-state J, $\pi$ , $\mu$ , quadrupole moment. JOUR HYIND 171 167
2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Li} / ^7\text{Be} / ^8\text{Be} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{12}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{15}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{18}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{20}\text{N} / ^{21}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{22}\text{O} / ^{23}\text{O} / ^{24}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{28}\text{Ne} / ^{29}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{30}\text{Na} / ^{31}\text{Na} / ^{32}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{32}\text{Mg} / ^{33}\text{Mg} / ^{34}\text{Mg} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{35}\text{Si} / ^{36}\text{Si} / ^{37}\text{Si} / ^{38}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{37}\text{P} / ^{38}\text{P} / ^{39}\text{P} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{38}\text{S} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{38}\text{Cl} / ^{39}\text{Cl} / ^{39}\text{Ar}, E=100 \text{ MeV} / \text{nucleon}; ^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{24} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{26}\text{Si} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{30}\text{S} / ^{31}\text{S} / ^{32}\text{S} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{33}\text{Cl} / ^{34}\text{Cl} / ^{35}\text{Cl} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{35}\text{Ar} / ^{36}\text{Ar} / ^{37}\text{Ar} / ^{38}\text{Ar} / ^{39}\text{Ar} / ^{37}\text{K} / ^{38}\text{K} / ^{39}\text{K} / ^{40}\text{K}, E=100 \text{ MeV} / \text{nucleon}; \text{measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605}$
2007Y006	RADIOACTIVITY $^{33}\text{Mg}(\beta^-)$ [from U(p, X), E-1.4 GeV]; measured $\beta$ -decay anisotropy using laser spectroscopy and nuclear magnetic resonance techniques. $^{33}\text{Mg}$ deduced ground state spin and magnetic moment. JOUR PRLTA 99 212501
$^{33}\text{Al}$	2006FUZX NUCLEAR REACTIONS He( $^{28}\text{Na}$ , X), ( $^{29}\text{Na}$ , X), ( $^{30}\text{Na}$ , X), ( $^{31}\text{Na}$ , X), ( $^{30}\text{Mg}$ , X), ( $^{31}\text{Mg}$ , X), ( $^{32}\text{Mg}$ , X), ( $^{33}\text{Mg}$ , X), ( $^{32}\text{Al}$ , X), ( $^{33}\text{Al}$ , X), ( $^{34}\text{Al}$ , X), ( $^{35}\text{Al}$ , X), ( $^{34}\text{Si}$ , X), ( $^{35}\text{Si}$ , X), ( $^{36}\text{Si}$ , X), ( $^{36}\text{P}$ , X), ( $^{37}\text{P}$ , X), $E \approx 40 \text{ MeV} / \text{nucleon}$ ; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{28,29,30,31}\text{Na}$ , $^{30,31,32,33}\text{Mg}$ , $^{32,33,34,35}\text{Al}$ deduced transitions. REPT CNS-REP-69,P19,Fukui
2006K055	RADIOACTIVITY $^{27,29,31,33}\text{Mg}(\beta^-)$ [from U(p, X)]; measured $\beta$ -asymmetry and hfs, $\beta$ -NMR spectra from polarized source. $^{31}\text{Mg}$ deduced ground-state J, $\pi$ , $\mu$ , quadrupole moment. JOUR HYIND 171 167

**A=33 (continued)**

- 2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- 2007Y006 RADIOACTIVITY  ${}^{33}\text{Mg}(\beta^-)$  [from U(p, X), E-1.4 GeV]; measured  $\beta$ -decay anisotropy using laser spectroscopy and nuclear magnetic resonance techniques.  ${}^{33}\text{Mg}$  deduced ground state spin and magnetic moment. JOUR PRLTA 99 212501

**A=33 (continued)**

<sup>33</sup> Si	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>33</sup> P	2007DE15	NUCLEAR REACTIONS <sup>36</sup> Cl(n, p), (n, $\alpha$ ), E=0.5-250 keV; measured $\sigma$ ; deduced resonance parameters, Maxwellian-averaged cross section. Astrophysical implications discussed. JOUR PRVCA 75 034617
	2007H008	NUCLEAR REACTIONS <sup>208</sup> Pb( <sup>36</sup> S, X) <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>37</sup> P, E=215 MeV; measured particle yields, E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>37</sup> P deduced levels, J, $\pi$ , configurations. Clara array. JOUR PRVCA 75 034313

**A=33 (continued)**

2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=33 (continued)**

<sup>33</sup>S        2007N013        NUCLEAR REACTIONS <sup>9</sup>Be(<sup>40</sup>Ar, X)<sup>6</sup>Li / <sup>7</sup>Li / <sup>8</sup>Li / <sup>9</sup>Li / <sup>7</sup>Be / <sup>8</sup>Be / <sup>9</sup>Be / <sup>10</sup>Be / <sup>11</sup>Be / <sup>12</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>12</sup>B / <sup>13</sup>B / <sup>14</sup>B / <sup>15</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>C / <sup>15</sup>C / <sup>16</sup>C / <sup>17</sup>C / <sup>18</sup>C / <sup>13</sup>N / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>N / <sup>17</sup>N / <sup>18</sup>N / <sup>19</sup>N / <sup>20</sup>N / <sup>21</sup>N / <sup>15</sup>O / <sup>16</sup>O / <sup>17</sup>O / <sup>18</sup>O / <sup>19</sup>O / <sup>20</sup>O / <sup>21</sup>O / <sup>22</sup>O / <sup>23</sup>O / <sup>24</sup>O / <sup>17</sup>F / <sup>18</sup>F / <sup>19</sup>F / <sup>20</sup>F / <sup>21</sup>F / <sup>22</sup>F / <sup>23</sup>F / <sup>24</sup>F / <sup>25</sup>F / <sup>26</sup>F / <sup>27</sup>F / <sup>19</sup>Ne / <sup>20</sup>Ne / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>23</sup>Ne / <sup>24</sup>Ne / <sup>25</sup>Ne / <sup>26</sup>Ne / <sup>27</sup>Ne / <sup>28</sup>Ne / <sup>29</sup>Ne / <sup>21</sup>Na / <sup>22</sup>Na / <sup>23</sup>Na / <sup>24</sup>Na / <sup>25</sup>Na / <sup>26</sup>Na / <sup>27</sup>Na / <sup>28</sup>Na / <sup>29</sup>Na / <sup>30</sup>Na / <sup>31</sup>Na / <sup>32</sup>Na / <sup>23</sup>Mg / <sup>24</sup>Mg / <sup>25</sup>Mg / <sup>26</sup>Mg / <sup>27</sup>Mg / <sup>28</sup>Mg / <sup>29</sup>Mg / <sup>30</sup>Mg / <sup>31</sup>Mg / <sup>32</sup>Mg / <sup>33</sup>Mg / <sup>34</sup>Mg / <sup>25</sup>Al / <sup>26</sup>Al / <sup>27</sup>Al / <sup>28</sup>Al / <sup>29</sup>Al / <sup>30</sup>Al / <sup>31</sup>Al / <sup>32</sup>Al / <sup>33</sup>Al / <sup>34</sup>Al / <sup>35</sup>Al / <sup>36</sup>Al / <sup>27</sup>Si / <sup>28</sup>Si / <sup>29</sup>Si / <sup>30</sup>Si / <sup>31</sup>Si / <sup>32</sup>Si / <sup>33</sup>Si / <sup>34</sup>Si / <sup>35</sup>Si / <sup>36</sup>Si / <sup>37</sup>Si / <sup>38</sup>Si / <sup>29</sup>P / <sup>30</sup>P / <sup>31</sup>P / <sup>32</sup>P / <sup>33</sup>P / <sup>34</sup>P / <sup>35</sup>P / <sup>36</sup>P / <sup>37</sup>P / <sup>38</sup>P / <sup>39</sup>P / <sup>33</sup>S / <sup>34</sup>S / <sup>35</sup>S / <sup>36</sup>S / <sup>37</sup>S / <sup>38</sup>S / <sup>36</sup>Cl / <sup>37</sup>Cl / <sup>38</sup>Cl / <sup>39</sup>Cl / <sup>39</sup>Ar, E=100 MeV / nucleon; <sup>181</sup>Ta(<sup>40</sup>Ar, X)<sup>6</sup>Li / <sup>7</sup>Li / <sup>8</sup>Li / <sup>9</sup>Be / <sup>10</sup>Be / <sup>11</sup>Be / <sup>10</sup>B / <sup>11</sup>B / <sup>12</sup>B / <sup>13</sup>B / <sup>14</sup>B / <sup>11</sup>C / <sup>12</sup>C / <sup>13</sup>C / <sup>14</sup>C / <sup>15</sup>C / <sup>16</sup>C / <sup>17</sup>C / <sup>13</sup>N / <sup>14</sup>N / <sup>15</sup>N / <sup>16</sup>N / <sup>17</sup>N / <sup>18</sup>N / <sup>19</sup>N / <sup>15</sup>O / <sup>16</sup>O / <sup>17</sup>O / <sup>18</sup>O / <sup>19</sup>O / <sup>20</sup>O / <sup>21</sup>O / <sup>17</sup>F / <sup>18</sup>F / <sup>19</sup>F / <sup>20</sup>F / <sup>21</sup>F / <sup>22</sup>F / <sup>23</sup>F / <sup>24</sup>F / <sup>19</sup>Ne / <sup>20</sup>Ne / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>23</sup>Ne / <sup>24</sup>Ne / <sup>25</sup>Ne / <sup>26</sup>Ne / <sup>27</sup>Ne / <sup>21</sup>Na / <sup>22</sup>Na / <sup>23</sup>Na / <sup>24</sup>Na / <sup>25</sup>Na / <sup>26</sup>Na / <sup>27</sup>Na / <sup>28</sup>Na / <sup>29</sup>Na / <sup>23</sup>Mg / <sup>24</sup>Mg / <sup>25</sup>Mg / <sup>26</sup>Mg / <sup>27</sup>Mg / <sup>28</sup>Mg / <sup>29</sup>Mg / <sup>30</sup>Mg / <sup>31</sup>Mg / <sup>24</sup> / <sup>25</sup>Al / <sup>26</sup>Al / <sup>27</sup>Al / <sup>28</sup>Al / <sup>29</sup>Al / <sup>30</sup>Al / <sup>31</sup>Al / <sup>32</sup>Al / <sup>33</sup>Al / <sup>34</sup>Al / <sup>26</sup>Si / <sup>27</sup>Si / <sup>28</sup>Si / <sup>29</sup>Si / <sup>30</sup>Si / <sup>31</sup>Si / <sup>32</sup>Si / <sup>33</sup>Si / <sup>34</sup>Si / <sup>29</sup>P / <sup>30</sup>P / <sup>31</sup>P / <sup>32</sup>P / <sup>33</sup>P / <sup>34</sup>P / <sup>35</sup>P / <sup>36</sup>P / <sup>30</sup>S / <sup>31</sup>S / <sup>32</sup>S / <sup>33</sup>S / <sup>34</sup>S / <sup>35</sup>S / <sup>36</sup>S / <sup>37</sup>S / <sup>33</sup>Cl / <sup>34</sup>Cl / <sup>35</sup>Cl / <sup>36</sup>Cl / <sup>37</sup>Cl / <sup>35</sup>Ar / <sup>36</sup>Ar / <sup>37</sup>Ar / <sup>38</sup>Ar / <sup>39</sup>Ar / <sup>37</sup>K / <sup>38</sup>K / <sup>39</sup>K / <sup>40</sup>K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=34**

<sup>34</sup>Mg        2005N1ZS        NUCLEAR REACTIONS Ni(<sup>22</sup>Ne, <sup>22</sup>Ne'), E=2.25 MeV / nucleon; <sup>107</sup>Ag(<sup>22</sup>Ne, <sup>22</sup>Ne'), E=2.86 MeV / nucleon; Ni(<sup>30</sup>Mg, <sup>30</sup>Mg'), E=2.25 MeV / nucleon; <sup>60</sup>Ni, <sup>107</sup>Ag(<sup>30</sup>Mg, <sup>30</sup>Mg'), E=2.69 MeV / nucleon; U(p, X)<sup>22</sup>Ne / <sup>30</sup>Mg / <sup>32</sup>Mg, E=1.01-1.40 GeV; measured E $\gamma$ , I $\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. <sup>22</sup>Ne, <sup>30</sup>Mg, <sup>32</sup>Mg, <sup>107</sup>Ag deduced levels, B(E2), half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. <sup>24</sup>Mg, <sup>26</sup>Mg, <sup>28</sup>Mg, <sup>30</sup>Mg, <sup>32</sup>Mg, <sup>34</sup>Mg systematics of B(E2) values. Comparisons with shell-model calculations. THESIS O T Niednermaier, Univ Heidelberg ATOMIC MASSES <sup>23</sup>N, <sup>23,24</sup>O, <sup>25,26,27</sup>F, <sup>27,28,29,30,31</sup>Ne, <sup>31,32,33</sup>Na, <sup>34,35,36</sup>Mg, <sup>34,35,36,37,38,39</sup>Al, <sup>36,37,38,39,40,41,42</sup>Si, <sup>40,41,42,43,44</sup>P, <sup>40,43,44,45</sup>S, <sup>43,45,46,47</sup>Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

**A=34 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$ ${}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{34}\text{Al}$	2006FUZX	NUCLEAR REACTIONS He( ${}^{28}\text{Na}$ , X), ( ${}^{29}\text{Na}$ , X), ( ${}^{30}\text{Na}$ , X), ( ${}^{31}\text{Na}$ , X), ( ${}^{30}\text{Mg}$ , X), ( ${}^{31}\text{Mg}$ , X), ( ${}^{32}\text{Mg}$ , X), ( ${}^{33}\text{Mg}$ , X), ( ${}^{32}\text{Al}$ , X), ( ${}^{33}\text{Al}$ , X), ( ${}^{34}\text{Al}$ , X), ( ${}^{35}\text{Al}$ , X), ( ${}^{34}\text{Si}$ , X), ( ${}^{35}\text{Si}$ , X), ( ${}^{36}\text{Si}$ , X), ( ${}^{36}\text{P}$ , X), ( ${}^{37}\text{P}$ , X), E $\approx$ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. ${}^{28,29,30,31}\text{Na}$ , ${}^{30,31,32,33}\text{Mg}$ , ${}^{32,33,34,35}\text{Al}$ deduced transitions. REPT CNS-REP-69,P19,Fukui
2007JU03	ATOMIC MASSES ${}^{23}\text{N}$ , ${}^{23,24}\text{O}$ , ${}^{25,26,27}\text{F}$ , ${}^{27,28,29,30,31}\text{Ne}$ , ${}^{31,32,33}\text{Na}$ , ${}^{34,35,36}\text{Mg}$ , ${}^{34,35,36,37,38,39}\text{Al}$ , ${}^{36,37,38,39,40,41,42}\text{Si}$ , ${}^{40,41,42,43,44}\text{P}$ , ${}^{40,43,44,45}\text{S}$ , ${}^{43,44,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43	

**A=34 (continued)**

2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})$   $^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Li} / ^7\text{Be} / ^8\text{Be} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{12}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{15}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{18}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{20}\text{N} / ^{21}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{22}\text{O} / ^{23}\text{O} / ^{24}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{28}\text{Ne} / ^{29}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{30}\text{Na} / ^{31}\text{Na} / ^{32}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{32}\text{Mg} / ^{33}\text{Mg} / ^{34}\text{Mg} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{35}\text{Si} / ^{36}\text{Si} / ^{37}\text{Si} / ^{38}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{37}\text{P} / ^{38}\text{P} / ^{39}\text{P} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{38}\text{S} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{38}\text{Cl} / ^{39}\text{Cl} / ^{39}\text{Ar}, E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})$   $^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{24} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{26}\text{Si} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{30}\text{S} / ^{31}\text{S} / ^{32}\text{S} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{33}\text{Cl} / ^{34}\text{Cl} / ^{35}\text{Cl} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{35}\text{Ar} / ^{36}\text{Ar} / ^{37}\text{Ar} / ^{38}\text{Ar} / ^{39}\text{Ar} / ^{37}\text{K} / ^{38}\text{K} / ^{39}\text{K} / ^{40}\text{K}, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605$$

## KEYNUMBERS AND KEYWORDS

### A=34 (*continued*)

**A=34 (continued)**

2007N013 NUCLEAR REACTIONS  ${}^9\text{Be}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Li}$  /  ${}^7\text{Be}$  /  ${}^8\text{Be}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X})$   ${}^6\text{Li}$  /  ${}^7\text{Li}$  /  ${}^8\text{Li}$  /  ${}^9\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=34 (continued)**

<sup>34</sup> S	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>34</sup> Ar	2007FA16	NUCLEAR REACTIONS <sup>12</sup> C( <sup>23</sup> Al, p), E=74 MeV / nucleon; measured fragment longitudinal momentum distributions. <sup>12</sup> C( <sup>23</sup> Al, X), ( <sup>24</sup> Al, X), ( <sup>24</sup> Al, X), E=74 MeV / nucleon; measured reaction cross sections. Compared results to model calculations. JOUR PRVCA 76 031601

**A=35**

<sup>35</sup> Mg	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,44,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>35</sup> Al	2006FUZX	NUCLEAR REACTIONS He( <sup>28</sup> Na, X), ( <sup>29</sup> Na, X), ( <sup>30</sup> Na, X), ( <sup>31</sup> Na, X), ( <sup>30</sup> Mg, X), ( <sup>31</sup> Mg, X), ( <sup>32</sup> Mg, X), ( <sup>33</sup> Mg, X), ( <sup>32</sup> Al, X), ( <sup>33</sup> Al, X), ( <sup>34</sup> Al, X), ( <sup>35</sup> Al, X), ( <sup>34</sup> Si, X), ( <sup>35</sup> Si, X), ( <sup>36</sup> Si, X), ( <sup>36</sup> P, X), ( <sup>37</sup> P, X), E ≈ 40 MeV / nucleon; measured E <sub>γ</sub> , I <sub>γ</sub> , (particle)γ-coincidence. <sup>28,29,30,31</sup> Na, <sup>30,31,32,33</sup> Mg, <sup>32,33,34,35</sup> Al deduced transitions. REPT CNS-REP-69,P19,Fukui

**A=35 (continued)**

- 2007JU03 ATOMIC MASSES  $^{23}\text{N}$ ,  $^{23,24}\text{O}$ ,  $^{25,26,27}\text{F}$ ,  $^{27,28,29,30,31}\text{Ne}$ ,  $^{31,32,33}\text{Na}$ ,  
 $^{34,35,36}\text{Mg}$ ,  $^{34,35,36,37,38,39}\text{Al}$ ,  $^{36,37,38,39,40,41,42}\text{Si}$ ,  $^{40,41,42,43,44}\text{P}$ ,  
 $^{40,43,44,45}\text{S}$ ,  $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation  
energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
- 2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  
 $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  
 $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  
 $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  
 $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  
/  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  
 $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  
/  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  
 $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  
 $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  
 $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  
 $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  
 $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  
/  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  
 $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  
 $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  
 $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  
 $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  
/  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  
 $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  
 $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  
 $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  
/  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  
 $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  
 $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ ,  
E=100 MeV / nucleon; measured momentum distribution, production  
cross sections. RIKEN. JOUR PRVCA 76 044605

## *KEYNUMBERS AND KEYWORDS*

### A=35 (*continued*)

**A=35 (*continued*)**

2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

**A=35 (continued)**

<sup>35</sup> S	2007N013	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>40</sup> Ar, X) <sup>6</sup> Li / <sup>7</sup> Li / <sup>8</sup> Li / <sup>9</sup> Li / <sup>7</sup> Be / <sup>8</sup> Be / <sup>9</sup> Be / <sup>10</sup> Be / <sup>11</sup> Be / <sup>12</sup> Be / <sup>10</sup> B / <sup>11</sup> B / <sup>12</sup> B / <sup>13</sup> B / <sup>14</sup> B / <sup>15</sup> B / <sup>11</sup> C / <sup>12</sup> C / <sup>13</sup> C / <sup>14</sup> C / <sup>15</sup> C / <sup>16</sup> C / <sup>17</sup> C / <sup>18</sup> C / <sup>13</sup> N / <sup>14</sup> N / <sup>15</sup> N / <sup>16</sup> N / <sup>17</sup> N / <sup>18</sup> N / <sup>19</sup> N / <sup>20</sup> N / <sup>21</sup> N / <sup>15</sup> O / <sup>16</sup> O / <sup>17</sup> O / <sup>18</sup> O / <sup>19</sup> O / <sup>20</sup> O / <sup>21</sup> O / <sup>22</sup> O / <sup>23</sup> O / <sup>24</sup> O / <sup>17</sup> F / <sup>18</sup> F / <sup>19</sup> F / <sup>20</sup> F / <sup>21</sup> F / <sup>22</sup> F / <sup>23</sup> F / <sup>24</sup> F / <sup>25</sup> F / <sup>26</sup> F / <sup>27</sup> F / <sup>19</sup> Ne / <sup>20</sup> Ne / <sup>21</sup> Ne / <sup>22</sup> Ne / <sup>23</sup> Ne / <sup>24</sup> Ne / <sup>25</sup> Ne / <sup>26</sup> Ne / <sup>27</sup> Ne / <sup>28</sup> Ne / <sup>29</sup> Ne / <sup>21</sup> Na / <sup>22</sup> Na / <sup>23</sup> Na / <sup>24</sup> Na / <sup>25</sup> Na / <sup>26</sup> Na / <sup>27</sup> Na / <sup>28</sup> Na / <sup>29</sup> Na / <sup>30</sup> Na / <sup>31</sup> Na / <sup>32</sup> Na / <sup>23</sup> Mg / <sup>24</sup> Mg / <sup>25</sup> Mg / <sup>26</sup> Mg / <sup>27</sup> Mg / <sup>28</sup> Mg / <sup>29</sup> Mg / <sup>30</sup> Mg / <sup>31</sup> Mg / <sup>24</sup> / <sup>25</sup> Al / <sup>26</sup> Al / <sup>27</sup> Al / <sup>28</sup> Al / <sup>29</sup> Al / <sup>30</sup> Al / <sup>31</sup> Al / <sup>32</sup> Al / <sup>33</sup> Al / <sup>34</sup> Al / <sup>26</sup> Si / <sup>27</sup> Si / <sup>28</sup> Si / <sup>29</sup> Si / <sup>30</sup> Si / <sup>31</sup> Si / <sup>32</sup> Si / <sup>33</sup> Si / <sup>34</sup> Si / <sup>29</sup> P / <sup>30</sup> P / <sup>31</sup> P / <sup>32</sup> P / <sup>33</sup> P / <sup>34</sup> P / <sup>35</sup> P / <sup>36</sup> P / <sup>30</sup> S / <sup>31</sup> S / <sup>32</sup> S / <sup>33</sup> S / <sup>34</sup> S / <sup>35</sup> S / <sup>36</sup> S / <sup>37</sup> S / <sup>33</sup> Cl / <sup>34</sup> Cl / <sup>35</sup> Cl / <sup>36</sup> Cl / <sup>37</sup> Cl / <sup>35</sup> Ar / <sup>36</sup> Ar / <sup>37</sup> Ar / <sup>38</sup> Ar / <sup>39</sup> Ar / <sup>37</sup> K / <sup>38</sup> K / <sup>39</sup> K / <sup>40</sup> K, E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
<sup>35</sup> Cl	2007DE14	NUCLEAR REACTIONS <sup>24</sup> Mg( <sup>16</sup> O, na), ( <sup>16</sup> O, pa), E=70 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (charged particle) $\gamma$ -coin. <sup>35</sup> Ar, <sup>35</sup> Cl deduced high-spin levels, J, $\pi$ , configurations, analog states, spin-orbit interaction effects, isospin symmetry features. GASP, ISIS arrays. JOUR PRVCA 75 034317
2007KS01		NUCLEAR REACTIONS <sup>12</sup> C( <sup>28</sup> Si, pa), E=70, 88 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, DSA. <sup>35</sup> Cl deduced levels J, $\pi$ , $\delta$ , T <sub>1/2</sub> . INGA array, shell model calculations. JOUR NUPAB 781 277
2007LEZZ		NUCLEAR REACTIONS <sup>24</sup> Mg( <sup>16</sup> O, pa), <sup>24</sup> Mg( <sup>16</sup> O, na), E=70 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (charged particle) $\gamma$ -coinc. <sup>35</sup> Cl, <sup>35</sup> Ar deduced high-spin levels and isospin mixing. CONF Iguazu(Nuclear Physics and Applications) Proc,P135,Lenzi
<sup>35</sup> Ar	2007DE14	NUCLEAR REACTIONS <sup>24</sup> Mg( <sup>16</sup> O, na), ( <sup>16</sup> O, pa), E=70 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (charged particle) $\gamma$ -coin. <sup>35</sup> Ar, <sup>35</sup> Cl deduced high-spin levels, J, $\pi$ , configurations, analog states, spin-orbit interaction effects, isospin symmetry features. GASP, ISIS arrays. JOUR PRVCA 75 034317

**A=35 (continued)**

2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
2007LEZZ	NUCLEAR REACTIONS $^{24}\text{Mg}(\text{^{16}\text{O}, p\alpha)$ , $^{24}\text{Mg}(\text{^{16}\text{O}, n\alpha)$ , E=70 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (charged particle) $\gamma$ -coinc. $^{35}\text{Cl}$ , $^{35}\text{Ar}$ deduced high-spin levels and isospin mixing. CONF Iguazu(Nuclear Physics and Applications) Proc,P135,Lenzi
$^{35}\text{K}$	ATOMIC MASSES $^{35,36,37,38,43,44,45,56}\text{K}$ ; measured masses using ISOLTRAP. Discussed implications on IMME. JOUR PRVCA 76 024308
2007YAZX	ATOMIC MASSES $^{35,36,37,38,43,44,45,46}\text{K}$ ; measured masses using the ISOLTRAP mass spectrometer. PREPRINT arXiv:0707.3201v1 [nucl-ex]

**A=36**

$^{36}\text{Mg}$	2007GA34	NUCLEAR REACTIONS $^9\text{Be}(\text{^{38}\text{Si}, ^{36}\text{Mg}})$ , E=83 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{36}\text{Mg}$ deduced level energy. Compared results to model calculations. JOUR PRLTA 99 072502
	2007JU03	ATOMIC MASSES $^{23}\text{N}$ , $^{23,24}\text{O}$ , $^{25,26,27}\text{F}$ , $^{27,28,29,30,31}\text{Ne}$ , $^{31,32,33}\text{Na}$ , $^{34,35,36}\text{Mg}$ , $^{34,35,36,37,38,39}\text{Al}$ , $^{36,37,38,39,40,41,42}\text{Si}$ , $^{40,41,42,43,44}\text{P}$ , $^{40,43,44,45}\text{S}$ , $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
	2007TA15	NUCLEAR REACTIONS $^{184}\text{W}$ , $^9\text{Be}(\text{^{48}\text{Ca}, X})^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{41}\text{Si} / ^{42}\text{Si} / ^{43}\text{Si} / ^{44}\text{Si}$ , E=142 MeV / nucleon; measured production cross sections. Compared results to model calculations. JOUR PRVCA 75 064613
	2007TAZZ	NUCLEAR REACTIONS Be, W( $^{48}\text{Ca}$ , X) $^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{41}\text{Si} / ^{42}\text{Si} / ^{43}\text{Si} / ^{44}\text{Si}$ , E=142 MeV / nucleon; measured production $\sigma$ . PREPRINT arXiv:0705.0349v1 [nucl-ex]
$^{36}\text{Al}$	2007JU03	ATOMIC MASSES $^{23}\text{N}$ , $^{23,24}\text{O}$ , $^{25,26,27}\text{F}$ , $^{27,28,29,30,31}\text{Ne}$ , $^{31,32,33}\text{Na}$ , $^{34,35,36}\text{Mg}$ , $^{34,35,36,37,38,39}\text{Al}$ , $^{36,37,38,39,40,41,42}\text{Si}$ , $^{40,41,42,43,44}\text{P}$ , $^{40,43,44,45}\text{S}$ , $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

**A=36 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
$^{36}\text{Si}$	2007CA35	NUCLEAR REACTIONS $^1\text{H}(^{36}\text{Si}, ^{36}\text{Si}')$ , E < 140 MeV / nucleon; $^1\text{H}(^{38}\text{Si}, ^{38}\text{Si}')$ , E < 140 MeV / nucleon; $^1\text{H}(^{40}\text{Si}, ^{40}\text{Si}')$ , E < 140 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , ( $\text{particle}\gamma$ -coinc, inelastic proton scattering cross sections. $^{36,38,40}\text{Si}$ deduced quadrupole deformation parameters. JOUR PYLBB 652 169
2007JU03	ATOMIC MASSES $^{23}\text{N}$ , $^{23,24}\text{O}$ , $^{25,26,27}\text{F}$ , $^{27,28,29,30,31}\text{Ne}$ , $^{31,32,33}\text{Na}$ , $^{34,35,36}\text{Mg}$ , $^{34,35,36,37,38,39}\text{Al}$ , $^{36,37,38,39,40,41,42}\text{Si}$ , $^{40,41,42,43,44}\text{P}$ , $^{40,43,44,45}\text{S}$ , $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43	

### A=36 (*continued*)

**A=36 (*continued*)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{36}\text{S}$	2007DE15	NUCLEAR REACTIONS ${}^{36}\text{Cl}(\text{n}, \text{p})$ , $(\text{n}, \alpha)$ , E=0.5-250 keV; measured $\sigma$ ; deduced resonance parameters, Maxwellian-averaged cross section. Astrophysical implications discussed. JOUR PRVCA 75 034617

### A=36 (*continued*)

2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Li} / ^7\text{Be} / ^8\text{Be} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{12}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{15}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{18}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{20}\text{N} / ^{21}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{22}\text{O} / ^{23}\text{O} / ^{24}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{28}\text{Ne} / ^{29}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{30}\text{Na} / ^{31}\text{Na} / ^{32}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{32}\text{Mg} / ^{33}\text{Mg} / ^{34}\text{Mg} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{35}\text{Si} / ^{36}\text{Si} / ^{37}\text{Si} / ^{38}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{37}\text{P} / ^{38}\text{P} / ^{39}\text{P} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{38}\text{S} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{38}\text{Cl} / ^{39}\text{Cl} / ^{39}\text{Ar}, \text{E}=100 \text{ MeV} / \text{nucleon}; ^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{24} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{26}\text{Si} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{30}\text{S} / ^{31}\text{S} / ^{32}\text{S} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{33}\text{Cl} / ^{34}\text{Cl} / ^{35}\text{Cl} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{35}\text{Ar} / ^{36}\text{Ar} / ^{37}\text{Ar} / ^{38}\text{Ar} / ^{39}\text{Ar} / ^{37}\text{K} / ^{38}\text{K} / ^{39}\text{K} / ^{40}\text{K}, \text{E}=100 \text{ MeV} / \text{nucleon}; \text{measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605}$

**A=36 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{36}\text{Ar}$	2007D017	RADIOACTIVITY ${}^{36,37}\text{Ca}$ , ${}^{39,40,41}\text{Ti}$ , ${}^{43}\text{V}$ , ${}^{42,43,44,45}\text{Cr}$ , ${}^{46,47}\text{Mn}$ , ${}^{46,47,48,49}\text{Fe}$ , ${}^{50,51}\text{Co}$ , ${}^{49,50,51,52,53}\text{Ni}$ , ${}^{55}\text{Cu}$ , ${}^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( ${}^{58}\text{Ni}$ , X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. ${}^{43,45}\text{Cr}$ , ${}^{46}\text{Mn}$ , ${}^{46,47,48}\text{Fe}$ , ${}^{50}\text{Co}$ , ${}^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
2007FA17		NUCLEAR REACTIONS ${}^{40}\text{Ca}({}^{40}\text{Ca}, \text{X}){}^{39}\text{K}$ / ${}^{38}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Cl}$ , E=50 MeV / nucleon; measured Ep, E $\alpha$ , missing energy spectra. ${}^{40}\text{Ca}$ deduced two-, three-phonon giant resonance states. JOUR NUPAB 788 106c
${}^{36}\text{K}$	2007D017	RADIOACTIVITY ${}^{36,37}\text{Ca}$ , ${}^{39,40,41}\text{Ti}$ , ${}^{43}\text{V}$ , ${}^{42,43,44,45}\text{Cr}$ , ${}^{46,47}\text{Mn}$ , ${}^{46,47,48,49}\text{Fe}$ , ${}^{50,51}\text{Co}$ , ${}^{49,50,51,52,53}\text{Ni}$ , ${}^{55}\text{Cu}$ , ${}^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( ${}^{58}\text{Ni}$ , X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. ${}^{43,45}\text{Cr}$ , ${}^{46}\text{Mn}$ , ${}^{46,47,48}\text{Fe}$ , ${}^{50}\text{Co}$ , ${}^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
2007YA08		ATOMIC MASSES ${}^{35,36,37,38,43,44,45,56}\text{K}$ ; measured masses using ISOLTRAP. Discussed implications on IMME. JOUR PRVCA 76 024308
2007YAZX		ATOMIC MASSES ${}^{35,36,37,38,43,44,45,46}\text{K}$ ; measured masses using the ISOLTRAP mass spectrometer. PREPRINT arXiv:0707.3201v1 [nucl-ex]

**KEYNUMBERS AND KEYWORDS**

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**A=36 (*continued*)**

<sup>36</sup> Ca	2006DOZV	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>37</sup> Ca, <sup>36</sup> CaX), E=196 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>36</sup> Ca deduced excited state energy. REPT GSI 2006-1,P145,Doornebal
	2007BU15	NUCLEAR REACTIONS C( <sup>40</sup> Ca, X) <sup>36</sup> Ca / <sup>32</sup> Ar / <sup>28</sup> S, E=95 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . Deduced level energies. JOUR APOBB 38 1353
	2007D011	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>37</sup> Ca, X) <sup>36</sup> Ca, E=196 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>36</sup> Ca deduced excited state energy, mirror energy differences. Fragment separator, shell-model calculations. JOUR PYLBB 647 237
	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=37**

<sup>37</sup> Mg	2007TA15	NUCLEAR REACTIONS <sup>184</sup> W, <sup>9</sup> Be( <sup>48</sup> Ca, X) <sup>36</sup> Mg / <sup>37</sup> Mg / <sup>38</sup> Mg / <sup>41</sup> Si / <sup>42</sup> Si / <sup>43</sup> Si / <sup>44</sup> Si, E=142 MeV / nucleon; measured production cross sections. Compared results to model calculations. JOUR PRVCA 75 064613
	2007TAZZ	NUCLEAR REACTIONS Be, W( <sup>48</sup> Ca, X) <sup>36</sup> Mg / <sup>37</sup> Mg / <sup>38</sup> Mg / <sup>41</sup> Si / <sup>42</sup> Si / <sup>43</sup> Si / <sup>44</sup> Si, E=142 MeV / nucleon; measured production $\sigma$ . PREPRINT arXiv:0705.0349v1 [nucl-ex]
<sup>37</sup> Al	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>37</sup> Si	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

### A=37 (*continued*)

**A=37 (continued)**

2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})$   $^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Li} / ^7\text{Be} / ^8\text{Be} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{12}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{15}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{18}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{20}\text{N} / ^{21}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{22}\text{O} / ^{23}\text{O} / ^{24}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{28}\text{Ne} / ^{29}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{30}\text{Na} / ^{31}\text{Na} / ^{32}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{32}\text{Mg} / ^{33}\text{Mg} / ^{34}\text{Mg} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{35}\text{Si} / ^{36}\text{Si} / ^{37}\text{Si} / ^{38}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{37}\text{P} / ^{38}\text{P} / ^{39}\text{P} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{38}\text{S} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{38}\text{Cl} / ^{39}\text{Cl} / ^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})$   $^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{24} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{26}\text{Si} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{30}\text{S} / ^{31}\text{S} / ^{32}\text{S} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{33}\text{Cl} / ^{34}\text{Cl} / ^{35}\text{Cl} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{35}\text{Ar} / ^{36}\text{Ar} / ^{37}\text{Ar} / ^{38}\text{Ar} / ^{39}\text{Ar} / ^{37}\text{K} / ^{38}\text{K} / ^{39}\text{K} / ^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

### A=37 (*continued*)

**A=37 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
$^{37}\text{K}$	2007D017
2007VI11	NUCLEAR REACTIONS $^{12}\text{C}(^{48}\text{Ca}, \text{X})^8\text{Li}$ / $^9\text{Li}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{29}\text{Al}$ / $^{37}\text{K}$ / $^{47}\text{K}$ , E=60 MeV / nucleon; measured yield. JOUR NUPAB 787 126c
2007YA08	ATOMIC MASSES $^{35,36,37,38,43,44,45,56}\text{K}$ ; measured masses using ISOLTRAP. Discussed implications on IMME. JOUR PRVCA 76 024308
2007YAZX	ATOMIC MASSES $^{35,36,37,38,43,44,45,46}\text{K}$ ; measured masses using the ISOLTRAP mass spectrometer. PREPRINT arXiv:0707.3201v1 [nucl-ex]
$^{37}\text{Ca}$	2007D017

**A=37 (*continued*)**

- 2007RI08 ATOMIC MASSES  $^{37,38}\text{Ca}$ ; measured masses using penning trap mass spectrometer. Deduced mass excess and implications on CVC and IMME. JOUR PRVCA 75 055503

**A=38**

- $^{38}\text{Mg}$  2007TA15 NUCLEAR REACTIONS  $^{184}\text{W}$ ,  $^9\text{Be}(\text{ $^{48}\text{Ca}$ , X})^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{41}\text{Si} / ^{42}\text{Si} / ^{43}\text{Si} / ^{44}\text{Si}$ , E=142 MeV / nucleon; measured production cross sections. Compared results to model calculations. JOUR PRVCA 75 064613
- 2007TAZZ NUCLEAR REACTIONS Be, W( $^{48}\text{Ca}$ , X) $^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{41}\text{Si} / ^{42}\text{Si} / ^{43}\text{Si} / ^{44}\text{Si}$ , E=142 MeV / nucleon; measured production  $\sigma$ . PREPRINT arXiv:0705.0349v1 [nucl-ex]
- $^{38}\text{Al}$  2007JU03 ATOMIC MASSES  $^{23}\text{N}$ ,  $^{23,24}\text{O}$ ,  $^{25,26,27}\text{F}$ ,  $^{27,28,29,30,31}\text{Ne}$ ,  $^{31,32,33}\text{Na}$ ,  $^{34,35,36}\text{Mg}$ ,  $^{34,35,36,37,38,39}\text{Al}$ ,  $^{36,37,38,39,40,41,42}\text{Si}$ ,  $^{40,41,42,43,44}\text{P}$ ,  $^{40,43,44,45}\text{S}$ ,  $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
- $^{38}\text{Si}$  2007CA35 NUCLEAR REACTIONS  $^1\text{H}(\text{ $^{36}\text{Si}$ ,  $^{36}\text{Si}'})$ , E < 140 MeV / nucleon;  $^1\text{H}(\text{ $^{38}\text{Si}$ ,  $^{38}\text{Si}'})$ , E < 140 MeV / nucleon;  $^1\text{H}(\text{ $^{40}\text{Si}$ ,  $^{40}\text{Si}'})$ , E < 140 MeV / nucleon; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coinc, inelastic proton scattering cross sections.  $^{36,38,40}\text{Si}$  deduced quadrupole deformation parameters. JOUR PYLBB 652 169$$$
- 2007JU03 ATOMIC MASSES  $^{23}\text{N}$ ,  $^{23,24}\text{O}$ ,  $^{25,26,27}\text{F}$ ,  $^{27,28,29,30,31}\text{Ne}$ ,  $^{31,32,33}\text{Na}$ ,  $^{34,35,36}\text{Mg}$ ,  $^{34,35,36,37,38,39}\text{Al}$ ,  $^{36,37,38,39,40,41,42}\text{Si}$ ,  $^{40,41,42,43,44}\text{P}$ ,  $^{40,43,44,45}\text{S}$ ,  $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

**A=38 (*continued*)**

2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Li}$  /  $^7\text{Be}$  /  $^8\text{Be}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{12}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{15}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{18}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{20}\text{N}$  /  $^{21}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{22}\text{O}$  /  $^{23}\text{O}$  /  $^{24}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{25}\text{F}$  /  $^{26}\text{F}$  /  $^{27}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{28}\text{Ne}$  /  $^{29}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{30}\text{Na}$  /  $^{31}\text{Na}$  /  $^{32}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{32}\text{Mg}$  /  $^{33}\text{Mg}$  /  $^{34}\text{Mg}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{35}\text{Al}$  /  $^{36}\text{Al}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{35}\text{Si}$  /  $^{36}\text{Si}$  /  $^{37}\text{Si}$  /  $^{38}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{37}\text{P}$  /  $^{38}\text{P}$  /  $^{39}\text{P}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{38}\text{S}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{38}\text{Cl}$  /  $^{39}\text{Cl}$  /  $^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li}$  /  $^7\text{Li}$  /  $^8\text{Li}$  /  $^9\text{Be}$  /  $^{10}\text{Be}$  /  $^{11}\text{Be}$  /  $^{10}\text{B}$  /  $^{11}\text{B}$  /  $^{12}\text{B}$  /  $^{13}\text{B}$  /  $^{14}\text{B}$  /  $^{11}\text{C}$  /  $^{12}\text{C}$  /  $^{13}\text{C}$  /  $^{14}\text{C}$  /  $^{15}\text{C}$  /  $^{16}\text{C}$  /  $^{17}\text{C}$  /  $^{13}\text{N}$  /  $^{14}\text{N}$  /  $^{15}\text{N}$  /  $^{16}\text{N}$  /  $^{17}\text{N}$  /  $^{18}\text{N}$  /  $^{19}\text{N}$  /  $^{15}\text{O}$  /  $^{16}\text{O}$  /  $^{17}\text{O}$  /  $^{18}\text{O}$  /  $^{19}\text{O}$  /  $^{20}\text{O}$  /  $^{21}\text{O}$  /  $^{17}\text{F}$  /  $^{18}\text{F}$  /  $^{19}\text{F}$  /  $^{20}\text{F}$  /  $^{21}\text{F}$  /  $^{22}\text{F}$  /  $^{23}\text{F}$  /  $^{24}\text{F}$  /  $^{19}\text{Ne}$  /  $^{20}\text{Ne}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{23}\text{Ne}$  /  $^{24}\text{Ne}$  /  $^{25}\text{Ne}$  /  $^{26}\text{Ne}$  /  $^{27}\text{Ne}$  /  $^{21}\text{Na}$  /  $^{22}\text{Na}$  /  $^{23}\text{Na}$  /  $^{24}\text{Na}$  /  $^{25}\text{Na}$  /  $^{26}\text{Na}$  /  $^{27}\text{Na}$  /  $^{28}\text{Na}$  /  $^{29}\text{Na}$  /  $^{23}\text{Mg}$  /  $^{24}\text{Mg}$  /  $^{25}\text{Mg}$  /  $^{26}\text{Mg}$  /  $^{27}\text{Mg}$  /  $^{28}\text{Mg}$  /  $^{29}\text{Mg}$  /  $^{30}\text{Mg}$  /  $^{31}\text{Mg}$  /  $^{24}$  /  $^{25}\text{Al}$  /  $^{26}\text{Al}$  /  $^{27}\text{Al}$  /  $^{28}\text{Al}$  /  $^{29}\text{Al}$  /  $^{30}\text{Al}$  /  $^{31}\text{Al}$  /  $^{32}\text{Al}$  /  $^{33}\text{Al}$  /  $^{34}\text{Al}$  /  $^{26}\text{Si}$  /  $^{27}\text{Si}$  /  $^{28}\text{Si}$  /  $^{29}\text{Si}$  /  $^{30}\text{Si}$  /  $^{31}\text{Si}$  /  $^{32}\text{Si}$  /  $^{33}\text{Si}$  /  $^{34}\text{Si}$  /  $^{29}\text{P}$  /  $^{30}\text{P}$  /  $^{31}\text{P}$  /  $^{32}\text{P}$  /  $^{33}\text{P}$  /  $^{34}\text{P}$  /  $^{35}\text{P}$  /  $^{36}\text{P}$  /  $^{30}\text{S}$  /  $^{31}\text{S}$  /  $^{32}\text{S}$  /  $^{33}\text{S}$  /  $^{34}\text{S}$  /  $^{35}\text{S}$  /  $^{36}\text{S}$  /  $^{37}\text{S}$  /  $^{33}\text{Cl}$  /  $^{34}\text{Cl}$  /  $^{35}\text{Cl}$  /  $^{36}\text{Cl}$  /  $^{37}\text{Cl}$  /  $^{35}\text{Ar}$  /  $^{36}\text{Ar}$  /  $^{37}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{39}\text{Ar}$  /  $^{37}\text{K}$  /  $^{38}\text{K}$  /  $^{39}\text{K}$  /  $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605

### A=38 (*continued*)

**A=38 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
2007T04	NUCLEAR REACTIONS ${}^1\text{H}({}^{38}\text{S}, \text{p}')$ , E=62 MeV / nucleon; measured $\sigma(\theta, \text{E}^*)$ . JOUR NUPAB 788 266c
${}^{38}\text{Cl}$	2007KA33 NUCLEAR REACTIONS N, O, Ar(p, X) ${}^7\text{Be}$ / ${}^{11}\text{C}$ / ${}^{13}\text{N}$ / ${}^{15}\text{O}$ / ${}^{18}\text{F}$ / ${}^{22}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{27}\text{Mg}$ / ${}^{29}\text{Al}$ / ${}^{38}\text{S}$ / ${}^{38}\text{Cl}$ / ${}^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNC 273 507

**A=38 (continued)**

2007N013	NUCLEAR REACTIONS $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^9\text{Li}$ / $^7\text{Be}$ / $^8\text{Be}$ / $^9\text{Be}$ / $^{10}\text{Be}$ / $^{11}\text{Be}$ / $^{12}\text{Be}$ / $^{10}\text{B}$ / $^{11}\text{B}$ / $^{12}\text{B}$ / $^{13}\text{B}$ / $^{14}\text{B}$ / $^{15}\text{B}$ / $^{11}\text{C}$ / $^{12}\text{C}$ / $^{13}\text{C}$ / $^{14}\text{C}$ / $^{15}\text{C}$ / $^{16}\text{C}$ / $^{17}\text{C}$ / $^{13}\text{N}$ / $^{14}\text{N}$ / $^{15}\text{N}$ / $^{16}\text{N}$ / $^{17}\text{N}$ / $^{18}\text{N}$ / $^{19}\text{N}$ / $^{15}\text{O}$ / $^{16}\text{O}$ / $^{17}\text{O}$ / $^{18}\text{O}$ / $^{19}\text{O}$ / $^{20}\text{O}$ / $^{21}\text{O}$ / $^{17}\text{F}$ / $^{18}\text{F}$ / $^{19}\text{F}$ / $^{20}\text{F}$ / $^{21}\text{F}$ / $^{22}\text{F}$ / $^{23}\text{F}$ / $^{24}\text{F}$ / $^{19}\text{Ne}$ / $^{20}\text{Ne}$ / $^{21}\text{Ne}$ / $^{22}\text{Ne}$ / $^{23}\text{Ne}$ / $^{24}\text{Ne}$ / $^{25}\text{Ne}$ / $^{26}\text{Ne}$ / $^{27}\text{Ne}$ / $^{21}\text{Na}$ / $^{22}\text{Na}$ / $^{23}\text{Na}$ / $^{24}\text{Na}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{28}\text{Na}$ / $^{29}\text{Na}$ / $^{23}\text{Mg}$ / $^{24}\text{Mg}$ / $^{25}\text{Mg}$ / $^{26}\text{Mg}$ / $^{27}\text{Mg}$ / $^{28}\text{Mg}$ / $^{29}\text{Mg}$ / $^{30}\text{Mg}$ / $^{31}\text{Mg}$ / $^{24}$ / $^{25}\text{Al}$ / $^{26}\text{Al}$ / $^{27}\text{Al}$ / $^{28}\text{Al}$ / $^{29}\text{Al}$ / $^{30}\text{Al}$ / $^{31}\text{Al}$ / $^{32}\text{Al}$ / $^{33}\text{Al}$ / $^{34}\text{Al}$ / $^{26}\text{Si}$ / $^{27}\text{Si}$ / $^{28}\text{Si}$ / $^{29}\text{Si}$ / $^{30}\text{Si}$ / $^{31}\text{Si}$ / $^{32}\text{Si}$ / $^{33}\text{Si}$ / $^{34}\text{Si}$ / $^{29}\text{P}$ / $^{30}\text{P}$ / $^{31}\text{P}$ / $^{32}\text{P}$ / $^{33}\text{P}$ / $^{34}\text{P}$ / $^{35}\text{P}$ / $^{36}\text{P}$ / $^{30}\text{S}$ / $^{31}\text{S}$ / $^{32}\text{S}$ / $^{33}\text{S}$ / $^{34}\text{S}$ / $^{35}\text{S}$ / $^{36}\text{S}$ / $^{37}\text{S}$ / $^{33}\text{Cl}$ / $^{34}\text{Cl}$ / $^{35}\text{Cl}$ / $^{36}\text{Cl}$ / $^{37}\text{Cl}$ / $^{35}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Ar}$ / $^{38}\text{Ar}$ / $^{39}\text{Ar}$ / $^{37}\text{K}$ / $^{38}\text{K}$ / $^{39}\text{K}$ / $^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
$^{38}\text{Ar}$	2007DEZR
	NUCLEAR REACTIONS $^{41}\text{Ca}(\text{n}, \alpha)$ , E=0.6-50 keV; measured cross section and partial widths. CONF Geneva(NIC-IX) 085
	2007FA17
	NUCLEAR REACTIONS $^{40}\text{Ca}(^{40}\text{Ca}, \text{X})^{39}\text{K}$ / $^{38}\text{Ar}$ / $^{36}\text{Ar}$ / $^{37}\text{Cl}$ , E=50 MeV / nucleon; measured Ep, E $\alpha$ , missing energy spectra. $^{40}\text{Ca}$ deduced two-, three-phonon giant resonance states. JOUR NUPAB 788 106c
$^{38}\text{K}$	2007PR03
	NUCLEAR REACTIONS $^{40}\text{Ca}(\text{d}, \alpha)$ , E=4.5 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, $\alpha\gamma$ -coin, DSA. $^{38}\text{K}$ deduced levels, $J$ , $\pi$ , $T_{1/2}$ . JOUR PRVCA 75 014309
	2007YA08
	ATOMIC MASSES $^{35,36,37,38,43,44,45,56}\text{K}$ ; measured masses using ISOLTRAP. Discussed implications on IMME. JOUR PRVCA 76 024308
	2007YAZX
	ATOMIC MASSES $^{35,36,37,38,43,44,45,46}\text{K}$ ; measured masses using the ISOLTRAP mass spectrometer. PREPRINT arXiv:0707.3201v1 [nucl-ex]
$^{38}\text{Ca}$	2007D017
	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=38 (*continued*)**

- 2007GE07 ATOMIC MASSES  $^{38}\text{Ca}$ ; measured mass. Penning trap, Ramsey method. JOUR PRLTA 98 162501
- 2007RI08 ATOMIC MASSES  $^{37,38}\text{Ca}$ ; measured masses using penning trap mass spectrometer. Deduced mass excess and implications on CVC and IMME. JOUR PRVCA 75 055503

**A=39**

- $^{39}\text{Al}$  2007JU03 ATOMIC MASSES  $^{23}\text{N}$ ,  $^{23,24}\text{O}$ ,  $^{25,26,27}\text{F}$ ,  $^{27,28,29,30,31}\text{Ne}$ ,  $^{31,32,33}\text{Na}$ ,  $^{34,35,36}\text{Mg}$ ,  $^{34,35,36,37,38,39}\text{Al}$ ,  $^{36,37,38,39,40,41,42}\text{Si}$ ,  $^{40,41,42,43,44}\text{P}$ ,  $^{40,43,44,45}\text{S}$ ,  $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
- $^{39}\text{Si}$  2007JU03 ATOMIC MASSES  $^{23}\text{N}$ ,  $^{23,24}\text{O}$ ,  $^{25,26,27}\text{F}$ ,  $^{27,28,29,30,31}\text{Ne}$ ,  $^{31,32,33}\text{Na}$ ,  $^{34,35,36}\text{Mg}$ ,  $^{34,35,36,37,38,39}\text{Al}$ ,  $^{36,37,38,39,40,41,42}\text{Si}$ ,  $^{40,41,42,43,44}\text{P}$ ,  $^{40,43,44,45}\text{S}$ ,  $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
- $^{39}\text{P}$  2007N013 NUCLEAR REACTIONS  $^9\text{Be}(^{40}\text{Ar}, \text{X})^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Li} / ^7\text{Be} / ^8\text{Be} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{12}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{15}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{18}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{20}\text{N} / ^{21}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{22}\text{O} / ^{23}\text{O} / ^{24}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{25}\text{F} / ^{26}\text{F} / ^{27}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{28}\text{Ne} / ^{29}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{30}\text{Na} / ^{31}\text{Na} / ^{32}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{32}\text{Mg} / ^{33}\text{Mg} / ^{34}\text{Mg} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{35}\text{Al} / ^{36}\text{Al} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{34}\text{Si} / ^{35}\text{Si} / ^{36}\text{Si} / ^{37}\text{Si} / ^{38}\text{Si} / ^{39}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{37}\text{P} / ^{38}\text{P} / ^{39}\text{P} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{38}\text{S} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{38}\text{Cl} / ^{39}\text{Cl} / ^{39}\text{Ar}$ , E=100 MeV / nucleon;  $^{181}\text{Ta}(^{40}\text{Ar}, \text{X})^6\text{Li} / ^7\text{Li} / ^8\text{Li} / ^9\text{Be} / ^{10}\text{Be} / ^{11}\text{Be} / ^{10}\text{B} / ^{11}\text{B} / ^{12}\text{B} / ^{13}\text{B} / ^{14}\text{B} / ^{11}\text{C} / ^{12}\text{C} / ^{13}\text{C} / ^{14}\text{C} / ^{15}\text{C} / ^{16}\text{C} / ^{17}\text{C} / ^{13}\text{N} / ^{14}\text{N} / ^{15}\text{N} / ^{16}\text{N} / ^{17}\text{N} / ^{18}\text{N} / ^{19}\text{N} / ^{15}\text{O} / ^{16}\text{O} / ^{17}\text{O} / ^{18}\text{O} / ^{19}\text{O} / ^{20}\text{O} / ^{21}\text{O} / ^{17}\text{F} / ^{18}\text{F} / ^{19}\text{F} / ^{20}\text{F} / ^{21}\text{F} / ^{22}\text{F} / ^{23}\text{F} / ^{24}\text{F} / ^{19}\text{Ne} / ^{20}\text{Ne} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{23}\text{Ne} / ^{24}\text{Ne} / ^{25}\text{Ne} / ^{26}\text{Ne} / ^{27}\text{Ne} / ^{21}\text{Na} / ^{22}\text{Na} / ^{23}\text{Na} / ^{24}\text{Na} / ^{25}\text{Na} / ^{26}\text{Na} / ^{27}\text{Na} / ^{28}\text{Na} / ^{29}\text{Na} / ^{23}\text{Mg} / ^{24}\text{Mg} / ^{25}\text{Mg} / ^{26}\text{Mg} / ^{27}\text{Mg} / ^{28}\text{Mg} / ^{29}\text{Mg} / ^{30}\text{Mg} / ^{31}\text{Mg} / ^{24} / ^{25}\text{Al} / ^{26}\text{Al} / ^{27}\text{Al} / ^{28}\text{Al} / ^{29}\text{Al} / ^{30}\text{Al} / ^{31}\text{Al} / ^{32}\text{Al} / ^{33}\text{Al} / ^{34}\text{Al} / ^{26}\text{Si} / ^{27}\text{Si} / ^{28}\text{Si} / ^{29}\text{Si} / ^{30}\text{Si} / ^{31}\text{Si} / ^{32}\text{Si} / ^{33}\text{Si} / ^{29}\text{P} / ^{30}\text{P} / ^{31}\text{P} / ^{32}\text{P} / ^{33}\text{P} / ^{34}\text{P} / ^{35}\text{P} / ^{36}\text{P} / ^{30}\text{S} / ^{31}\text{S} / ^{32}\text{S} / ^{33}\text{S} / ^{34}\text{S} / ^{35}\text{S} / ^{36}\text{S} / ^{37}\text{S} / ^{33}\text{Cl} / ^{34}\text{Cl} / ^{35}\text{Cl} / ^{36}\text{Cl} / ^{37}\text{Cl} / ^{35}\text{Ar} / ^{36}\text{Ar} / ^{37}\text{Ar} / ^{38}\text{Ar} / ^{39}\text{Ar} / ^{37}\text{K} / ^{38}\text{K} / ^{39}\text{K} / ^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605
- $^{39}\text{Cl}$  2007KA33 NUCLEAR REACTIONS N, O, Ar(p, X) $^7\text{Be} / ^{11}\text{C} / ^{13}\text{N} / ^{15}\text{O} / ^{18}\text{F} / ^{22}\text{Na} / ^{24}\text{Na} / ^{27}\text{Mg} / ^{29}\text{Al} / ^{38}\text{S} / ^{38}\text{Cl} / ^{39}\text{Cl}$ , E=12 GeV; measured radionuclide yields. JOUR JRNCD 273 507

### A=39 (*continued*)

2007N013 NUCLEAR REACTIONS  ${}^{9}\text{Be}({}^{40}\text{Ar}, \text{X}){}^{6}\text{Li}$  /  ${}^{7}\text{Li}$  /  ${}^{8}\text{Li}$  /  ${}^{9}\text{Li}$  /  ${}^{7}\text{Be}$  /  ${}^{8}\text{Be}$  /  ${}^{9}\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{12}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{15}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{18}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{20}\text{N}$  /  ${}^{21}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{22}\text{O}$  /  ${}^{23}\text{O}$  /  ${}^{24}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{25}\text{F}$  /  ${}^{26}\text{F}$  /  ${}^{27}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{28}\text{Ne}$  /  ${}^{29}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{30}\text{Na}$  /  ${}^{31}\text{Na}$  /  ${}^{32}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{32}\text{Mg}$  /  ${}^{33}\text{Mg}$  /  ${}^{34}\text{Mg}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{35}\text{Al}$  /  ${}^{36}\text{Al}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{35}\text{Si}$  /  ${}^{36}\text{Si}$  /  ${}^{37}\text{Si}$  /  ${}^{38}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{37}\text{P}$  /  ${}^{38}\text{P}$  /  ${}^{39}\text{P}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{38}\text{S}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{38}\text{Cl}$  /  ${}^{39}\text{Cl}$  /  ${}^{39}\text{Ar}$ , E=100 MeV / nucleon;  ${}^{181}\text{Ta}({}^{40}\text{Ar}, \text{X}){}^{6}\text{Li}$  /  ${}^{7}\text{Li}$  /  ${}^{8}\text{Li}$  /  ${}^{9}\text{Be}$  /  ${}^{10}\text{Be}$  /  ${}^{11}\text{Be}$  /  ${}^{10}\text{B}$  /  ${}^{11}\text{B}$  /  ${}^{12}\text{B}$  /  ${}^{13}\text{B}$  /  ${}^{14}\text{B}$  /  ${}^{11}\text{C}$  /  ${}^{12}\text{C}$  /  ${}^{13}\text{C}$  /  ${}^{14}\text{C}$  /  ${}^{15}\text{C}$  /  ${}^{16}\text{C}$  /  ${}^{17}\text{C}$  /  ${}^{13}\text{N}$  /  ${}^{14}\text{N}$  /  ${}^{15}\text{N}$  /  ${}^{16}\text{N}$  /  ${}^{17}\text{N}$  /  ${}^{18}\text{N}$  /  ${}^{19}\text{N}$  /  ${}^{15}\text{O}$  /  ${}^{16}\text{O}$  /  ${}^{17}\text{O}$  /  ${}^{18}\text{O}$  /  ${}^{19}\text{O}$  /  ${}^{20}\text{O}$  /  ${}^{21}\text{O}$  /  ${}^{17}\text{F}$  /  ${}^{18}\text{F}$  /  ${}^{19}\text{F}$  /  ${}^{20}\text{F}$  /  ${}^{21}\text{F}$  /  ${}^{22}\text{F}$  /  ${}^{23}\text{F}$  /  ${}^{24}\text{F}$  /  ${}^{19}\text{Ne}$  /  ${}^{20}\text{Ne}$  /  ${}^{21}\text{Ne}$  /  ${}^{22}\text{Ne}$  /  ${}^{23}\text{Ne}$  /  ${}^{24}\text{Ne}$  /  ${}^{25}\text{Ne}$  /  ${}^{26}\text{Ne}$  /  ${}^{27}\text{Ne}$  /  ${}^{21}\text{Na}$  /  ${}^{22}\text{Na}$  /  ${}^{23}\text{Na}$  /  ${}^{24}\text{Na}$  /  ${}^{25}\text{Na}$  /  ${}^{26}\text{Na}$  /  ${}^{27}\text{Na}$  /  ${}^{28}\text{Na}$  /  ${}^{29}\text{Na}$  /  ${}^{23}\text{Mg}$  /  ${}^{24}\text{Mg}$  /  ${}^{25}\text{Mg}$  /  ${}^{26}\text{Mg}$  /  ${}^{27}\text{Mg}$  /  ${}^{28}\text{Mg}$  /  ${}^{29}\text{Mg}$  /  ${}^{30}\text{Mg}$  /  ${}^{31}\text{Mg}$  /  ${}^{24}$  /  ${}^{25}\text{Al}$  /  ${}^{26}\text{Al}$  /  ${}^{27}\text{Al}$  /  ${}^{28}\text{Al}$  /  ${}^{29}\text{Al}$  /  ${}^{30}\text{Al}$  /  ${}^{31}\text{Al}$  /  ${}^{32}\text{Al}$  /  ${}^{33}\text{Al}$  /  ${}^{34}\text{Al}$  /  ${}^{26}\text{Si}$  /  ${}^{27}\text{Si}$  /  ${}^{28}\text{Si}$  /  ${}^{29}\text{Si}$  /  ${}^{30}\text{Si}$  /  ${}^{31}\text{Si}$  /  ${}^{32}\text{Si}$  /  ${}^{33}\text{Si}$  /  ${}^{34}\text{Si}$  /  ${}^{29}\text{P}$  /  ${}^{30}\text{P}$  /  ${}^{31}\text{P}$  /  ${}^{32}\text{P}$  /  ${}^{33}\text{P}$  /  ${}^{34}\text{P}$  /  ${}^{35}\text{P}$  /  ${}^{36}\text{P}$  /  ${}^{30}\text{S}$  /  ${}^{31}\text{S}$  /  ${}^{32}\text{S}$  /  ${}^{33}\text{S}$  /  ${}^{34}\text{S}$  /  ${}^{35}\text{S}$  /  ${}^{36}\text{S}$  /  ${}^{37}\text{S}$  /  ${}^{33}\text{Cl}$  /  ${}^{34}\text{Cl}$  /  ${}^{35}\text{Cl}$  /  ${}^{36}\text{Cl}$  /  ${}^{37}\text{Cl}$  /  ${}^{35}\text{Ar}$  /  ${}^{36}\text{Ar}$  /  ${}^{37}\text{Ar}$  /  ${}^{38}\text{Ar}$  /  ${}^{39}\text{Ar}$  /  ${}^{37}\text{K}$  /  ${}^{38}\text{K}$  /  ${}^{39}\text{K}$  /  ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605  
 ${}^{39}\text{Ar}$  2007BE13 RADIOACTIVITY  ${}^{39}\text{Ar}(\beta^-)$ ; measured specific activity in natural argon. JOUR NIMAE 574 83

**A=39 (continued)**

2007N013	NUCLEAR REACTIONS ${}^9\text{Be}({}^{40}\text{Ar}, \text{X}){}^6\text{Li}$ / ${}^7\text{Li}$ / ${}^8\text{Li}$ / ${}^9\text{Li}$ / ${}^7\text{Be}$ / ${}^8\text{Be}$ / ${}^9\text{Be}$ / ${}^{10}\text{Be}$ / ${}^{11}\text{Be}$ / ${}^{12}\text{Be}$ / ${}^{10}\text{B}$ / ${}^{11}\text{B}$ / ${}^{12}\text{B}$ / ${}^{13}\text{B}$ / ${}^{14}\text{B}$ / ${}^{15}\text{B}$ / ${}^{11}\text{C}$ / ${}^{12}\text{C}$ / ${}^{13}\text{C}$ / ${}^{14}\text{C}$ / ${}^{15}\text{C}$ / ${}^{16}\text{C}$ / ${}^{17}\text{C}$ / ${}^{13}\text{N}$ / ${}^{14}\text{N}$ / ${}^{15}\text{N}$ / ${}^{16}\text{N}$ / ${}^{17}\text{N}$ / ${}^{18}\text{N}$ / ${}^{19}\text{N}$ / ${}^{15}\text{O}$ / ${}^{16}\text{O}$ / ${}^{17}\text{O}$ / ${}^{18}\text{O}$ / ${}^{19}\text{O}$ / ${}^{20}\text{O}$ / ${}^{21}\text{O}$ / ${}^{17}\text{F}$ / ${}^{18}\text{F}$ / ${}^{19}\text{F}$ / ${}^{20}\text{F}$ / ${}^{21}\text{F}$ / ${}^{22}\text{F}$ / ${}^{23}\text{F}$ / ${}^{24}\text{F}$ / ${}^{19}\text{Ne}$ / ${}^{20}\text{Ne}$ / ${}^{21}\text{Ne}$ / ${}^{22}\text{Ne}$ / ${}^{23}\text{Ne}$ / ${}^{24}\text{Ne}$ / ${}^{25}\text{Ne}$ / ${}^{26}\text{Ne}$ / ${}^{27}\text{Ne}$ / ${}^{21}\text{Na}$ / ${}^{22}\text{Na}$ / ${}^{23}\text{Na}$ / ${}^{24}\text{Na}$ / ${}^{25}\text{Na}$ / ${}^{26}\text{Na}$ / ${}^{27}\text{Na}$ / ${}^{28}\text{Na}$ / ${}^{29}\text{Na}$ / ${}^{23}\text{Mg}$ / ${}^{24}\text{Mg}$ / ${}^{25}\text{Mg}$ / ${}^{26}\text{Mg}$ / ${}^{27}\text{Mg}$ / ${}^{28}\text{Mg}$ / ${}^{29}\text{Mg}$ / ${}^{30}\text{Mg}$ / ${}^{31}\text{Mg}$ / ${}^{24}$ / ${}^{25}\text{Al}$ / ${}^{26}\text{Al}$ / ${}^{27}\text{Al}$ / ${}^{28}\text{Al}$ / ${}^{29}\text{Al}$ / ${}^{30}\text{Al}$ / ${}^{31}\text{Al}$ / ${}^{32}\text{Al}$ / ${}^{33}\text{Al}$ / ${}^{34}\text{Al}$ / ${}^{26}\text{Si}$ / ${}^{27}\text{Si}$ / ${}^{28}\text{Si}$ / ${}^{29}\text{Si}$ / ${}^{30}\text{Si}$ / ${}^{31}\text{Si}$ / ${}^{32}\text{Si}$ / ${}^{33}\text{Si}$ / ${}^{34}\text{Si}$ / ${}^{29}\text{P}$ / ${}^{30}\text{P}$ / ${}^{31}\text{P}$ / ${}^{32}\text{P}$ / ${}^{33}\text{P}$ / ${}^{34}\text{P}$ / ${}^{35}\text{P}$ / ${}^{36}\text{P}$ / ${}^{30}\text{S}$ / ${}^{31}\text{S}$ / ${}^{32}\text{S}$ / ${}^{33}\text{S}$ / ${}^{34}\text{S}$ / ${}^{35}\text{S}$ / ${}^{36}\text{S}$ / ${}^{37}\text{S}$ / ${}^{33}\text{Cl}$ / ${}^{34}\text{Cl}$ / ${}^{35}\text{Cl}$ / ${}^{36}\text{Cl}$ / ${}^{37}\text{Cl}$ / ${}^{35}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Ar}$ / ${}^{38}\text{Ar}$ / ${}^{39}\text{Ar}$ / ${}^{37}\text{K}$ / ${}^{38}\text{K}$ / ${}^{39}\text{K}$ / ${}^{40}\text{K}$ , E=100 MeV / nucleon; measured momentum distribution, production cross sections. RIKEN. JOUR PRVCA 76 044605	
${}^{39}\text{K}$	2007BE13	RADIOACTIVITY ${}^{39}\text{Ar}(\beta^-)$ ; measured specific activity in natural argon. JOUR NIMAE 574 83
	2007FA17	NUCLEAR REACTIONS ${}^{40}\text{Ca}({}^{40}\text{Ca}, \text{X}){}^{39}\text{K}$ / ${}^{38}\text{Ar}$ / ${}^{36}\text{Ar}$ / ${}^{37}\text{Cl}$ , E=50 MeV / nucleon; measured Ep, E $\alpha$ , missing energy spectra. ${}^{40}\text{Ca}$ deduced two-, three-phonon giant resonance states. JOUR NUPAB 788 106c
${}^{39}\text{Ca}$	2007D017	RADIOACTIVITY ${}^{36,37}\text{Ca}$ , ${}^{39,40,41}\text{Ti}$ , ${}^{43}\text{V}$ , ${}^{42,43,44,45}\text{Cr}$ , ${}^{46,47}\text{Mn}$ , ${}^{46,47,48,49}\text{Fe}$ , ${}^{50,51}\text{Co}$ , ${}^{49,50,51,52,53}\text{Ni}$ , ${}^{55}\text{Cu}$ , ${}^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( ${}^{58}\text{Ni}$ , X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. ${}^{43,45}\text{Cr}$ , ${}^{46}\text{Mn}$ , ${}^{46,47,48}\text{Fe}$ , ${}^{50}\text{Co}$ , ${}^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
${}^{39}\text{Sc}$	2007D017	RADIOACTIVITY ${}^{36,37}\text{Ca}$ , ${}^{39,40,41}\text{Ti}$ , ${}^{43}\text{V}$ , ${}^{42,43,44,45}\text{Cr}$ , ${}^{46,47}\text{Mn}$ , ${}^{46,47,48,49}\text{Fe}$ , ${}^{50,51}\text{Co}$ , ${}^{49,50,51,52,53}\text{Ni}$ , ${}^{55}\text{Cu}$ , ${}^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( ${}^{58}\text{Ni}$ , X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. ${}^{43,45}\text{Cr}$ , ${}^{46}\text{Mn}$ , ${}^{46,47,48}\text{Fe}$ , ${}^{50}\text{Co}$ , ${}^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=39 (continued)**

<sup>39</sup>Ti      2007D017      RADIOACTIVITY <sup>36,37</sup>Ca, <sup>39,40,41</sup>Ti, <sup>43</sup>V, <sup>42,43,44,45</sup>Cr, <sup>46,47</sup>Mn, <sup>46,47,48,49</sup>Fe, <sup>50,51</sup>Co, <sup>49,50,51,52,53</sup>Ni, <sup>55</sup>Cu, <sup>55,56</sup>Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni(<sup>58</sup>Ni, X)]; measured T<sub>1/2</sub>,  $\beta$ -delayed proton and  $\gamma$  spectra, branching ratios. <sup>43,45</sup>Cr, <sup>46</sup>Mn, <sup>46,47,48</sup>Fe, <sup>50</sup>Co, <sup>50,51,52,53</sup>Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=40**

<sup>40</sup>Mg      2007BA71      NUCLEAR REACTIONS W(<sup>48</sup>Ca, X)<sup>40</sup>Mg / <sup>42</sup>Al, E=141 MeV / nucleon; measured fragment energies, charge and mass distributions. JOUR NATUA 449 1022

<sup>40</sup>Si      2007CA35      NUCLEAR REACTIONS <sup>1</sup>H(<sup>36</sup>Si, <sup>36</sup>Si'), E < 140 MeV / nucleon; <sup>1</sup>H(<sup>38</sup>Si, <sup>38</sup>Si'), E < 140 MeV / nucleon; <sup>1</sup>H(<sup>40</sup>Si, <sup>40</sup>Si'), E < 140 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc, inelastic proton scattering cross sections. <sup>36,38,40</sup>Si deduced quadrupole deformation parameters. JOUR PYLBB 652 169

              2007JU03      ATOMIC MASSES <sup>23</sup>N, <sup>23,24</sup>O, <sup>25,26,27</sup>F, <sup>27,28,29,30,31</sup>Ne, <sup>31,32,33</sup>Na, <sup>34,35,36</sup>Mg, <sup>34,35,36,37,38,39</sup>Al, <sup>36,37,38,39,40,41,42</sup>Si, <sup>40,41,42,43,44</sup>P, <sup>40,43,44,45</sup>S, <sup>43,45,46,47</sup>Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

<sup>40</sup>P      2007JU03      ATOMIC MASSES <sup>23</sup>N, <sup>23,24</sup>O, <sup>25,26,27</sup>F, <sup>27,28,29,30,31</sup>Ne, <sup>31,32,33</sup>Na, <sup>34,35,36</sup>Mg, <sup>34,35,36,37,38,39</sup>Al, <sup>36,37,38,39,40,41,42</sup>Si, <sup>40,41,42,43,44</sup>P, <sup>40,43,44,45</sup>S, <sup>43,45,46,47</sup>Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

<sup>40</sup>S      2007JU03      ATOMIC MASSES <sup>23</sup>N, <sup>23,24</sup>O, <sup>25,26,27</sup>F, <sup>27,28,29,30,31</sup>Ne, <sup>31,32,33</sup>Na, <sup>34,35,36</sup>Mg, <sup>34,35,36,37,38,39</sup>Al, <sup>36,37,38,39,40,41,42</sup>Si, <sup>40,41,42,43,44</sup>P, <sup>40,43,44,45</sup>S, <sup>43,45,46,47</sup>Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

<sup>40</sup>Ar      2006LIZX      NUCLEAR REACTIONS <sup>9</sup>Be(<sup>38</sup>S, X)<sup>42</sup>Ca / <sup>43</sup>Ca / <sup>40</sup>Ar, E=5.45 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . REPT CNS-REP-69,P6,Liu

              2007OK01      NUCLEAR REACTIONS <sup>40</sup>Ar(p, p), (p, p'), E=25.1, 32.5, 40.7 MeV; measured  $\sigma$ (E,  $\theta$ ), A $y$ ( $\theta$ ). <sup>40</sup>Ar deduced deformation parameters. Isospin dependent soft-rotator coupled-channels optical model analysis. JOUR PRVCA 75 034616

<sup>40</sup>K      2007GR05      RADIOACTIVITY <sup>10</sup>Be, <sup>40</sup>K, <sup>87</sup>Rb( $\beta^-$ ); measured E $\beta$ ; deduced shape-factor functions, cutoff energy yields, maximum-point energies. Comparison with previous results. JOUR NIMAE 572 760

<sup>40</sup>Ca      2007D017      RADIOACTIVITY <sup>36,37</sup>Ca, <sup>39,40,41</sup>Ti, <sup>43</sup>V, <sup>42,43,44,45</sup>Cr, <sup>46,47</sup>Mn, <sup>46,47,48,49</sup>Fe, <sup>50,51</sup>Co, <sup>49,50,51,52,53</sup>Ni, <sup>55</sup>Cu, <sup>55,56</sup>Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni(<sup>58</sup>Ni, X)]; measured T<sub>1/2</sub>,  $\beta$ -delayed proton and  $\gamma$  spectra, branching ratios. <sup>43,45</sup>Cr, <sup>46</sup>Mn, <sup>46,47,48</sup>Fe, <sup>50</sup>Co, <sup>50,51,52,53</sup>Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

              2007FA17      NUCLEAR REACTIONS <sup>40</sup>Ca(<sup>40</sup>Ca, X)<sup>39</sup>K / <sup>38</sup>Ar / <sup>36</sup>Ar / <sup>37</sup>Cl, E=50 MeV / nucleon; measured Ep, E $\alpha$ , missing energy spectra. <sup>40</sup>Ca deduced two-, three-phonon giant resonance states. JOUR NUPAB 788 106c

**A=40 (*continued*)**

2007GR05	RADIOACTIVITY $^{10}\text{Be}$ , $^{40}\text{K}$ , $^{87}\text{Rb}(\beta^-)$ ; measured $E/\beta$ ; deduced shape-factor functions, cutoff energy yields, maximum-point energies. Comparison with previous results. JOUR NIMAE 572 760	
2007KL05	NUCLEAR REACTIONS $\text{Be}(^{238}\text{U}, \text{X})$ , $E=550$ MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}(^{129}\text{Sn}, \text{X})$ , $(^{130}\text{Sn}, \text{X})$ , $(^{131}\text{Sn}, \text{X})$ , $(^{132}\text{Sn}, \text{X})$ , $(^{133}\text{Sn}, \text{X})$ , $E \approx 500$ MeV / nucleon; measured $E_\gamma$ , $E\gamma$ , $n\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, $B(E1)$ , pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , $E$ not given; analyzed $E\gamma$ , $I\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced $B(E1)$ . JOUR NUPAB 788 145c	
$^{40}\text{Sc}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from $\text{Ni}(^{58}\text{Ni}, \text{X})$ ]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
$^{40}\text{Ti}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from $\text{Ni}(^{58}\text{Ni}, \text{X})$ ]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=41**

$^{41}\text{Si}$	2007JU03	ATOMIC MASSES $^{23}\text{N}$ , $^{23,24}\text{O}$ , $^{25,26,27}\text{F}$ , $^{27,28,29,30,31}\text{Ne}$ , $^{31,32,33}\text{Na}$ , $^{34,35,36}\text{Mg}$ , $^{34,35,36,37,38,39}\text{Al}$ , $^{36,37,38,39,40,41,42}\text{Si}$ , $^{40,41,42,43,44}\text{P}$ , $^{40,43,44,45}\text{S}$ , $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
	2007TA15	NUCLEAR REACTIONS $^{184}\text{W}$ , $^9\text{Be}(^{48}\text{Ca}, \text{X})^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{41}\text{Si} / ^{42}\text{Si} / ^{43}\text{Si} / ^{44}\text{Si}$ , $E=142$ MeV / nucleon; measured production cross sections. Compared results to model calculations. JOUR PRVCA 75 064613
	2007TAZZ	NUCLEAR REACTIONS Be, $W(^{48}\text{Ca}, \text{X})^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{41}\text{Si} / ^{42}\text{Si} / ^{43}\text{Si} / ^{44}\text{Si}$ , $E=142$ MeV / nucleon; measured production $\sigma$ . PREPRINT arXiv:0705.0349v1 [nucl-ex]
$^{41}\text{P}$	2007BA47	NUCLEAR REACTIONS $^{42,44}\text{S}(^9\text{Be}, \text{X})$ , $E=39$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{42}\text{Si}$ , $^{41,43}\text{P}$ deduced levels. JOUR PRLTA 99 022503
	2007JU03	ATOMIC MASSES $^{23}\text{N}$ , $^{23,24}\text{O}$ , $^{25,26,27}\text{F}$ , $^{27,28,29,30,31}\text{Ne}$ , $^{31,32,33}\text{Na}$ , $^{34,35,36}\text{Mg}$ , $^{34,35,36,37,38,39}\text{Al}$ , $^{36,37,38,39,40,41,42}\text{Si}$ , $^{40,41,42,43,44}\text{P}$ , $^{40,43,44,45}\text{S}$ , $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43

**A=41 (continued)**

<sup>41</sup> Sc	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007GIZZ	RADIOACTIVITY <sup>45</sup> Fe(2p) [from Ni( <sup>58</sup> Ni, X)]; measured Ep, pp-coin, T <sub>1/2</sub> . <sup>43</sup> Cr( $\beta^+$ 2p) [from Ni( <sup>58</sup> Ni, X)]; measured $\beta$ -delayed Ep, pp-coin. Time-projection chamber. PREPRINT nucl-ex/0703011,3/5/2007
	2007MI36	RADIOACTIVITY <sup>45</sup> Fe(2p), ( $\beta^+$ ), ( $\beta^+$ p), ( $\beta^+$ 2p), ( $\beta^+$ 3p), ( $\beta^+$ 4p); measured decay branches, half-lives, partial half-lives. JOUR PRVCA 76 041304
<sup>41</sup> Ti	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=42**

<sup>42</sup> Al	2007BA71	NUCLEAR REACTIONS W( <sup>48</sup> Ca, X) <sup>40</sup> Mg / <sup>42</sup> Al, E=141 MeV / nucleon; measured fragment energies, charge and mass distributions. JOUR NATUA 449 1022
<sup>42</sup> Si	2007BA47	NUCLEAR REACTIONS <sup>42,44</sup> S( <sup>9</sup> Be, X), E=39 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>42</sup> Si, <sup>41,43</sup> P deduced levels. JOUR PRLTA 99 022503
	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
	2007TA15	NUCLEAR REACTIONS <sup>184</sup> W, <sup>9</sup> Be( <sup>48</sup> Ca, X) <sup>36</sup> Mg / <sup>37</sup> Mg / <sup>38</sup> Mg / <sup>41</sup> Si / <sup>42</sup> Si / <sup>43</sup> Si / <sup>44</sup> Si, E=142 MeV / nucleon; measured production cross sections. Compared results to model calculations. JOUR PRVCA 75 064613
	2007TAZZ	NUCLEAR REACTIONS Be, W( <sup>48</sup> Ca, X) <sup>36</sup> Mg / <sup>37</sup> Mg / <sup>38</sup> Mg / <sup>41</sup> Si / <sup>42</sup> Si / <sup>43</sup> Si / <sup>44</sup> Si, E=142 MeV / nucleon; measured production $\sigma$ . PREPRINT arXiv:0705.0349v1 [nucl-ex]
<sup>42</sup> P	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>42</sup> Ca	2006LIZX	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>38</sup> S, X) <sup>42</sup> Ca / <sup>43</sup> Ca / <sup>40</sup> Ar, E=5.45 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . REPT CNS-REP-69,P6,Liu

**A=42 (continued)**

	2007C021	NUCLEAR REACTIONS $^{208}\text{Pb}(\text{X}, \text{Ca})$ , E=235, 249 MeV; analyzed single and paired nucleon transfer $\sigma$ . $^{208}\text{Pb}(\text{X}, \text{Ca})^{42}\text{Ca}$ , E=225, 236, 250 MeV; analyzed total kinetic energy loss distribution. $^{208}\text{Pb}(\text{X}, \text{Zr})^{90}\text{Zr}$ , E=560 MeV; analyzed fragment mass distributions, $\sigma$ ; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, DSA. $^{92}\text{Zr}$ deduced levels, J, $\pi$ . $^{238}\text{U}(\text{Se}, \text{X})$ , E=500 MeV; measured fragment yields, $\sigma$ . Prisma and Clara arrays. Multi-nucleon transfer reaction mechanisms discussed. JOUR NUPAB 787 160c
	2007SZ05	NUCLEAR REACTIONS $^{98}\text{Zr}(\text{X}, \text{Ca})$ , E=152 MeV; $^{208}\text{Pb}(\text{X}, \text{Zr})$ , E=560 MeV; measured $E\Gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc. $^{95}\text{Zr}$ , $^{42}\text{Ca}$ deduced levels. JOUR PRVCA 76 024604
$^{42}\text{Sc}$	2006GA47	NUCLEAR MOMENTS $^{42,43,44,44m,45,45m,46}\text{Sc}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments. Collinear laser spectroscopy. JOUR HYIND 171 209
	2007AD27	NUCLEAR REACTIONS $^{42}\text{Ca}$ , $^{46}\text{Ti}$ , $^{50}\text{Cr}$ , $^{54}\text{Fe}(\text{He}, \text{t})$ , E=140 MeV / nucleon; measured excitation energy spectra. $^{42}\text{Sc}$ , $^{46}\text{V}$ , $^{50}\text{Mn}$ , $^{54}\text{Co}$ deduced Gamow-Teller strength distribution. Comparison with shell model. JOUR NUPAB 788 70c
	2007CH40	NUCLEAR REACTIONS $^{28}\text{Si}(\text{Ne}, \text{X})^{42}\text{Sc}$ , $^{28}\text{Si}(\text{Ne}, \text{X})^{43}\text{Sc}$ , E=84 MeV; $^{24}\text{Mg}(\text{Mg}, \text{X})^{42,43}\text{Sc}$ , E=94 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ , (charged-particle) $\gamma$ - coinc, angular distributions using the Gammasphere. Deduced level energies, J, $\pi$ , high-spin and high-energy extension of level scheme. JOUR PRVCA 75 054305
	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from $\text{Ni}^{58}$ , X]]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007SC26	NUCLEAR REACTIONS $^{40}\text{Ca}(\text{He}, \text{p})^{42}\text{Sc}$ , E=9 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc, and angular correlations. $^{42}\text{Sc}$ deduced levels, J, $\pi$ , B(E2), B(M1), multipole mixing ratios. Compared results to model calculations. JOUR PRVCA 75 064321
$^{42}\text{Ti}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from $\text{Ni}^{58}$ , X]]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007MI36	RADIOACTIVITY $^{45}\text{Fe}(2\text{p})$ , ( $\beta^+$ ), ( $\beta^+\text{p}$ ), ( $\beta^+\text{2p}$ ), ( $\beta^+\text{3p}$ ), ( $\beta^+\text{4p}$ ); measured decay branches, half-lives, partial half-lives. JOUR PRVCA 76 041304
$^{42}\text{V}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from $\text{Ni}^{58}$ , X]]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=42 (continued)**

<sup>42</sup> Cr	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
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**A=43**

<sup>43</sup> Si	2007TA15	NUCLEAR REACTIONS <sup>184</sup> W, <sup>9</sup> Be( <sup>48</sup> Ca, X) <sup>36</sup> Mg / <sup>37</sup> Mg / <sup>38</sup> Mg / <sup>41</sup> Si / <sup>42</sup> Si / <sup>43</sup> Si / <sup>44</sup> Si, E=142 MeV / nucleon; measured production cross sections. Compared results to model calculations. JOUR PRVCA 75 064613
	2007TAZZ	NUCLEAR REACTIONS Be, W( <sup>48</sup> Ca, X) <sup>36</sup> Mg / <sup>37</sup> Mg / <sup>38</sup> Mg / <sup>41</sup> Si / <sup>42</sup> Si / <sup>43</sup> Si / <sup>44</sup> Si, E=142 MeV / nucleon; measured production $\sigma$ . PREPRINT arXiv:0705.0349v1 [nucl-ex]
<sup>43</sup> P	2007BA47	NUCLEAR REACTIONS <sup>42,44</sup> S( <sup>9</sup> Be, X), E=39 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>42</sup> Si, <sup>41,43</sup> P deduced levels. JOUR PRLTA 99 022503
	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>43</sup> S	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>43</sup> Cl	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>43</sup> K	2007YA08	ATOMIC MASSES <sup>35,36,37,38,43,44,45,56</sup> K; measured masses using ISOLTRAP. Discussed implications on IMME. JOUR PRVCA 76 024308
	2007YAZX	ATOMIC MASSES <sup>35,36,37,38,43,44,45,46</sup> K; measured masses using the ISOLTRAP mass spectrometer. PREPRINT arXiv:0707.3201v1 [nucl-ex]
<sup>43</sup> Ca	2006LIZX	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>38</sup> S, X) <sup>42</sup> Ca / <sup>43</sup> Ca / <sup>40</sup> Ar, E=5.45 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . REPT CNS-REP-69,P6,Liu
<sup>43</sup> Sc	2006GA47	NUCLEAR MOMENTS <sup>42,43,44,44m,45,45m,46</sup> Sc; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments. Collinear laser spectroscopy. JOUR HYIND 171 209
	2006ZA11	NUCLEAR REACTIONS Ti(p, X) <sup>48</sup> V / <sup>47</sup> Sc / <sup>44m</sup> Sc / <sup>44</sup> Sc / <sup>43</sup> Sc, E $\approx$ 4-27 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 94 795

**A=43 (continued)**

	2007CH40	NUCLEAR REACTIONS $^{28}\text{Si}$ ( $^{20}\text{Ne}, \text{X}$ ) $^{42}\text{Sc}$ , $^{28}\text{Si}$ ( $^{20}\text{Ne}, \text{X}$ ) $^{43}\text{Sc}$ , E=84 MeV; $^{24}\text{Mg}$ ( $^{24}\text{Mg}, \text{X}$ ) $^{42,43}\text{Sc}$ , E=94 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (charged-particle) $\gamma$ - coinc, angular distributions using the Gammasphere. Deduced level energies, J, $\pi$ , high-spin and high-energy extension of level scheme. JOUR PRVCA 75 054305
$^{43}\text{Ti}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}$ ( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
$^{43}\text{V}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}$ ( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007GI10	RADIOACTIVITY $^{45}\text{Fe}$ (2p), $^{43}\text{Cr}$ ( $\beta^+$ ); measured direct and $\beta$ -delayed proton energies, T <sub>1/2</sub> . JOUR PRLTA 99 102501
	2007MI36	RADIOACTIVITY $^{45}\text{Fe}$ (2p), ( $\beta^+$ ), ( $\beta^+$ p), ( $\beta^+$ 2p), ( $\beta^+$ 3p), ( $\beta^+$ 4p); measured decay branches, half-lives, partial half-lives. JOUR PRVCA 76 041304
$^{43}\text{Cr}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}$ ( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007GI10	RADIOACTIVITY $^{45}\text{Fe}$ (2p), $^{43}\text{Cr}$ ( $\beta^+$ ); measured direct and $\beta$ -delayed proton energies, T <sub>1/2</sub> . JOUR PRLTA 99 102501
	2007GIZZ	RADIOACTIVITY $^{45}\text{Fe}$ (2p) [from Ni( $^{58}\text{Ni}$ , X)]; measured Ep, pp-coin, T <sub>1/2</sub> . $^{43}\text{Cr}$ ( $\beta^+$ 2p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $\beta$ -delayed Ep, pp-coin. Time-projection chamber. PREPRINT nucl-ex/0703011,3/5/2007
	2007MI36	RADIOACTIVITY $^{45}\text{Fe}$ (2p), ( $\beta^+$ ), ( $\beta^+$ p), ( $\beta^+$ 2p), ( $\beta^+$ 3p), ( $\beta^+$ 4p); measured decay branches, half-lives, partial half-lives. JOUR PRVCA 76 041304

**A=44**

$^{44}\text{Si}$	2007TA15	NUCLEAR REACTIONS $^{184}\text{W}$ , $^9\text{Be}$ ( $^{48}\text{Ca}, \text{X}$ ) $^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{41}\text{Si} / ^{42}\text{Si} / ^{43}\text{Si} / ^{44}\text{Si}$ , E=142 MeV / nucleon; measured production cross sections. Compared results to model calculations. JOUR PRVCA 75 064613
	2007TAZZ	NUCLEAR REACTIONS Be, W( $^{48}\text{Ca}, \text{X}$ ) $^{36}\text{Mg} / ^{37}\text{Mg} / ^{38}\text{Mg} / ^{41}\text{Si} / ^{42}\text{Si} / ^{43}\text{Si} / ^{44}\text{Si}$ , E=142 MeV / nucleon; measured production $\sigma$ . PREPRINT arXiv:0705.0349v1 [nucl-ex]

**A=44 (continued)**

<sup>44</sup> P	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>44</sup> S	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>44</sup> K	2007YA08	ATOMIC MASSES <sup>35,36,37,38,43,44,45,56</sup> K; measured masses using ISOLTRAP. Discussed implications on IMME. JOUR PRVCA 76 024308
	2007YAZX	ATOMIC MASSES <sup>35,36,37,38,43,44,45,46</sup> K; measured masses using the ISOLTRAP mass spectrometer. PREPRINT arXiv:0707.3201v1 [nucl-ex]
<sup>44</sup> Ca	2007KL05	NUCLEAR REACTIONS Be( <sup>238</sup> U, X), E=550 MeV / nucleon; measured fragment yields. <sup>12</sup> C, <sup>208</sup> Pb( <sup>129</sup> Sn, X), ( <sup>130</sup> Sn, X), ( <sup>131</sup> Sn, X), ( <sup>132</sup> Sn, X), ( <sup>133</sup> Sn, X), E ≈ 500 MeV / nucleon; measured En, E $\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma$ (E). <sup>129,130,131,132,133</sup> Sn deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb( $\gamma, \gamma'$ ), E not given; analyzed E $\gamma$ , I $\gamma$ . <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb deduced B(E1). JOUR NUPAB 788 145c
<sup>44</sup> Sc	2006AH10	RADIOACTIVITY <sup>44</sup> Ti(EC) [from <sup>45</sup> Sc(p, 2n)]; measured E $\gamma$ , I $\gamma$ , T <sub>1/2</sub> . JOUR PRVCA 74 065803
	2006GA47	NUCLEAR MOMENTS <sup>42,43,44,44m,45,45m,46</sup> Sc; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments. Collinear laser spectroscopy. JOUR HYIND 171 209
	2006ZA11	NUCLEAR REACTIONS Ti(p, X) <sup>48</sup> V / <sup>47</sup> Sc / <sup>44m</sup> Sc / <sup>44</sup> Sc / <sup>43</sup> Sc, E ≈ 4-27 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 94 795
	2007DR05	RADIOACTIVITY <sup>44</sup> Ti(EC); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>44</sup> Sc deduced conversion coefficients and penetration parameter. JOUR BRSPE 71 887
	2007LA23	NUCLEAR REACTIONS <sup>51</sup> V, <sup>45</sup> Sc( <sup>3</sup> He, $\alpha\gamma$ ), ( <sup>3</sup> He, <sup>3</sup> He' $\gamma$ ), E=30, 38 MeV; measured E $\gamma$ , E $\alpha$ , E( <sup>3</sup> He), (particle) $\gamma$ -coinc. <sup>50,51</sup> V, <sup>44,45</sup> Sc deduced level densities and giant resonance strength functions. JOUR APOBB 38 1495
	2007LA31	NUCLEAR REACTIONS <sup>45</sup> Sc( <sup>3</sup> He, $\alpha\gamma$ ), ( <sup>3</sup> He, <sup>3</sup> He' $\gamma$ ), E=38 MeV; measured E $\gamma$ , I $\gamma$ . <sup>44</sup> Sc, <sup>45</sup> Sc; deduced level densities, $\gamma$ -strength functions, parity asymmetry. JOUR PRVCA 76 044303
	2007LAZZ	NUCLEAR REACTIONS <sup>45</sup> Sc( <sup>3</sup> He, $\alpha$ ) <sup>44</sup> Sc, <sup>45</sup> Sc( <sup>3</sup> He, <sup>3</sup> He), E=38 MeV; measured E $\gamma$ , I $\gamma$ . Deduced nuclear level densities and $\gamma$ -ray strength functions. PREPRINT arXiv:0706.0533v1 [nucl-ex]
	2007NG01	NUCLEAR REACTIONS <sup>45</sup> Sc( $\gamma$ , n), <sup>103</sup> Rh( $\gamma$ , 4n), E=65 MeV / bremsstrahlung; Ti( $\gamma$ , X) <sup>44</sup> Sc, E=65 MeV / bremsstrahlung; Fe( $\gamma$ , X) <sup>52</sup> Mn, E=65 MeV / bremsstrahlung; measured $\sigma$ , isomer ratios. Activation method. JOUR KPSJA 50 417

**A=44 (continued)**

<sup>44</sup> Ti	2006AH10	RADIOACTIVITY <sup>44</sup> Ti(EC) [from <sup>45</sup> Sc(p, 2n)]; measured E $\gamma$ , I $\gamma$ , T <sub>1/2</sub> . JOUR PRVCA 74 065803
	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007DR05	RADIOACTIVITY <sup>44</sup> Ti(EC); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>44</sup> Sc deduced conversion coefficients and penetration parameter. JOUR BRSPE 71 887
	2007NAZZ	NUCLEAR REACTIONS <sup>40</sup> Ca( $\alpha$ , $\gamma$ ), E(cm)=0.6-1.2 MeV / nucleon; measured yields using accelerator mass spectroscopy. Deduced resonance strength and cross section. CONF Geneva(NIC-IX) 031
	2007V003	NUCLEAR REACTIONS <sup>4</sup> He( <sup>40</sup> Ca, $\gamma$ ) <sup>44</sup> Ti, E=1.135 MeV / nucleon; measured yield and resonance strength at DRAGON recoil mass spectrometer. JOUR NIMBE 259 688
	2007V006	NUCLEAR REACTIONS <sup>4</sup> He( <sup>40</sup> Ca, $\gamma$ ) <sup>44</sup> Ti, E=0.60-1.15 MeV / nucleon; measured recoil energies, yields, and cross section. JOUR PRVCA 76 035801
	2007VOZY	NUCLEAR REACTIONS <sup>4</sup> He( <sup>40</sup> Ca, $\gamma$ ), E=600-1200 keV / nucleon; measured prompt $\gamma$ s in coincidence with recoils, yield using the recoil mass spectrometer DRAGON. <sup>40</sup> Ca( $\alpha$ , $\gamma$ ); deduced reaction rate. CONF Geneva(NIC-IX) 030
<sup>44</sup> V	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>44</sup> Cr	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007MI36	RADIOACTIVITY <sup>45</sup> Fe(2p), ( $\beta^+$ ), ( $\beta^+$ p), ( $\beta^+$ 2p), ( $\beta^+$ 3p), ( $\beta^+$ 4p); measured decay branches, half-lives, partial half-lives. JOUR PRVCA 76 041304

**A=45**

<sup>45</sup> S	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
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**A=45 (*continued*)**

<sup>45</sup> Cl	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>45</sup> K	2007YA08	ATOMIC MASSES <sup>35,36,37,38,43,44,45,56</sup> K; measured masses using ISOLTRAP. Discussed implications on IMME. JOUR PRVCA 76 024308
	2007YAZX	ATOMIC MASSES <sup>35,36,37,38,43,44,45,46</sup> K; measured masses using the ISOLTRAP mass spectrometer. PREPRINT arXiv:0707.3201v1 [nucl-ex]
<sup>45</sup> Sc	2006GA47	NUCLEAR MOMENTS <sup>42,43,44,44m,45,45m,46</sup> Sc; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments. Collinear laser spectroscopy. JOUR HYIND 171 209
	2007LA23	NUCLEAR REACTIONS <sup>51</sup> V, <sup>45</sup> Sc( <sup>3</sup> He, $\alpha\gamma$ ), ( <sup>3</sup> He, <sup>3</sup> He' $\gamma$ ), E=30, 38 MeV; measured E $\gamma$ , E $\alpha$ , E( <sup>3</sup> He), (particle) $\gamma$ -coinc. <sup>50,51</sup> V, <sup>44,45</sup> Sc deduced level densities and giant resonance strength functions. JOUR APOBB 38 1495
<sup>45</sup> V	2007LA31	NUCLEAR REACTIONS <sup>45</sup> Sc( <sup>3</sup> He, $\alpha\gamma$ ), ( <sup>3</sup> He, <sup>3</sup> He' $\gamma$ ), E=38 MeV; measured E $\gamma$ , I $\gamma$ . <sup>44</sup> Sc, <sup>45</sup> Sc; deduced level densities, $\gamma$ -strength functions, parity asymmetry. JOUR PRVCA 76 044303
	2007LAZZ	NUCLEAR REACTIONS <sup>45</sup> Sc( <sup>3</sup> He, $\alpha$ ) <sup>44</sup> Sc, <sup>45</sup> Sc( <sup>3</sup> He, <sup>3</sup> He), E=38 MeV; measured E $\gamma$ , I $\gamma$ . Deduced nuclear level densities and $\gamma$ -ray strength functions. PREPRINT arXiv:0706.0533v1 [nucl-ex]
<sup>45</sup> Cr	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>45</sup> Mn	2007MI36	RADIOACTIVITY <sup>45</sup> Fe(2p), ( $\beta^+$ ), ( $\beta^+$ p), ( $\beta^+$ 2p), ( $\beta^+$ 3p), ( $\beta^+$ 4p); measured decay branches, half-lives, partial half-lives. JOUR PRVCA 76 041304
<sup>45</sup> Fe	2007GI10	RADIOACTIVITY <sup>45</sup> Fe(2p), <sup>43</sup> Cr( $\beta^+$ ); measured direct and $\beta$ -delayed proton energies, T <sub>1/2</sub> . JOUR PRLTA 99 102501
	2007GIZZ	RADIOACTIVITY <sup>45</sup> Fe(2p) [from Ni( <sup>58</sup> Ni, X)]; measured Ep, pp-coin, T <sub>1/2</sub> . <sup>43</sup> Cr( $\beta^+$ 2p) [from Ni( <sup>58</sup> Ni, X)]; measured $\beta$ -delayed Ep, pp-coin. Time-projection chamber. PREPRINT nucl-ex/0703011,3/5/2007
	2007MI36	RADIOACTIVITY <sup>45</sup> Fe(2p), ( $\beta^+$ ), ( $\beta^+$ p), ( $\beta^+$ 2p), ( $\beta^+$ 3p), ( $\beta^+$ 4p); measured decay branches, half-lives, partial half-lives. JOUR PRVCA 76 041304

**A=46**

<sup>46</sup> Cl	2007JU03	ATOMIC MASSES <sup>23</sup> N, <sup>23,24</sup> O, <sup>25,26,27</sup> F, <sup>27,28,29,30,31</sup> Ne, <sup>31,32,33</sup> Na, <sup>34,35,36</sup> Mg, <sup>34,35,36,37,38,39</sup> Al, <sup>36,37,38,39,40,41,42</sup> Si, <sup>40,41,42,43,44</sup> P, <sup>40,43,44,45</sup> S, <sup>43,45,46,47</sup> Cl; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
<sup>46</sup> K	2007YAZX	ATOMIC MASSES <sup>35,36,37,38,43,44,45,46</sup> K; measured masses using the ISOLTRAP mass spectrometer. PREPRINT arXiv:0707.3201v1 [nucl-ex]
<sup>46</sup> Sc	2006GA47	NUCLEAR MOMENTS <sup>42,43,44,44m,45,45m,46</sup> Sc; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments. Collinear laser spectroscopy. JOUR HYIND 171 209
<sup>46</sup> Ti	2006KMZZ	NUCLEAR REACTIONS <sup>19</sup> F( <sup>27</sup> Al, X), E=144 MeV; measured E $\gamma$ , E $\alpha$ , angular distributions, $\alpha\gamma$ -, (recoil) $\alpha$ -coin. <sup>46</sup> Ti deduced large deformation at high spin, GDR strength distribution, Jacobi shape transition. Comparison with previous results and model predictions. PREPRINT nucl-ex/0612029, 12/28/2006
	2007BR25	NUCLEAR REACTIONS <sup>19</sup> F( <sup>27</sup> Al, X), E=144 MeV; measured E $\gamma$ , I $\gamma$ , E $\alpha$ , I $\alpha$ , (residue) $\alpha$ -coin. <sup>46</sup> Ti deduced giant dipole resonance strength distributions. JOUR NUPAB 788 224c
	2007KM01	NUCLEAR REACTIONS <sup>28</sup> Si( <sup>18</sup> O, F), E=105 MeV; measured E $\gamma$ , Ep, E $\alpha$ , yields, angular distributions, and (particle) $\gamma$ -coinc. <sup>46</sup> Ti deduced deformation effects. JOUR APOBB 38 1437
	2007WE01	NUCLEAR REACTIONS <sup>46,50</sup> Ti( <sup>16</sup> O, <sup>16</sup> O), E=30-70 MeV; measured elastic $\sigma(\theta)$ ; deduced model parameters, threshold anomaly. Unexpected structure effects not observed. JOUR NUPAB 781 342
<sup>46</sup> V	2007AD27	NUCLEAR REACTIONS <sup>42</sup> Ca, <sup>46</sup> Ti, <sup>50</sup> Cr, <sup>54</sup> Fe( <sup>3</sup> He, t), E=140 MeV / nucleon; measured excitation energy spectra. <sup>42</sup> Sc, <sup>46</sup> V, <sup>50</sup> Mn, <sup>54</sup> Co deduced Gamow-Teller strength distribution. Comparison with shell model. JOUR NUPAB 788 70c
	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>46</sup> Cr	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
	2007GA03	NUCLEAR REACTIONS <sup>12</sup> C( <sup>36</sup> Ar, 2n), E=105 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. <sup>46</sup> Cr deduced levels, J, $\pi$ , analog states features. Gammasphere array, fragment separator. JOUR PRVCA 75 014307

**A=46 (continued)**

$^{46}\text{Mn}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
$^{46}\text{Fe}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=47**

$^{47}\text{Cl}$	2007JU03	ATOMIC MASSES $^{23}\text{N}$ , $^{23,24}\text{O}$ , $^{25,26,27}\text{F}$ , $^{27,28,29,30,31}\text{Ne}$ , $^{31,32,33}\text{Na}$ , $^{34,35,36}\text{Mg}$ , $^{34,35,36,37,38,39}\text{Al}$ , $^{36,37,38,39,40,41,42}\text{Si}$ , $^{40,41,42,43,44}\text{P}$ , $^{40,43,44,45}\text{S}$ , $^{43,45,46,47}\text{Cl}$ ; measured masses; analysed neutron separation energy. Cyclotron-based mass spectrometry. JOUR PYLBB 649 43
$^{47}\text{K}$	2007VI11	NUCLEAR REACTIONS $^{12}\text{C}(\text{^{48}\text{Ca}, X})\text{Li}$ / $^9\text{Li}$ / $^{25}\text{Na}$ / $^{26}\text{Na}$ / $^{27}\text{Na}$ / $^{29}\text{Al}$ / $^{37}\text{K}$ / $^{47}\text{K}$ , E=60 MeV / nucleon; measured yield. JOUR NUPAB 787 126c
$^{47}\text{Sc}$	2006ZA11	NUCLEAR REACTIONS $\text{Ti(p, X)}\text{^{48}\text{V}}$ / $^{47}\text{Sc}$ / $^{44m}\text{Sc}$ / $^{44}\text{Sc}$ / $^{43}\text{Sc}$ , E $\approx$ 4-27 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 94 795
$^{47}\text{Ti}$	2007SC03	NUCLEAR MOMENTS $^{47}\text{Ti}$ ; measured hyperfine-induced transition rate in beryllium-like ions. JOUR PRLTA 98 033001
$^{47}\text{Cr}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
$^{47}\text{Mn}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
$^{47}\text{Fe}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=48**

<sup>48</sup> Ca	2007KL05	NUCLEAR REACTIONS Be( <sup>238</sup> U, X), E=550 MeV / nucleon; measured fragment yields. <sup>12</sup> C, <sup>208</sup> Pb( <sup>129</sup> Sn, X), ( <sup>130</sup> Sn, X), ( <sup>131</sup> Sn, X), ( <sup>132</sup> Sn, X), ( <sup>133</sup> Sn, X), E≈ 500 MeV / nucleon; measured En, Eγ, nγ-coin; deduced electromagnetic dissociation σ(E). <sup>129,130,131,132,133</sup> Sn deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb(γ, γ'), E not given; analyzed Eγ, Iγ. <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb deduced B(E1). JOUR NUPAB 788 145c
	2007TA27	NUCLEAR REACTIONS <sup>26</sup> Mg, <sup>48</sup> Ca(p, p'), E=295 MeV; measured excitation energy spectrum. <sup>12</sup> C(p, p'), E=295 MeV; calculated σ(θ). DWIA method. JOUR NUPAB 788 53c
<sup>48</sup> V	2006ZA11	NUCLEAR REACTIONS Ti(p, X) <sup>48</sup> V / <sup>47</sup> Sc / <sup>44m</sup> Sc / <sup>44</sup> Sc / <sup>43</sup> Sc, E ≈ 4-27 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 94 795
	2007TA16	NUCLEAR REACTIONS Ti(d, X) <sup>48</sup> V / <sup>44,46,47,48</sup> Sc, E < 10 MeV; measured Eγ, Ig. Deduced cross sections using stacked foil technique. JOUR NIMBE 262 7
<sup>48</sup> Cr	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn(β <sup>+</sup> ), (EC), (β <sup>+</sup> p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , β-delayed proton and γ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>48</sup> Mn	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn(β <sup>+</sup> ), (EC), (β <sup>+</sup> p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , β-delayed proton and γ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>48</sup> Fe	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn(β <sup>+</sup> ), (EC), (β <sup>+</sup> p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , β-delayed proton and γ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=49**

<sup>49</sup> Ti	2007LIZW	NUCLEAR REACTIONS <sup>48</sup> Ti( <sup>11</sup> Be, <sup>10</sup> Be), E=41 MeV / nucleon; measured fragment energies and yields, neutron energies, intensities, and angular distributions, and Eγ, Iγ. <sup>11</sup> Be deduced breakup σ. PREPRINT arXiv:0709.3981v1 [nucl-ex]
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**A=49 (continued)**

<sup>49</sup> Mn	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>49</sup> Fe	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>49</sup> Co	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>49</sup> Ni	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=50**

<sup>50</sup> Ca	2007RE19	NUCLEAR REACTIONS <sup>48</sup> Ca( <sup>238</sup> U, X), E=1.31 GeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc. <sup>50,51,52</sup> Ca deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 021304
<sup>50</sup> Ti	2007WE01	NUCLEAR REACTIONS <sup>46,50</sup> Ti( <sup>16</sup> O, <sup>16</sup> O), E=30-70 MeV; measured elastic $\sigma(\theta)$ ; deduced model parameters, threshold anomaly. Unexpected structure effects not observed. JOUR NUPAB 781 342
<sup>50</sup> V	2007LA23	NUCLEAR REACTIONS <sup>51</sup> V, <sup>45</sup> Sc( <sup>3</sup> He, $\alpha\gamma$ ), ( <sup>3</sup> He, <sup>3</sup> He' $\gamma$ ), E=30, 38 MeV; measured E $\gamma$ , E $\alpha$ , E( <sup>3</sup> He), (particle) $\gamma$ -coinc. <sup>50,51</sup> V, <sup>44,45</sup> Sc deduced level densities and giant resonance strength functions. JOUR APOBB 38 1495
<sup>50</sup> Mn	2007AD27	NUCLEAR REACTIONS <sup>42</sup> Ca, <sup>46</sup> Ti, <sup>50</sup> Cr, <sup>54</sup> Fe( <sup>3</sup> He, t), E=140 MeV / nucleon; measured excitation energy spectra. <sup>42</sup> Sc, <sup>46</sup> V, <sup>50</sup> Mn, <sup>54</sup> Co deduced Gamow-Teller strength distribution. Comparison with shell model. JOUR NUPAB 788 70c
	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=50 (*continued*)**

<sup>50</sup> Fe	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>50</sup> Co	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>50</sup> Ni	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=51**

<sup>51</sup> Ca	2007RE19	NUCLEAR REACTIONS <sup>48</sup> Ca( <sup>238</sup> U, X), E=1.31 GeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc. <sup>50,51,52</sup> Ca deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 021304
<sup>51</sup> V	2007LA23	NUCLEAR REACTIONS <sup>51</sup> V, <sup>45</sup> Sc( <sup>3</sup> He, $\alpha\gamma$ ), ( <sup>3</sup> He, <sup>3</sup> He' $\gamma$ ), E=30, 38 MeV; measured E $\gamma$ , E $\alpha$ , E( <sup>3</sup> He), (particle) $\gamma$ -coinc. <sup>50,51</sup> V, <sup>44,45</sup> Sc deduced level densities and giant resonance strength functions. JOUR APOBB 38 1495
	2007LE24	NUCLEAR REACTIONS <sup>27</sup> Al( <sup>6</sup> He, <sup>6</sup> He), E=9.5, 11, 12, 13.4 MeV; <sup>51</sup> V( <sup>8</sup> Li, <sup>8</sup> Li), E=26 MeV; measured $\sigma(\theta)$ . Comparison with optical model. <sup>27</sup> Al, <sup>64</sup> Zn( <sup>6</sup> He, <sup>6</sup> He), ( <sup>6</sup> Li, <sup>6</sup> Li), ( <sup>7</sup> Li, <sup>7</sup> Li), ( <sup>9</sup> Be, <sup>9</sup> Be), ( <sup>16</sup> O, <sup>16</sup> O), E $\approx$ 5-25 MeV; analyzed $\sigma$ . Comparison with other data. Secondary radioactive beam. JOUR NUPAB 787 94c
	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
<sup>51</sup> Cr	2006ITZY	NUCLEAR REACTIONS Fe, Ta(d, nX), E=40 MeV; measured neutron spectra, $\sigma(\theta)$ . Fe(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>56</sup> Co / <sup>57</sup> Co, E $\approx$ 5-40 MeV; measured production $\sigma$ . REPT JAEA-Conf 2006-009,P124,Itoga
	2007MI07	NUCLEAR REACTIONS <sup>52</sup> Cr(n, n'), (n, 2n), E $\approx$ 3-18 MeV; measured E $\gamma$ , I $\gamma$ , $\sigma$ . Comparison with model predictions. JOUR NUPAB 786 1
	2007TA14	NUCLEAR REACTIONS Ni(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Mn / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>61</sup> Co / <sup>61</sup> Cu / <sup>64</sup> Cu, E < 50 MeV; measured E $\gamma$ , I $\gamma$ , activation cross section and excitation functions using stacked foil technique.Compared results to existing data. JOUR NIMBE 260 495

**A=51 (*continued*)**

	2007YA02	RADIOACTIVITY $^{51}\text{Cr}$ , $^{55}\text{Fe}$ , $^{67}\text{Ga}$ , $^{111}\text{In}$ , $^{133}\text{Ba}$ , $^{201}\text{Tl}(\text{EC})$ ; $^{99m}\text{Tc}(\text{IT})$ , $(\beta^-)$ ; $^{131}\text{I}$ , $^{133}\text{Xe}$ , $^{137}\text{Cs}(\beta^-)$ ; $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
$^{51}\text{Fe}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), $(\beta^+\text{p})$ [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
$^{51}\text{Co}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), $(\beta^+\text{p})$ [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
$^{51}\text{Ni}$	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), $(\beta^+\text{p})$ [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=52**

	2007RE19	NUCLEAR REACTIONS $^{48}\text{Ca}(^{238}\text{U}, \text{X})$ , E=1.31 GeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc. $^{50,51,52}\text{Ca}$ deduced levels, $J$ , $\pi$ . Compared results to model calculations. JOUR PRVCA 76 021304
$^{52}\text{Cr}$	2007EN02	NUCLEAR REACTIONS $^{52}\text{Cr}(\gamma, \gamma')$ , E=8.0, 9.9 MeV bremsstrahlung; measured $E\gamma$ , $I\gamma$ . $^{52}\text{Cr}$ deduced $2^+$ states energies, B(E2). JOUR ZAANE 31 15
	2007KU19	NUCLEAR REACTIONS $^{27}\text{Al}(^{28}\text{Si}, 3\text{p})$ , E=70 MeV; measured $E\gamma$ , $I\gamma(\theta)$ , $\gamma\gamma$ -coinc. $^{52}\text{Cr}$ deduced levels, $J$ , $\pi$ . Compared results to model calculations. JOUR PRVCA 76 034301
	2007MI07	NUCLEAR REACTIONS $^{52}\text{Cr}(\text{n}, \text{n}')$ , $(\text{n}, 2\text{n})$ , E $\approx$ 3-18 MeV; measured $E\gamma$ , $I\gamma$ , $\sigma$ . Comparison with model predictions. JOUR NUPAB 786 1
$^{52}\text{Mn}$	2006ITZY	NUCLEAR REACTIONS Fe, Ta(d, nX), E=40 MeV; measured neutron spectra, $\sigma(\theta)$ . Fe(d, X) $^{51}\text{Cr}$ / $^{52}\text{Mn}$ / $^{56}\text{Co}$ / $^{57}\text{Co}$ , E $\approx$ 5-40 MeV; measured production $\sigma$ . REPT JAEA-Conf 2006-009,P124,Itoga
	2007AX01	NUCLEAR REACTIONS $^{28}\text{Si}(^{28}\text{Si}, \text{n}3\text{p})$ , E=110, 115 MeV; $^{24}\text{Mg}(^{32}\text{S}, \text{n}3\text{p})$ , E=130 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc, (particle) $\gamma$ -coinc, angular distributions, lifetimes and polarization. $^{52}\text{Mn}$ deduced levels, $J$ , $\pi$ for high spin states. JOUR PRVCA 76 014303
	2007NG01	NUCLEAR REACTIONS $^{45}\text{Sc}(\gamma, \text{n})$ , $^{103}\text{Rh}(\gamma, 4\text{n})$ , E=65 MeV / bremsstrahlung; Ti( $\gamma$ , X) $^{44}\text{Sc}$ , E=65 MeV / bremsstrahlung; Fe( $\gamma$ , X) $^{52}\text{Mn}$ , E=65 MeV / bremsstrahlung; measured $\sigma$ , isomer ratios. Activation method. JOUR KPSJA 50 417

**A=52 (continued)**

	2007TA14	NUCLEAR REACTIONS Ni(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Mn / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>61</sup> Co / <sup>61</sup> Cu / <sup>64</sup> Cu, E < 50 MeV; measured E $\gamma$ , I $\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
<sup>52</sup> Fe	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>52</sup> Co	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>52</sup> Ni	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=53**

	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>53</sup> Ni	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=54**

	2006BUZV	NUCLEAR REACTIONS Au( <sup>54</sup> Cr, <sup>54</sup> Cr'), ( <sup>56</sup> Cr, <sup>56</sup> Cr'), ( <sup>58</sup> Cr, <sup>58</sup> Cr'), E=100 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>54,56,58</sup> Cr deduced excited states energies, B(E2). Comparison with model predictions and previous results. REPT GSI 2006-1,P146,Burger
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**KEYNUMBERS AND KEYWORDS**

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**A=54 (*continued*)**

<sup>54</sup> Mn	2007TA14	NUCLEAR REACTIONS Ni(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Mn / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>61</sup> Co / <sup>61</sup> Cu / <sup>64</sup> Cu, E < 50 MeV; measured E $\gamma$ , I $\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
<sup>54</sup> Fe	2006KH14	NUCLEAR REACTIONS <sup>54,56</sup> Fe(e, e'), E=225 MeV; measured energy and angular distributions. Deduced reduced transition probabilities B(E1), B(E2), B(E3), B(E4), B(E5). JOUR BRSPE 70 1805
<sup>54</sup> Co	2007AD27	NUCLEAR REACTIONS <sup>42</sup> Ca, <sup>46</sup> Ti, <sup>50</sup> Cr, <sup>54</sup> Fe( <sup>3</sup> He, t), E=140 MeV / nucleon; measured excitation energy spectra. <sup>42</sup> Sc, <sup>46</sup> V, <sup>50</sup> Mn, <sup>54</sup> Co deduced Gamow-Teller strength distribution. Comparison with shell model. JOUR NUPAB 788 70c
	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>54</sup> Ni	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=55**

<sup>55</sup> Ti	2007ZH37	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>48</sup> Ca, np), ( <sup>48</sup> Ca, 2p), E=172 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, (particle) $\gamma$ -coin using Gammasphere. <sup>55</sup> V, <sup>55</sup> Ti deduced levels, J, $\pi$ . Comparison with model calculations. JOUR PYLBB 650 135
<sup>55</sup> V	2007ZH37	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>48</sup> Ca, np), ( <sup>48</sup> Ca, 2p), E=172 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, (particle) $\gamma$ -coin using Gammasphere. <sup>55</sup> V, <sup>55</sup> Ti deduced levels, J, $\pi$ . Comparison with model calculations. JOUR PYLBB 650 135
<sup>55</sup> Mn	2006UT03	NUCLEAR REACTIONS <sup>54</sup> Cr(p, $\gamma$ ), E=1.5-2.5 MeV; measured E $\gamma$ , I $\gamma$ , and partial cross sections. JOUR BRSPE 70 1859
	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
<sup>55</sup> Fe	2007COZX	NUCLEAR REACTIONS <sup>54</sup> Fe(n, $\gamma$ ), E=spectrum; measured cross section using accelerator mass spectroscopy. CONF Geneva(NIC-IX) 274
	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182

**A=55 (*continued*)**

<sup>55</sup> Co	2007SH15	NUCLEAR REACTIONS <sup>232</sup> Th(n, $\gamma$ ), (n, 2n), <sup>197</sup> Au(n, $\gamma$ ), (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), <sup>59</sup> Co(n, $\alpha$ ), (n, 2n), (n, 4n), (n, 5n), <sup>181</sup> Ta(n, $\gamma$ ), (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
	2007TA14	NUCLEAR REACTIONS Ni(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Mn / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>61</sup> Co / <sup>61</sup> Cu / <sup>64</sup> Cu, E < 50 MeV; measured E $\gamma$ , I $\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
<sup>55</sup> Ni	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>55</sup> Cu	2007BL09	NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>58</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267
	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
<sup>55</sup> Zn	2007D017	RADIOACTIVITY <sup>36,37</sup> Ca, <sup>39,40,41</sup> Ti, <sup>43</sup> V, <sup>42,43,44,45</sup> Cr, <sup>46,47</sup> Mn, <sup>46,47,48,49</sup> Fe, <sup>50,51</sup> Co, <sup>49,50,51,52,53</sup> Ni, <sup>55</sup> Cu, <sup>55,56</sup> Zn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from Ni( <sup>58</sup> Ni, X)]; measured T <sub>1/2</sub> , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. <sup>43,45</sup> Cr, <sup>46</sup> Mn, <sup>46,47,48</sup> Fe, <sup>50</sup> Co, <sup>50,51,52,53</sup> Ni deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=56**

<sup>56</sup> K	2007YA08	ATOMIC MASSES <sup>35,36,37,38,43,44,45,56</sup> K; measured masses using ISOLTRAP. Discussed implications on IMME. JOUR PRVCA 76 024308
<sup>56</sup> Cr	2006BUZV	NUCLEAR REACTIONS Au( <sup>54</sup> Cr, <sup>54</sup> Cr'), ( <sup>56</sup> Cr, <sup>56</sup> Cr'), ( <sup>58</sup> Cr, <sup>58</sup> Cr'), E=100 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>54,56,58</sup> Cr deduced excited states energies, B(E2). Comparison with model predictions and previous results. REPT GSI 2006-1,P146,Burger
	2006ZH42	NUCLEAR REACTIONS <sup>208</sup> Pb( <sup>48</sup> Ca, X) <sup>56</sup> Cr / <sup>58</sup> Cr, E=305 MeV; <sup>238</sup> U( <sup>48</sup> Ca, X) <sup>56</sup> Cr / <sup>58</sup> Cr / <sup>60</sup> Cr, E=330 MeV; <sup>14</sup> C( <sup>48</sup> Ca, 2p), ( <sup>48</sup> Ca, 2n $\alpha$ ), E=130 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ , $\gamma\gamma$ -coin. <sup>56,58,60</sup> Cr deduced levels, J, $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 74 064315

**A=56 (continued)**

<sup>56</sup> Mn	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $^{197}\text{Au}(\text{n}, \gamma)$ , $(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 6\text{n})$ , $(\text{n}, 7\text{n})$ , $(\text{n}, 8\text{n})$ , $(\text{n}, 6\text{np})$ , $^{59}\text{Co}(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $^{181}\text{Ta}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $(\text{n}, \text{np})$ , E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
	2007TA14	NUCLEAR REACTIONS $\text{Ni}(\text{d}, \text{X})^{51}\text{Cr} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{56}\text{Mn} / ^{56}\text{Ni} / ^{57}\text{Ni} / ^{55}\text{Co} / ^{56}\text{Co} / ^{57}\text{Co} / ^{58}\text{Co} / ^{60}\text{Co} / ^{61}\text{Co} / ^{61}\text{Cu} / ^{64}\text{Cu}$ , E < 50 MeV; measured $E\gamma$ , $I\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
<sup>56</sup> Fe	2006KH14	NUCLEAR REACTIONS $^{54,56}\text{Fe}(\text{e}, \text{e}')$ , E=225 MeV; measured energy and angular distributions. Deduced reduced transition probabilities $B(\text{E}1), B(\text{E}2), B(\text{E}3), B(\text{E}4), B(\text{E}5)$ . JOUR BRSPE 70 1805
	2007AL49	NUCLEAR REACTIONS $^{57}\text{Fe}(^3\text{He}, \alpha)$ , $(^3\text{He}, ^3\text{He}')$ , E=45 MeV; $^{56}\text{Fe}(\text{n}, \gamma)$ , E=thermal; $^{55}\text{Mn}(\text{d}, \text{n})$ , E=7.0 MeV; measured $E\gamma$ , $I\gamma$ . Deduced nuclear level densities and radiative strength functions. Compared results to model calculations. JOUR PANUE 70 1634
<sup>56</sup> Co	2006ITZY	NUCLEAR REACTIONS $\text{Fe}, \text{Ta}(\text{d}, \text{nX})$ , E=40 MeV; measured neutron spectra, $\sigma(\theta)$ . $\text{Fe}(\text{d}, \text{X})^{51}\text{Cr} / ^{52}\text{Mn} / ^{56}\text{Co} / ^{57}\text{Co}$ , E ≈ 5-40 MeV; measured production $\sigma$ . REPT JAEA-Conf 2006-009, P124, Itoga
	2007BL10	NUCLEAR REACTIONS $^{12}\text{C}, ^{208}\text{Pb}(\text{n}, \text{n})$ , E=96 MeV; $\text{Fe}, \text{Pb}, \text{U}(\text{n}, \text{pX}), (\text{n}, \text{dX}), (\text{n}, \text{tX})$ , E=96 MeV; measured $\sigma(\theta)$ . $^{181}\text{Ta}, \text{W}, ^{197}\text{Au}, \text{Pb}, ^{208}\text{Pb}(\text{n}, \text{F})$ , E=20-200 MeV; measured fission $\sigma$ . $\text{Cu}(\text{n}, \text{X})^{56}\text{Co}$ , E=50-180 MeV; measured $\sigma$ . JOUR PRAMC 68 269
	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $^{197}\text{Au}(\text{n}, \gamma)$ , $(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 6\text{n})$ , $(\text{n}, 7\text{n})$ , $(\text{n}, 8\text{n})$ , $(\text{n}, 6\text{np})$ , $^{59}\text{Co}(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $^{181}\text{Ta}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $(\text{n}, \text{np})$ , E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
	2007TA14	NUCLEAR REACTIONS $\text{Ni}(\text{d}, \text{X})^{51}\text{Cr} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{56}\text{Mn} / ^{56}\text{Ni} / ^{57}\text{Ni} / ^{55}\text{Co} / ^{56}\text{Co} / ^{57}\text{Co} / ^{58}\text{Co} / ^{60}\text{Co} / ^{61}\text{Co} / ^{61}\text{Cu} / ^{64}\text{Cu}$ , E < 50 MeV; measured $E\gamma$ , $I\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
<sup>56</sup> Ni	2007BL09	RADIOACTIVITY $^{57}\text{Zn}, ^{61}\text{Ge}(\beta^+ \text{p})$ [from $\text{Ni}(^{70}\text{Ge}, \text{X})$ ]; measured $\beta$ -delayed proton spectra, $T_{1/2}$ . JOUR ZAANE 31 267
	2007M029	NUCLEAR REACTIONS $^2\text{H}(^{56}\text{Ni}, \text{d})$ , E=50 MeV / nucleon; measured Ed, E(recoil), energy excitation spectrum. JOUR NUPAB 788 182c
	2007TA14	NUCLEAR REACTIONS $\text{Ni}(\text{d}, \text{X})^{51}\text{Cr} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{56}\text{Mn} / ^{56}\text{Ni} / ^{57}\text{Ni} / ^{55}\text{Co} / ^{56}\text{Co} / ^{57}\text{Co} / ^{58}\text{Co} / ^{60}\text{Co} / ^{61}\text{Co} / ^{61}\text{Cu} / ^{64}\text{Cu}$ , E < 50 MeV; measured $E\gamma$ , $I\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
<sup>56</sup> Cu	2007BL09	NUCLEAR REACTIONS $\text{Ni}(^{70}\text{Ge}, \text{X})^{55}\text{Cu} / ^{56}\text{Cu} / ^{57}\text{Cu} / ^{58}\text{Cu} / ^{56}\text{Zn} / ^{57}\text{Zn} / ^{58}\text{Zn} / ^{59}\text{Zn} / ^{60}\text{Zn} / ^{60}\text{Ga} / ^{61}\text{Ga} / ^{60}\text{Ge} / ^{61}\text{Ge} / ^{62}\text{Ge} / ^{63}\text{Ge} / ^{64}\text{As}$ , E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267

**A=56 (*continued*)**

	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18
$^{56}\text{Zn}$	2007BL09	NUCLEAR REACTIONS Ni( $^{70}\text{Ge}$ , X) $^{55}\text{Cu}$ / $^{56}\text{Cu}$ / $^{57}\text{Cu}$ / $^{58}\text{Cu}$ / $^{56}\text{Zn}$ / $^{57}\text{Zn}$ / $^{58}\text{Zn}$ / $^{59}\text{Zn}$ / $^{60}\text{Zn}$ / $^{60}\text{Ga}$ / $^{61}\text{Ga}$ / $^{60}\text{Ge}$ / $^{61}\text{Ge}$ / $^{62}\text{Ge}$ / $^{63}\text{Ge}$ / $^{64}\text{As}$ , E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267
	2007D017	RADIOACTIVITY $^{36,37}\text{Ca}$ , $^{39,40,41}\text{Ti}$ , $^{43}\text{V}$ , $^{42,43,44,45}\text{Cr}$ , $^{46,47}\text{Mn}$ , $^{46,47,48,49}\text{Fe}$ , $^{50,51}\text{Co}$ , $^{49,50,51,52,53}\text{Ni}$ , $^{55}\text{Cu}$ , $^{55,56}\text{Zn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from Ni( $^{58}\text{Ni}$ , X)]; measured $T_{1/2}$ , $\beta$ -delayed proton and $\gamma$ spectra, branching ratios. $^{43,45}\text{Cr}$ , $^{46}\text{Mn}$ , $^{46,47,48}\text{Fe}$ , $^{50}\text{Co}$ , $^{50,51,52,53}\text{Ni}$ deduced levels. Two-proton decay observed. Comparison with model predictions. JOUR NUPAB 792 18

**A=57**

	2007AL49	NUCLEAR REACTIONS $^{57}\text{Fe}(^3\text{He}, \alpha)$ , ( $^3\text{He}$ , $^3\text{He}'$ ), E=45 MeV; $^{56}\text{Fe}(\text{n}, \gamma)$ , E=thermal; $^{55}\text{Mn}(\text{d}, \text{n})$ , E=7.0 MeV; measured $E\gamma$ , $I\gamma$ . Deduced nuclear level densities and radiative strength functions. Compared results to model calculations. JOUR PANUE 70 1634
	2007C014	NUCLEAR REACTIONS $^{59}\text{Co}$ , $^{93}\text{Nb}$ (polarized p, $^3\text{He}$ ), E=40-160 MeV; measured $\sigma$ , angular distributions and analyzing powers.
	2007V008	Compared results to model calculations. JOUR PRVCA 75 054617 NUCLEAR REACTIONS $^{59}\text{Co}(\text{d}, \text{n})$ , ( $\text{d}$ , p), ( $\text{d}$ , $\alpha$ ), $^{58}\text{Fe}(^3\text{He}, \text{n})$ , ( $^3\text{He}$ , p), ( $^3\text{He}$ , $\alpha$ ) $^{61}\text{Ni}$ , E=7.5, 10 MeV; measured neutron, proton and $\alpha$ particle spectra, reaction cross sections. $^{57}\text{Fe}$ , $^{60}\text{Ni}$ , $^{60}\text{Cu}$ ; deduced level densities. JOUR PRVCA 76 044602
	2007VOZZ	NUCLEAR REACTIONS $^{58}\text{Fe}(^3\text{He}, \text{n})$ , ( $^3\text{He}$ , p), ( $^3\text{He}$ , $\alpha$ ), E=10 MeV; $^{59}\text{Co}(\text{d}, \text{n})$ , ( $\text{d}$ , p), ( $\text{d}$ , $\alpha$ ), E=7.5 MeV; measured En, Ep, Ea. $^{57}\text{Fe}$ , $^{60}\text{Ni}$ , $^{60}\text{Co}$ deduced level densities, Fermi-gas parameters. Comparison with model predictions. PREPRINT arXiv:0704.0916v1 [nucl-ex]
$^{57}\text{Co}$	2006ITZY	NUCLEAR REACTIONS Fe, Ta( $\text{d}$ , nX), E=40 MeV; measured neutron spectra, $\sigma(\theta)$ . Fe( $\text{d}$ , X) $^{51}\text{Cr}$ / $^{52}\text{Mn}$ / $^{56}\text{Co}$ / $^{57}\text{Co}$ , E $\approx$ 5-40 MeV; measured production $\sigma$ . REPT JAEA-Conf 2006-009, P124, Itoga
	2007TA14	NUCLEAR REACTIONS Ni( $\text{d}$ , X) $^{51}\text{Cr}$ / $^{52}\text{Mn}$ / $^{54}\text{Mn}$ / $^{56}\text{Mn}$ / $^{56}\text{Ni}$ / $^{57}\text{Ni}$ / $^{55}\text{Co}$ / $^{56}\text{Co}$ / $^{57}\text{Co}$ / $^{58}\text{Co}$ / $^{60}\text{Co}$ / $^{61}\text{Co}$ / $^{61}\text{Cu}$ / $^{64}\text{Cu}$ , E < 50 MeV; measured $E\gamma$ , $I\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
$^{57}\text{Ni}$	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303

**A=57 (continued)**

2007GUZZ	ATOMIC MASSES 57,60,64,65,66,67,68,69Ni, 65,66,67,68,68m,69,70,70m,71,72,73,74,76Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
2007TA14	NUCLEAR REACTIONS Ni(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Mn / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>61</sup> Co / <sup>61</sup> Cu / <sup>64</sup> Cu, E < 50 MeV; measured E $\gamma$ , I $\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
<sup>57</sup> Cu	2007BL09 NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>58</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267
<sup>57</sup> Zn	2007BL09 NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>58</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267
	2007BL09 RADIOACTIVITY <sup>57</sup> Zn, <sup>61</sup> Ge( $\beta^+$ p) [from Ni( <sup>70</sup> Ge, X)]; measured $\beta$ -delayed proton spectra, T <sub>1/2</sub> . JOUR ZAANE 31 267

**A=58**

58Cr	2006BUZV NUCLEAR REACTIONS Au( <sup>54</sup> Cr, <sup>54</sup> Cr'), ( <sup>56</sup> Cr, <sup>56</sup> Cr'), ( <sup>58</sup> Cr, <sup>58</sup> Cr'), E=100 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>54,56,58</sup> Cr deduced excited states energies, B(E2). Comparison with model predictions and previous results. REPT GSI 2006-1, P146, Burger
	2006ZH42 NUCLEAR REACTIONS <sup>208</sup> Pb( <sup>48</sup> Ca, X) <sup>56</sup> Cr / <sup>58</sup> Cr, E=305 MeV; <sup>238</sup> U( <sup>48</sup> Ca, X) <sup>56</sup> Cr / <sup>58</sup> Cr / <sup>60</sup> Cr, E=330 MeV; <sup>14</sup> C( <sup>48</sup> Ca, 2p), ( <sup>48</sup> Ca, 2n $\alpha$ ), E=130 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ , $\gamma\gamma$ -coin. <sup>56,58,60</sup> Cr deduced levels, J, $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 74 064315
<sup>58</sup> Fe	2007LI62 NUCLEAR REACTIONS <sup>48</sup> Ti( <sup>11</sup> Be, n), E=41 MeV / nucleon; measured En, In, E $\gamma$ , I $\gamma$ , $\sigma(\theta)$ , ( <sup>10</sup> Be)n-, $\gamma$ n-coin. <sup>11</sup> Be deduced spectroscopic factor, configurations. JOUR NUPAB 795 1
<sup>58</sup> Co	2006SI37 NUCLEAR REACTIONS <sup>51</sup> V( <sup>10</sup> B, 2np), E=33, 36 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (charged particle) $\gamma$ -coin, DSA. <sup>58</sup> Co deduced high-spin levels, J, $\pi$ , T <sub>1/2</sub> , configurations, B(M1), B(E2). Shell-model calculations. JOUR PRVCA 74 064312
	2007SH15 NUCLEAR REACTIONS <sup>232</sup> Th(n, $\gamma$ ), (n, 2n), <sup>197</sup> Au(n, $\gamma$ ), (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), <sup>59</sup> Co(n, $\alpha$ ), (n, 2n), (n, 4n), (n, 5n), <sup>181</sup> Ta(n, $\gamma$ ), (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307

**A=58 (continued)**

2007TA14	NUCLEAR REACTIONS Ni(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Mn / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>61</sup> Co / <sup>61</sup> Cu / <sup>64</sup> Cu, E < 50 MeV; measured E $\gamma$ , I $\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
2007ZE03	NUCLEAR REACTIONS <sup>58</sup> Ni(t, <sup>3</sup> He), E=115 MeV / nucleon; measured particle spectra, $\sigma(\theta)$ . <sup>58</sup> Co deduced Gamow-Teller strength distribution. Comparison with other results, model predictions. JOUR NUPAB 787 329c
<sup>58</sup> Ni	2007AGZV NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>8</sup> B, <sup>8</sup> B), E=20.7, 23.4, 25.3, 27.2, 29.3 MeV; measured <sup>8</sup> B( $\theta$ ); deduced $\sigma_{el}$ / $\sigma_{Ruth}$ . TWINSOL facility. CONF Voronezh(Nucleus-2007), Contrib, P120, Aguilera
	2007CE02 NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>110</sup> Sn, <sup>110</sup> Sn'), E=2.82 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following Coulomb excitation. <sup>110</sup> Sn deduced B(E2) of the first excited 2 $^+$ state. MINIBALL array at REX-ISOLDE. JOUR PRLTA 98 172501
	2007FU04 NUCLEAR REACTIONS <sup>58</sup> Ni(p, p'), E=160 MeV; measured Ep, $\sigma(\theta=0^\circ)$ . <sup>58</sup> Ni( <sup>3</sup> He, t), E=140 MeV / nucleon; measured triton spectra, $\sigma(\theta=0^\circ)$ . <sup>58</sup> Ni, <sup>58</sup> Cu deduced 1 $^+$ level energies, B(GT), isospin symmetry features. Comparison with shell model predictions. JOUR PRVCA 75 034310
	2007HI06 NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>58</sup> Ni, <sup>58</sup> Ni), E=260=220 MeV; measured angular distributions. Deduced Mott oscillations. JOUR PRVCA 76 014617
	2007H013 NUCLEAR REACTIONS <sup>58</sup> Ni(p, p'), E=172 MeV; measured cross sections, spin flip cross sections and spin-flip probabilities. Compared results to model calculations. JOUR PRVCA 76 014314
<sup>58</sup> Cu	2007BL09 NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>58</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267
	2007FU04 NUCLEAR REACTIONS <sup>58</sup> Ni(p, p'), E=160 MeV; measured Ep, $\sigma(\theta=0^\circ)$ . <sup>58</sup> Ni( <sup>3</sup> He, t), E=140 MeV / nucleon; measured triton spectra, $\sigma(\theta=0^\circ)$ . <sup>58</sup> Ni, <sup>58</sup> Cu deduced 1 $^+$ level energies, B(GT), isospin symmetry features. Comparison with shell model predictions. JOUR PRVCA 75 034310
	2007ZE06 NUCLEAR REACTIONS <sup>12,13</sup> C, <sup>18</sup> O, <sup>26</sup> Mg, <sup>58</sup> Ni, <sup>60</sup> Ni, <sup>90</sup> Zr, <sup>118</sup> Sn, <sup>208</sup> Pb( <sup>3</sup> He, t), E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
	2007ZEZZ NUCLEAR REACTIONS <sup>12,13</sup> C, <sup>18</sup> O, <sup>26</sup> Mg, <sup>58</sup> Ni, <sup>60</sup> Ni, <sup>90</sup> Zr, <sup>118</sup> Sn, <sup>208</sup> Pb( <sup>3</sup> He, t), E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]
<sup>58</sup> Zn	2007BL09 NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>58</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267

**A=59**

<sup>59</sup> Fe	2007TI03	NUCLEAR REACTIONS Pb, <sup>208</sup> Pb, <sup>209</sup> Bi(p, X) <sup>7</sup> Be / <sup>24</sup> Na / <sup>59</sup> Fe / <sup>86</sup> Rb / <sup>101m</sup> Rh / <sup>173</sup> Lu / <sup>190</sup> Ir / <sup>192</sup> Ir / <sup>196</sup> Au / <sup>199</sup> Tl / <sup>200</sup> Tl / <sup>203</sup> Pb, E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289
<sup>59</sup> Co	2007S009	NUCLEAR REACTIONS <sup>59</sup> Co( <sup>6</sup> Li, <sup>6</sup> Li), ( <sup>7</sup> Li, <sup>7</sup> Li), E=12-30 MeV; measured elastic $\sigma(\theta)$ ; deduced breakup threshold anomaly. JOUR PRVCA 75 044601
<sup>59</sup> Ni	2007RU09	NUCLEAR REACTIONS <sup>58</sup> Ni(n, $\gamma$ ), <sup>78</sup> Se(n, $\gamma$ ), E $\approx$ 0-100 keV; measured cross sections using accelerator mass spectrometry. Quasi-stellar neutron spectrum. JOUR NIMBE 259 683
<sup>59</sup> Zn	2007BL09	NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267

**A=60**

<sup>60</sup> Cr	2006ZH42	NUCLEAR REACTIONS <sup>208</sup> Pb( <sup>48</sup> Ca, X) <sup>56</sup> Cr / <sup>58</sup> Cr, E=305 MeV; <sup>238</sup> U( <sup>48</sup> Ca, X) <sup>56</sup> Cr / <sup>58</sup> Cr / <sup>60</sup> Cr, E=330 MeV; <sup>14</sup> C( <sup>48</sup> Ca, 2p), ( <sup>48</sup> Ca, 2n $\alpha$ ), E=130 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ , $\gamma\gamma$ -coin. <sup>56,58,60</sup> Cr deduced levels, J, $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 74 064315
<sup>60</sup> Co	2007TA14	NUCLEAR REACTIONS Ni(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Mn / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>61</sup> Co / <sup>61</sup> Cu / <sup>64</sup> Cu, E < 50 MeV; measured E $\gamma$ , I $\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
	2007V008	NUCLEAR REACTIONS <sup>59</sup> Co(d, n), (d, p), (d, $\alpha$ ), <sup>58</sup> Fe( <sup>3</sup> He, n), ( <sup>3</sup> He, p), ( <sup>3</sup> He, $\alpha$ ) <sup>61</sup> Ni, E=7.5, 10 MeV; measured neutron, proton and $\alpha$ particle spectra, reaction cross sections. <sup>57</sup> Fe, <sup>60</sup> Ni, <sup>60</sup> Cu; deduced level densities. JOUR PRVCA 76 044602
	2007VOZZ	NUCLEAR REACTIONS <sup>58</sup> Fe( <sup>3</sup> He, n), ( <sup>3</sup> He, p), ( <sup>3</sup> He, $\alpha$ ), E=10 MeV; <sup>59</sup> Co(d, n), (d, p), (d, $\alpha$ ), E=7.5 MeV; measured En, Ep, E $\alpha$ . <sup>57</sup> Fe, <sup>60</sup> Ni, <sup>60</sup> Co deduced level densities, Fermi-gas parameters. Comparison with model predictions. PREPRINT arXiv:0704.0916v1 [nucl-ex]
	2007ZH34	NUCLEAR REACTIONS <sup>63</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; <sup>65</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured E $\gamma$ , I $\gamma$ , and cross sections. JOUR NSENA 157 354
<sup>60</sup> Ni	2005NIZS	NUCLEAR REACTIONS Ni( <sup>22</sup> Ne, <sup>22</sup> Ne'), E=2.25 MeV / nucleon; <sup>107</sup> Ag( <sup>22</sup> Ne, <sup>22</sup> Ne'), E=2.86 MeV / nucleon; Ni( <sup>30</sup> Mg, <sup>30</sup> Mg'), E=2.25 MeV / nucleon; <sup>60</sup> Ni, <sup>107</sup> Ag( <sup>30</sup> Mg, <sup>30</sup> Mg'), E=2.69 MeV / nucleon; U(p, X) <sup>22</sup> Ne / <sup>30</sup> Mg / <sup>32</sup> Mg, E=1.01-1.40 GeV; measured E $\gamma$ , I $\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. <sup>22</sup> Ne, <sup>30</sup> Mg, <sup>32</sup> Mg, <sup>107</sup> Ag deduced levels, B(E2), half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. <sup>24</sup> Mg, <sup>26</sup> Mg, <sup>28</sup> Mg, <sup>30</sup> Mg, <sup>32</sup> Mg, <sup>34</sup> Mg systematics of B(E2) values. Comparisons with shell-model calculations. THESIS O T Niedermaier, Univ Heidelberg

**A=60 (*continued*)**

2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
2007V008	NUCLEAR REACTIONS $^{59}\text{Co}(\text{d}, \text{n})$ , $(\text{d}, \text{p})$ , $(\text{d}, \alpha)$ , $^{58}\text{Fe}(\text{He}^3, \text{n})$ , $(\text{He}^3, \text{p})$ , $(\text{He}^3, \alpha)$ $^{61}\text{Ni}$ , E=7.5, 10 MeV; measured neutron, proton and $\alpha$ particle spectra, reaction cross sections. $^{57}\text{Fe}$ , $^{60}\text{Ni}$ , $^{60}\text{Cu}$ ; deduced level densities. JOUR PRVCA 76 044602
2007VOZZ	NUCLEAR REACTIONS $^{58}\text{Fe}(\text{He}^3, \text{n})$ , $(\text{He}^3, \text{p})$ , $(\text{He}^3, \alpha)$ , E=10 MeV; $^{59}\text{Co}(\text{d}, \text{n})$ , $(\text{d}, \text{p})$ , $(\text{d}, \alpha)$ , E=7.5 MeV; measured En, Ep, Ea. $^{57}\text{Fe}$ , $^{60}\text{Ni}$ , $^{60}\text{Co}$ deduced level densities, Fermi-gas parameters. Comparison with model predictions. PREPRINT arXiv:0704.0916v1 [nucl-ex]
$^{60}\text{Cu}$	NUCLEAR REACTIONS $^{59}\text{Co}(\text{d}, \text{n})$ , $(\text{d}, \text{p})$ , $(\text{d}, \alpha)$ , $^{58}\text{Fe}(\text{He}^3, \text{n})$ , $(\text{He}^3, \text{p})$ , $(\text{He}^3, \alpha)$ $^{61}\text{Ni}$ , E=7.5, 10 MeV; measured neutron, proton and $\alpha$ particle spectra, reaction cross sections. $^{57}\text{Fe}$ , $^{60}\text{Ni}$ , $^{60}\text{Cu}$ ; deduced level densities. JOUR PRVCA 76 044602
2007ZE06	NUCLEAR REACTIONS $^{12,13}\text{C}$ , $^{18}\text{O}$ , $^{26}\text{Mg}$ , $^{58}\text{Ni}$ , $^{60}\text{Ni}$ , $^{90}\text{Zr}$ , $^{118}\text{Sn}$ , $^{208}\text{Pb}(\text{He}^3, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
2007ZEZZ	NUCLEAR REACTIONS $^{12,13}\text{C}$ , $^{18}\text{O}$ , $^{26}\text{Mg}$ , $^{58}\text{Ni}$ , $^{60}\text{Ni}$ , $^{90}\text{Zr}$ , $^{118}\text{Sn}$ , $^{208}\text{Pb}(\text{He}^3, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]
$^{60}\text{Zn}$	NUCLEAR REACTIONS Ni( $^{70}\text{Ge}$ , X) $^{55}\text{Cu}$ / $^{56}\text{Cu}$ / $^{57}\text{Cu}$ / $^{58}\text{Cu}$ / $^{56}\text{Zn}$ / $^{57}\text{Zn}$ / $^{58}\text{Zn}$ / $^{59}\text{Zn}$ / $^{60}\text{Zn}$ / $^{60}\text{Ga}$ / $^{61}\text{Ga}$ / $^{60}\text{Ge}$ / $^{61}\text{Ge}$ / $^{62}\text{Ge}$ / $^{63}\text{Ge}$ / $^{64}\text{As}$ , E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267
2007BL09	RADIOACTIVITY $^{57}\text{Zn}$ , $^{61}\text{Ge}(\beta^+\text{p})$ [from Ni( $^{70}\text{Ge}$ , X)]; measured $\beta$ -delayed proton spectra, $T_{1/2}$ . JOUR ZAANE 31 267
2007W002	NUCLEAR REACTIONS $^{36}\text{Ar}(\text{He}^3, \text{F})$ , E=123.1 MeV; $^{36}\text{Ar}(\text{He}^3, \text{F})$ , E=119.3 MeV; measured $E\gamma$ , $I\gamma$ from GDR decay. $^{60,61}\text{Zn}$ deduced GDR parameters, isospin mixing probability. JOUR APOBB 38 1469
2007ZH16	NUCLEAR REACTIONS $^{24}\text{Mg}(\text{He}^3, \text{X})$ , E=195 MeV; measured fission fragment energy spectra, angular distributions. $^{60}\text{Zn}$ deduced ternary cluster decay from hyperdeformed states in compound nucleus. JOUR JTPLA 85 136
$^{60}\text{Ga}$	NUCLEAR REACTIONS Ni( $^{70}\text{Ge}$ , X) $^{55}\text{Cu}$ / $^{56}\text{Cu}$ / $^{57}\text{Cu}$ / $^{58}\text{Cu}$ / $^{56}\text{Zn}$ / $^{57}\text{Zn}$ / $^{58}\text{Zn}$ / $^{59}\text{Zn}$ / $^{60}\text{Zn}$ / $^{60}\text{Ga}$ / $^{61}\text{Ga}$ / $^{60}\text{Ge}$ / $^{61}\text{Ge}$ / $^{62}\text{Ge}$ / $^{63}\text{Ge}$ / $^{64}\text{As}$ , E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267
$^{60}\text{Ge}$	NUCLEAR REACTIONS Ni( $^{70}\text{Ge}$ , X) $^{55}\text{Cu}$ / $^{56}\text{Cu}$ / $^{57}\text{Cu}$ / $^{58}\text{Cu}$ / $^{56}\text{Zn}$ / $^{57}\text{Zn}$ / $^{58}\text{Zn}$ / $^{59}\text{Zn}$ / $^{60}\text{Zn}$ / $^{60}\text{Ga}$ / $^{61}\text{Ga}$ / $^{60}\text{Ge}$ / $^{61}\text{Ge}$ / $^{62}\text{Ge}$ / $^{63}\text{Ge}$ / $^{64}\text{As}$ , E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267

**A=61**

<sup>61</sup> Fe	2007LU13	NUCLEAR REACTIONS $^{238}\text{U}(\text{X}, \text{Fe})^{61}\text{Fe}$ / $^{62}\text{Fe}$ / $^{63}\text{Fe}$ / $^{64}\text{Fe}$ / $^{65}\text{Fe}$ / $^{66}\text{Fe}$ , E=400 MeV; measured $\text{E}_\gamma$ , $\text{I}_\gamma$ , $\gamma\gamma$ , (particle) $\gamma$ -coinc. $^{61,62,63,64,65}\text{Fe}$ deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 034303
	2007VE05	NUCLEAR REACTIONS $^9\text{Be}(\text{X}, \text{Fe})^{61}\text{Fe}$ , E=64.6 MeV / nucleon; measured $\text{E}_\gamma$ , $\text{I}_\gamma$ and quadrupole moment of the $9^-$ / $2^+$ isomeric state using time dependent perturbed angular momentum technique. JOUR PRVCA 75 051302
<sup>61</sup> Co	2006AL31	NUCLEAR REACTIONS Cu(p, X) $^{62}\text{Zn}$ / $^{63}\text{Zn}$ / $^{65}\text{Zn}$ / $^{61}\text{Cu}$ / $^{61}\text{Co}$ , E $\approx$ 2-27 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation, comparison with model predictions. JOUR RAACA 94 391
	2007TA14	NUCLEAR REACTIONS Ni(d, X) $^{51}\text{Cr}$ / $^{52}\text{Mn}$ / $^{54}\text{Mn}$ / $^{56}\text{Mn}$ / $^{56}\text{Ni}$ / $^{57}\text{Ni}$ / $^{55}\text{Co}$ / $^{56}\text{Co}$ / $^{57}\text{Co}$ / $^{58}\text{Co}$ / $^{60}\text{Co}$ / $^{61}\text{Co}$ / $^{61}\text{Cu}$ / $^{64}\text{Cu}$ , E < 50 MeV; measured $\text{E}_\gamma$ , $\text{I}_\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
<sup>61</sup> Ni	2007V008	NUCLEAR REACTIONS $^{59}\text{Co}(\text{d}, \text{n})$ , $(\text{d}, \text{p})$ , $(\text{d}, \alpha)$ , $^{58}\text{Fe}(\text{He}^3, \text{n})$ , $(\text{He}^3, \text{p})$ , $(\text{He}^3, \alpha)^{61}\text{Ni}$ , E=7.5, 10 MeV; measured neutron, proton and $\alpha$ particle spectra, reaction cross sections. $^{57}\text{Fe}$ , $^{60}\text{Ni}$ , $^{60}\text{Cu}$ ; deduced level densities. JOUR PRVCA 76 044602
	2007ZH12	NUCLEAR REACTIONS $^{64}\text{Zn}(\text{n}, \alpha)$ , E=5.03, 5.95 MeV; measured $\text{E}_\alpha$ , $\sigma(\theta)$ ; deduced angle-integrated $\sigma$ . JOUR NSENA 156 115
<sup>61</sup> Cu	2006AL31	NUCLEAR REACTIONS Cu(p, X) $^{62}\text{Zn}$ / $^{63}\text{Zn}$ / $^{65}\text{Zn}$ / $^{61}\text{Cu}$ / $^{61}\text{Co}$ , E $\approx$ 2-27 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation, comparison with model predictions. JOUR RAACA 94 391
	2007HE12	NUCLEAR REACTIONS $^{64}\text{Ni}(\text{d}, 2\text{n})$ , E=4-20.5 MeV; $\text{Ni}(\text{d}, \text{X})^{61}\text{Cu}$ , E=4-20.5 MeV; measured production cross sections using stacked-foil activation technique. JOUR NIMBE 258 308
	2007TA14	NUCLEAR REACTIONS Ni(d, X) $^{51}\text{Cr}$ / $^{52}\text{Mn}$ / $^{54}\text{Mn}$ / $^{56}\text{Mn}$ / $^{56}\text{Ni}$ / $^{57}\text{Ni}$ / $^{55}\text{Co}$ / $^{56}\text{Co}$ / $^{57}\text{Co}$ / $^{58}\text{Co}$ / $^{60}\text{Co}$ / $^{61}\text{Co}$ / $^{61}\text{Cu}$ / $^{64}\text{Cu}$ , E < 50 MeV; measured $\text{E}_\gamma$ , $\text{I}_\gamma$ , activation cross section and excitation functions using stacked foil technique. Compared results to existing data. JOUR NIMBE 260 495
	2007UD02	NUCLEAR REACTIONS Zn(p, xn) $^{66}\text{Ga}$ / $^{67}\text{Ga}$ , E=4-40 MeV; Zn(p, xnp) $^{62}\text{Zn}$ / $^{65}\text{Zn}$ / $^{69m}\text{Zn}$ , E=10-40 MeV; Zn(p, xna) $^{61}\text{Cu}$ , E=6-40 MeV; measured cross sections and excitation functions using stacked-foil activation technique. Compared results to calculations. JOUR NIMBE 258 313
<sup>61</sup> Zn	2007W002	NUCLEAR REACTIONS $^{36}\text{Ar}(\text{Mg}^{24}, \text{F})$ , E=123.1 MeV; $^{36}\text{Ar}(\text{Mg}^{25}, \text{F})$ , E=119.3 MeV; measured $\text{E}_\gamma$ , $\text{I}_\gamma$ from GDR decay. $^{60,61}\text{Zn}$ deduced GDR parameters, isospin mixing probability. JOUR APOBB 38 1469
<sup>61</sup> Ga	2007BL09	NUCLEAR REACTIONS Ni( $^{70}\text{Ge}$ , X) $^{55}\text{Cu}$ / $^{56}\text{Cu}$ / $^{57}\text{Cu}$ / $^{58}\text{Cu}$ / $^{56}\text{Zn}$ / $^{57}\text{Zn}$ / $^{58}\text{Zn}$ / $^{59}\text{Zn}$ / $^{60}\text{Zn}$ / $^{60}\text{Ga}$ / $^{61}\text{Ga}$ / $^{60}\text{Ge}$ / $^{61}\text{Ge}$ / $^{62}\text{Ge}$ / $^{63}\text{Ge}$ / $^{64}\text{As}$ , E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267

**A=61 (continued)**

<sup>61</sup> Ge	2007BL09	NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>58</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267
	2007BL09	RADIOACTIVITY <sup>57</sup> Zn, <sup>61</sup> Ge( $\beta^+$ p) [from Ni( <sup>70</sup> Ge, X)]; measured $\beta$ -delayed proton spectra, $T_{1/2}$ . JOUR ZAANE 31 267

**A=62**

<sup>62</sup> Fe	2007LU13	NUCLEAR REACTIONS <sup>238</sup> U( <sup>64</sup> Ni, X) <sup>61</sup> Fe / <sup>62</sup> Fe / <sup>63</sup> Fe / <sup>64</sup> Fe / <sup>65</sup> Fe / <sup>66</sup> Fe, E=400 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ , (particle) $\gamma$ -coinc. <sup>61,62,63,64,65</sup> Fe deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 034303
<sup>62</sup> Ni	2007ZH34	NUCLEAR REACTIONS <sup>63</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; <sup>65</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured E $\gamma$ , I $\gamma$ , and cross sections. JOUR NSENA 157 354
<sup>62</sup> Cu	2007ZH34	NUCLEAR REACTIONS <sup>63</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; <sup>65</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured E $\gamma$ , I $\gamma$ , and cross sections. JOUR NSENA 157 354
<sup>62</sup> Zn	2006AL31	NUCLEAR REACTIONS Cu(p, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>61</sup> Cu / <sup>61</sup> Co, E $\approx$ 2-27 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation, comparison with model predictions. JOUR RAACA 94 391
	2007AL41	NUCLEAR REACTIONS Zn(p, X) <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>66</sup> Ga / <sup>67</sup> Ga / <sup>68</sup> Ga, E < 27.5 MeV; measured yields, cross sections, and excitation functions using stacked foil activation. JOUR ARISE 65 1101
	2007STZZ	NUCLEAR REACTIONS C( <sup>63</sup> Zn, <sup>62</sup> ZnX), ( <sup>65</sup> Ge, <sup>64</sup> GeX), E not given; measured Doppler-shifted E $\gamma$ , I $\gamma$ , (recoil) $\gamma$ -coin. <sup>64</sup> Ge, <sup>62</sup> Zn deduced transitions $T_{1/2}$ , B(E2), quadrupole moments. Recoil distance method, comparison with model predictions. PREPRINT nucl-ex/0703021,3/13/2007
	2007UD02	NUCLEAR REACTIONS Zn(p, xn) <sup>66</sup> Ga / <sup>67</sup> Ga, E=4-40 MeV; Zn(p, xnp) <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>69m</sup> Zn, E=10-40 MeV; Zn(p, xna) <sup>61</sup> Cu, E=6-40 MeV; measured cross sections and excitation functions using stacked-foil activation technique. Compared results to calculations. JOUR NIMBE 258 313
<sup>62</sup> Ge	2007BL09	NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>58</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267

**A=63**

<sup>63</sup> Fe	2007LU13	NUCLEAR REACTIONS <sup>238</sup> U( <sup>64</sup> Ni, X) <sup>61</sup> Fe / <sup>62</sup> Fe / <sup>63</sup> Fe / <sup>64</sup> Fe / <sup>65</sup> Fe / <sup>66</sup> Fe, E=400 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ , (particle) $\gamma$ -coinc. <sup>61,62,63,64,65</sup> Fe deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 034303
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**A=63 (continued)**

<sup>63</sup> Ni	2007NAZW	NUCLEAR REACTIONS <sup>4</sup> He( $\gamma$ , X), E < 50 MeV; <sup>12</sup> C( $\alpha$ , $\gamma$ ), E(cm)=1.4-1.6 MeV; <sup>2</sup> H, <sup>62</sup> Ni(n, $\gamma$ ), E= low; measured cross sections. CONF Tokai-mura (Nuclear Data) Proc,PIII.01,Nagai
	2007ZH34	NUCLEAR REACTIONS <sup>63</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; <sup>65</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured E $\gamma$ , I $\gamma$ , and cross sections. JOUR NSENA 157 354
	2008C001	RADIOACTIVITY <sup>63</sup> Ni( $\beta^-$ ); measured T <sub>1/2</sub> . JOUR ARISE 66 60
<sup>63</sup> Cu	2007ZH34	NUCLEAR REACTIONS <sup>63</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; <sup>65</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured E $\gamma$ , I $\gamma$ , and cross sections. JOUR NSENA 157 354
	2008C001	RADIOACTIVITY <sup>63</sup> Ni( $\beta^-$ ); measured T <sub>1/2</sub> . JOUR ARISE 66 60
<sup>63</sup> Zn	2006AB61	NUCLEAR REACTIONS <sup>64,67</sup> Zn(n, p), <sup>64</sup> Zn(n, 2n), <sup>68</sup> Zn(n, $\alpha$ ), E=reactor; measured spectrum-averaged $\sigma$ . Activation, radiochemical separation. JOUR RAACA 94 63
	2006AL31	NUCLEAR REACTIONS Cu(p, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>61</sup> Cu / <sup>61</sup> Co, E ≈ 2-27 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation, comparison with model predictions. JOUR RAACA 94 391
<sup>63</sup> Ga	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007SC24	ATOMIC MASSES <sup>63,64</sup> Ga, <sup>64,65,66</sup> Ge, <sup>66,67,68</sup> As, <sup>69</sup> Se; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801
<sup>63</sup> Ge	2007BL09	NUCLEAR REACTIONS Ni( <sup>70</sup> Ge, X) <sup>55</sup> Cu / <sup>56</sup> Cu / <sup>57</sup> Cu / <sup>58</sup> Cu / <sup>56</sup> Zn / <sup>57</sup> Zn / <sup>58</sup> Zn / <sup>59</sup> Zn / <sup>60</sup> Zn / <sup>60</sup> Ga / <sup>61</sup> Ga / <sup>60</sup> Ge / <sup>61</sup> Ge / <sup>62</sup> Ge / <sup>63</sup> Ge / <sup>64</sup> As, E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267

**A=64**

<sup>64</sup> Fe	2006H020	NUCLEAR REACTIONS <sup>238</sup> U( <sup>64</sup> Ni, X) <sup>64</sup> Fe / <sup>69</sup> Ga, E=430 MeV; measured prompt and delayed E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>64</sup> Fe deduced levels, J, $\pi$ , configurations. Gammasphere array, comparison with shell model predictions. Level systematics in neighboring nuclides discussed. JOUR PRVCA 74 064313
	2007LU13	NUCLEAR REACTIONS <sup>238</sup> U( <sup>64</sup> Ni, X) <sup>61</sup> Fe / <sup>62</sup> Fe / <sup>63</sup> Fe / <sup>64</sup> Fe / <sup>65</sup> Fe / <sup>66</sup> Fe, E=400 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ , (particle) $\gamma$ -coinc. <sup>61,62,63,64,65</sup> Fe deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 034303

**A=64 (*continued*)**

<sup>64</sup> Co	2007P006	NUCLEAR REACTIONS <sup>64</sup> Ni(d, 2p), E=171 MeV; measured $\sigma$ and angular distributions. Deduced GT strength to low lying states. JOUR PRVCA 75 054312
<sup>64</sup> Ni	2007BL15	RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128,130</sup> Te( $\beta^-$ - $\beta^-$ ); <sup>64</sup> Zn, <sup>106</sup> Cd, <sup>120</sup> Te( $\beta^+$ - $\beta^+$ ); measured summed E $\beta$ . Deduced upper limits for T <sub>1/2</sub> . JOUR PRVCA 76 025501
	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007QA02	RADIOACTIVITY <sup>64</sup> Cu( $\beta^-$ ), ( $\beta^+$ ), (EC) [from <sup>66</sup> Zn(d, $\alpha$ ) and Zn(d, X)]; <sup>76</sup> Br, <sup>124</sup> I( $\beta^+$ ), (EC) [from <sup>76</sup> Se, <sup>124</sup> Te(p, n)]; measured E $\gamma$ , E $\beta$ , X-ray spectra, $\gamma\gamma$ -, $\beta\gamma$ -coin; deduced positron emission intensities. JOUR RAACA 95 67
	2007ZH34	NUCLEAR REACTIONS <sup>63</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; <sup>65</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured E $\gamma$ , I $\gamma$ , and cross sections. JOUR NSENA 157 354
<sup>64</sup> Cu	2006AB61	NUCLEAR REACTIONS <sup>64,67</sup> Zn(n, p), <sup>64</sup> Zn(n, 2n), <sup>68</sup> Zn(n, $\alpha$ ), E=reactor; measured spectrum-averaged $\sigma$ . Activation, radiochemical separation. JOUR RAACA 94 63
	2007HE12	NUCLEAR REACTIONS <sup>64</sup> Ni(d, 2n), E=4-20.5 MeV; Ni(d, X) <sup>61</sup> Cu, E=4-20.5 MeV; measured production cross sections using stacked-foil activation technique. JOUR NIMBE 258 308
	2007KI03	NUCLEAR REACTIONS <sup>63</sup> Cu, <sup>186</sup> W(n, $\gamma$ ), E=1-2 MeV; measured capture $\sigma$ . JOUR JRNCD 271 553
	2007KI13	RADIOACTIVITY <sup>64</sup> Zn, <sup>112</sup> Sn( $\beta^+$ ), (EC); <sup>124</sup> Sn(2 $\beta^-$ ); measured E $\gamma$ , I $\gamma$ ; deduced T <sub>1/2</sub> lower limits for $\beta^+$ , EC and 0 $\nu$ -accompanied 2 $\beta$ -decay to ground and excited states. Comparison with theoretical values and previous data. JOUR NUPAB 793 171
	2007QA02	RADIOACTIVITY <sup>64</sup> Cu( $\beta^-$ ), ( $\beta^+$ ), (EC) [from <sup>66</sup> Zn(d, $\alpha$ ) and Zn(d, X)]; <sup>76</sup> Br, <sup>124</sup> I( $\beta^+$ ), (EC) [from <sup>76</sup> Se, <sup>124</sup> Te(p, n)]; measured E $\gamma$ , E $\beta$ , X-ray spectra, $\gamma\gamma$ -, $\beta\gamma$ -coin; deduced positron emission intensities. JOUR RAACA 95 67
	2007TA14	NUCLEAR REACTIONS Ni(d, X) <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Mn / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>61</sup> Co / <sup>61</sup> Cu / <sup>64</sup> Cu, E < 50 MeV; measured E $\gamma$ , I $\gamma$ , activation cross section and excitation functions using stacked foil technique.Compared results to existing data. JOUR NIMBE 260 495
	2007ZH34	NUCLEAR REACTIONS <sup>63</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; <sup>65</sup> Cu(n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured E $\gamma$ , I $\gamma$ , and cross sections. JOUR NSENA 157 354
<sup>64</sup> Zn	2007BL15	RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128,130</sup> Te( $\beta^-$ - $\beta^-$ ); <sup>64</sup> Zn, <sup>106</sup> Cd, <sup>120</sup> Te( $\beta^+$ - $\beta^+$ ); measured summed E $\beta$ . Deduced upper limits for T <sub>1/2</sub> . JOUR PRVCA 76 025501

**A=64 (continued)**

2007KE09		ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}$ ; $^{71,74}\text{Ga}$ ; $^{84,88}\text{Sr}$ ; $^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
2007KI13		RADIOACTIVITY $^{64}\text{Zn}$ , $^{112}\text{Sn}(\beta^+)$ , (EC); $^{124}\text{Sn}(2\beta^-)$ ; measured $E\gamma$ , $I\gamma$ ; deduced $T_{1/2}$ lower limits for $\beta^+$ , EC and $0\nu$ -accompanying $2\beta$ -decay to ground and excited states. Comparison with theoretical values and previous data. JOUR NUPAB 793 171
2007LE24		NUCLEAR REACTIONS $^{27}\text{Al}(\text{He}, \text{He})$ , $E=9.5, 11, 12, 13.4$ MeV; $^{51}\text{V}(\text{Li}, \text{Li})$ , $E=26$ MeV; measured $\sigma(\theta)$ . Comparison with optical model. $^{27}\text{Al}$ , $^{64}\text{Zn}(\text{He}, \text{He})$ , $(\text{Li}, \text{Li})$ , $(\text{Li}, \text{Li})$ , $(\text{Be}, \text{Be})$ , $(\text{O}, \text{O})$ , $E\approx 5-25$ MeV; analyzed $\sigma$ . Comparison with other data. Secondary radioactive beam. JOUR NUPAB 787 94c
2007MI12		RADIOACTIVITY $^{64}\text{Ga}(\beta^+)$ , (EC) [from $^{54}\text{Fe}(\text{C}, \text{np})$ ]; measured $\beta$ -delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{64}\text{Zn}$ deduced levels, $J$ , $\pi$ , transition strengths. Comparisons with predictions of the E(5) critical point symmetry. JOUR PRVCA 75 044302
2007QA02		RADIOACTIVITY $^{64}\text{Cu}(\beta^-)$ , $(\beta^+)$ , (EC) [from $^{66}\text{Zn}(\text{d}, \alpha)$ and $\text{Zn}(\text{d}, \text{X})$ ]; $^{76}\text{Br}$ , $^{124}\text{I}(\beta^+)$ , (EC) [from $^{76}\text{Se}$ , $^{124}\text{Te}(\text{p}, \text{n})$ ]; measured $E\gamma$ , $E\beta$ , X-ray spectra, $\gamma\gamma$ -, $\beta\gamma$ -coin; deduced positron emission intensities. JOUR RAACA 95 67
$^{64}\text{Ga}$	2007CL01	ATOMIC MASSES $^{64}\text{Ge}$ , $^{64}\text{Ga}$ ; measured mass. Penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 032801
2007GU09		ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of $N=40$ with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
2007GUZZ		ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76,77,78}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
2007MI12		RADIOACTIVITY $^{64}\text{Ga}(\beta^+)$ , (EC) [from $^{54}\text{Fe}(\text{C}, \text{np})$ ]; measured $\beta$ -delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{64}\text{Zn}$ deduced levels, $J$ , $\pi$ , transition strengths. Comparisons with predictions of the E(5) critical point symmetry. JOUR PRVCA 75 044302
2007SC24		ATOMIC MASSES $^{63,64}\text{Ga}$ , $^{64,65,66}\text{Ge}$ , $^{66,67,68}\text{As}$ , $^{69}\text{Se}$ ; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801
$^{64}\text{Ge}$	2007CL01	ATOMIC MASSES $^{64}\text{Ge}$ , $^{64}\text{Ga}$ ; measured mass. Penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 032801
2007SC24		ATOMIC MASSES $^{63,64}\text{Ga}$ , $^{64,65,66}\text{Ge}$ , $^{66,67,68}\text{As}$ , $^{69}\text{Se}$ ; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801
2007ST16		NUCLEAR REACTIONS $^{93}\text{Nb}(\text{Ge}, \text{n})$ , $E$ not given; measured $E\gamma$ , $I\gamma$ and transition rates using recoil distance method. $^{64}\text{Ge}$ deduced $B(E2)$ and lifetimes. JOUR PRLTA 99 042503

**KEYNUMBERS AND KEYWORDS**

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**A=64 (*continued*)**

2007STZZ	NUCLEAR REACTIONS C( $^{63}\text{Zn}$ , $^{62}\text{ZnX}$ ), ( $^{65}\text{Ge}$ , $^{64}\text{GeX}$ ), E not given; measured Doppler-shifted $E\gamma$ , $I\gamma$ , (recoil) $\gamma$ -coin. $^{64}\text{Ge}$ , $^{62}\text{Zn}$ deduced transitions $T_{1/2}$ , $B(E2)$ , quadrupole moments. Recoil distance method, comparison with model predictions. PREPRINT nucl-ex/0703021,3/13/2007
$^{64}\text{As}$	2007BL09 NUCLEAR REACTIONS Ni( $^{70}\text{Ge}$ , X) $^{55}\text{Cu}$ / $^{56}\text{Cu}$ / $^{57}\text{Cu}$ / $^{58}\text{Cu}$ / $^{56}\text{Zn}$ / $^{57}\text{Zn}$ / $^{58}\text{Zn}$ / $^{59}\text{Zn}$ / $^{60}\text{Zn}$ / $^{60}\text{Ga}$ / $^{61}\text{Ga}$ / $^{60}\text{Ge}$ / $^{61}\text{Ge}$ / $^{62}\text{Ge}$ / $^{63}\text{Ge}$ / $^{64}\text{As}$ , E=71.6 MeV / nucleon; measured production $\sigma$ . Comparison with model predictions. JOUR ZAANE 31 267

**A=65**

$^{65}\text{Fe}$	2007LU13 NUCLEAR REACTIONS $^{238}\text{U}$ ( $^{64}\text{Ni}$ , X) $^{61}\text{Fe}$ / $^{62}\text{Fe}$ / $^{63}\text{Fe}$ / $^{64}\text{Fe}$ / $^{65}\text{Fe}$ / $^{66}\text{Fe}$ , E=400 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ , (particle) $\gamma$ -coinc. $^{61,62,63,64,65}\text{Fe}$ deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 76 034303
$^{65}\text{Ni}$	2006AB61 NUCLEAR REACTIONS $^{64,67}\text{Zn}$ (n, p), $^{64}\text{Zn}$ (n, 2n), $^{68}\text{Zn}$ (n, $\alpha$ ), E=reactor; measured spectrum-averaged $\sigma$ . Activation, radiochemical separation. JOUR RAACA 94 63
	2007GU09 ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,75,76,77,78}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007ZH34 NUCLEAR REACTIONS $^{63}\text{Cu}$ (n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; $^{65}\text{Cu}$ (n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured $E\gamma$ , $I\gamma$ , and cross sections. JOUR NSENA 157 354
$^{65}\text{Cu}$	2007DEZU NUCLEAR REACTIONS $^{65}\text{Cu}$ (e, e'), E=150, 225 MeV; measured electron energy spectra; deduced reduced transition probability. CONF Iguazu(Nuclear Physics and Applications) Proc,P456,Denyak
	2007GU09 ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007ZH34 NUCLEAR REACTIONS $^{63}\text{Cu}$ (n, n'), (n, 2n), (n, np), (n, d), (n, p), (n, $\alpha$ ), E=14.9 MeV; $^{65}\text{Cu}$ (n, n'), (n, 2n), (n, np), (n, d), (n, p), E=14.9 MeV; measured $E\gamma$ , $I\gamma$ , and cross sections. JOUR NSENA 157 354

**KEYNUMBERS AND KEYWORDS**

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**A=65 (*continued*)**

<sup>65</sup> Zn	2006AL31	NUCLEAR REACTIONS Cu(p, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>61</sup> Cu / <sup>61</sup> Co, E ≈ 2-27 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation, comparison with model predictions. JOUR RAACA 94 391
	2007AL41	NUCLEAR REACTIONS Zn(p, X) <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>66</sup> Ga / <sup>67</sup> Ga / <sup>68</sup> Ga, E < 27.5 MeV; measured yields, cross sections, and excitation functions using stacked foil activation. JOUR ARISE 65 1101
	2007K018	NUCLEAR REACTIONS <sup>64</sup> Zn(d, p), E=19.5 MeV; measured E <sub>γ</sub> , I <sub>γ</sub> , radiochemical yield. JOUR RAACA 95 75
	2007UD02	NUCLEAR REACTIONS Zn(p, xn) <sup>66</sup> Ga / <sup>67</sup> Ga, E=4-40 MeV; Zn(p, xnp) <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>69m</sup> Zn, E=10-40 MeV; Zn(p, xna) <sup>61</sup> Cu, E=6-40 MeV; measured cross sections and excitation functions using stacked-foil activation technique. Compared results to calculations. JOUR NIMBE 258 313
<sup>65</sup> Ga	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>65</sup> Ge	2007SC24	ATOMIC MASSES <sup>63,64</sup> Ga, <sup>64,65,66</sup> Ge, <sup>66,67,68</sup> As, <sup>69</sup> Se; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801

**A=66**

<sup>66</sup> Fe	2007LU13	NUCLEAR REACTIONS <sup>238</sup> U( <sup>64</sup> Ni, X) <sup>61</sup> Fe / <sup>62</sup> Fe / <sup>63</sup> Fe / <sup>64</sup> Fe / <sup>65</sup> Fe / <sup>66</sup> Fe, E=400 MeV; measured E <sub>γ</sub> , I <sub>γ</sub> , γγ, (particle)γ-coinc. <sup>61,62,63,64,65</sup> Fe deduced levels, J, π. Compared results to model calculations. JOUR PRVCA 76 034303
<sup>66</sup> Ni	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>66</sup> Cu	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303

**A=66 (continued)**

	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
$^{66}\text{Zn}$	2007SP04	NUCLEAR REACTIONS $^{62}\text{Ni}(\alpha, \gamma)$ , E=5, 9 MeV; $^{103}\text{Rh}(p, \gamma)$ , E=3, 5 MeV; measured $E\gamma$ , $I\gamma$ . Deduced total cross sections. Compared results to model calculations. JOUR PRVCA 76 015802
$^{66}\text{Ga}$	2007AL41	NUCLEAR REACTIONS Zn(p, X) $^{62}\text{Zn} / ^{65}\text{Zn} / ^{66}\text{Ga} / ^{67}\text{Ga} / ^{68}\text{Ga}$ , E < 27.5 MeV; measured yields, cross sections, and excitation functions using stacked foil activation. JOUR ARISE 65 1101
	2007UD02	NUCLEAR REACTIONS Zn(p, xn) $^{66}\text{Ga} / ^{67}\text{Ga}$ , E=4-40 MeV; Zn(p, xnp) $^{62}\text{Zn} / ^{65}\text{Zn} / ^{69m}\text{Zn}$ , E=10-40 MeV; Zn(p, xna) $^{61}\text{Cu}$ , E=6-40 MeV; measured cross sections and excitation functions using stacked-foil activation technique. Compared results to calculations. JOUR NIMBE 258 313
$^{66}\text{Ge}$	2007SC24	ATOMIC MASSES $^{63,64}\text{Ga}$ , $^{64,65,66}\text{Ge}$ , $^{66,67,68}\text{As}$ , $^{69}\text{Se}$ ; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801
$^{66}\text{As}$	2007SC24	ATOMIC MASSES $^{63,64}\text{Ga}$ , $^{64,65,66}\text{Ge}$ , $^{66,67,68}\text{As}$ , $^{69}\text{Se}$ ; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801

**A=67**

$^{67}\text{Ni}$	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
$^{67}\text{Cu}$	2006AB61	NUCLEAR REACTIONS $^{64,67}\text{Zn}(n, p)$ , $^{64}\text{Zn}(n, 2n)$ , $^{68}\text{Zn}(n, \alpha)$ , E=reactor; measured spectrum-averaged $\sigma$ . Activation, radiochemical separation. JOUR RAACA 94 63
	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007

**KEYNUMBERS AND KEYWORDS**

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**A=67 (*continued*)**

<sup>67</sup> Zn	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
<sup>67</sup> Ga	2007AL41	NUCLEAR REACTIONS Zn(p, X) <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>66</sup> Ga / <sup>67</sup> Ga / <sup>68</sup> Ga, E < 27.5 MeV; measured yields, cross sections, and excitation functions using stacked foil activation. JOUR ARISE 65 1101
	2007BA04	NUCLEAR REACTIONS <sup>197</sup> Au( $\alpha$ , $\gamma$ ), ( $\alpha$ , 2n), E=17.9-23.9 MeV; <sup>197</sup> Au( $\alpha$ , n), E=13.4-23.9 MeV; measured $\sigma$ . <sup>64</sup> Zn( $\alpha$ , $\gamma$ ), E=7-14 MeV; <sup>63</sup> Cu( $\alpha$ , $\gamma$ ), E=7 MeV; measured thick target yields. Activation technique, comparison with model predictions. JOUR PRVCA 75 015802
	2007UD02	NUCLEAR REACTIONS Zn(p, xn) <sup>66</sup> Ga / <sup>67</sup> Ga, E=4-40 MeV; Zn(p, xnp) <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>69m</sup> Zn, E=10-40 MeV; Zn(p, xn $\alpha$ ) <sup>61</sup> Cu, E=6-40 MeV; measured cross sections and excitation functions using stacked-foil activation technique. Compared results to calculations. JOUR NIMBE 258 313
	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
<sup>67</sup> As	2007SC24	ATOMIC MASSES <sup>63,64</sup> Ga, <sup>64,65,66</sup> Ge, <sup>66,67,68</sup> As, <sup>69</sup> Se; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801

**A=68**

<sup>68</sup> Ni	2007BR15	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>86</sup> Kr, X) <sup>68</sup> Ni, E= 900 MeV / nucleon; measured E $\gamma$ , I $\gamma$ following projectile coulomb excitation. JOUR APOBB 38 1229
	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>68</sup> Cu	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007

**KEYNUMBERS AND KEYWORDS**

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**A=68 (*continued*)**

	2007KE05	NUCLEAR REACTIONS $^{68}\text{Zn}(\text{n}, \text{p})$ , E=spectrum; measured production cross sections for ground and metastable states. Neutrons from $^{235}\text{U}$ fission. JOUR ARISE 65 872
	2007ST03	NUCLEAR REACTIONS $^{120}\text{Sn}(\text{^{68}\text{Cu}, ^{68}\text{Cu}'}), (\text{^{70}\text{Cu}, ^{70}\text{Cu}'}), E=2.83 MeV / nucleon; measured \text{E}_\gamma, \text{I}_\gamma, (particle)\gamma-coin following projectile Coulomb excitation. ^{68,70}\text{Cu} deduced transitions B(E2). Isomeric beams, comparison with large-scale shell model calculations. JOUR PRLTA 98 122701$
$^{68}\text{Zn}$	2007B004	NUCLEAR REACTIONS $^{12}\text{C}(\text{^{68}\text{Zn}, ^{68}\text{Zn}'}), E=180, 200 MeV; measured \text{E}_\gamma, \text{I}_\gamma(\theta, \text{H}, \text{t}), (particle)\gamma-coin following projectile Coulomb excitation. ^{68}\text{Zn} deduced levels, J, \pi, g. Transient field technique. Comparison with model predictions. JOUR PRVCA 75 021302$
$^{68}\text{Ga}$	2007AL41	NUCLEAR REACTIONS $\text{Zn}(\text{p}, \text{X})^{62}\text{Zn} / ^{65}\text{Zn} / ^{66}\text{Ga} / ^{67}\text{Ga} / ^{68}\text{Ga}$ , E < 27.5 MeV; measured yields, cross sections, and excitation functions using stacked foil activation. JOUR ARISE 65 1101
	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
$^{68}\text{Ge}$	2007BA04	NUCLEAR REACTIONS $^{197}\text{Au}(\alpha, \gamma)$ , $(\alpha, 2\text{n})$ , E=17.9-23.9 MeV; $^{197}\text{Au}(\alpha, \text{n})$ , E=13.4-23.9 MeV; measured $\sigma$ . $^{64}\text{Zn}(\alpha, \gamma)$ , E=7-14 MeV; $^{63}\text{Cu}(\alpha, \gamma)$ , E=7 MeV; measured thick target yields. Activation technique, comparison with model predictions. JOUR PRVCA 75 015802
$^{68}\text{As}$	2007SC24	ATOMIC MASSES $^{63,64}\text{Ga}$ , $^{64,65,66}\text{Ge}$ , $^{66,67,68}\text{As}$ , $^{69}\text{Se}$ ; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801

**A=69**

$^{69}\text{Ni}$	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,68m,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007

**KEYNUMBERS AND KEYWORDS**

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**A=69 (*continued*)**

<sup>69</sup> Cu	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>69</sup> Zn	2007UD02	NUCLEAR REACTIONS Zn(p, xn) <sup>66</sup> Ga / <sup>67</sup> Ga, E=4-40 MeV; Zn(p, xnp) <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>69m</sup> Zn, E=10-40 MeV; Zn(p, xna) <sup>61</sup> Cu, E=6-40 MeV; measured cross sections and excitation functions using stacked-foil activation technique. Compared results to calculations. JOUR NIMBE 258 313
	2007VL01	NUCLEAR REACTIONS <sup>72,74</sup> Ge(n, $\alpha$ ), <sup>72,73</sup> Ge(n, p), <sup>174,176</sup> Hf(n, 2n), E $\approx$ 8-11.5 MeV; measured $\sigma$ . Activation method, comparison with previous results. JOUR JRNCD 272 219
<sup>69</sup> Ga	2006H020	NUCLEAR REACTIONS <sup>238</sup> U( <sup>64</sup> Ni, X) <sup>64</sup> Fe / <sup>69</sup> Ga, E=430 MeV; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. <sup>64</sup> Fe deduced levels, J, $\pi$ , configurations. Gammasphere array, comparison with shell model predictions. Level systematics in neighboring nuclides discussed. JOUR PRVCA 74 064313
	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>69</sup> Ge	2007BEZZ	NUCLEAR REACTIONS <sup>70,72,76</sup> Ge(n, 2n), <sup>76</sup> Ge(n, $\gamma$ ), E=13.96 MeV; measured $\sigma$ . Activation technique. PREPRINT nucl-ex/0701039,01/23/2007
	2007SU07	ATOMIC MASSES <sup>69</sup> Ge, <sup>125</sup> Ce; measured masses. <sup>125</sup> Ce deduced long-lived isomeric state, excitation energy, $T_{1/2}$ . JOUR ZAANE 31 393
<sup>69</sup> Se	2007SC24	ATOMIC MASSES <sup>63,64</sup> Ga, <sup>64,65,66</sup> Ge, <sup>66,67,68</sup> As, <sup>69</sup> Se; measured masses using penning trap mass spectrometer. Astrophysical implications discussed. JOUR PRVCA 75 055801

**A=70**

<sup>70</sup> Ni	2007RA27	ATOMIC MASSES <sup>70,71,72,73</sup> Ni, <sup>73,75</sup> Cu; measured masses using the JYFLTRAP double Penning trap setup; analyzed two neutron and proton separation energies. JOUR ZAANE 34 5
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**KEYNUMBERS AND KEYWORDS**

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**A=70 (*continued*)**

<sup>70</sup> Cu	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007ST03	NUCLEAR REACTIONS <sup>120</sup> Sn( <sup>68</sup> Cu, <sup>68</sup> Cu'), ( <sup>70</sup> Cu, <sup>70</sup> Cu'), E=2.83 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>68,70</sup> Cu deduced transitions B(E2). Isomeric beams, comparison with large-scale shell model calculations. JOUR PRLTA 98 122701
<sup>70</sup> Zn	2007BL15	RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128,130</sup> Te( $\beta^-$ $\beta^-$ ); <sup>64</sup> Zn, <sup>106</sup> Cd, <sup>120</sup> Te( $\beta^+$ $\beta^+$ ); measured summed E $\beta$ . Deduced upper limits for T <sub>1/2</sub> . JOUR PRVCA 76 025501
	2007BLZY	RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128</sup> Te, <sup>130</sup> Te(2 $\beta^-$ ); measured summed $\beta$ energies. Deduced T <sub>1/2</sub> limits. PREPRINT arXiv:0707.2756v1 [nucl-ex]
<sup>70</sup> Ga	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>70</sup> Ge	2007BL15	RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128,130</sup> Te( $\beta^-$ $\beta^-$ ); <sup>64</sup> Zn, <sup>106</sup> Cd, <sup>120</sup> Te( $\beta^+$ $\beta^+$ ); measured summed E $\beta$ . Deduced upper limits for T <sub>1/2</sub> . JOUR PRVCA 76 025501
	2007BLZY	RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128</sup> Te, <sup>130</sup> Te(2 $\beta^-$ ); measured summed $\beta$ energies. Deduced T <sub>1/2</sub> limits. PREPRINT arXiv:0707.2756v1 [nucl-ex]
<sup>70</sup> Se	2007HU03	NUCLEAR REACTIONS <sup>104</sup> Pd( <sup>70</sup> Se, <sup>70</sup> Se'), E=206 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>70</sup> Se deduced prolate deformation. JOUR PRLTA 98 072501

**A=71**

<sup>71</sup> Ni	2007RA27	ATOMIC MASSES <sup>70,71,72,73</sup> Ni, <sup>73,75</sup> Cu; measured masses using the JYFLTRAP double Penning trap setup; analyzed two neutron and proton separation energies. JOUR ZAANE 34 5
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**KEYNUMBERS AND KEYWORDS**

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**A=71 (*continued*)**

<sup>71</sup> Cu	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>71</sup> Zn	2007VL01	NUCLEAR REACTIONS <sup>72,74</sup> Ge(n, $\alpha$ ), <sup>72,73</sup> Ge(n, p), <sup>174,176</sup> Hf(n, 2n), E $\approx$ 8-11.5 MeV; measured $\sigma$ . Activation method, comparison with previous results. JOUR JRNC 272 219
<sup>71</sup> Ga	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007KE09	ATOMIC MASSES <sup>74,75,76,77,79,80,83,87</sup> Rb; <sup>64</sup> Zn; <sup>71,74</sup> Ga; <sup>84,88</sup> Sr; <sup>133</sup> Cs; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
<sup>71</sup> Ge	2007BEZZ	NUCLEAR REACTIONS <sup>70,72,76</sup> Ge(n, 2n), <sup>76</sup> Ge(n, $\gamma$ ), E=13.96 MeV; measured $\sigma$ . Activation technique. PREPRINT nucl-ex/0701039,01/23/2007

**A=72**

<sup>72</sup> Ni	2007RA27	ATOMIC MASSES <sup>70,71,72,73</sup> Ni, <sup>73,75</sup> Cu; measured masses using the JYFLTRAP double Penning trap setup; analyzed two neutron and proton separation energies. JOUR ZAANE 34 5
<sup>72</sup> Cu	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>72</sup> Ga	2007GA29	NUCLEAR REACTIONS <sup>72,73</sup> Ge(n, p), E=8.8-11.4 MeV; measured cross sections using activation technique. Compared results to model calculations. JOUR NIMBE 261 969

**A=72 (continued)**

	2007GU09	ATOMIC MASSES 57,60,64,65,66,67,68,69Ni, 65,66,67,68,69,70,71,72,73,74,76Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES 57,60,64,65,66,67,68,69Ni, 65,66,67,68,68m,69,70,70m,71,72,73,74,76Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007TU08	NUCLEAR REACTIONS $^{75}\text{As}(\text{n}, 2\text{n})$ , $(\text{n}, \text{p})$ , $(\text{n}, \alpha)$ , E=13.5-14.8 MeV; measured $E_\gamma$ , $I_\gamma$ , cross sections using the activation technique. JOUR NIMBE 264 235
	2007VL01	NUCLEAR REACTIONS $^{72,74}\text{Ge}(\text{n}, \alpha)$ , $^{72,73}\text{Ge}(\text{n}, \text{p})$ , $^{174,176}\text{Hf}(\text{n}, 2\text{n})$ , E ≈ 8-11.5 MeV; measured $\sigma$ . Activation method, comparison with previous results. JOUR JRNCD 272 219
$^{72}\text{Ge}$	2007FR10	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured yields, cross sections and angular distributions. Compared results to DWBA calculations. JOUR PRVCA 75 051301
	2007FRZZ	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{76}\text{Ge}$ , $^{76}\text{Se}$ deduced neutron-pair correlation features. PREPRINT nucl-ex/0701003,01/03/2007
$^{72}\text{Kr}$	2007AN12	NUCLEAR REACTIONS $^{40}\text{Ca}(^{40}\text{Ca}, 2\alpha)$ , E=165 MeV; measured $E_\gamma$ , $I_\gamma$ , $\gamma\gamma$ -, (charged particle) $\gamma$ -coin, DSA. $^{72}\text{Kr}$ deduced high-spin levels, $J$ , $\pi$ , $T_{1/2}$ . Gammasphere, Microball arrays. Doppler shift attenuation method, compared results to isovector mean field theory calculations. JOUR PRVCA 75 041301
	2007YA06	NUCLEAR REACTIONS $^{12}\text{C}(^{72}\text{Kr}, \text{X})$ , $(^{76}\text{Kr}, \text{X})$ , $(^{80}\text{Kr}, \text{X})$ , E ≤ 1.05 GeV / nucleon; measured $\sigma$ . $^{72,76,80}\text{Kr}$ deduced rms matter radii. Secondary beams, Glauber model. Comparison with other data. JOUR NUPAB 787 471c

**A=73**

$^{73}\text{Ni}$	2007RA27	ATOMIC MASSES 70,71,72,73Ni, 73,75Cu; measured masses using the JYFLTRAP double Penning trap setup; analyzed two neutron and proton separation energies. JOUR ZAANE 34 5
$^{73}\text{Cu}$	2007GU09	ATOMIC MASSES 57,60,64,65,66,67,68,69Ni, 65,66,67,68,69,70,71,72,73,74,76Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES 57,60,64,65,66,67,68,69Ni, 65,66,67,68,68m,69,70,70m,71,72,73,74,76Cu, 63,64,65,68,69,70,71,72,73,74,75,76,77,78Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007RA27	ATOMIC MASSES 70,71,72,73Ni, 73,75Cu; measured masses using the JYFLTRAP double Penning trap setup; analyzed two neutron and proton separation energies. JOUR ZAANE 34 5

**A=73 (continued)**

<sup>73</sup> Ga	2007GA29	NUCLEAR REACTIONS <sup>72,73</sup> Ge(n, p), E=8.8-11.4 MeV; measured cross sections using activation technique. Compared results to model calculations. JOUR NIMBE 261 969
	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007VL01	NUCLEAR REACTIONS <sup>72,74</sup> Ge(n, $\alpha$ ), <sup>72,73</sup> Ge(n, p), <sup>174,176</sup> Hf(n, 2n), E $\approx$ 8-11.5 MeV; measured $\sigma$ . Activation method, comparison with previous results. JOUR JRNCD 272 219
<sup>73</sup> Ge	2007SCZX	NUCLEAR REACTIONS <sup>74,76</sup> Ge, <sup>76,78</sup> Se(d, p), E=15 MeV; <sup>76</sup> Ge, <sup>76</sup> Se(p, d), E=23 MeV; <sup>74,76</sup> Ge, <sup>76,78</sup> Se( <sup>3</sup> He, $\alpha$ ), E=26 MeV; <sup>74,76</sup> Ge, <sup>76,78</sup> Se( $\alpha$ , <sup>3</sup> He), E=40 MeV; measured cross sections. Deduced spectroscopic factors. PC J P Schiffer/10/2007

**A=74**

<sup>74</sup> Cu	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
<sup>74</sup> Zn	2007VA20	NUCLEAR REACTIONS <sup>108</sup> Pd, <sup>120</sup> Sn( <sup>74</sup> Zn, <sup>74</sup> Zn'), ( <sup>76</sup> Zn, <sup>76</sup> Zn'), ( <sup>78</sup> Zn, <sup>78</sup> Zn'), ( <sup>80</sup> Zn, <sup>80</sup> Zn'), E=2.79-2.87 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . <sup>74,76,78,80</sup> Zn deduced B(E2). JOUR PRLTA 99 142501
<sup>74</sup> Ga	2007GU09	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup> Ni, <sup>65,66,67,68,68m,69,70,70m,71,72,73,74,76</sup> Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup> Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
	2007KE09	ATOMIC MASSES <sup>74,75,76,77,79,80,83,87</sup> Rb; <sup>64</sup> Zn; <sup>71,74</sup> Ga; <sup>84,88</sup> Sr; <sup>133</sup> Cs; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
<sup>74</sup> Ge	2007BA26	RADIOACTIVITY <sup>74</sup> Se( $\beta^+$ EC), (2EC); measured $0\nu\beta\beta$ -decay and $2\nu\beta\beta$ -decay T <sub>1/2</sub> lower limits. JOUR NUPAB 785 371

**A=74 (continued)**

	2007FR10	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured yields, cross sections and angular distributions. Compared results to DWBA calculations. JOUR PRVCA 75 051301
	2007FRZZ	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{76}\text{Ge}$ , $^{76}\text{Se}$ deduced neutron-pair correlation features. PREPRINT nucl-ex/0701003,01/03/2007
$^{74}\text{As}$	2007TU08	NUCLEAR REACTIONS $^{75}\text{As}(\text{n}, 2\text{n})$ , $(\text{n}, \text{p})$ , $(\text{n}, \alpha)$ , E=13.5-14.8 MeV; measured $E_\gamma$ , $I_\gamma$ , cross sections using the activation technique. JOUR NIMBE 264 235
$^{74}\text{Se}$	2007BA26	RADIOACTIVITY $^{74}\text{Se}(\beta^+ \text{EC})$ , $(2\text{EC})$ ; measured $0\nu\beta\beta$ -decay and $2\nu\beta\beta$ -decay $T_{1/2}$ lower limits. JOUR NUPAB 785 371
	2007FR10	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured yields, cross sections and angular distributions. Compared results to DWBA calculations. JOUR PRVCA 75 051301
	2007FRZZ	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{76}\text{Ge}$ , $^{76}\text{Se}$ deduced neutron-pair correlation features. PREPRINT nucl-ex/0701003,01/03/2007
$^{74}\text{Kr}$	2007CL02	NUCLEAR REACTIONS $^{12}\text{C}(\text{X}, \text{X})^{76,74}\text{Kr}$ , E=68.5 MeV / nucleon; measured $E_\gamma$ , $I_\gamma$ and angular distributions; $^{74}\text{Kr}$ , $^{76}\text{Kr}$ ; deduced level energies, $J$ , $\pi$ , $B(E2)$ , and shape coexistence. JOUR PRVCA 75 054313
$^{74}\text{Rb}$	2007KE09	ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}$ , $^{71,74}\text{Ga}$ , $^{84,88}\text{Sr}$ , $^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
	2007NA13	NUCLEAR REACTIONS $\text{Ca}(\text{Ar}, \text{np})^{74}\text{Rb}$ , E=103 MeV; $\text{Ca}(\text{Ar}, \text{np})^{78}\text{Y}$ , E=118, 121 MeV; measured $E_\gamma$ , $I_\gamma$ , $\beta\gamma$ -coinc using recoil-decay tagging technique. $^{74}\text{Rb}$ , $^{78}\text{Y}$ deduced coulomb energy differences between T=1 states. JOUR PRVCA 75 061301

**A=75**

$^{75}\text{Cu}$	2007RA27	ATOMIC MASSES $^{70,71,72,73}\text{Ni}$ , $^{73,75}\text{Cu}$ ; measured masses using the JYFLTRAP double Penning trap setup; analyzed two neutron and proton separation energies. JOUR ZAANE 34 5
$^{75}\text{Ga}$	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
$^{75}\text{Ge}$	2007BEZZ	NUCLEAR REACTIONS $^{70,72,76}\text{Ge}(\text{n}, 2\text{n})$ , $^{76}\text{Ge}(\text{n}, \gamma)$ , E=13.96 MeV; measured $\sigma$ . Activation technique. PREPRINT nucl-ex/0701039,01/23/2007

**A=75 (continued)**

	2007SCZX	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{d}, \text{p})$ , E=15 MeV; $^{76}\text{Ge}$ , $^{76}\text{Se}(\text{p}, \text{d})$ , E=23 MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{He}^3, \alpha)$ , E=26 MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\alpha, \text{He}^3)$ , E=40 MeV; measured cross sections. Deduced spectroscopic factors. PC J P Schiffer/10/2007
	2007TU08	NUCLEAR REACTIONS $^{75}\text{As}(\text{n}, 2\text{n})$ , $(\text{n}, \text{p})$ , $(\text{n}, \alpha)$ , E=13.5-14.8 MeV; measured $E\gamma$ , $I\gamma$ , cross sections using the activation technique. JOUR NIMBE 264 235
$^{75}\text{Se}$	2007SCZX	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{d}, \text{p})$ , E=15 MeV; $^{76}\text{Ge}$ , $^{76}\text{Se}(\text{p}, \text{d})$ , E=23 MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{He}^3, \alpha)$ , E=26 MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\alpha, \text{He}^3)$ , E=40 MeV; measured cross sections. Deduced spectroscopic factors. PC J P Schiffer/10/2007
$^{75}\text{Rb}$	2007KE09	ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}$ ; $^{71,74}\text{Ga}$ ; $^{84,88}\text{Sr}$ ; $^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504

**A=76**

$^{76}\text{Cu}$	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
$^{76}\text{Zn}$	2007VA20	NUCLEAR REACTIONS $^{108}\text{Pd}$ , $^{120}\text{Sn}(\text{Zn}^{74}, \text{Zn}^{74})$ , $(\text{Zn}^{76}, \text{Zn}^{76})$ , $(\text{Zn}^{78}, \text{Zn}^{78})$ , $(\text{Zn}^{80}, \text{Zn}^{80})$ , E=2.79-2.87 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{74,76,78,80}\text{Zn}$ deduced B(E2). JOUR PRLTA 99 142501
$^{76}\text{Ga}$	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,75,76,77,78}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
$^{76}\text{Ge}$	2007FRZZ	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{76}\text{Ge}$ , $^{76}\text{Se}$ deduced neutron-pair correlation features. PREPRINT nucl-ex/0701003,01/03/2007
$^{76}\text{Se}$	2007FR10	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured yields, cross sections and angular distributions. Compared results to DWBA calculations. JOUR PRVCA 75 051301
	2007FRZZ	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{p}, \text{t})$ , E=23 MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{76}\text{Ge}$ , $^{76}\text{Se}$ deduced neutron-pair correlation features. PREPRINT nucl-ex/0701003,01/03/2007

KEYNUMBERS AND KEYWORDS

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**A=76 (*continued*)**

	2007QA02	RADIOACTIVITY $^{64}\text{Cu}(\beta^-)$ , $(\beta^+)$ , (EC) [from $^{66}\text{Zn}(\text{d}, \alpha)$ and $\text{Zn}(\text{d}, \text{X})$ ; $^{76}\text{Br}$ , $^{124}\text{I}(\beta^+)$ , (EC) [from $^{76}\text{Se}$ , $^{124}\text{Te}(\text{p}, \text{n})$ ]; measured $E\gamma$ , $E\beta$ , X-ray spectra, $\gamma\gamma$ -, $\beta\gamma$ -coin; deduced positron emission intensities. JOUR RAACA 95 67
$^{76}\text{Br}$	2007QA02	RADIOACTIVITY $^{64}\text{Cu}(\beta^-)$ , $(\beta^+)$ , (EC) [from $^{66}\text{Zn}(\text{d}, \alpha)$ and $\text{Zn}(\text{d}, \text{X})$ ; $^{76}\text{Br}$ , $^{124}\text{I}(\beta^+)$ , (EC) [from $^{76}\text{Se}$ , $^{124}\text{Te}(\text{p}, \text{n})$ ]; measured $E\gamma$ , $E\beta$ , X-ray spectra, $\gamma\gamma$ -, $\beta\gamma$ -coin; deduced positron emission intensities. JOUR RAACA 95 67
$^{76}\text{Kr}$	2007CL02	NUCLEAR REACTIONS $^{12}\text{C}(^{78}\text{Kr}, \text{X})^{76,74}\text{Kr}$ , $E=68.5$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ and angular distributions; $^{74}\text{Kr}$ , $^{76}\text{Kr}$ ; deduced level energies, $J$ , $\pi$ , $B(E2)$ , and shape coexistence. JOUR PRVCA 75 054313
	2007YA06	NUCLEAR REACTIONS $^{12}\text{C}(^{72}\text{Kr}, \text{X})$ , $(^{76}\text{Kr}, \text{X})$ , $(^{80}\text{Kr}, \text{X})$ , $E \leq 1.05$ GeV / nucleon; measured $\sigma$ . $^{72,76,80}\text{Kr}$ deduced rms matter radii. Secondary beams, Glauber model. Comparison with other data. JOUR NUPAB 787 471c
$^{76}\text{Rb}$	2007KE09	ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}$ ; $^{71,74}\text{Ga}$ ; $^{84,88}\text{Sr}$ ; $^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
$^{76}\text{Sr}$	2007DA04	NUCLEAR REACTIONS $^{40}\text{Ca}(^{40}\text{Ca}, 2\text{n}2\text{p})$ , $E=165$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (charged particle) $\gamma$ -coin. $^{76}\text{Sr}$ deduced high-spin levels, $J$ , $\pi$ , configurations. Gammasphere, Microball arrays, comparison with model predictions. JOUR PRVCA 75 011302

**A=77**

	2007GU09	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of $N=40$ with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303
	2007GUZZ	ATOMIC MASSES $^{57,60,64,65,66,67,68,69}\text{Ni}$ , $^{65,66,67,68,69,70,70m,71,72,73,74,76}\text{Cu}$ , $^{63,64,65,68,69,70,71,72,73,74,75,76,77,78}\text{Ga}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007
$^{77}\text{Ge}$	2007BEZZ	NUCLEAR REACTIONS $^{70,72,76}\text{Ge}(\text{n}, 2\text{n})$ , $^{76}\text{Ge}(\text{n}, \gamma)$ , $E=13.96$ MeV; measured $\sigma$ . Activation technique. PREPRINT nucl-ex/0701039,01/23/2007
	2007LI06	RADIOACTIVITY $^{77}\text{Ge}(\beta^-)$ ; measured $T_{1/2}$ . JOUR JRNCD 271 311
	2007SCZX	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{d}, \text{p})$ , $E=15$ MeV; $^{76}\text{Ge}$ , $^{76}\text{Se}(\text{p}, \text{d})$ , $E=23$ MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}({}^3\text{He}, \alpha)$ , $E=26$ MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\alpha, {}^3\text{He})$ , $E=40$ MeV; measured cross sections. Deduced spectroscopic factors. PC J P Schiffer/10/2007
$^{77}\text{As}$	2007LI06	RADIOACTIVITY $^{77}\text{Ge}(\beta^-)$ ; measured $T_{1/2}$ . JOUR JRNCD 271 311
$^{77}\text{Se}$	2007SCZX	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{d}, \text{p})$ , $E=15$ MeV; $^{76}\text{Ge}$ , $^{76}\text{Se}(\text{p}, \text{d})$ , $E=23$ MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}({}^3\text{He}, \alpha)$ , $E=26$ MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\alpha, {}^3\text{He})$ , $E=40$ MeV; measured cross sections. Deduced spectroscopic factors. PC J P Schiffer/10/2007

**A=77 (continued)**

<sup>77</sup>Rb      2007KE09      ATOMIC MASSES <sup>74,75,76,77,79,80,83,87</sup>Rb; <sup>64</sup>Zn; <sup>71,74</sup>Ga; <sup>84,88</sup>Sr; <sup>133</sup>Cs; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504

**A=78**

<sup>78</sup>Ni      2007SC29      RADIOACTIVITY <sup>78</sup>Ni( $\beta^-$ ); measured T<sub>1/2</sub>. Silicon strip detector. JOUR NUPAB 787 299c

<sup>78</sup>Cu      2007SC29      RADIOACTIVITY <sup>78</sup>Ni( $\beta^-$ ); measured T<sub>1/2</sub>. Silicon strip detector. JOUR NUPAB 787 299c

<sup>78</sup>Zn      2007IB01      NUCLEAR REACTIONS <sup>238</sup>U( $\gamma$ , F)<sup>78</sup>Zn / <sup>132</sup>Sn, E not given; measured fission fragment yields. ALTO facility. <sup>238</sup>U(n, F)<sup>81</sup>Zn / <sup>83</sup>Ga, E not given; measured E $\gamma$ , I $\gamma$ , E $\beta$ , I $\beta$ ,  $\gamma\gamma$ -coin. <sup>81</sup>Ga, <sup>83</sup>Ge deduced levels, J,  $\pi$ . Online mass separator. JOUR NUPAB 787 110c

                2007VA20      NUCLEAR REACTIONS <sup>108</sup>Pd, <sup>120</sup>Sn(<sup>74</sup>Zn, <sup>74</sup>Zn'), (<sup>76</sup>Zn, <sup>76</sup>Zn'), (<sup>78</sup>Zn, <sup>78</sup>Zn'), (<sup>80</sup>Zn, <sup>80</sup>Zn'), E=2.79-2.87 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . <sup>74,76,78,80</sup>Zn deduced B(E2). JOUR PRLTA 99 142501

<sup>78</sup>Ga      2007GU09      ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup>Ni, <sup>65,66,67,68,69,70,71,72,73,74,76</sup>Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup>Ga; measured masses; analyzed the resulting mass surface for signs of magicity, compared the behavior of N=40 with that of the known magic numbers and with midshell behavior. JOUR PRVCA 75 044303

                2007GUZZ      ATOMIC MASSES <sup>57,60,64,65,66,67,68,69</sup>Ni, <sup>65,66,67,68,69m,69,70,70m,71,72,73,74,76</sup>Cu, <sup>63,64,65,68,69,70,71,72,73,74,75,76,77,78</sup>Ga; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701029,01/22/2007

<sup>78</sup>Se      2006GA43      RADIOACTIVITY <sup>78</sup>Kr(2EC); measured 2K(2 $\nu$ )-capture T<sub>1/2</sub> lower limit. JOUR PANUE 69 2124

<sup>78</sup>Kr      2006GA43      RADIOACTIVITY <sup>78</sup>Kr(2EC); measured 2K(2 $\nu$ )-capture T<sub>1/2</sub> lower limit. JOUR PANUE 69 2124

<sup>78</sup>Y      2007NA13      NUCLEAR REACTIONS Ca(<sup>36</sup>Ar, np)<sup>74</sup>Rb, E=103 MeV; Ca(<sup>40</sup>Ca, np)<sup>78</sup>Y, E=118, 121 MeV; measured E $\gamma$ , I $\gamma$ ,  $\beta\gamma$ -coinc using recoil-decay tagging technique. <sup>74</sup>Rb, <sup>78</sup>Y deduced coulomb energy differences between T=1 states. JOUR PRVCA 75 061301

**A=79**

<sup>79</sup>Se      2007BI01      RADIOACTIVITY <sup>79</sup>Se( $\beta^-$ ); measured T<sub>1/2</sub>. Inductively coupled plasma mass spectrometry, liquid scintillation counting. JOUR ARISE 65 355

                2007MAZV      NUCLEAR REACTIONS <sup>80</sup>Se( $\gamma$ , n), E=9.98-11.80 MeV; measured photoneutron cross section. Calculated stellar neutron capture rates within the framework of the Hauser-Feshbach model. CONF Geneva(NIC-IX) 239

                2007RU09      NUCLEAR REACTIONS <sup>58</sup>Ni(n,  $\gamma$ ), <sup>78</sup>Se(n,  $\gamma$ ), E ≈ 0-100 keV; measured cross sections using accelerator mass spectrometry. Quasi-stellar neutron spectrum. JOUR NIMBE 259 683

**KEYNUMBERS AND KEYWORDS**

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**A=79 (*continued*)**

	2007SCZX	NUCLEAR REACTIONS $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\text{d}, \text{p})$ , E=15 MeV; $^{76}\text{Ge}$ , $^{76}\text{Se}(\text{p}, \text{d})$ , E=23 MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(^3\text{He}, \alpha)$ , E=26 MeV; $^{74,76}\text{Ge}$ , $^{76,78}\text{Se}(\alpha, ^3\text{He})$ , E=40 MeV; measured cross sections. Deduced spectroscopic factors. PC J P Schiffer/10/2007
$^{79}\text{Br}$	2007BI01	RADIOACTIVITY $^{79}\text{Se}(\beta^-)$ ; measured $T_{1/2}$ . Inductively coupled plasma mass spectrometry, liquid scintillation counting. JOUR ARISE 65 355
$^{79}\text{Rb}$	2007KE09	ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}$ , $^{71,74}\text{Ga}$ , $^{84,88}\text{Sr}$ , $^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
$^{79}\text{Sr}$	2007KA13	NUCLEAR REACTIONS $^{54}\text{Fe}(^{28}\text{Si}, \text{n}2\text{p})$ , E=90 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, DSA. $^{79}\text{Sr}$ deduced high-spin levels, $J$ , $\pi$ , configurations, $T_{1/2}$ , $B(E2)$ , $B(M1)$ , transition quadrupole moments, $\beta_2$ . Comparison with cranked mean-field and projected shell-model predictions. JOUR PRVCA 75 034311

**A=80**

$^{80}\text{Zn}$	2007DE37	NUCLEAR REACTIONS $^{192}\text{Os}$ , $^{238}\text{U}(^{82}\text{Se}, \text{X})^{80}\text{Zn}$ / $^{81}\text{Ga}$ / $^{82}\text{Ge}$ / $^{83}\text{As}$ / $^{84}\text{Se}$ / $^{85}\text{Se}$ / $^{87}\text{Kr}$ , E=460, 505 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{80}\text{Zn}$ , $^{81}\text{Ga}$ , $^{82}\text{Ge}$ , $^{83}\text{As}$ , $^{84,85}\text{Se}$ , $^{87}\text{Kr}$ deduced levels, $J$ , $\pi$ . Comparison with Oxbash shell model. $^{206}\text{Pb}(^{132}\text{Xe}, \text{X})$ , $(^{144}\text{Xe}, \text{X})$ , E=8.26 MeV / nucleon; calculated production $\sigma$ of neutron-rich nuclei. Grazing coupled channels model. JOUR NUPAB 787 74c
	2007VA20	NUCLEAR REACTIONS $^{108}\text{Pd}$ , $^{120}\text{Sn}(^{74}\text{Zn}, ^{74}\text{Zn}')$ , $(^{76}\text{Zn}, ^{76}\text{Zn}')$ , $(^{78}\text{Zn}, ^{78}\text{Zn}')$ , $(^{80}\text{Zn}, ^{80}\text{Zn}')$ , E=2.79-2.87 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{74,76,78,80}\text{Zn}$ deduced $B(E2)$ . JOUR PRLTA 99 142501
$^{80}\text{Ga}$	2007VEZZ	RADIOACTIVITY $^{81}\text{Zn}(\beta^-)$ , $(\beta^- \text{n})$ [from U(n, F)]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin. $^{81}\text{Ga}$ deduced levels, $J$ , $\pi$ . Level systematics in neighboring nuclides discussed. PREPRINT nucl-ex/0701066,1/26/2007
$^{80}\text{Kr}$	2007YA06	NUCLEAR REACTIONS $^{12}\text{C}(^{72}\text{Kr}, \text{X})$ , $(^{76}\text{Kr}, \text{X})$ , $(^{80}\text{Kr}, \text{X})$ , E $\leq$ 1.05 GeV / nucleon; measured $\sigma$ . $^{72,76,80}\text{Kr}$ deduced rms matter radii. Secondary beams, Glauber model. Comparison with other data. JOUR NUPAB 787 471c
$^{80}\text{Rb}$	2007KE09	ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}$ , $^{71,74}\text{Ga}$ , $^{84,88}\text{Sr}$ , $^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504

**A=81**

$^{81}\text{Zn}$	2007IB01	NUCLEAR REACTIONS $^{238}\text{U}(\gamma, \text{F})^{78}\text{Zn}$ / $^{132}\text{Sn}$ , E not given; measured fission fragment yields. ALTO facility. $^{238}\text{U}(\text{n}, \text{F})^{81}\text{Zn}$ / $^{83}\text{Ga}$ , E not given; measured $E\gamma$ , $I\gamma$ , $E\beta$ , $I\beta$ , $\gamma\gamma$ -coin. $^{81}\text{Ga}$ , $^{83}\text{Ge}$ deduced levels, $J$ , $\pi$ . Online mass separator. JOUR NUPAB 787 110c
	2007VEZZ	RADIOACTIVITY $^{81}\text{Zn}(\beta^-)$ , $(\beta^- \text{n})$ [from U(n, F)]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin. $^{81}\text{Ga}$ deduced levels, $J$ , $\pi$ . Level systematics in neighboring nuclides discussed. PREPRINT nucl-ex/0701066,1/26/2007

**A=81 (continued)**

<sup>81</sup> Ga	2007DE37	NUCLEAR REACTIONS $^{192}\text{Os}$ , $^{238}\text{U}(\text{82Se}, \text{X})\text{80Zn}$ / $^{81}\text{Ga}$ / $^{82}\text{Ge}$ / $^{83}\text{As}$ / $^{84}\text{Se}$ / $^{85}\text{Se}$ / $^{87}\text{Kr}$ , E=460, 505 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{80}\text{Zn}$ , $^{81}\text{Ga}$ , $^{82}\text{Ge}$ , $^{83}\text{As}$ , $^{84,85}\text{Se}$ , $^{87}\text{Kr}$ deduced levels, J, $\pi$ . Comparison with Oxbash shell model. $^{206}\text{Pb}(\text{132Xe}, \text{X})$ , ( $^{144}\text{Xe}$ , X), E=8.26 MeV / nucleon; calculated production $\sigma$ of neutron-rich nuclei. Grazing coupled channels model. JOUR NUPAB 787 74c
	2007IB01	NUCLEAR REACTIONS $^{238}\text{U}(\gamma, \text{F})\text{78Zn}$ / $^{132}\text{Sn}$ , E not given; measured fission fragment yields. ALTO facility. $^{238}\text{U}(\text{n}, \text{F})\text{81Zn}$ / $^{83}\text{Ga}$ , E not given; measured $E\gamma$ , $I\gamma$ , $E\beta$ , $I\beta$ , $\gamma\gamma$ -coin. $^{81}\text{Ga}$ , $^{83}\text{Ge}$ deduced levels, J, $\pi$ . Online mass separator. JOUR NUPAB 787 110c
	2007VEZZ	RADIOACTIVITY $^{81}\text{Zn}(\beta^-)$ , ( $\beta^-$ n) [from U(n, F)]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin. $^{81}\text{Ga}$ deduced levels, J, $\pi$ . Level systematics in neighboring nuclides discussed. PREPRINT nucl-ex/0701066, 1/26/2007
<sup>81</sup> Se	2007CI05	NUCLEAR REACTIONS $^2\text{H}(\text{90Zr}, \text{p}\gamma)$ , ( $^{80}\text{Se}$ , p $\gamma$ ), E=4 MeV / nucleon; measured $E\gamma$ , Ep, p $\gamma$ -coinc. JOUR NIMBE 261 938

**A=82**

<sup>82</sup> Ge	2007DE37	NUCLEAR REACTIONS $^{192}\text{Os}$ , $^{238}\text{U}(\text{82Se}, \text{X})\text{80Zn}$ / $^{81}\text{Ga}$ / $^{82}\text{Ge}$ / $^{83}\text{As}$ / $^{84}\text{Se}$ / $^{85}\text{Se}$ / $^{87}\text{Kr}$ , E=460, 505 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{80}\text{Zn}$ , $^{81}\text{Ga}$ , $^{82}\text{Ge}$ , $^{83}\text{As}$ , $^{84,85}\text{Se}$ , $^{87}\text{Kr}$ deduced levels, J, $\pi$ . Comparison with Oxbash shell model. $^{206}\text{Pb}(\text{132Xe}, \text{X})$ , ( $^{144}\text{Xe}$ , X), E=8.26 MeV / nucleon; calculated production $\sigma$ of neutron-rich nuclei. Grazing coupled channels model. JOUR NUPAB 787 74c
	2007RZ02	RADIOACTIVITY $^{82}\text{Ge}(\text{IT})$ [from $^{248}\text{Cm}(\text{SF})$ ]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{82}\text{Ge}$ deduced levels, J, $\pi$ . JOUR PRVCA 76 027302
<sup>82</sup> Se	2006SH31	RADIOACTIVITY $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limits. JOUR BRSPE 70 731
<sup>82</sup> Kr	2006SH31	RADIOACTIVITY $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limits. JOUR BRSPE 70 731
<sup>82</sup> Nb	2007CA26	NUCLEAR REACTIONS $^9\text{Be}(\text{107Ag}, \text{X})\text{82Nb}$ , E=750 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , lifetime of low lying isomeric state. $^{82}\text{Nb}$ deduced levels, J, $\pi$ . JOUR APOBB 38 1271
	2007RE18	NUCLEAR REACTIONS $\text{Be}(\text{107Ag}, \text{X})\text{82Nb}$ / $^{84}\text{Nb}$ / $^{86}\text{Tc}$ / $^{87}\text{Tc}$ / $^{88}\text{Tc}$ , E=750 MeV / nucleon; measured delayed $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, yield. $^{82}\text{Nb}$ , $^{86}\text{Tc}$ deduced level energy of first excited state. JOUR NUPAB 787 491c

**A=83**

<sup>83</sup> Ga	2007IB01	NUCLEAR REACTIONS $^{238}\text{U}(\gamma, \text{F})^{78}\text{Zn} / ^{132}\text{Sn}$ , E not given; measured fission fragment yields. ALTO facility. $^{238}\text{U}(\text{n}, \text{F})^{81}\text{Zn} / ^{83}\text{Ga}$ , E not given; measured $E\gamma$ , $I\gamma$ , $E\beta$ , $I\beta$ , $\gamma\gamma$ -coin. $^{81}\text{Ga}$ , $^{83}\text{Ge}$ deduced levels, J, $\pi$ . Online mass separator. JOUR NUPAB 787 110c
<sup>83</sup> Ge	2007IB01	NUCLEAR REACTIONS $^{238}\text{U}(\gamma, \text{F})^{78}\text{Zn} / ^{132}\text{Sn}$ , E not given; measured fission fragment yields. ALTO facility. $^{238}\text{U}(\text{n}, \text{F})^{81}\text{Zn} / ^{83}\text{Ga}$ , E not given; measured $E\gamma$ , $I\gamma$ , $E\beta$ , $I\beta$ , $\gamma\gamma$ -coin. $^{81}\text{Ga}$ , $^{83}\text{Ge}$ deduced levels, J, $\pi$ . Online mass separator. JOUR NUPAB 787 110c
	2007J009	NUCLEAR REACTIONS $^2\text{H}(^{82}\text{Ge}, \text{p})$ , E=4 MeV / nucleon; $^2\text{H}(^{84}\text{Se}, \text{p})$ , E=4.5 MeV / nucleon; $^2\text{H}(^{132}\text{Sn}, \text{p})$ , E=4.77 MeV / nucleon; measured Ep and angular distributions. $^{83}\text{Ge}$ , $^{85}\text{Se}$ , $^{133}\text{Sn}$ deduced levels, J, $\pi$ and spectroscopic factors. Compared results to model calculations. JOUR APOBB 38 1205
	2007TH15	NUCLEAR REACTIONS $^2\text{H}(^{82}\text{Ge}, \text{p})$ , ( $^{84}\text{Se}$ , p), E=330, 380 MeV; measured Ep, Ip, recoil-proton-coin, angular distributions; deduced asymptotic normalization coefficients, spectroscopic factors. $^{83}\text{Ge}$ , $^{85}\text{Se}$ ; deduced levels, J, $\pi$ , angular momentum using DWBA analysis. $^{82}\text{Ge}$ , $^{84}\text{Se}(\text{n}, \gamma)$ , E=0-1 MeV; calculated cross sections. JOUR PRVCA 76 044302
<sup>83</sup> As	2007DE37	NUCLEAR REACTIONS $^{192}\text{Os}$ , $^{238}\text{U}(^{82}\text{Se}, \text{X})^{80}\text{Zn} / ^{81}\text{Ga} / ^{82}\text{Ge} / ^{83}\text{As} / ^{84}\text{Se} / ^{85}\text{Se} / ^{87}\text{Kr}$ , E=460, 505 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{80}\text{Zn}$ , $^{81}\text{Ga}$ , $^{82}\text{Ge}$ , $^{83}\text{As}$ , $^{84,85}\text{Se}$ , $^{87}\text{Kr}$ deduced levels, J, $\pi$ . Comparison with Oxbash shell model. $^{206}\text{Pb}(^{132}\text{Xe}, \text{X})$ , ( $^{144}\text{Xe}$ , X), E=8.26 MeV / nucleon; calculated production $\sigma$ of neutron-rich nuclei. Grazing coupled channels model. JOUR NUPAB 787 74c
<sup>83</sup> Rb	2007KE09	ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}; ^{71,74}\text{Ga}; ^{84,88}\text{Sr}; ^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
<sup>83</sup> Nb	2007FI07	NUCLEAR REACTIONS $^{28}\text{Si}(^{58}\text{Ni}, 2\text{np})^{83}\text{Nb}$ , E=204, 215 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{83}\text{Nb}$ deduced levels, J, $\pi$ , transition multipolarities, mixing ratios and transition quadrupole moments. JOUR PRVCA 75 064310

**A=84**

<sup>84</sup> Se	2007DE37	NUCLEAR REACTIONS $^{192}\text{Os}$ , $^{238}\text{U}(^{82}\text{Se}, \text{X})^{80}\text{Zn} / ^{81}\text{Ga} / ^{82}\text{Ge} / ^{83}\text{As} / ^{84}\text{Se} / ^{85}\text{Se} / ^{87}\text{Kr}$ , E=460, 505 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{80}\text{Zn}$ , $^{81}\text{Ga}$ , $^{82}\text{Ge}$ , $^{83}\text{As}$ , $^{84,85}\text{Se}$ , $^{87}\text{Kr}$ deduced levels, J, $\pi$ . Comparison with Oxbash shell model. $^{206}\text{Pb}(^{132}\text{Xe}, \text{X})$ , ( $^{144}\text{Xe}$ , X), E=8.26 MeV / nucleon; calculated production $\sigma$ of neutron-rich nuclei. Grazing coupled channels model. JOUR NUPAB 787 74c
<sup>84</sup> Br	2006AS07	NUCLEAR REACTIONS $^{208}\text{Pb}(^{18}\text{O}, \text{X})^{84}\text{Br} / ^{85}\text{Br}$ , E=85 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{84,85}\text{Br}$ deduced high-spin levels, J, $\pi$ , configurations. Euroball IV array. JOUR ZAANE 30 541
<sup>84</sup> Sr	2007KE09	ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}; ^{71,74}\text{Ga}; ^{84,88}\text{Sr}; ^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504

**KEYNUMBERS AND KEYWORDS**

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**A=84 (*continued*)**

<sup>84</sup>Nb      2007RE18      NUCLEAR REACTIONS Be(<sup>107</sup>Ag, X)<sup>82</sup>Nb / <sup>84</sup>Nb / <sup>86</sup>Tc / <sup>87</sup>Tc / <sup>88</sup>Tc, E=750 MeV / nucleon; measured delayed E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, yield. <sup>82</sup>Nb, <sup>86</sup>Tc deduced level energy of first excited state. JOUR NUPAB 787 491c

**A=85**

<sup>85</sup>Se      2007DE37      NUCLEAR REACTIONS <sup>192</sup>Os, <sup>238</sup>U(<sup>82</sup>Se, X)<sup>80</sup>Zn / <sup>81</sup>Ga / <sup>82</sup>Ge / <sup>83</sup>As / <sup>84</sup>Se / <sup>85</sup>Se / <sup>87</sup>Kr, E=460, 505 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>80</sup>Zn, <sup>81</sup>Ga, <sup>82</sup>Ge, <sup>83</sup>As, <sup>84,85</sup>Se, <sup>87</sup>Kr deduced levels, J,  $\pi$ . Comparison with Oxbash shell model. <sup>206</sup>Pb(<sup>132</sup>Xe, X), (<sup>144</sup>Xe, X), E=8.26 MeV / nucleon; calculated production  $\sigma$  of neutron-rich nuclei. Grazing coupled channels model. JOUR NUPAB 787 74c

2007J009      NUCLEAR REACTIONS <sup>2</sup>H(<sup>82</sup>Ge, p), E=4 MeV / nucleon; <sup>2</sup>H(<sup>84</sup>Se, p), E=4.5 MeV / nucleon; <sup>2</sup>H(<sup>132</sup>Sn, p), E=4.77 MeV / nucleon; measured Ep and angular distributions. <sup>83</sup>Ge, <sup>85</sup>Se, <sup>133</sup>Sn deduced levels, J,  $\pi$  and spectroscopic factors. Compared results to model calculations. JOUR APOBB 38 1205

2007TH15      NUCLEAR REACTIONS <sup>2</sup>H(<sup>82</sup>Ge, p), (<sup>84</sup>Se, p), E=330, 380 MeV; measured Ep, Ip, recoil-proton-coin, angular distributions; deduced asymptotic normalization coefficients, spectroscopic factors. <sup>83</sup>Ge, <sup>85</sup>Se; deduced levels, J,  $\pi$ , angular momentum using DWBA analysis. <sup>82</sup>Ge, <sup>84</sup>Se(n,  $\gamma$ ), E=0-1 MeV; calculated cross sections. JOUR PRVCA 76 044302

<sup>85</sup>Br      2006AS07      NUCLEAR REACTIONS <sup>208</sup>Pb(<sup>18</sup>O, X)<sup>84</sup>Br / <sup>85</sup>Br, E=85 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>84,85</sup>Br deduced high-spin levels, J,  $\pi$ , configurations. Euroball IV array. JOUR ZAANE 30 541

2007RA23      ATOMIC MASSES <sup>85,86,87,88,89,90,91,92</sup>Br, <sup>94,95,96,97</sup>Rb; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87

2007RAZY      ATOMIC MASSES <sup>85,86,87,88,89,90,91,92</sup>Br, <sup>94,95,96,97</sup>Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007

<sup>85</sup>Rb      2007PE27      NUCLEAR MOMENTS <sup>85,87</sup>Rb; measured hfs for excited states. JOUR PYLBB 655 114

<sup>85</sup>Sr      2007UD01      NUCLEAR REACTIONS <sup>89</sup>Y(d, X)<sup>90m</sup>Y / <sup>88</sup>Y / <sup>87m</sup>Y / <sup>87</sup>Y / <sup>88</sup>Zr / <sup>89</sup>Zr / <sup>85</sup>Sr, E=9-40 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 95 187

**A=86**

<sup>86</sup>Br      2007RA23      ATOMIC MASSES <sup>85,86,87,88,89,90,91,92</sup>Br, <sup>94,95,96,97</sup>Rb; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87

2007RAZY      ATOMIC MASSES <sup>85,86,87,88,89,90,91,92</sup>Br, <sup>94,95,96,97</sup>Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007

**A=86 (continued)**

<sup>86</sup> Rb	2007TI03	NUCLEAR REACTIONS Pb, <sup>208</sup> Pb, <sup>209</sup> Bi(p, X) <sup>7</sup> Be / <sup>24</sup> Na / <sup>59</sup> Fe / <sup>86</sup> Rb / <sup>101m</sup> Rh / <sup>173</sup> Lu / <sup>190</sup> Ir / <sup>192</sup> Ir / <sup>196</sup> Au / <sup>199</sup> Tl / <sup>200</sup> Tl / <sup>203</sup> Pb, E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289
<sup>86</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
<sup>86</sup> Zr	2007KA12	NUCLEAR REACTIONS Rb( $\alpha$ , xn) <sup>87</sup> Y / <sup>87m</sup> Y / <sup>88</sup> Y, E=threshold-26 MeV; Sr( $\alpha$ , xn) <sup>86</sup> Zr / <sup>88</sup> Zr / <sup>89</sup> Zr, E=threshold-26 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation technique. JOUR ARISE 65 561
<sup>86</sup> Mo	2007AN21	NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>36</sup> Ar, X) <sup>86</sup> / <sup>88</sup> Mo, E=111 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>86,88</sup> Mo deduced levels, J, $\pi$ . JOUR PRVCA 76 014307
<sup>86</sup> Tc	2007RE18	NUCLEAR REACTIONS Be( <sup>107</sup> Ag, X) <sup>82</sup> Nb / <sup>84</sup> Nb / <sup>86</sup> Tc / <sup>87</sup> Tc / <sup>88</sup> Tc, E=750 MeV / nucleon; measured delayed E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, yield. <sup>82</sup> Nb, <sup>86</sup> Tc deduced level energy of first excited state. JOUR NUPAB 787 491c

**A=87**

<sup>87</sup> Br	2007RA23	ATOMIC MASSES 85,86,87,88,89,90,91,92Br, 94,95,96,97Rb; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
	2007RAZY	ATOMIC MASSES 85,86,87,88,89,90,91,92Br, 94,95,96,97Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007
	2007RI15	NUCLEAR REACTIONS Pb(p, X) <sup>17</sup> N / <sup>87</sup> Br / <sup>88</sup> Br, E=1 GeV; measured delayed neutron yields and precursor production cross sections. JOUR ZAANE 32 1
<sup>87</sup> Kr	2007DE37	NUCLEAR REACTIONS <sup>192</sup> Os, <sup>238</sup> U( <sup>82</sup> Se, X) <sup>80</sup> Zn / <sup>81</sup> Ga / <sup>82</sup> Ge / <sup>83</sup> As / <sup>84</sup> Se / <sup>85</sup> Se / <sup>87</sup> Kr, E=460, 505 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>80</sup> Zn, <sup>81</sup> Ga, <sup>82</sup> Ge, <sup>83</sup> As, <sup>84,85</sup> Se, <sup>87</sup> Kr deduced levels, J, $\pi$ . Comparison with Oxbash shell model. <sup>206</sup> Pb( <sup>132</sup> Xe, X), ( <sup>144</sup> Xe, X), E=8.26 MeV / nucleon; calculated production $\sigma$ of neutron-rich nuclei. Grazing coupled channels model. JOUR NUPAB 787 74c
<sup>87</sup> Rb	2007GR05	RADIOACTIVITY <sup>10</sup> Be, <sup>40</sup> K, <sup>87</sup> Rb( $\beta^-$ ); measured E $\beta$ ; deduced shape-factor functions, cutoff energy yields, maximum-point energies. Comparison with previous results. JOUR NIMAE 572 760
	2007KE09	ATOMIC MASSES <sup>74,75,76,77,79,80,83,87</sup> Rb; <sup>64</sup> Zn; <sup>71,74</sup> Ga; <sup>84,88</sup> Sr; <sup>133</sup> Cs; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504

**A=87 (continued)**

	2007PE27	NUCLEAR MOMENTS $^{85,87}\text{Rb}$ ; measured hfs for excited states.
	2007GR05	JOUR PYLBB 655 114 RADIOACTIVITY $^{10}\text{Be}$ , $^{40}\text{K}$ , $^{87}\text{Rb}(\beta^-)$ ; measured $E\beta$ ; deduced shape-factor functions, cutoff energy yields, maximum-point energies. Comparison with previous results. JOUR NIMAE 572 760
$^{87}\text{Sr}$	2006CA38	NUCLEAR MOMENTS $^{86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102}\text{Y}$ ; measured resonance fluorescence spectra. Collinear laser spectroscopy.
$^{87}\text{Y}$	2007CH07	JOUR HYIND 171 143 NUCLEAR MOMENTS $^{86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102}\text{Y}$ ; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2007KA12	NUCLEAR REACTIONS $\text{Rb}(\alpha, \text{xn})^{87}\text{Y}$ / $^{87m}\text{Y}$ / $^{88}\text{Y}$ , E=threshold-26 MeV; $\text{Sr}(\alpha, \text{xn})^{86}\text{Zr}$ / $^{88}\text{Zr}$ / $^{89}\text{Zr}$ , E=threshold-26 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation technique. JOUR ARISE 65 561
	2007UD01	NUCLEAR REACTIONS $^{89}\text{Y}(\text{d}, \text{X})^{90m}\text{Y}$ / $^{88}\text{Y}$ / $^{87m}\text{Y}$ / $^{87}\text{Y}$ / $^{88}\text{Zr}$ / $^{89}\text{Zr}$ / $^{85}\text{Sr}$ , E=9-40 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 95 187
$^{87}\text{Tc}$	2007RE18	NUCLEAR REACTIONS $\text{Be}(\text{Ag}, \text{X})^{82}\text{Nb}$ / $^{84}\text{Nb}$ / $^{86}\text{Tc}$ / $^{87}\text{Tc}$ / $^{88}\text{Tc}$ , E=750 MeV / nucleon; measured delayed $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, yield. $^{82}\text{Nb}$ , $^{86}\text{Tc}$ deduced level energy of first excited state. JOUR NUPAB 787 491c

**A=88**

$^{88}\text{Br}$	2007RA23	ATOMIC MASSES $^{85,86,87,88,89,90,91,92}\text{Br}$ , $^{94,95,96,97}\text{Rb}$ ; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
	2007RAZY	ATOMIC MASSES $^{85,86,87,88,89,90,91,92}\text{Br}$ , $^{94,95,96,97}\text{Rb}$ ; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017, 3/12/2007
	2007RI15	NUCLEAR REACTIONS $\text{Pb}(\text{p}, \text{X})^{17}\text{N}$ / $^{87}\text{Br}$ / $^{88}\text{Br}$ , E=1 GeV; measured delayed neutron yields and precursor production cross sections. JOUR ZAANE 32 1
$^{88}\text{Sr}$	2007GOZW	NUCLEAR REACTIONS $\text{Sr}(\text{n}, \text{n}'\gamma)^{88}\text{Sr}$ , E=fast; measured $E\gamma$ , $I\gamma$ , DSAM; $^{88}\text{Sr}$ deduced levels, $J$ , $\pi$ , $\tau$ . Reactor, fast neutron facilities. CONF Voronezh(Nucleus-2007), Contrib,P102, Govor
	2007KE09	ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}$ ; $^{71,74}\text{Ga}$ , $^{84,88}\text{Sr}$ , $^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
	2007SC36	NUCLEAR REACTIONS $^{88}\text{Sr}(\gamma, \gamma')$ , E=9.0, 13.2, 16.0 MeV; measured $E\gamma$ , $I\gamma$ and angular distributions. $^{88}\text{Sr}$ deduced levels, $J$ , $\pi$ , photon scattering and photoabsorption cross sections. JOUR PRVCA 76 034321

KEYNUMBERS AND KEYWORDS

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**A=88 (*continued*)**

<sup>88</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2007KA12	NUCLEAR REACTIONS Rb( $\alpha$ , xn) <sup>87</sup> Y / <sup>87m</sup> Y / <sup>88</sup> Y, E=threshold-26 MeV; Sr( $\alpha$ , xn) <sup>86</sup> Zr / <sup>88</sup> Zr / <sup>89</sup> Zr, E=threshold-26 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation technique. JOUR ARISE 65 561
	2007QA03	NUCLEAR REACTIONS Sr(p, nx) <sup>88</sup> Y, E=9-14 MeV; Rb( $\alpha$ , nx) <sup>88</sup> Y, E=12-18 MeV; <sup>141</sup> Pr(p, 2n), E=15-30 MeV; Ce( <sup>3</sup> He, nx) <sup>140</sup> Nd, E=20-35 MeV; <sup>153</sup> Eu(n, p), E=14 MeV; <sup>150</sup> Nd( $\alpha$ , n), E=15-25 MeV; measured yields, excitation function and cross section. JOUR RAACA 95 313
	2007UD01	NUCLEAR REACTIONS <sup>89</sup> Y(d, X) <sup>90m</sup> Y / <sup>88</sup> Y / <sup>87m</sup> Y / <sup>87</sup> Y / <sup>88</sup> Zr / <sup>89</sup> Zr / <sup>85</sup> Sr, E=9-40 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 95 187
<sup>88</sup> Zr	2007KA12	NUCLEAR REACTIONS Rb( $\alpha$ , xn) <sup>87</sup> Y / <sup>87m</sup> Y / <sup>88</sup> Y, E=threshold-26 MeV; Sr( $\alpha$ , xn) <sup>86</sup> Zr / <sup>88</sup> Zr / <sup>89</sup> Zr, E=threshold-26 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation technique. JOUR ARISE 65 561
	2007SC39	NUCLEAR REACTIONS <sup>92,98,100</sup> Mo( $\gamma$ , $\gamma'$ ), E≈13.2 MeV bremsstrahlung; measured E $\gamma$ , I $\gamma$ , angular distributions, photoabsorption $\sigma$ . <sup>92</sup> Mo( $\gamma$ , n), ( $\gamma$ , p), ( $\gamma$ , $\alpha$ ), E≈10-16.5 MeV bremsstrahlung; measured activation yields and compared with QRPA calculations. JOUR NUPAB 788 331c
	2007UD01	NUCLEAR REACTIONS <sup>89</sup> Y(d, X) <sup>90m</sup> Y / <sup>88</sup> Y / <sup>87m</sup> Y / <sup>87</sup> Y / <sup>88</sup> Zr / <sup>89</sup> Zr / <sup>85</sup> Sr, E=9-40 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 95 187
<sup>88</sup> Mo	2007AN21	NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>36</sup> Ar, X) <sup>86</sup> / <sup>88</sup> Mo, E=111 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>86,88</sup> Mo deduced levels, J, $\pi$ . JOUR PRVCA 76 014307
<sup>88</sup> Tc	2007RE18	NUCLEAR REACTIONS Be( <sup>107</sup> Ag, X) <sup>82</sup> Nb / <sup>84</sup> Nb / <sup>86</sup> Tc / <sup>87</sup> Tc / <sup>88</sup> Tc, E=750 MeV / nucleon; measured delayed E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, yield. <sup>82</sup> Nb, <sup>86</sup> Tc deduced level energy of first excited state. JOUR NUPAB 787 491c

**A=89**

<sup>89</sup> Br	2007RA23	ATOMIC MASSES 85,86,87,88,89,90,91,92Br, 94,95,96,97Rb; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
	2007RAZY	ATOMIC MASSES 85,86,87,88,89,90,91,92Br, 94,95,96,97Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007

**A=89 (*continued*)**

<sup>89</sup> Sr	2006AB62	NUCLEAR REACTIONS <sup>90,91</sup> Zr(n, p), <sup>92,94</sup> Zr(n, $\alpha$ ), E=reactor; measured spectrum-averaged $\sigma$ . Activation, radiochemical separation.
<sup>89</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy.
	2007CH07	JOUR HYIND 171 143 NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y;
		measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
<sup>89</sup> Zr	2007HU02	NUCLEAR REACTIONS <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb( $\alpha$ , $\alpha'$ ), ( $\alpha$ , n $\alpha$ ), E=200 MeV; measured E $\gamma$ , E $\alpha$ , En, $\sigma$ (E, $\theta$ ). <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb deduced isoscalar GDR neutron decay features. JOUR PRVCA 75 014606
	2007HU16	NUCLEAR REACTIONS <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb( $\alpha$ , $\alpha'$ n), E=200 MeV; measured measured $\sigma$ , angular distributions. Deduced ISGDR direct-decay branching ratios. JOUR APOBB 38 1479
	2007HU20	NUCLEAR REACTIONS <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb( $\alpha$ , $\alpha'$ n), E=200 MeV; measured $\sigma$ and angular distributions. <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb deduced branching ratios for direct and statistical neutron decay of isoscalar giant dipole resonance. JOUR PANUE 70 1407
	2007KA12	NUCLEAR REACTIONS Rb( $\alpha$ , xn) <sup>87</sup> Y / <sup>87m</sup> Y / <sup>88</sup> Y, E=threshold-26 MeV; Sr( $\alpha$ , xn) <sup>86</sup> Zr / <sup>88</sup> Zr / <sup>89</sup> Zr, E=threshold-26 MeV; measured excitation functions; deduced integral yields. Stacked-foil activation technique. JOUR ARISE 65 561
	2007UD01	NUCLEAR REACTIONS <sup>89</sup> Y(d, X) <sup>90m</sup> Y / <sup>88</sup> Y / <sup>87m</sup> Y / <sup>87</sup> Y / <sup>88</sup> Zr / <sup>89</sup> Zr / <sup>85</sup> Sr, E=9-40 MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 95 187
<sup>2007W006</sup>		NUCLEAR REACTIONS <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb( $\alpha$ , $\alpha'$ ), ( $\alpha$ , n $\alpha$ ), E=200 MeV; measured E $\gamma$ , E $\alpha$ , En, $\sigma$ (E, $\theta$ ), excitation energy spectra. <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb deduced isoscalar GDR neutron decay features. <sup>140</sup> Ce( $\alpha$ , $\alpha\gamma$ ), E=136 MeV; measured E $\gamma$ , E $\alpha$ . <sup>140</sup> Ce deduced E1 strength distribution. JOUR NUPAB 788 27c

**A=90**

<sup>90</sup> Br	2007RA23	ATOMIC MASSES 85,86,87,88,89,90,91,92Br, <sup>94,95,96,97</sup> Rb; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
	2007RAZY	ATOMIC MASSES 85,86,87,88,89,90,91,92Br, <sup>94,95,96,97</sup> Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007
<sup>90</sup> Sr	2007AL42	RADIOACTIVITY <sup>90</sup> Sr( $\beta^-$ ); measured internal bremsstrahlung spectrum using the beta-stopper method. Compared results to model calculations. JOUR IMPEE 16 1733
<sup>90</sup> Y	2006AB62	NUCLEAR REACTIONS <sup>90,91</sup> Zr(n, p), <sup>92,94</sup> Zr(n, $\alpha$ ), E=reactor; measured spectrum-averaged $\sigma$ . Activation, radiochemical separation. JOUR RAACA 94 381

**A=90 (*continued*)**

2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy.
2007AL42	JOUR HYIND 171 143 RADIOACTIVITY $^{90}\text{Sr}(\beta^-)$ ; measured internal bremsstrahlung spectrum using the beta-stopper method. Compared results to model calculations. JOUR IMPEE 16 1733
2007CH07	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
2007SE01	RADIOACTIVITY $^{90}\text{Y}(\beta^-)$ ; measured $E\gamma$ , $I\gamma$ . $^{90}\text{Zr}$ transition deduced branching ratio for internal pair production. JOUR ARISE 65 318
2007UD01	NUCLEAR REACTIONS $^{89}\text{Y}(\text{d}, \text{X})^{90m}\text{Y}$ / $^{88}\text{Y}$ / $^{87m}\text{Y}$ / $^{87}\text{Y}$ / $^{88}\text{Zr}$ / $^{89}\text{Zr}$ / $^{85}\text{Sr}$ , $E=9\text{-}40$ MeV; measured excitation functions. Stacked-foil activation. JOUR RAACA 95 187
$^{90}\text{Zr}$	2007HU02 NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, n\alpha)$ , $E=200$ MeV; measured $E\gamma$ , $E\alpha$ , $En$ , $\sigma(E, \theta)$ . $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. JOUR PRVCA 75 014606
	2007HU20 NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha'n)$ , $E=200$ MeV; measured $\sigma$ and angular distributions. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced branching ratios for direct and statistical neutron decay of isoscalar giant dipole resonance. JOUR PANUE 70 1407
	2007SE01 RADIOACTIVITY $^{90}\text{Y}(\beta^-)$ ; measured $E\gamma$ , $I\gamma$ . $^{90}\text{Zr}$ transition deduced branching ratio for internal pair production. JOUR ARISE 65 318
2007VA01	NUCLEAR REACTIONS $^{90}\text{Zr}(\alpha, t)$ , $(\alpha, pt)$ , $E=180$ MeV; measured triton and proton spectra, pt-coin. $^{91}\text{Nb}$ deduced excited states energies, proton emission features. Optical-model coupled-channels analysis. JOUR PRVCA 75 014311
2007W006	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, n\alpha)$ , $E=200$ MeV; measured $E\gamma$ , $E\alpha$ , $En$ , $\sigma(E, \theta)$ , excitation energy spectra. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. $^{140}\text{Ce}(\alpha, \alpha\gamma)$ , $E=136$ MeV; measured $E\gamma$ , $E\alpha$ . $^{140}\text{Ce}$ deduced E1 strength distribution. JOUR NUPAB 788 27c
$^{90}\text{Nb}$	2007ZE06 NUCLEAR REACTIONS $^{12,13}\text{C}$ , $^{18}\text{O}$ , $^{26}\text{Mg}$ , $^{58}\text{Ni}$ , $^{60}\text{Ni}$ , $^{90}\text{Zr}$ , $^{118}\text{Sn}$ , $^{208}\text{Pb}(^3\text{He}, t)$ , $E=420$ MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
	2007ZEZZ NUCLEAR REACTIONS $^{12,13}\text{C}$ , $^{18}\text{O}$ , $^{26}\text{Mg}$ , $^{58}\text{Ni}$ , $^{60}\text{Ni}$ , $^{90}\text{Zr}$ , $^{118}\text{Sn}$ , $^{208}\text{Pb}(^3\text{He}, t)$ , $E=420$ MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]

**A=91**

$^{91}\text{Br}$	2007RA23 ATOMIC MASSES 85,86,87,88,89,90,91,92Br, $^{94,95,96,97}\text{Rb}$ ; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
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**A=91 (continued)**

	2007RAZY	ATOMIC MASSES 85,86,87,88,89,90,91, <sup>92</sup> Br, <sup>94,95,96,97</sup> Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007
<sup>91</sup> Sr	2006AB62	NUCLEAR REACTIONS <sup>90,91</sup> Zr(n, p), <sup>92,94</sup> Zr(n, $\alpha$ ), E=reactor; measured spectrum-averaged $\sigma$ . Activation, radiochemical separation. JOUR RAACA 94 381
<sup>91</sup> Y	2006AB62	NUCLEAR REACTIONS <sup>90,91</sup> Zr(n, p), <sup>92,94</sup> Zr(n, $\alpha$ ), E=reactor; measured spectrum-averaged $\sigma$ . Activation, radiochemical separation. JOUR RAACA 94 381
	2007TR10	NUCLEAR REACTIONS <sup>92</sup> Zr, <sup>183</sup> W( $\gamma$ , p), E=10-25 MeV; measured $E\gamma$ , $I\gamma$ . Deduced isomeric ratios. JOUR PPNLA 4 397
<sup>91</sup> Zr	2007CI05	NUCLEAR REACTIONS <sup>2</sup> H( <sup>90</sup> Zr, p $\gamma$ ), ( <sup>80</sup> Se, p $\gamma$ ), E=4 MeV / nucleon; measured $E\gamma$ , Ep, p $\gamma$ -coinc. JOUR NIMBE 261 938
	2007C014	NUCLEAR REACTIONS <sup>59</sup> Co, <sup>93</sup> Nb(polarized p, <sup>3</sup> He), E=40-160 MeV; measured $\sigma$ , angular distributions and analyzing powers. Compared results to model calculations. JOUR PRVCA 75 054617
	2007TH07	NUCLEAR REACTIONS <sup>82</sup> Se( <sup>13</sup> C, 4n) <sup>91</sup> Zr, E=50 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. <sup>91</sup> Zr deduced levels, J, $\pi$ . JOUR APOBB 38 1381
<sup>91</sup> Nb	2007SC39	NUCLEAR REACTIONS <sup>92,98,100</sup> Mo( $\gamma$ , $\gamma'$ ), E $\approx$ 13.2 MeV bremsstrahlung; measured $E\gamma$ , $I\gamma$ , angular distributions, photoabsorption $\sigma$ . <sup>92</sup> Mo( $\gamma$ , n), ( $\gamma$ , p), ( $\gamma$ , $\alpha$ ), E $\approx$ 10-16.5 MeV bremsstrahlung; measured activation yields and compared with QRPA calculations. JOUR NUPAB 788 331c
	2007VA01	NUCLEAR REACTIONS <sup>90</sup> Zr( $\alpha$ , t), ( $\alpha$ , pt), E=180 MeV; measured triton and proton spectra, pt-coin. <sup>91</sup> Nb deduced excited states energies, proton emission features. Optical-model coupled-channels analysis. JOUR PRVCA 75 014311
<sup>91</sup> Mo	2007SC39	NUCLEAR REACTIONS <sup>92,98,100</sup> Mo( $\gamma$ , $\gamma'$ ), E $\approx$ 13.2 MeV bremsstrahlung; measured $E\gamma$ , $I\gamma$ , angular distributions, photoabsorption $\sigma$ . <sup>92</sup> Mo( $\gamma$ , n), ( $\gamma$ , p), ( $\gamma$ , $\alpha$ ), E $\approx$ 10-16.5 MeV bremsstrahlung; measured activation yields and compared with QRPA calculations. JOUR NUPAB 788 331c

**A=92**

<sup>92</sup> Br	2007RA23	ATOMIC MASSES 85,86,87,88,89,90,91, <sup>92</sup> Br, <sup>94,95,96,97</sup> Rb; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
	2007RAZY	ATOMIC MASSES 85,86,87,88,89,90,91, <sup>92</sup> Br, <sup>94,95,96,97</sup> Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007
<sup>92</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102 <sup>Y</sup> ; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143

**A=92 (continued)**

	2007CH07	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
<sup>92</sup> Zr	2007C021	NUCLEAR REACTIONS $^{208}\text{Pb}(^{40}\text{Ca}, \text{X})$ , E=235, 249 MeV; analyzed single and paired nucleon transfer $\sigma$ . $^{208}\text{Pb}(^{40}\text{Ca}, \text{X})^{42}\text{Ca}$ , E=225, 236, 250 MeV; analyzed total kinetic energy loss distribution. $^{208}\text{Pb}(^{90}\text{Zr}, \text{X})$ , E=560 MeV; analyzed fragment mass distributions, $\sigma$ ; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, DSA. <sup>92</sup> Zr deduced levels, J, $\pi$ . $^{238}\text{U}(^{82}\text{Se}, \text{X})$ , E=500 MeV; measured fragment yields, $\sigma$ . Prisma and Clara arrays. Multi-nucleon transfer reaction mechanisms discussed. JOUR NUPAB 787 160c
	2007EG02	NUCLEAR REACTIONS <sup>91</sup> Zr, <sup>116,118,119,120,122,124</sup> Sn, <sup>143</sup> Nd, <sup>177</sup> Hf(n, $\gamma$ ); E=thermal; measured $E\gamma$ , $I\gamma$ , cross sections. JOUR ARISE 65 1290
	2007NA05	NUCLEAR REACTIONS <sup>91,93</sup> Zr(n, $\gamma$ ), E=thermal; measured prompt $E\gamma$ , $I\gamma$ ; deduced $\sigma$ lower limits. JOUR JNSTA 44 21
<sup>92</sup> Mo	2007SC39	NUCLEAR REACTIONS <sup>92,98,100</sup> Mo( $\gamma$ , $\gamma'$ ), E $\approx$ 13.2 MeV bremsstrahlung; measured $E\gamma$ , $I\gamma$ , angular distributions, photoabsorption $\sigma$ . <sup>92</sup> Mo( $\gamma$ , n), ( $\gamma$ , p), ( $\gamma$ , $\alpha$ ), E $\approx$ 10-16.5 MeV bremsstrahlung; measured activation yields and compared with QRPA calculations. JOUR NUPAB 788 331c
<sup>92</sup> Rh	2007PE14	NUCLEAR REACTIONS $^{40}\text{Ca}(^{58}\text{Ni}, \text{np}\alpha)$ , E=240 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc, (particle) $\gamma$ -coinc. <sup>92</sup> Rh deduced levels, J, $\pi$ . JOUR PRVCA 76 011304

**A=93**

	2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
<sup>93</sup> Nb	2007CH07	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2006WAZX	NUCLEAR REACTIONS <sup>82</sup> Se( <sup>16</sup> O, 4np), E=100 MeV; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, $\gamma$ -ray polarization. <sup>93</sup> Nb deduced high-spin levels, J, $\pi$ , isomer T <sub>1/2</sub> . REPT CNS-REP-69,P25,Wakabayashi
	2007CH20	NUCLEAR REACTIONS <sup>93</sup> Nb(t, t), E=12 MeV; measured $\sigma(\theta)$ ; deduced optical model parameters. JOUR APOBB 38 181
	2007OR01	NUCLEAR REACTIONS <sup>93</sup> Nb( $\gamma$ , $\gamma'$ ), E=2.75 MeV bremsstrahlung; measured $E\gamma$ , $I\gamma$ . <sup>93</sup> Nb(n, n' $\gamma$ ), E=2.1, 2.6 MeV; measured $E\gamma$ , $I\gamma$ , DSA. <sup>94</sup> Zr(p, 2n), E=11.5-19 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, angular correlations. <sup>93</sup> Nb deduced levels, J, $\pi$ , $\delta$ , T <sub>1/2</sub> . JOUR PRVCA 75 014303

**A=93 (continued)**

<sup>93</sup>Tc      2007KH06      NUCLEAR REACTIONS Mo(p, xn)<sup>93</sup>Tc / <sup>93m</sup>Tc / <sup>94</sup>Tc / <sup>94m</sup>Tc, E=10-30 MeV; measured proton induced cross sections using stacked foil activation technique. JOUR KPSJA 50 1518

**A=94**

<sup>94</sup>Rb      2007RA23      ATOMIC MASSES 85,86,87,88,89,90,91,92Br, <sup>94,95,96,97</sup>Rb; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87

2007RAZY      ATOMIC MASSES 85,86,87,88,89,90,91,92Br, <sup>94,95,96,97</sup>Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007

<sup>94</sup>Y      2006CA38      NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143

2007CH07      NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts,  $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133

<sup>94</sup>Zr      2007EL01      NUCLEAR REACTIONS <sup>94</sup>Zr(n, n'γ), E=2.3 MeV; measured E $\gamma$ , I $\gamma$ , DSA. <sup>94</sup>Zr deduced levels, J,  $\pi$ ,  $\delta$ , B(M1), B(E2), mixed-symmetry state. JOUR PRVCA 75 011301

2007NA05      NUCLEAR REACTIONS <sup>91,93</sup>Zr(n, γ), E=thermal; measured prompt E $\gamma$ , I $\gamma$ ; deduced  $\sigma$  lower limits. JOUR JNSTA 44 21

<sup>94</sup>Mo      2007BU23      NUCLEAR REACTIONS <sup>94</sup>Mo(e, e'), E=70 MeV; <sup>94</sup>Mo(p, p'), E=200 MeV; measured  $\sigma$  and excitation strengths. Compared results to model calculations. JOUR PRLTA 99 092503

2007FU12      NUCLEAR REACTIONS <sup>94</sup>Mo(e, e'), E=70 MeV; <sup>94</sup>Mo(p, p')E=200 MeV; measured excitation energy spectra; deduced mixed-symmetry state features. Comparison with shell model, quasiparticle phonon model and interacting boson model. JOUR NUPAB 788 94c

<sup>94</sup>Tc      2007KH06      NUCLEAR REACTIONS Mo(p, xn)<sup>93</sup>Tc / <sup>93m</sup>Tc / <sup>94</sup>Tc / <sup>94m</sup>Tc, E=10-30 MeV; measured proton induced cross sections using stacked foil activation technique. JOUR KPSJA 50 1518

2007SH01      NUCLEAR REACTIONS <sup>93</sup>Nb(α, n), (α, 2n), (α, 3n), E ≈ 10-40 MeV; measured excitation functions, isomer ratios; deduced role of pre-equilibrium neutron emission. Stacked-foil activation technique. JOUR ZAANE 31 43

<sup>94</sup>Ru      2007MI14      RADIOACTIVITY <sup>94</sup>Rh(β<sup>+</sup>), (EC) [from <sup>58</sup>Ni(<sup>40</sup>Ca, n3p)]; measured β-delayed E $\gamma$ , I $\gamma$ , γγ-coin. <sup>94</sup>Ru deduced levels, J,  $\pi$ , configurations. Empirical shell model analysis. JOUR PRVCA 75 047302

<sup>94</sup>Rh      2007MI14      RADIOACTIVITY <sup>94</sup>Rh(β<sup>+</sup>), (EC) [from <sup>58</sup>Ni(<sup>40</sup>Ca, n3p)]; measured β-delayed E $\gamma$ , I $\gamma$ , γγ-coin. <sup>94</sup>Ru deduced levels, J,  $\pi$ , configurations. Empirical shell model analysis. JOUR PRVCA 75 047302

<sup>94</sup>Ag      2007R016      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>40</sup>Ca, 3np), E not given; measured Ep, E $\gamma$ , pγ-coinc. Deduced spectroscopic factors and deformation parameters. JOUR APOBB 38 1121

KEYNUMBERS AND KEYWORDS

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**A=95**

<sup>95</sup> Kr	2007SI16	NUCLEAR REACTIONS $^{239,241}\text{Pu}(n, F)$ , E=thermal; measured $E\gamma$ , $I\gamma$ from isomeric decays. $^{95}\text{Kr}$ , $^{96}\text{Rb}$ , $^{98}\text{Zr}$ deduced levels, $J$ , $\pi$ . JOUR APOBB 38 1321
<sup>95</sup> Rb	2007RA23	ATOMIC MASSES $^{85,86,87,88,89,90,91,92}\text{Br}$ , $^{94,95,96,97}\text{Rb}$ ; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
	2007RAZY	ATOMIC MASSES $^{85,86,87,88,89,90,91,92}\text{Br}$ , $^{94,95,96,97}\text{Rb}$ ; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007
<sup>95</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2007HA32	ATOMIC MASSES $^{95,96,97,98,99,100,101}\text{Y}$ , $^{101,102,103,104,105,106,107}\text{Nb}$ ; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
<sup>95</sup> Zr	2007SZ05	NUCLEAR REACTIONS $^{98}\text{Zr}({}^{40}\text{Ca}, X)$ , E=152 MeV; $^{208}\text{Pb}({}^{90}\text{Zr}, X)$ , E=560 MeV; measured $E\Gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc. $^{95}\text{Zr}$ , $^{42}\text{Ca}$ deduced levels. JOUR PRVCA 76 024604
<sup>95</sup> Tc	2007BU30	RADIOACTIVITY $^{95}\text{Ru}(\beta^+)$ [from $^{92}\text{Mo}(\alpha, n)$ , E=17 MeV]; measured $\beta$ -delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{95}\text{Tc}$ deduced levels, $J$ , $\pi$ . Compared results to shell model calculations. JOUR ZAANE 32 123
	2007SH01	NUCLEAR REACTIONS $^{93}\text{Nb}(\alpha, n)$ , $(\alpha, 2n)$ , $(\alpha, 3n)$ , E $\approx$ 10-40 MeV; measured excitation functions, isomer ratios; deduced role of pre-equilibrium neutron emission. Stacked-foil activation technique. JOUR ZAANE 31 43
	2007SH35	RADIOACTIVITY $^{95}\text{Ru}(\beta^+)$ , (EC) [from $^{92}\text{Mo}(\alpha, n)$ , E=17 MeV]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{95}\text{Tc}$ deduced levels, $J$ , $\pi$ . Compared results to model calculations. JOUR ZAANE 32 149
<sup>95</sup> Ru	2007BU30	RADIOACTIVITY $^{95}\text{Ru}(\beta^+)$ [from $^{92}\text{Mo}(\alpha, n)$ , E=17 MeV]; measured $\beta$ -delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{95}\text{Tc}$ deduced levels, $J$ , $\pi$ . Compared results to shell model calculations. JOUR ZAANE 32 123
	2007SH35	RADIOACTIVITY $^{95}\text{Ru}(\beta^+)$ , (EC) [from $^{92}\text{Mo}(\alpha, n)$ , E=17 MeV]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{95}\text{Tc}$ deduced levels, $J$ , $\pi$ . Compared results to model calculations. JOUR ZAANE 32 149

**A=96**

<sup>96</sup> Rb	2007RA23	ATOMIC MASSES $^{85,86,87,88,89,90,91,92}\text{Br}$ , $^{94,95,96,97}\text{Rb}$ ; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
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**A=96 (continued)**

	2007RAZY	ATOMIC MASSES 85,86,87,88,89,90,91, <sup>92</sup> Br, 94,95,96, <sup>97</sup> Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007
	2007SI16	NUCLEAR REACTIONS <sup>239,241</sup> Pu(n, F), E=thermal; measured E $\gamma$ , I $\gamma$ from isomeric decays. <sup>95</sup> Kr, <sup>96</sup> Rb, <sup>98</sup> Zr deduced levels, J, $\pi$ . JOUR APOBB 38 1321
<sup>96</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87, <sup>87</sup> m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86,87, <sup>87</sup> m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2007HA32	ATOMIC MASSES 95,96,97,98,99,100,101Y, 101,102,103,104,105,106,107Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
<sup>96</sup> Zr	2006SH31	RADIOACTIVITY <sup>82</sup> Se, <sup>100</sup> Mo(2 $\beta^-$ ); measured 0 $\nu\beta\beta$ -decay T <sub>1/2</sub> lower limit. <sup>82</sup> Se, <sup>96</sup> Zr, <sup>100</sup> Mo, <sup>116</sup> Cd, <sup>150</sup> Nd(2 $\beta^-$ ); measured 2 $\nu\beta\beta$ -decay T <sub>1/2</sub> . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY <sup>82</sup> Se, <sup>96</sup> Zr, <sup>100</sup> Mo, <sup>116</sup> Cd, <sup>150</sup> Nd(2 $\beta^-$ ); measured 2 $\nu\beta\beta$ -decay T <sub>1/2</sub> . <sup>82</sup> Se, <sup>100</sup> Mo(2 $\beta^-$ ); measured 0 $\nu\beta\beta$ -decay T <sub>1/2</sub> lower limits. JOUR BRSPE 70 731
<sup>96</sup> Mo	2006SH31	RADIOACTIVITY <sup>82</sup> Se, <sup>100</sup> Mo(2 $\beta^-$ ); measured 0 $\nu\beta\beta$ -decay T <sub>1/2</sub> lower limit. <sup>82</sup> Se, <sup>96</sup> Zr, <sup>100</sup> Mo, <sup>116</sup> Cd, <sup>150</sup> Nd(2 $\beta^-$ ); measured 2 $\nu\beta\beta$ -decay T <sub>1/2</sub> . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY <sup>82</sup> Se, <sup>96</sup> Zr, <sup>100</sup> Mo, <sup>116</sup> Cd, <sup>150</sup> Nd(2 $\beta^-$ ); measured 2 $\nu\beta\beta$ -decay T <sub>1/2</sub> . <sup>82</sup> Se, <sup>100</sup> Mo(2 $\beta^-$ ); measured 0 $\nu\beta\beta$ -decay T <sub>1/2</sub> lower limits. JOUR BRSPE 70 731
	2007LE05	NUCLEAR REACTIONS <sup>96</sup> Mo(n, n' $\gamma$ ), E=2-4 MeV; measured E $\gamma$ , I $\gamma$ , DSA. <sup>96</sup> Mo deduced levels, J, $\pi$ , $\delta$ , T <sub>1/2</sub> , B(M1), B(E2), mixed-symmetry states. JOUR PRVCA 75 034318
<sup>96</sup> Tc	2006MU20	NUCLEAR REACTIONS <sup>93</sup> Nb( <sup>16</sup> O, X) <sup>103</sup> Ag / <sup>104</sup> Ag / <sup>105</sup> Ag / <sup>96</sup> Tc / <sup>98</sup> Rh / <sup>99</sup> Rh, E=96 MeV; measured production $\sigma$ , recoil range distributions; deduced contribution from incomplete fusion. JOUR RAACA 94 301
	2007SH01	NUCLEAR REACTIONS <sup>93</sup> Nb( $\alpha$ , n), ( $\alpha$ , 2n), ( $\alpha$ , 3n), E $\approx$ 10-40 MeV; measured excitation functions, isomer ratios; deduced role of pre-equilibrium neutron emission. Stacked-foil activation technique. JOUR ZAANE 31 43
<sup>96</sup> Pd	2007MY02	NUCLEAR REACTIONS <sup>9</sup> Be( <sup>107</sup> Ag, X) <sup>96</sup> Pd, E=750 MeV / nucleon; measured E $\gamma$ , I $\gamma$ from the decay of the isomeric states. Deduced isomeric ratios. JOUR APOBB 38 1277

**A=97**

<sup>97</sup> Rb	2007RA23	ATOMIC MASSES 85,86,87,88,89,90,91, <sup>92</sup> Br, 94,95,96, <sup>97</sup> Rb; measured masses using the JYFLTRAP. Deduced Q-values. Compared results to previous measurements. JOUR ZAANE 32 87
	2007RAZY	ATOMIC MASSES 85,86,87,88,89,90,91, <sup>92</sup> Br, 94,95,96, <sup>97</sup> Rb; measured masses. Penning trap mass spectrometer. PREPRINT nucl-ex/0703017,3/12/2007
<sup>97</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87, <sup>87</sup> m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007BI14	NUCLEAR MOMENTS <sup>97</sup> mY, <sup>176</sup> , <sup>176</sup> mYb, <sup>178</sup> , <sup>178</sup> mHf; measured isomer shifts, $\mu$ , quadrupole moments, radii; deduced hyperfine structure coefficients. Laser spectroscopy. JOUR PYLBB 645 330
	2007CH07	NUCLEAR MOMENTS 86,87, <sup>87</sup> m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2007HA32	ATOMIC MASSES <sup>95</sup> , <sup>96</sup> , <sup>97</sup> , <sup>98</sup> , <sup>99</sup> , <sup>100</sup> , <sup>101</sup> Y, <sup>101</sup> , <sup>102</sup> , <sup>103</sup> , <sup>104</sup> , <sup>105</sup> , <sup>106</sup> , <sup>107</sup> Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
<sup>97</sup> Ru	2007CEZZ	NUCLEAR REACTIONS <sup>59</sup> Co( <sup>16</sup> O, X), E=400 MeV; measured Z=5-7 fragments $\sigma(E, \theta)$ . <sup>103</sup> Rh( <sup>12</sup> C, X) <sup>111</sup> mIn / <sup>108</sup> In / <sup>105</sup> Ag / <sup>101</sup> Pd / <sup>102</sup> mRh / <sup>97</sup> Ru, E $\approx$ 50-400 MeV; measured excitation functions. CONF Iguazu(Nuclear Physics and Applications) Proc,P207,Cerutti
	2007DI06	NUCLEAR REACTIONS Pd(p, X) <sup>105</sup> Ag / <sup>106</sup> mAg / <sup>100</sup> Pd / <sup>101</sup> mRh / <sup>97</sup> Ru, E=5-70 MeV; measured excitation functions. Activation method. JOUR JRNCD 272 231
<sup>97</sup> Rh	2007SEZW	NUCLEAR REACTIONS <sup>96</sup> Ru(p, $\gamma$ ), E=4.0-6.5 MeV; measured E $\gamma$ , I $\gamma$ ; <sup>97</sup> Rh deduced levels, J $\pi$ . CONF Voronezh(Nucleus-2007),Contrib,P101,Sergeev

**A=98**

<sup>98</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87, <sup>87</sup> m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86,87, <sup>87</sup> m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2007HA32	ATOMIC MASSES <sup>95</sup> , <sup>96</sup> , <sup>97</sup> , <sup>98</sup> , <sup>99</sup> , <sup>100</sup> , <sup>101</sup> Y, <sup>101</sup> , <sup>102</sup> , <sup>103</sup> , <sup>104</sup> , <sup>105</sup> , <sup>106</sup> , <sup>107</sup> Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20

**KEYNUMBERS AND KEYWORDS**

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**A=98 (*continued*)**

<sup>98</sup> Zr	2006SI36	RADIOACTIVITY <sup>98</sup> Zr(IT) [from <sup>239</sup> Pu(n, F)]; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, T <sub>1/2</sub> . <sup>98</sup> Zr deduced levels, J, $\pi$ , configurations. JOUR PRVCA 74 064308
	2006SI36	NUCLEAR REACTIONS <sup>239</sup> Pu(n, F), E=thermal; measured prompt and delayed E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (particle) $\gamma$ -coin. <sup>98</sup> Zr deduced high-spin isomer, T <sub>1/2</sub> , configurations. Mass separator. JOUR PRVCA 74 064308
	2007SI16	NUCLEAR REACTIONS <sup>239,241</sup> Pu(n, F), E=thermal; measured E $\gamma$ , I $\gamma$ from isomeric decays. <sup>95</sup> Kr, <sup>96</sup> Rb, <sup>98</sup> Zr deduced levels, J, $\pi$ . JOUR APOBB 38 1321
<sup>98</sup> Mo	2007LA03	NUCLEAR REACTIONS <sup>168</sup> Er( <sup>30</sup> Si, F) <sup>98</sup> Mo / <sup>100</sup> Mo / <sup>102</sup> Mo, E=142 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>98,100,102</sup> Mo deduced levels, J, $\pi$ . Euroball III array, Soft-octupole vibration model analysis. JOUR PRVCA 75 014314
	2007SC39	NUCLEAR REACTIONS <sup>92,98,100</sup> Mo( $\gamma$ , $\gamma'$ ), E $\approx$ 13.2 MeV bremsstrahlung; measured E $\gamma$ , I $\gamma$ , angular distributions, photoabsorption $\sigma$ . <sup>92</sup> Mo( $\gamma$ , n), ( $\gamma$ , p), ( $\gamma$ , $\alpha$ ), E $\approx$ 10-16.5 MeV bremsstrahlung; measured activation yields and compared with QRPA calculations. JOUR NUPAB 788 331c
<sup>98</sup> Rh	2006MU20	NUCLEAR REACTIONS <sup>93</sup> Nb( <sup>16</sup> O, X) <sup>103</sup> Ag / <sup>104</sup> Ag / <sup>105</sup> Ag / <sup>96</sup> Tc / <sup>98</sup> Rh / <sup>99</sup> Rh, E=96 MeV; measured production $\sigma$ , recoil range distributions; deduced contribution from incomplete fusion. JOUR RAACA 94 301

**A=99**

<sup>99</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87,87 $m$ ,88,88 $m$ ,89,89 $m$ ,90,90 $m$ ,92,93,93 $m$ ,94,95,96,96 $m$ ,97,97 $m$ ,98,98 $m$ ,99,100,101,102 $Y$ ; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86,87,87 $m$ ,88,88 $m$ ,89,89 $m$ ,90,90 $m$ ,92,93,93 $m$ ,94,95,96,96 $m$ ,97,97 $m$ ,98,98 $m$ ,99,100,101,102 $Y$ ; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2007HA32	ATOMIC MASSES <sup>95,96,97,98,99,100,101</sup> Y, <sup>101,102,103,104,105,106,107</sup> Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
<sup>99</sup> Mo	2007J013	NUCLEAR REACTIONS <sup>27</sup> Al( <sup>178</sup> Hf, X), E=1150 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>99</sup> Mo deduced levels, J, $\pi$ , half-life, isomer, band structure. JOUR PRVCA 76 047303
<sup>99</sup> Tc	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
<sup>99</sup> Ru	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182

**A=99 (*continued*)**

<sup>99</sup> Rh	2006MU20	NUCLEAR REACTIONS <sup>93</sup> Nb( <sup>16</sup> O, X) <sup>103</sup> Ag / <sup>104</sup> Ag / <sup>105</sup> Ag / <sup>96</sup> Tc / <sup>98</sup> Rh / <sup>99</sup> Rh, E=96 MeV; measured production $\sigma$ , recoil range distributions; deduced contribution from incomplete fusion. JOUR RAACA 94 301
	2007NG01	NUCLEAR REACTIONS <sup>45</sup> Sc( $\gamma$ , n), <sup>103</sup> Rh( $\gamma$ , 4n), E=65 MeV / bremsstrahlung; Ti( $\gamma$ , X) <sup>44</sup> Sc, E=65 MeV / bremsstrahlung; Fe( $\gamma$ , X) <sup>52</sup> Mn, E=65 MeV / bremsstrahlung; measured $\sigma$ , isomer ratios. Activation method. JOUR KPSJA 50 417

**A=100**

<sup>100</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
	2007HA32	ATOMIC MASSES <sup>95,96,97,98,99,100,101</sup> Y, <sup>101,102,103,104,105,106,107</sup> Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
<sup>100</sup> Zr	2007RI01	RADIOACTIVITY <sup>100,102,104</sup> Zr( $\beta^-$ ); measured $\beta$ -delayed E $\gamma$ , I $\gamma$ ; deduced Q $\beta$ , log ft. <sup>100,102,104</sup> Nb deduced levels, J, $\pi$ . Penning trap. JOUR ZAANE 31 1
	2007RI01	ATOMIC MASSES <sup>100,102,104</sup> Zr, <sup>100,102,104</sup> Nb; measured masses. Penning trap. JOUR ZAANE 31 1
<sup>100</sup> Nb	2007RI01	RADIOACTIVITY <sup>100,102,104</sup> Zr( $\beta^-$ ); measured $\beta$ -delayed E $\gamma$ , I $\gamma$ ; deduced Q $\beta$ , log ft. <sup>100,102,104</sup> Nb deduced levels, J, $\pi$ . Penning trap. JOUR ZAANE 31 1
	2007RI01	ATOMIC MASSES <sup>100,102,104</sup> Zr, <sup>100,102,104</sup> Nb; measured masses. Penning trap. JOUR ZAANE 31 1
<sup>100</sup> Mo	2006CH64	NUCLEAR REACTIONS <sup>100</sup> Mo(t, t), E=12 MeV; measured $\sigma(\theta)$ ; deduced optical model parameters. JOUR APSVC 56 491
	2006SH31	RADIOACTIVITY <sup>82</sup> Se, <sup>100</sup> Mo( $2\beta^-$ ); measured $0\nu\beta\beta$ -decay T <sub>1/2</sub> lower limit. <sup>82</sup> Se, <sup>96</sup> Zr, <sup>100</sup> Mo, <sup>116</sup> Cd, <sup>150</sup> Nd( $2\beta^-$ ); measured $2\nu\beta\beta$ -decay T <sub>1/2</sub> . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY <sup>82</sup> Se, <sup>96</sup> Zr, <sup>100</sup> Mo, <sup>116</sup> Cd, <sup>150</sup> Nd( $2\beta^-$ ); measured $2\nu\beta\beta$ -decay T <sub>1/2</sub> . <sup>82</sup> Se, <sup>100</sup> Mo( $2\beta^-$ ); measured $0\nu\beta\beta$ -decay T <sub>1/2</sub> lower limits. JOUR BRSPE 70 731
	2007LA03	NUCLEAR REACTIONS <sup>168</sup> Er( <sup>30</sup> Si, F) <sup>98</sup> Mo / <sup>100</sup> Mo / <sup>102</sup> Mo, E=142 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>98,100,102</sup> Mo deduced levels, J, $\pi$ . Euroball III array, Soft-octupole vibration model analysis. JOUR PRVCA 75 014314

**A=100 (*continued*)**

	2007SC39	NUCLEAR REACTIONS $^{92,98,100}\text{Mo}(\gamma, \gamma')$ , $E \approx 13.2$ MeV bremsstrahlung; measured $E\gamma$ , $I\gamma$ , angular distributions, photoabsorption $\sigma$ . $^{92}\text{Mo}(\gamma, n)$ , $(\gamma, p)$ , $(\gamma, \alpha)$ , $E \approx 10-16.5$ MeV bremsstrahlung; measured activation yields and compared with QRPA calculations. JOUR NUPAB 788 331c
$^{100}\text{Ru}$	2006SH31	RADIOACTIVITY $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limits. JOUR BRSPE 70 731
$^{100}\text{Pd}$	2007DI06	NUCLEAR REACTIONS $\text{Pd}(p, X)^{105}\text{Ag} / ^{106m}\text{Ag} / ^{100}\text{Pd} / ^{101m}\text{Rh} / ^{97}\text{Ru}$ , $E=5-70$ MeV; measured excitation functions. Activation method. JOUR JRNCD 272 231
$^{100}\text{Cd}$	2006KAZR	RADIOACTIVITY $^{101}\text{Sn}(\beta^+ p)$ [from $^{50}\text{Cr}(^{58}\text{Ni}, xnyp)$ ]; measured $\beta$ -delayed proton spectrum. $^{101}\text{Sn}$ deduced ground-state $J, \pi$ . REPT GSI 2006-1, P152, Kavatsyuk
	2007H022	NUCLEAR REACTIONS $\text{Be}(^{136}\text{Xe}, X)$ , $E=120$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{125}\text{Cd}$ , $^{126}\text{Cd}$ , $^{127}\text{Cd}$ , $^{128}\text{Cd}$ deduced levels, $J, \pi$ , isomers, half-lives, band structure; $^{100,115,117,119,121,122,123,124}\text{Cd}$ ; level systematics. JOUR PRVCA 76 044324
	2007KA15	RADIOACTIVITY $^{101}\text{Sn}(\beta^+, (\text{EC}), (\beta^+ p))$ [from $^{50}\text{Cr}(^{58}\text{Ni}, 3n\alpha)$ ]; measured $\beta$ -delayed Ep, $E\gamma$ , $\gamma\gamma$ -coin, $T_{1/2}$ . $^{101}\text{Sn}$ deduced ground-state $J, \pi$ . $^{101}\text{In}$ deduced transitions. Mass separator. JOUR ZAANE 31 319

**A=101**

$^{101}\text{Y}$	2006CA38	NUCLEAR MOMENTS 86, 87, 87m, 88, 88m, 89, 89m, 90, 90m, 92, 93, 93m, 94, 95, 96, 96m, 97, 97m, 98, 98m, 99, 100, 101, 102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86, 87, 87m, 88, 88m, 89, 89m, 90, 90m, 92, 93, 93m, 94, 95, 96, 96m, 97, 97m, 98, 98m, 99, 100, 101, 102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
$^{101}\text{Nb}$	2007HA32	ATOMIC MASSES $^{95,96,97,98,99,100,101}\text{Y}$ , $^{101,102,103,104,105,106,107}\text{Nb}$ ; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
	2007HA32	ATOMIC MASSES $^{95,96,97,98,99,100,101}\text{Y}$ , $^{101,102,103,104,105,106,107}\text{Nb}$ ; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
$^{101}\text{Rh}$	2007DI06	NUCLEAR REACTIONS $\text{Pd}(p, X)^{105}\text{Ag} / ^{106m}\text{Ag} / ^{100}\text{Pd} / ^{101m}\text{Rh} / ^{97}\text{Ru}$ , $E=5-70$ MeV; measured excitation functions. Activation method. JOUR JRNCD 272 231

**A=101 (*continued*)**

<sup>101</sup> Pd	2007CEZZ	NUCLEAR REACTIONS Pb, <sup>208</sup> Pb, <sup>209</sup> Bi(p, X) <sup>7</sup> Be / <sup>24</sup> Na / <sup>59</sup> Fe / <sup>86</sup> Rb / <sup>101m</sup> Rh / <sup>173</sup> Lu / <sup>190</sup> Ir / <sup>192</sup> Ir / <sup>196</sup> Au / <sup>199</sup> Tl / <sup>200</sup> Tl / <sup>203</sup> Pb, E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289
<sup>101</sup> In	2007KA15	NUCLEAR REACTIONS <sup>59</sup> Co( <sup>16</sup> O, X), E=400 MeV; measured Z=5-7 fragments $\sigma(E, \theta)$ . <sup>103</sup> Rh( <sup>12</sup> C, X) <sup>111m</sup> In / <sup>108</sup> In / <sup>105</sup> Ag / <sup>101</sup> Pd / <sup>102m</sup> Rh / <sup>97</sup> Ru, E ≈ 50-400 MeV; measured excitation functions. CONF Iguazu(Nuclear Physics and Applications) Proc,P207,Cerutti
<sup>101</sup> Sn	2006KAZR	RADIOACTIVITY <sup>101</sup> Sn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from <sup>50</sup> Cr( <sup>58</sup> Ni, 3n $\alpha$ )]; measured $\beta$ -delayed Ep, E $\gamma$ , $\gamma\gamma$ -coin, T <sub>1/2</sub> . <sup>101</sup> Sn deduced ground-state J, $\pi$ . <sup>101</sup> In deduced transitions. Mass separator. JOUR ZAANE 31 319
	2007KA15	RADIOACTIVITY <sup>101</sup> Sn( $\beta^+$ p) [from <sup>50</sup> Cr( <sup>58</sup> Ni, xnyp)]; measured $\beta$ -delayed proton spectrum. <sup>101</sup> Sn deduced ground-state J, $\pi$ . REPT GSI 2006-1,P152,Kavatsyuk
	2007KA15	RADIOACTIVITY <sup>101</sup> Sn( $\beta^+$ ), (EC), ( $\beta^+$ p) [from <sup>50</sup> Cr( <sup>58</sup> Ni, 3n $\alpha$ )]; measured $\beta$ -delayed Ep, E $\gamma$ , $\gamma\gamma$ -coin, T <sub>1/2</sub> . <sup>101</sup> Sn deduced ground-state J, $\pi$ . <sup>101</sup> In deduced transitions. Mass separator. JOUR ZAANE 31 319
	2007SE04	NUCLEAR REACTIONS <sup>50</sup> Cr( <sup>58</sup> Ni, 3n $\alpha$ ), E=4.9, 5.2 MeV / nucleon; measured delayed Ep; deduced $\sigma$ . Mass separator. JOUR ZAANE 31 319
	2007SE04	NUCLEAR REACTIONS <sup>46</sup> Ti( <sup>58</sup> Ni, X) <sup>101</sup> Sn, E=192 MeV; measured E $\gamma$ , Ep, p $\gamma$ -coinc. <sup>101</sup> Sn deduced levels and relative single particle energies. JOUR PRLTA 99 022504

**A=102**

<sup>102</sup> Y	2006CA38	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured resonance fluorescence spectra. Collinear laser spectroscopy. JOUR HYIND 171 143
	2007CH07	NUCLEAR MOMENTS 86,87,87m,88,88m,89,89m,90,90m,92,93,93m,94,95,96,96m,97,97m,98,98m,99,100,101,102Y; measured isotope and isomer shifts, $\mu$ , quadrupole moments, radii, deformation. Laser spectroscopy. JOUR PYLBB 645 133
<sup>102</sup> Zr	2007RI01	RADIOACTIVITY <sup>100,102,104</sup> Zr( $\beta^-$ ); measured $\beta$ -delayed E $\gamma$ , I $\gamma$ ; deduced Q $\beta$ , log ft. <sup>100,102,104</sup> Nb deduced levels, J, $\pi$ . Penning trap. JOUR ZAANE 31 1
	2007RI01	ATOMIC MASSES <sup>100,102,104</sup> Zr, <sup>100,102,104</sup> Nb; measured masses. Penning trap. JOUR ZAANE 31 1
<sup>102</sup> Nb	2007HA32	ATOMIC MASSES <sup>95,96,97,98,99,100,101</sup> Y, <sup>101,102,103,104,105,106,107</sup> Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
	2007RI01	RADIOACTIVITY <sup>100,102,104</sup> Zr( $\beta^-$ ); measured $\beta$ -delayed E $\gamma$ , I $\gamma$ ; deduced Q $\beta$ , log ft. <sup>100,102,104</sup> Nb deduced levels, J, $\pi$ . Penning trap. JOUR ZAANE 31 1
	2007RI01	ATOMIC MASSES <sup>100,102,104</sup> Zr, <sup>100,102,104</sup> Nb; measured masses. Penning trap. JOUR ZAANE 31 1

**A=102 (continued)**

<sup>102</sup> Mo	2007LA03	NUCLEAR REACTIONS <sup>168</sup> Er( <sup>30</sup> Si, F) <sup>98</sup> Mo / <sup>100</sup> Mo / <sup>102</sup> Mo, E=142 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>98,100,102</sup> Mo deduced levels, J, $\pi$ . Euroball III array, Soft-octupole vibration model analysis. JOUR PRVCA 75 014314
<sup>102</sup> Rh	2007CEZZ	NUCLEAR REACTIONS <sup>59</sup> Co( <sup>16</sup> O, X), E=400 MeV; measured Z=5-7 fragments $\sigma$ (E, $\theta$ ). <sup>103</sup> Rh( <sup>12</sup> C, X) <sup>111m</sup> In / <sup>108</sup> In / <sup>105</sup> Ag / <sup>101</sup> Pd / <sup>102m</sup> Rh / <sup>97</sup> Ru, E $\approx$ 50-400 MeV; measured excitation functions.
<sup>102</sup> Cd	2007B017	CONF Iguazu(Nuclear Physics and Applications) Proc,P207,Cerutti NUCLEAR REACTIONS <sup>92</sup> Mo( <sup>12</sup> C, 2n), E=41 MeV; <sup>94</sup> Mo( <sup>12</sup> C, 2n), E=42 MeV; measured E $\gamma$ , I $\gamma$ and lifetimes for low lying states using recoil distance Doppler shift technique. Deduced B(E2). JOUR PRVCA 75 054311

**A=103**

<sup>103</sup> Nb	2007HA32	ATOMIC MASSES <sup>95,96,97,98,99,100,101</sup> Y, <sup>101,102,103,104,105,106,107</sup> Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
<sup>103</sup> Rh	2006CH61	NUCLEAR REACTIONS <sup>103</sup> Rh( $\gamma$ , $\gamma'$ ), E=6 MeV bremsstrahlung; measured prompt and delayed E $\gamma$ , I $\gamma$ ; deduced isomer yield. Gravitational effects discussed. JOUR HYIND 167 833
<sup>103</sup> Pd	2006R050	NUCLEAR REACTIONS <sup>104</sup> Pd(d, t), E=15 MeV; measured triton spectra, $\sigma(\theta)$ . <sup>103</sup> Pd deduced low lying levels, J, $\pi$ . JOUR BJPHE 36 1363
<sup>103</sup> Ag	2006MU20	NUCLEAR REACTIONS <sup>93</sup> Nb( <sup>16</sup> O, X) <sup>103</sup> Ag / <sup>104</sup> Ag / <sup>105</sup> Ag / <sup>96</sup> Tc / <sup>98</sup> Rh / <sup>99</sup> Rh, E=96 MeV; measured production $\sigma$ , recoil range distributions; deduced contribution from incomplete fusion. JOUR RAACA 94 301
<sup>103</sup> Cd	2007CH74	NUCLEAR REACTIONS <sup>72</sup> Ge( <sup>35</sup> Cl, 3np), E=135 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ , multipolarities. <sup>103</sup> Cd deduced levels, J, $\pi$ , angular momentum, bands; calculated shell-model configurations. Gammasphere array. JOUR PRVCA 76 044327
	2007CHZS	NUCLEAR REACTIONS <sup>72</sup> Ge( <sup>35</sup> Cl, 3np), E=135 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>103</sup> Cd deduced levels, J, $\pi$ , multipolarities. PREPRINT arXiv:0709.1702v1 [nucl-ex]

**A=104**

<sup>104</sup> Zr	2007G021	RADIOACTIVITY <sup>252</sup> Cf(SF); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, fission fragment and light charged particle yields. <sup>108,110,112</sup> Ru deduced levels, J, $\pi$ . <sup>104</sup> Zr, <sup>106</sup> Mo, <sup>148</sup> Ce(IT); measured T <sub>1/2</sub> , B(E2). Gammasphere array. JOUR NUPAB 787 231c
	2007RI01	RADIOACTIVITY <sup>100,102,104</sup> Zr( $\beta^-$ ); measured $\beta$ -delayed E $\gamma$ , I $\gamma$ ; deduced Q $\beta$ , log ft. <sup>100,102,104</sup> Nb deduced levels, J, $\pi$ . Penning trap. JOUR ZAANE 31 1

**A=104 (continued)**

$^{104}\text{Nb}$	2007RI01 2007HA32	ATOMIC MASSES $^{100,102,104}\text{Zr}$ , $^{100,102,104}\text{Nb}$ ; measured masses. Penning trap. JOUR ZAANE 31 1 ATOMIC MASSES $^{95,96,97,98,99,100,101}\text{Y}$ , $^{101,102,103,104,105,106,107}\text{Nb}$ ; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
	2007RI01	RADIOACTIVITY $^{100,102,104}\text{Zr}(\beta^-)$ ; measured $\beta$ -delayed $E\gamma$ , $I\gamma$ ; deduced $Q\beta$ , log ft. $^{100,102,104}\text{Nb}$ deduced levels, $J$ , $\pi$ . Penning trap. JOUR ZAANE 31 1
	2007RI01	ATOMIC MASSES $^{100,102,104}\text{Zr}$ , $^{100,102,104}\text{Nb}$ ; measured masses. Penning trap. JOUR ZAANE 31 1
$^{104}\text{Pd}$	2007HU03	NUCLEAR REACTIONS $^{104}\text{Pd}(^{70}\text{Se}, ^{70}\text{Se}')$ , $E=206$ MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. $^{70}\text{Se}$ deduced prolate deformation. JOUR PRLTA 98 072501
	2007SP04	NUCLEAR REACTIONS $^{62}\text{Ni}(\alpha, \gamma)$ , $E=5, 9$ MeV; $^{103}\text{Rh}(p, \gamma)$ , $E=3,$ 5 MeV; measured $E\gamma$ , $I\gamma$ . Deduced total cross sections. Compared results to model calculations. JOUR PRVCA 76 015802
$^{104}\text{Ag}$	2006MU20	NUCLEAR REACTIONS $^{93}\text{Nb}(^{16}\text{O}, X)^{103}\text{Ag} / ^{104}\text{Ag} / ^{105}\text{Ag} / ^{96}\text{Tc} /$ $^{98}\text{Rh} / ^{99}\text{Rh}$ , $E=96$ MeV; measured production $\sigma$ , recoil range distributions; deduced contribution from incomplete fusion. JOUR RAACA 94 301
$^{104}\text{Cd}$	2007B017	NUCLEAR REACTIONS $^{92}\text{Mo}(^{12}\text{C}, 2n)$ , $E=41$ MeV; $^{94}\text{Mo}(^{12}\text{C}, 2n)$ , $E=42$ MeV; measured $E\gamma$ , $I\gamma$ and lifetimes for low lying states using recoil distance Doppler shift technique. Deduced $B(E2)$ . JOUR PRVCA 75 054311

**A=105**

$^{105}\text{Nb}$	2007HA32	ATOMIC MASSES $^{95,96,97,98,99,100,101}\text{Y}$ , $^{101,102,103,104,105,106,107}\text{Nb}$ ; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
$^{105}\text{Mo}$	2006PI14	RADIOACTIVITY $^{248}\text{Cm}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{105}\text{Mo}$ deduced levels, $J$ , $\pi$ , rotational bands, configurations, triaxial deformation. Eurogam2 array. JOUR PRVCA 74 064304
$^{105}\text{Ag}$	2006MU20 2006ZHZY 2007CEZZ	NUCLEAR REACTIONS $^{93}\text{Nb}(^{16}\text{O}, X)^{103}\text{Ag} / ^{104}\text{Ag} / ^{105}\text{Ag} / ^{96}\text{Tc} /$ $^{98}\text{Rh} / ^{99}\text{Rh}$ , $E=96$ MeV; measured production $\sigma$ , recoil range distributions; deduced contribution from incomplete fusion. JOUR RAACA 94 301 NUCLEAR REACTIONS $^{96}\text{Zr}(^{19}\text{F}, \text{xnypz}\alpha)^{107}\text{Cd} / ^{108}\text{Cd} / ^{109}\text{Cd} /$ $^{105}\text{Ag} / ^{106}\text{Ag} / ^{107}\text{Ag}$ , $E=5.45, 6.0$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (charged particle) $\gamma$ -coin, $\gamma$ -ray yields. REPT CNS-REP-69,P12,Zheng NUCLEAR REACTIONS $^{59}\text{Co}(^{16}\text{O}, X)$ , $E=400$ MeV; measured $Z=5-7$ fragments $\sigma(E, \theta)$ . $^{103}\text{Rh}(^{12}\text{C}, X)^{111m}\text{In} / ^{108}\text{In} / ^{105}\text{Ag} / ^{101}\text{Pd} /$ $^{102m}\text{Rh} / ^{97}\text{Ru}$ , $E \approx 50-400$ MeV; measured excitation functions. CONF Iguazu(Nuclear Physics and Applications) Proc,P207,Cerutti

**A=105 (continued)**

2007DI06	NUCLEAR REACTIONS Pd(p, X) <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>100</sup> Pd / <sup>101m</sup> Rh / <sup>97</sup> Ru, E=5-70 MeV; measured excitation functions. Activation method.
2007TI07	JOUR JRNCD 272 231 NUCLEAR REACTIONS <sup>100</sup> Mo( <sup>10</sup> B, 5n), E=58, 64 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>105</sup> Ag deduced levels, J, $\pi$ , multipolarities. JOUR PRVCA 76 024307
<sup>105</sup> Sb	2007MA35 RADIOACTIVITY <sup>109</sup> I( $\alpha$ ); measured E $\alpha$ , Q $\alpha$ and branching ratio. JOUR PRLTA 98 212501

**A=106**

<sup>106</sup> Nb	2007HA32 ATOMIC MASSES <sup>95,96,97,98,99,100,101</sup> Y, <sup>101,102,103,104,105,106,107</sup> Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
<sup>106</sup> Mo	2007G021 RADIOACTIVITY <sup>252</sup> Cf(SF); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, fission fragment and light charged particle yields. <sup>108,110,112</sup> Ru deduced levels, J, $\pi$ . <sup>104</sup> Zr, <sup>106</sup> Mo, <sup>148</sup> Ce(IT); measured T <sub>1/2</sub> , B(E2). Gammasphere array. JOUR NUPAB 787 231c
<sup>106</sup> Tc	2007HA20 ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
<sup>106</sup> Ru	2007HA20 ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
<sup>106</sup> Pd	2006BR32 RADIOACTIVITY <sup>106</sup> Cd( $\beta^+$ EC), (2EC); measured 2 $\nu\beta\beta$ -decay T <sub>1/2</sub> lower limits. JOUR BRSPE 70 316
	2006RU15 RADIOACTIVITY <sup>106</sup> Cd( $\beta^+$ EC), (2EC); measured 2 $\nu$ -accompanied decay T <sub>1/2</sub> lower limits. JOUR PANUE 69 2117
	2007BL15 RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128,130</sup> Te( $\beta^-$ / $\beta^-$ ); <sup>64</sup> Zn, <sup>106</sup> Cd, <sup>120</sup> Te( $\beta^+$ / $\beta^+$ ); measured summed E $\beta$ . Deduced upper limits for T <sub>1/2</sub> . JOUR PRVCA 76 025501
	2007R011 NUCLEAR REACTIONS <sup>105</sup> Pd(n, $\gamma$ ), E=10-90 keV; measured capture cross sections relative to standard capture cross sections for <sup>197</sup> Au. JOUR KPSJA 50 1598
	2007RUZY RADIOACTIVITY <sup>106</sup> Cd( $\beta^+$ EC), (2EC); measured $\gamma\gamma$ , x $\gamma$ -coin; deduced T <sub>1/2</sub> lower limits for 2 $\nu$ EC / EC decay, for 2 $\nu\beta^+$ / EC and 2 $\nu$ EC / EC branches to ground and excited states. Underground laboratory, TGV-2spectrometer. CONF Voronezh(Nucleus-2007), Contrib, P181, Rukhadze
<sup>106</sup> Ag	2006ZHZY NUCLEAR REACTIONS <sup>96</sup> Zr( <sup>19</sup> F, xnypza) <sup>107</sup> Cd / <sup>108</sup> Cd / <sup>109</sup> Cd / <sup>105</sup> Ag / <sup>106</sup> Ag / <sup>107</sup> Ag, E=5.45, 6.0 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (charged particle) $\gamma$ -coin, $\gamma$ -ray yields. REPT CNS-REP-69, P12, Zheng

**A=106 (*continued*)**

	2007DI06	NUCLEAR REACTIONS Pd(p, X) <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>100</sup> Pd / <sup>101m</sup> Rh / <sup>97</sup> Ru, E=5-70 MeV; measured excitation functions. Activation method. JOUR JRNCD 272 231
	2007HU04	NUCLEAR REACTIONS <sup>106</sup> Pd(p, n), E=6.1-7.5 MeV; <sup>110</sup> Pd(p, n), E=6.0-7.7 MeV; measured excitation functions. <sup>107,111</sup> Pd deduced IAR energies, J, $\pi$ . JOUR CPHD 16 989
	2007J001	NUCLEAR REACTIONS <sup>100</sup> Mo( <sup>10</sup> B, 4n), E=42 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>106</sup> Ag deduced high-spin levels, J, $\pi$ , B(M1) / B(E2), configurations, $\gamma$ -softness. Gammasphere array, total Routhian surface calculation. JOUR PRLTA 98 102501
<sup>106</sup> Cd	2006BR32	RADIOACTIVITY <sup>106</sup> Cd( $\beta^+$ EC), (2EC); measured $2\nu\beta\beta$ -decay T <sub>1/2</sub> lower limits. JOUR BRSPE 70 316
	2006RU15	RADIOACTIVITY <sup>106</sup> Cd( $\beta^+$ EC), (2EC); measured $2\nu$ -accompanied decay T <sub>1/2</sub> lower limits. JOUR PANUE 69 2117
	2007AS05	NUCLEAR REACTIONS <sup>98</sup> Mo( <sup>12</sup> C, 4n) <sup>106</sup> Cd, E=60 MeV; <sup>96</sup> Mo( <sup>13</sup> C, 3n) <sup>106</sup> Cd, E=43 MeV; measured E $\gamma$ , I $\gamma$ , lifetimes for isomeric states. JOUR APOBB 38 1385
	2007BL15	RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128,130</sup> Te( $\beta^-$ $\beta^-$ ); <sup>64</sup> Zn, <sup>106</sup> Cd, <sup>120</sup> Te( $\beta^+$ $\beta^+$ ); measured summed E $\beta$ . Deduced upper limits for T <sub>1/2</sub> . JOUR PRVCA 76 025501
	2007LI07	RADIOACTIVITY <sup>106</sup> In( $\beta^+$ ), (EC) [from <sup>106</sup> Cd(p, n)]; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>106</sup> Cd deduced levels, J, $\pi$ , $\delta$ , configurations, possible quadrupole-octupole coupled state. JOUR PRVCA 75 024310
	2007LI07	NUCLEAR REACTIONS <sup>106</sup> Cd( $\gamma$ , $\gamma'$ ), E=3.1 MeV bremsstrahlung; measured E $\gamma$ , I $\gamma$ . <sup>106</sup> Cd deduced levels, J, $\pi$ , $\delta$ , configurations, possible quadrupole-octupole coupled state. JOUR PRVCA 75 024310
	2007RUZY	RADIOACTIVITY <sup>106</sup> Cd( $\beta^+$ EC), (2EC); measured $\gamma\gamma$ , x $\gamma$ -coin; deduced T <sub>1/2</sub> lower limits for $2\nu$ EC / EC decay, for $2\nu\beta^+$ / EC and $2\nu$ EC / EC branches to ground and excited states. Underground laboratory, TGV-2spectrometer. CONF Voronezh(Nucleus-2007), Contrib,P181,Rukhadze
<sup>106</sup> In	2007LI07	RADIOACTIVITY <sup>106</sup> In( $\beta^+$ ), (EC) [from <sup>106</sup> Cd(p, n)]; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>106</sup> Cd deduced levels, J, $\pi$ , $\delta$ , configurations, possible quadrupole-octupole coupled state. JOUR PRVCA 75 024310
<sup>106</sup> Sn	2007VA22	NUCLEAR REACTIONS <sup>197</sup> Au( <sup>106</sup> Sn, <sup>106</sup> Sn'), ( <sup>108</sup> Sn, <sup>108</sup> Sn'), ( <sup>110</sup> Sn, <sup>110</sup> Sn'), ( <sup>112</sup> Sn, <sup>112</sup> Sn'), E=78-81 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc from projectile coulomb excitation. <sup>106,108,110,112</sup> Sn deduced B(E2). JOUR PRLTA 99 162501

**A=107**

<sup>107</sup> Nb	2007HA32	ATOMIC MASSES 95,96,97,98,99,100,101Y, <sup>101,102,103,104,105,106,107</sup> Nb; measured masses; analyzed two neutron separation energy. JYFLTRAP double Penning trap. Comparison with model predictions and previous data. JOUR NUPAB 793 20
<sup>107</sup> Mo	2006PI14	NUCLEAR REACTIONS <sup>241</sup> Pu(n, F), E=thermal; measured prompt and delayed E $\gamma$ , I $\gamma$ . <sup>107</sup> Mo deduced levels, isomer T <sub>1/2</sub> , branching ratios, triaxial deformation. JOUR PRVCA 74 064304

**A=107 (continued)**

<sup>107</sup> Tc	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007SI06	RADIOACTIVITY <sup>107</sup> Tc(IT) [from <sup>241</sup> Pu(n, F)]; measured E $\gamma$ , T <sub>1/2</sub> from mass-separated source. <sup>107</sup> Tc deduced isomeric level J, $\pi$ , configuration, deformation. JOUR PRVCA 75 027301
	2007SI06	NUCLEAR REACTIONS <sup>241</sup> Pu(n, F), E=thermal; measured delayed E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>107</sup> Tc deduced isomeric level J, $\pi$ , configuration, deformation. JOUR PRVCA 75 027301
<sup>107</sup> Ru	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
<sup>107</sup> Pd	2007HU04	NUCLEAR REACTIONS <sup>106</sup> Pd(p, n), E=6.1-7.5 MeV; <sup>110</sup> Pd(p, n), E=6.0-7.7 MeV; measured excitation functions. <sup>107,111</sup> Pd deduced IAR energies, J, $\pi$ . JOUR CPHD 16 989
<sup>107</sup> Ag	2005NIZS	NUCLEAR REACTIONS Ni( <sup>22</sup> Ne, <sup>22</sup> Ne'), E=2.25 MeV / nucleon; <sup>107</sup> Ag( <sup>22</sup> Ne, <sup>22</sup> Ne'), E=2.86 MeV / nucleon; Ni( <sup>30</sup> Mg, <sup>30</sup> Mg'), E=2.25 MeV / nucleon; <sup>60</sup> Ni, <sup>107</sup> Ag( <sup>30</sup> Mg, <sup>30</sup> Mg'), E=2.69 MeV / nucleon; U(p, X) <sup>22</sup> Ne / <sup>30</sup> Mg / <sup>32</sup> Mg, E=1.01-1.40 GeV; measured E $\gamma$ , I $\gamma(\theta)$ , (particle) $\gamma$ -coinc, cross sections following projectile and target Coulomb excitation. <sup>22</sup> Ne, <sup>30</sup> Mg, <sup>32</sup> Mg, <sup>107</sup> Ag deduced levels, B(E2), half-lives, deformations. REX-ISOLDE-CERN facility. Coupled-channel and GOSIA analyses. <sup>24</sup> Mg, <sup>26</sup> Mg, <sup>28</sup> Mg, <sup>30</sup> Mg, <sup>32</sup> Mg, <sup>34</sup> Mg systematics of B(E2) values. Comparisons with shell-model calculations. THESIS O T Niedermayer, Univ Heidelberg
	2006ZHZY	NUCLEAR REACTIONS <sup>96</sup> Zr( <sup>19</sup> F, xnypza) <sup>107</sup> Cd / <sup>108</sup> Cd / <sup>109</sup> Cd / <sup>105</sup> Ag / <sup>106</sup> Ag / <sup>107</sup> Ag, E=5.45, 6.0 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (charged particle) $\gamma$ -coin, $\gamma$ -ray yields. REPT CNS-REP-69,P12,Zheng
<sup>107</sup> Cd	2006ZHZY	NUCLEAR REACTIONS <sup>96</sup> Zr( <sup>19</sup> F, xnypza) <sup>107</sup> Cd / <sup>108</sup> Cd / <sup>109</sup> Cd / <sup>105</sup> Ag / <sup>106</sup> Ag / <sup>107</sup> Ag, E=5.45, 6.0 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (charged particle) $\gamma$ -coin, $\gamma$ -ray yields. REPT CNS-REP-69,P12,Zheng
<sup>107</sup> In	2007GY03	NUCLEAR REACTIONS <sup>106,108</sup> Cd(p, $\gamma$ ), E=2.4-4.7 MeV; measured activation $\sigma$ ; deduced astrophysical S-factors. Comparison with model predictions. JOUR JPGPE 34 817
	2007GYZZ	NUCLEAR REACTIONS <sup>106,108</sup> Cd(p, $\gamma$ ), E=2.4-4.7 MeV; measured $\sigma$ ; deduced astrophysical S-factors. Comparison with model predictions. PREPRINT nucl-ex/0703045,3/29/2007
	2007TA10	NUCLEAR REACTIONS Cd(d, x) <sup>107</sup> In / <sup>108</sup> In / <sup>108m</sup> In / <sup>109</sup> In / <sup>110</sup> In / <sup>110m</sup> In / <sup>111</sup> In / <sup>112m</sup> In / <sup>113m</sup> In / <sup>114m</sup> In / <sup>115m</sup> In / <sup>116m1</sup> In / <sup>111m</sup> Cd / <sup>115</sup> Cd / <sup>115m</sup> Cd / <sup>117</sup> Cd / <sup>117m</sup> Cd / <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>110m</sup> Ag / <sup>111</sup> Ag, E< 40 MeV; measured E $\gamma$ , I $\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817

**A=108**

$^{108}\text{Mo}$	2007DI09	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -conic using the Gammasphere array. $^{108}\text{Mo}$ deduced level energies, $J$ , $\pi$ . JOUR CPLEE 24 1517
$^{108}\text{Tc}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{108}\text{Ru}$	2007G021	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, fission fragment and light charged particle yields. $^{108,110,112}\text{Ru}$ deduced levels, $J$ , $\pi$ . $^{104}\text{Zr}$ , $^{106}\text{Mo}$ , $^{148}\text{Ce}(\text{IT})$ ; measured $T_{1/2}$ , $B(\text{E}2)$ . Gammasphere array. JOUR NUPAB 787 231c
	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{108}\text{Rh}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{108}\text{Pd}$	2007NA10	NUCLEAR REACTIONS $^{107}\text{Pd}(n, \gamma)$ , $E=\text{thermal}$ ; measured $E\gamma$ , $I\gamma$ ; deduced capture $\sigma$ . Comparison with previous results. JOUR JNSTA 44 103
	2007VA20	NUCLEAR REACTIONS $^{108}\text{Pd}$ , $^{120}\text{Sn}(^{74}\text{Zn}, ^{74}\text{Zn}')$ , ( $^{76}\text{Zn}, ^{76}\text{Zn}'$ ), ( $^{78}\text{Zn}, ^{78}\text{Zn}'$ ), ( $^{80}\text{Zn}, ^{80}\text{Zn}'$ ), $E=2.79-2.87$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{74,76,78,80}\text{Zn}$ deduced $B(\text{E}2)$ . JOUR PRLTA 99 142501
$^{108}\text{Cd}$	2006ZHZY	NUCLEAR REACTIONS $^{96}\text{Zr}(^{19}\text{F}, \text{xnypza})^{107}\text{Cd} / ^{108}\text{Cd} / ^{109}\text{Cd} / ^{105}\text{Ag} / ^{106}\text{Ag} / ^{107}\text{Ag}$ , $E=5.45, 6.0$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (charged particle) $\gamma$ -coin, $\gamma$ -ray yields. REPT CNS-REP-69,P12,Zheng
$^{108}\text{In}$	2007CEZZ	NUCLEAR REACTIONS $^{59}\text{Co}(^{16}\text{O}, \text{X})$ , $E=400$ MeV; measured $Z=5-7$ fragments $\sigma(E, \theta)$ . $^{103}\text{Rh}(^{12}\text{C}, \text{X})^{111m}\text{In} / ^{108}\text{In} / ^{105}\text{Ag} / ^{101}\text{Pd} / ^{102m}\text{Rh} / ^{97}\text{Ru}$ , $E \approx 50-400$ MeV; measured excitation functions. CONF Iguazu(Nuclear Physics and Applications) Proc,P207,Cerutti
	2007TA10	NUCLEAR REACTIONS $\text{Cd(d, x)}^{107}\text{In} / ^{108}\text{In} / ^{108m}\text{In} / ^{109}\text{In} / ^{110}\text{In} / ^{110m}\text{In} / ^{111}\text{In} / ^{112m}\text{In} / ^{113m}\text{In} / ^{114m}\text{In} / ^{115m}\text{In} / ^{116m1}\text{In} / ^{111m}\text{Cd} / ^{115}\text{Cd} / ^{115m}\text{Cd} / ^{117}\text{Cd} / ^{117m}\text{Cd} / ^{105}\text{Ag} / ^{106m}\text{Ag} / ^{110m}\text{Ag} / ^{111}\text{Ag}$ , $E < 40$ MeV; measured $E\gamma$ , $I\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817
$^{108}\text{Sn}$	2007VA22	NUCLEAR REACTIONS $^{197}\text{Au}(^{106}\text{Sn}, ^{106}\text{Sn}')$ , ( $^{108}\text{Sn}, ^{108}\text{Sn}'$ ), ( $^{110}\text{Sn}$ , $^{110}\text{Sn}'$ ), ( $^{112}\text{Sn}$ , $^{112}\text{Sn}'$ ), $E=78-81$ MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc from projectile coulomb excitation. $^{106,108,110,112}\text{Sn}$ deduced $B(\text{E}2)$ . JOUR PRLTA 99 162501

**KEYNUMBERS AND KEYWORDS**

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**A=109**

$^{109}\text{Tc}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{109}\text{Ru}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{109}\text{Rh}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{109}\text{Pd}$	2007MA66	NUCLEAR REACTIONS $^{110}\text{Pd}$ , $^{112}\text{Cd}(\gamma, n)$ , E=8-18 MeV; measured cross sections and excitation functions for populating the isomeric states. JOUR UKPJA 52 744
$^{109}\text{Ag}$	2007VI10	RADIOACTIVITY $^{109}\text{Cd}(\text{EC})$ ; measured $E\gamma$ , $I\gamma$ , E(X-ray). $^{109}\text{Ag}$ deduced double ionization probability. JOUR BRSPE 71 890
$^{109}\text{Cd}$	2006ZHZY	NUCLEAR REACTIONS $^{96}\text{Zr}(^{19}\text{F}, \text{xnypza})^{107}\text{Cd} / ^{108}\text{Cd} / ^{109}\text{Cd} /$ $^{105}\text{Ag} / ^{106}\text{Ag} / ^{107}\text{Ag}$ , E=5.45, 6.0 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (charged particle) $\gamma$ -coin, $\gamma$ -ray yields. REPT CNS-REP-69,P12,Zheng
	2007VI10	RADIOACTIVITY $^{109}\text{Cd}(\text{EC})$ ; measured $E\gamma$ , $I\gamma$ , E(X-ray). $^{109}\text{Ag}$ deduced double ionization probability. JOUR BRSPE 71 890
$^{109}\text{In}$	2007GY03	NUCLEAR REACTIONS $^{106,108}\text{Cd}(p, \gamma)$ , E=2.4-4.7 MeV; measured activation $\sigma$ ; deduced astrophysical S-factors. Comparison with model predictions. JOUR JPGPE 34 817
	2007GYZZ	NUCLEAR REACTIONS $^{106,108}\text{Cd}(p, \gamma)$ , E=2.4-4.7 MeV; measured $\sigma$ ; deduced astrophysical S-factors. Comparison with model predictions. PREPRINT nucl-ex/0703045,3/29/2007
	2007TA10	NUCLEAR REACTIONS $\text{Cd}(d, x)^{107}\text{In} / ^{108}\text{In} / ^{108m}\text{In} / ^{109}\text{In} /$ $^{110}\text{In} / ^{110m}\text{In} / ^{111}\text{In} / ^{112m}\text{In} / ^{113m}\text{In} / ^{114m}\text{In} / ^{115m}\text{In} / ^{116m1}\text{In} /$ $^{111m}\text{Cd} / ^{115}\text{Cd} / ^{115m}\text{Cd} / ^{117}\text{Cd} / ^{117m}\text{Cd} / ^{105}\text{Ag} / ^{106m}\text{Ag} /$ $^{110m}\text{Ag} / ^{111}\text{Ag}$ , E< 40 MeV; measured $E\gamma$ , $I\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817
$^{109}\text{I}$	2007MA35	RADIOACTIVITY $^{109}\text{I}(\alpha)$ ; measured $E\alpha$ , $Q\alpha$ and branching ratio. JOUR PRLTA 98 212501

**A=110**

$^{110}\text{Tc}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
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**KEYNUMBERS AND KEYWORDS**

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**A=110 (*continued*)**

<sup>110</sup> Ru	2007G021	RADIOACTIVITY <sup>252</sup> Cf(SF); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, fission fragment and light charged particle yields. <sup>108,110,112</sup> Ru deduced levels, J, $\pi$ . <sup>104</sup> Zr, <sup>106</sup> Mo, <sup>148</sup> Ce(IT); measured T <sub>1/2</sub> , B(E2). Gammasphere array. JOUR NUPAB 787 231c
	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
<sup>110</sup> Rh	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
<sup>110</sup> Ag	2007HU04	NUCLEAR REACTIONS <sup>106</sup> Pd(p, n), E=6.1-7.5 MeV; <sup>110</sup> Pd(p, n), E=6.0-7.7 MeV; measured excitation functions. <sup>107,111</sup> Pd deduced IAR energies, J, $\pi$ . JOUR CPHD 16 989
<sup>110</sup> In	2007TA10	NUCLEAR REACTIONS Cd(d, x) <sup>107</sup> In / <sup>108</sup> In / <sup>108m</sup> In / <sup>109</sup> In / <sup>110</sup> In / <sup>110m</sup> In / <sup>111</sup> In / <sup>112m</sup> In / <sup>113m</sup> In / <sup>114m</sup> In / <sup>115m</sup> In / <sup>116m1</sup> In / <sup>111m</sup> Cd / <sup>115</sup> Cd / <sup>115m</sup> Cd / <sup>117</sup> Cd / <sup>117m</sup> Cd / <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>110m</sup> Ag / <sup>111</sup> Ag, E < 40 MeV; measured E $\gamma$ , I $\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817
<sup>110</sup> Sn	2007CE02	NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>110</sup> Sn, <sup>110</sup> Sn'), E=2.82 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following Coulomb excitation. <sup>110</sup> Sn deduced B(E2) of the first excited 2 <sup>+</sup> state. MINIBALL array at REX-ISOLDE. JOUR PRLTA 98 172501
	2007VA22	NUCLEAR REACTIONS <sup>197</sup> Au( <sup>106</sup> Sn, <sup>106</sup> Sn'), ( <sup>108</sup> Sn, <sup>108</sup> Sn'), ( <sup>110</sup> Sn, <sup>110</sup> Sn'), ( <sup>112</sup> Sn, <sup>112</sup> Sn'), E=78-81 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc from projectile coulomb excitation. <sup>106,108,110,112</sup> Sn deduced B(E2). JOUR PRLTA 99 162501
<sup>110</sup> Te	2007PA34	NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>58</sup> Ni, 2p $\alpha$ ), E=250 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ , (particle) $\gamma$ -coinc. <sup>110</sup> Te deduced levels, J, $\pi$ , multipolarity. JOUR PRVCA 76 034322
	2007PA35	NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>58</sup> Ni, 2p $\alpha$ ), E=240, 250 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ , (particle) $\gamma$ -coinc. <sup>110</sup> Te deduced levels, J, $\pi$ , multipolarity. JOUR PRVCA 76 034323
<sup>110</sup> Xe	2007SA36	NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>54</sup> Fe, X) <sup>110</sup> Xe, E=195 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>110</sup> Xe deduced levels and B(E2). JOUR PRLTA 99 022501

**A=111**

<sup>111</sup> Ru	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
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**A=111 (*continued*)**

<sup>111</sup> Rh	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
<sup>111</sup> Pd	2007HU04	NUCLEAR REACTIONS <sup>106</sup> Pd(p, n), E=6.1-7.5 MeV; <sup>110</sup> Pd(p, n), E=6.0-7.7 MeV; measured excitation functions. <sup>107,111</sup> Pd deduced IAR energies, J, $\pi$ . JOUR CPHD 16 989
<sup>111</sup> Cd	2007MA66	NUCLEAR REACTIONS <sup>110</sup> Pd, <sup>112</sup> Cd( $\gamma$ , n), E=8-18 MeV; measured cross sections and excitation functions for populating the isomeric states. JOUR UKPJA 52 744
	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
<sup>111</sup> In	2007CEZZ	NUCLEAR REACTIONS <sup>59</sup> Co( <sup>16</sup> O, X), E=400 MeV; measured Z=5-7 fragments $\sigma(E, \theta)$ . <sup>103</sup> Rh( <sup>12</sup> C, X) <sup>111m</sup> In / <sup>108</sup> In / <sup>105</sup> Ag / <sup>101</sup> Pd / <sup>102m</sup> Rh / <sup>97</sup> Ru, E $\approx$ 50-400 MeV; measured excitation functions. CONF Iguazu(Nuclear Physics and Applications) Proc,P207,Cerutti
	2007RE12	NUCLEAR REACTIONS Sn( $\alpha$ , X) <sup>116</sup> Te / <sup>117</sup> Te / <sup>118</sup> Te / <sup>119</sup> Te / <sup>121</sup> Te / <sup>123</sup> Te / <sup>117</sup> Sb / <sup>118</sup> Sb / <sup>120</sup> Sb / <sup>122</sup> Sb / <sup>124</sup> Sb / <sup>126</sup> Sb / <sup>117</sup> Sn / <sup>111</sup> In, E=12-38 MeV; measured E $\gamma$ , I $\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672
2007TA10		NUCLEAR REACTIONS Cd(d, x) <sup>107</sup> In / <sup>108</sup> In / <sup>108m</sup> In / <sup>109</sup> In / <sup>110</sup> In / <sup>110m</sup> In / <sup>111</sup> In / <sup>112m</sup> In / <sup>113m</sup> In / <sup>114m</sup> In / <sup>115m</sup> In / <sup>116m1</sup> In / <sup>111m</sup> Cd / <sup>115</sup> Cd / <sup>115m</sup> Cd / <sup>117</sup> Cd / <sup>117m</sup> Cd / <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>110m</sup> Ag / <sup>111</sup> Ag, E < 40 MeV; measured E $\gamma$ , I $\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817
	2007YA02	RADIOACTIVITY <sup>51</sup> Cr, <sup>55</sup> Fe, <sup>67</sup> Ga, <sup>111</sup> In, <sup>133</sup> Ba, <sup>201</sup> Tl(EC); <sup>99m</sup> Tc(IT), ( $\beta^-$ ); <sup>131</sup> I, <sup>133</sup> Xe, <sup>137</sup> Cs( $\beta^-$ ); <sup>226</sup> Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182

**A=112**

<sup>112</sup> Ru	2007G021	RADIOACTIVITY <sup>252</sup> Cf(SF); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, fission fragment and light charged particle yields. <sup>108,110,112</sup> Ru deduced levels, J, $\pi$ . <sup>104</sup> Zr, <sup>106</sup> Mo, <sup>148</sup> Ce(IT); measured T <sub>1/2</sub> , B(E2). Gammasphere array. JOUR NUPAB 787 231c
	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302

**A=112 (continued)**

$^{112}\text{Rh}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{112}\text{Pd}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{112}\text{Cd}$	2007DAZX	RADIOACTIVITY $^{124}\text{Sn}(2\beta^-)$ ; $^{112}\text{Sn}(\beta^+\text{EC})$ , (2EC); measured $E\gamma$ , $I\gamma$ . Deduced lower limits for $T_{1/2}$ . PREPRINT arXiv:0709.4342v1 [nucl-ex]
	2007GA22	NUCLEAR REACTIONS $^{112}\text{Cd}(n, n'\gamma)$ , E=fast; measured $E\gamma$ , $I\gamma$ , angular distributions and lifetimes using Doppler shift attenuation technique. Deduced B(E1) and B(M1). JOUR PRVCA 75 054310
$^{112}\text{In}$	2007KI13	RADIOACTIVITY $^{64}\text{Zn}$ , $^{112}\text{Sn}(\beta^+)$ , (EC); $^{124}\text{Sn}(2\beta^-)$ ; measured $E\gamma$ , $I\gamma$ ; deduced $T_{1/2}$ lower limits for $\beta+$ , EC and $0\nu$ -accompanying $2\beta$ -decay to ground and excited states. Comparison with theoretical values and previous data. JOUR NUPAB 793 171
	2007TA10	NUCLEAR REACTIONS Cd(d, x) $^{107}\text{In}$ / $^{108}\text{In}$ / $^{108m}\text{In}$ / $^{109}\text{In}$ / $^{110}\text{In}$ / $^{110m}\text{In}$ / $^{111}\text{In}$ / $^{112m}\text{In}$ / $^{113m}\text{In}$ / $^{114m}\text{In}$ / $^{115m}\text{In}$ / $^{116m}\text{In}$ / $^{117}\text{Cd}$ / $^{115}\text{Cd}$ / $^{115m}\text{Cd}$ / $^{117}\text{Cd}$ / $^{117m}\text{Cd}$ / $^{105}\text{Ag}$ / $^{106m}\text{Ag}$ / $^{110m}\text{Ag}$ / $^{111}\text{Ag}$ , E < 40 MeV; measured $E\gamma$ , $I\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817
$^{112}\text{Sn}$	2007DAZX	RADIOACTIVITY $^{124}\text{Sn}(2\beta^-)$ ; $^{112}\text{Sn}(\beta^+\text{EC})$ , (2EC); measured $E\gamma$ , $I\gamma$ . Deduced lower limits for $T_{1/2}$ . PREPRINT arXiv:0709.4342v1 [nucl-ex]
	2007GA44	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ , $\sigma(E, \theta)$ . $^{112,114,116,118,120,122,124}\text{Sn}$ deduced GMR energy, strength distributions, moment ratios. Comparison with other data and calculations. JOUR NUPAB 788 36c
	2007GA45	NUCLEAR REACTIONS $^{100}\text{Mo}(^{20}\text{Ne}, 4n\alpha)$ , E=136 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{112}\text{Sn}$ deduced levels, J, $\pi$ , lifetimes, multipolarities, and B(E2). JOUR NUPAB 789 1
	2007KI13	RADIOACTIVITY $^{64}\text{Zn}$ , $^{112}\text{Sn}(\beta^+)$ , (EC); $^{124}\text{Sn}(2\beta^-)$ ; measured $E\gamma$ , $I\gamma$ ; deduced $T_{1/2}$ lower limits for $\beta+$ , EC and $0\nu$ -accompanying $2\beta$ -decay to ground and excited states. Comparison with theoretical values and previous data. JOUR NUPAB 793 171
	2007LI61	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ . Deduced GMR strength distributions. JOUR PRLTA 99 162503
	2007LIZX	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ . Deduced GMR strength distributions. PREPRINT arXiv:0709.0567v1 [nucl-ex]
	2007OR04	NUCLEAR REACTIONS $^{112}\text{Sn}(n, n'\gamma)$ , E=1.7 MeV; measured $E\gamma$ , $I\gamma$ , angular distributions. Deduced lifetime and B(E2) using DSAM. JOUR PRVCA 76 021302

**A=112 (*continued*)**

	20070Z04	NUCLEAR REACTIONS $^{112,120}\text{Sn}(\gamma, \gamma')$ , E≈9-11 MeV bremsstrahlung; measured E $\gamma$ , I $\gamma$ . $^{112}\text{Sn}$ deduced B(E1) strength distribution. Sn analyzed B(E1). JOUR NUPAB 788 385c
	2007VA22	NUCLEAR REACTIONS $^{197}\text{Au}(^{106}\text{Sn}, ^{106}\text{Sn}')$ , $(^{108}\text{Sn}, ^{108}\text{Sn}')$ , $(^{110}\text{Sn}, ^{110}\text{Sn}')$ , $(^{112}\text{Sn}, ^{112}\text{Sn}')$ , E=78-81 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc from projectile coulomb excitation. $^{106,108,110,112}\text{Sn}$ deduced B(E2). JOUR PRLTA 99 162501
$^{112}\text{Te}$	2007PA07	NUCLEAR REACTIONS $^{58}\text{Ni}(^{58}\text{Ni}, 4\text{p})$ , $(^{58}\text{Ni}, 2\text{p})$ , E=240, 250 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ , (charged particle) $\gamma$ -coin, DSA. $^{112}\text{Te}$ deduced high-spin levels, J, $\pi$ , $T_{1/2}$ , configurations, deformation, band termination features. $^{114}\text{Xe}$ levels deduced $T_{1/2}$ , transition quadrupole moment. Gammasphere, Microball arrays. JOUR PRVCA 75 014308

**A=113**

	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007KU23	RADIOACTIVITY $^{113}\text{Ru}$ , $^{113}\text{Rh}(\beta^-)$ [from $^{248}\text{cm}(\text{SF})$ ]; measured E $\gamma$ , I $\gamma$ , $\beta\gamma$ , $\gamma\gamma$ -coinc. $^{113}\text{Ru}$ , Rh deduced levels, J, $\pi$ , logft.Compared results to model calculations. JOUR ZAANE 33 307
$^{113}\text{Rh}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007KU23	RADIOACTIVITY $^{113}\text{Ru}$ , $^{113}\text{Rh}(\beta^-)$ [from $^{248}\text{cm}(\text{SF})$ ]; measured E $\gamma$ , I $\gamma$ , $\beta\gamma$ , $\gamma\gamma$ -coinc. $^{113}\text{Ru}$ , Rh deduced levels, J, $\pi$ , logft.Compared results to model calculations. JOUR ZAANE 33 307
$^{113}\text{Pd}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007KU23	RADIOACTIVITY $^{113}\text{Ru}$ , $^{113}\text{Rh}(\beta^-)$ [from $^{248}\text{cm}(\text{SF})$ ]; measured E $\gamma$ , I $\gamma$ , $\beta\gamma$ , $\gamma\gamma$ -coinc. $^{113}\text{Ru}$ , Rh deduced levels, J, $\pi$ , logft.Compared results to model calculations. JOUR ZAANE 33 307
$^{113}\text{In}$	2006BI19	NUCLEAR REACTIONS $^{113}\text{In}$ , $^{195}\text{Pt}$ , $^{199}\text{Hg}(\gamma, \gamma')$ , E=4-12 MeV; measured isomer production $\sigma$ . JOUR BRSPE 70 292
	2007TA10	NUCLEAR REACTIONS Cd(d, x) $^{107}\text{In} / ^{108}\text{In} / ^{108m}\text{In} / ^{109}\text{In} / ^{110}\text{In} / ^{110m}\text{In} / ^{111}\text{In} / ^{112m}\text{In} / ^{113m}\text{In} / ^{114m}\text{In} / ^{115m}\text{In} / ^{116m1}\text{In} / ^{111m}\text{Cd} / ^{115}\text{Cd} / ^{115m}\text{Cd} / ^{117}\text{Cd} / ^{117m}\text{Cd} / ^{105}\text{Ag} / ^{106m}\text{Ag} / ^{110m}\text{Ag} / ^{111}\text{Ag}$ , E< 40 MeV; measured E $\gamma$ , I $\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817

**A=113 (continued)**

- 2007VI09 NUCLEAR REACTIONS  $^{113,115}\text{In}(\text{e}^+, \text{e}^+')$ , E=3.9 MeV; measured  $\text{E}\gamma, \text{I}\gamma$  from isomeric excitations. JOUR BRSPE 71 884

**A=114**

$^{114}\text{Ru}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{114}\text{Rh}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{114}\text{Pd}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{114}\text{In}$	2007TA10	NUCLEAR REACTIONS Cd(d, x) $^{107}\text{In} / ^{108}\text{In} / ^{108m}\text{In} / ^{109}\text{In} /$ $^{110}\text{In} / ^{110m}\text{In} / ^{111}\text{In} / ^{112m}\text{In} / ^{113m}\text{In} / ^{114m}\text{In} / ^{115m}\text{In} / ^{116m1}\text{In} /$ $^{111m}\text{Cd} / ^{115}\text{Cd} / ^{115m}\text{Cd} / ^{117}\text{Cd} / ^{117m}\text{Cd} / ^{105}\text{Ag} / ^{106m}\text{Ag} /$ $^{110m}\text{Ag} / ^{111}\text{Ag}$ , E< 40 MeV; measured $\text{E}\gamma, \text{I}\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817
$^{114}\text{Sn}$	2007GA44	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $\text{E}\alpha, \text{I}\alpha, \sigma(E, \theta)$ . $^{112,114,116,118,120,122,124}\text{Sn}$ deduced GMR energy, strength distributions, moment ratios. Comparison with other data and calculations. JOUR NUPAB 788 36c
	2007LI61	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $\text{E}\alpha, \text{I}\alpha$ . Deduced GMR strength distributions. JOUR PRLTA 99 162503
	2007LIZX	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $\text{E}\alpha, \text{I}\alpha$ . Deduced GMR strength distributions. PREPRINT arXiv:0709.0567v1 [nucl-ex]
$^{114}\text{Xe}$	2007PA07	NUCLEAR REACTIONS $^{58}\text{Ni}(^{58}\text{Ni}, 4\text{p})$ , $(^{58}\text{Ni}, 2\text{p})$ , E=240, 250 MeV; measured $\text{E}\gamma, \text{I}\gamma, \gamma\gamma-$ , (charged particle) $\gamma$ -coin, DSA. $^{112}\text{Te}$ deduced high-spin levels, $J, \pi, T_{1/2}$ , configurations, deformation, band termination features. $^{114}\text{Xe}$ levels deduced $T_{1/2}$ , transition quadrupole moment. Gammasphere, Microball arrays. JOUR PRVCA 75 014308

**A=115**

$^{115}\text{Ru}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007KU06	RADIOACTIVITY $^{115}\text{Ru}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$ ]; measured $\text{E}\gamma$ , $\text{I}\gamma$ , $\gamma\gamma$ -coin. $^{115}\text{Rh}$ deduced levels, $\text{J}$ , $\pi$ . Level systematics in neighboring nuclides discussed. JOUR ZAANE 31 263
$^{115}\text{Rh}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007KU06	RADIOACTIVITY $^{115}\text{Ru}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$ ]; measured $\text{E}\gamma$ , $\text{I}\gamma$ , $\gamma\gamma$ -coin. $^{115}\text{Rh}$ deduced levels, $\text{J}$ , $\pi$ . Level systematics in neighboring nuclides discussed. JOUR ZAANE 31 263
$^{115}\text{Pd}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{115}\text{Cd}$	2006VI11	NUCLEAR REACTIONS $^{114}\text{Cd}(\text{n}, \gamma)$ , $^{116}\text{Sn}(\text{n}, \gamma)$ , $^{124}\text{Te}(\text{n}, \gamma)$ , E=reactor spectrum; measured x-ray spectra. deduced K-shell internal conversion coefficients. JOUR BRSPE 70 1842
	2007H022	NUCLEAR REACTIONS $\text{Be}^{(136}\text{Xe, X)}$ , E=120 MeV / nucleon; measured $\text{E}\gamma$ , $\text{I}\gamma$ . $^{125}\text{Cd}$ , $^{126}\text{Cd}$ , $^{127}\text{Cd}$ , $^{128}\text{Cd}$ deduced levels, $\text{J}$ , $\pi$ , isomers, half-lives, band structure; $^{100,115,117,119,121,122,123,124}\text{Cd}$ ; level systematics. JOUR PRVCA 76 044324
$^{115}\text{In}$	2007CA05	RADIOACTIVITY $^{115}\text{In}(\beta^-)$ ; measured $\beta$ -delayed $\text{E}\gamma$ , $\text{I}\gamma$ , $\text{T}_{1/2}$ for decay to excited state; deduced $\text{Q}\beta$ , log ft. Implication for neutrino mass discussed. JOUR PANUE 70 127
	2007TA10	NUCLEAR REACTIONS $\text{Cd}(\text{d}, \text{x})^{107}\text{In} / ^{108}\text{In} / ^{108m}\text{In} / ^{109}\text{In} / ^{110}\text{In} / ^{110m}\text{In} / ^{111}\text{In} / ^{112m}\text{In} / ^{113m}\text{In} / ^{114m}\text{In} / ^{115m}\text{In} / ^{116m1}\text{In} / ^{111m}\text{Cd} / ^{115}\text{Cd} / ^{115m}\text{Cd} / ^{117}\text{Cd} / ^{117m}\text{Cd} / ^{105}\text{Ag} / ^{106m}\text{Ag} / ^{110m}\text{Ag} / ^{111}\text{Ag}$ , E < 40 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ , integral yields, excitation functions and cross sections. Compared results to model calculations. JOUR NIMBE 259 817
	2007VI09	NUCLEAR REACTIONS $^{113,115}\text{In}(\text{e}^+, \text{e}^+')$ , E=3.9 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ from isomeric excitations. JOUR BRSPE 71 884
$^{115}\text{Sn}$	2007CA05	RADIOACTIVITY $^{115}\text{In}(\beta^-)$ ; measured $\beta$ -delayed $\text{E}\gamma$ , $\text{I}\gamma$ , $\text{T}_{1/2}$ for decay to excited state; deduced $\text{Q}\beta$ , log ft. Implication for neutrino mass discussed. JOUR PANUE 70 127
	2007HU02	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, \text{n}\alpha)$ , E=200 MeV; measured $\text{E}\gamma$ , $\text{E}\alpha$ , $\text{En}$ , $\sigma(E, \theta)$ . $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. JOUR PRVCA 75 014606
	2007HU16	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha'n)$ , E=200 MeV; measured measured $\sigma$ , angular distributions. Deduced ISGDR direct-decay branching ratios. JOUR APOBB 38 1479

**A=115 (*continued*)**

2007HU20	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha'n)$ , E=200 MeV; measured $\sigma$ and angular distributions. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced branching ratios for direct and statistical neutron decay of isoscalar giant dipole resonance. JOUR PANUE 70 1407
2007W006	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, n\alpha)$ , E=200 MeV; measured $E\gamma$ , $E\alpha$ , $E_n$ , $\sigma(E, \theta)$ , excitation energy spectra. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. $^{140}\text{Ce}(\alpha, \alpha\gamma)$ , E=136 MeV; measured $E\gamma$ , $E\alpha$ . $^{140}\text{Ce}$ deduced E1 strength distribution. JOUR NUPAB 788 27c
$^{115}\text{Sb}$	2007OZ01 NUCLEAR REACTIONS $^{112}\text{Sn}(\alpha, \gamma)$ , $(\alpha, p)$ , E(cm)=7.59-11.42 MeV; measured $\sigma$ ; deduced astrophysical S-factors. Activation technique. JOUR PRVCA 75 025801
	2007SKZZ NUCLEAR REACTIONS $^{115,116,120}\text{Sn}(p, n)$ , E=4.5-9.0 MeV; measured cross sections using activation technique. Compared cross sections, S-factors and reaction rates to Hauser-Feshbach statistical theory predictions. CONF Geneva(NIC-IX) 204

**A=116**

$^{116}\text{Rh}$	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{116}\text{Pd}$	2007HA20 ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{116}\text{Cd}$	2006SH31 RADIOACTIVITY $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . JOUR PANUE 69 2090
	2006SH32 RADIOACTIVITY $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limits. JOUR BRSPE 70 731
	2007BL15 RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128,130}\text{Te}(\beta^-\beta^-)$ ; $^{64}\text{Zn}$ , $^{106}\text{Cd}$ , $^{120}\text{Te}(\beta^+\beta^+)$ ; measured summed $E\beta$ . Deduced upper limits for $T_{1/2}$ . JOUR PRVCA 76 025501
	2007BLZY RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128}\text{Te}$ , $^{130}\text{Te}(2\beta^-)$ ; measured summed $\beta$ energies. Deduced $T_{1/2}$ limits. PREPRINT arXiv:0707.2756v1 [nucl-ex]
$^{116}\text{In}$	2006GE20 NUCLEAR REACTIONS B, C, $^{27}\text{Al}$ , Cu, $^{115}\text{In}$ (polarized n, $\gamma$ ), E=low; measured $E\gamma$ , $I\gamma(\theta)$ ; deduced upper bounds on parity-violating $\gamma$ -ray asymmetry. JOUR PRVCA 74 065503
	2007SA47 NUCLEAR REACTIONS $^{116}\text{Cd}(p, n)$ , E=300 MeV; measured excitation energy spectrum. $^{116}\text{In}$ deduced Gamow-Teller strength distribution, nuclear matrix elements. Comparison with other data. JOUR NUPAB 788 76c

**A=116 (*continued*)**

	2007VIZZ	NUCLEAR REACTIONS $^{118}\text{Sn}(\gamma, \text{p})$ , $(\gamma, \text{d})$ , $^{121}\text{Sb}(\gamma, \text{n})$ , $(\gamma, \alpha)$ , $(\gamma, \text{an})$ , E(end point)=22 MeV; measured integral cross-sections. Betatron, activation method, NaI(Tl) detector. CONF Voronezh(Nucleus-2007), Contrib,P121,Vishnevsky
$^{116}\text{Sn}$	2006SH31	RADIOACTIVITY $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limits. JOUR BRSPE 70 731
	2007BL15	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128,130}\text{Te}(\beta^-\beta^-)$ ; $^{64}\text{Zn}$ , $^{106}\text{Cd}$ , $^{120}\text{Te}(\beta^+\beta^+)$ ; measured summed $E\beta$ . Deduced upper limits for $T_{1/2}$ . JOUR PRVCA 76 025501
	2007BLZY	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128}\text{Te}$ , $^{130}\text{Te}(2\beta^-)$ ; measured summed $\beta$ energies. Deduced $T_{1/2}$ limits. PREPRINT arXiv:0707.2756v1 [nucl-ex]
	2007GA44	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ , $\sigma(E, \theta)$ . $^{112,114,116,118,120,122,124}\text{Sn}$ deduced GMR energy, strength distributions, moment ratios. Comparison with other data and calculations. JOUR NUPAB 788 36c
	2007HU02	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, n\alpha)$ , E=200 MeV; measured $E\gamma$ , $E\alpha$ , $E\text{n}$ , $\sigma(E, \theta)$ . $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. JOUR PRVCA 75 014606
	2007HU20	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha'\text{n})$ , E=200 MeV; measured $\sigma$ and angular distributions. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced branching ratios for direct and statistical neutron decay of isoscalar giant dipole resonance. JOUR PANUE 70 1407
	2007KL05	NUCLEAR REACTIONS $\text{Be}^{(238)\text{U}, X}$ , E=550 MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}^{(129)\text{Sn}, X}$ , $(^{130}\text{Sn}, X)$ , $(^{131}\text{Sn}, X)$ , $(^{132}\text{Sn}, X)$ , $(^{133}\text{Sn}, X)$ , $E \approx 500$ MeV / nucleon; measured $E\text{n}$ , $E\gamma$ , $n\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, $B(E1)$ , pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , E not given; analyzed $E\gamma$ , $I\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced $B(E1)$ . JOUR NUPAB 788 145c
	2007LI61	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ . Deduced GMR strength distributions. JOUR PRLTA 99 162503
	2007LIZX	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ . Deduced GMR strength distributions. PREPRINT arXiv:0709.0567v1 [nucl-ex]
	2007W006	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, n\alpha)$ , E=200 MeV; measured $E\gamma$ , $E\alpha$ , $E\text{n}$ , $\sigma(E, \theta)$ , excitation energy spectra. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. $^{140}\text{Ce}(\alpha, \alpha\gamma)$ , E=136 MeV; measured $E\gamma$ , $E\alpha$ . $^{140}\text{Ce}$ deduced E1 strength distribution. JOUR NUPAB 788 27c

**A=116 (*continued*)**

$^{116}\text{Sb}$	2007SKZZ	NUCLEAR REACTIONS $^{115,116,120}\text{Sn}(\text{p}, \text{n})$ , E=4.5-9.0 MeV; measured cross sections using activation technique. Compared cross sections, S-factors and reaction rates to Hauser-Feshbach statistical theory predictions. CONF Geneva(NIC-IX) 204
$^{116}\text{Te}$	2007OZ01	NUCLEAR REACTIONS $^{112}\text{Sn}(\alpha, \gamma)$ , $(\alpha, \text{p})$ , E(cm)=7.59-11.42 MeV; measured $\sigma$ ; deduced astrophysical S-factors. Activation technique. JOUR PRVCA 75 025801
	2007RE12	NUCLEAR REACTIONS $\text{Sn}(\alpha, \text{X})^{116}\text{Te} / ^{117}\text{Te} / ^{118}\text{Te} / ^{119}\text{Te} / ^{121}\text{Te} / ^{123}\text{Te} / ^{117}\text{Sb} / ^{118}\text{Sb} / ^{120}\text{Sb} / ^{122}\text{Sb} / ^{124}\text{Sb} / ^{126}\text{Sb} / ^{117}\text{Sn} / ^{111}\text{In}$ , E=12-38 MeV; measured $E\gamma$ , $I\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672

**A=117**

$^{117}\text{Rh}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{117}\text{Pd}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007ST19	NUCLEAR REACTIONS $^{238}\text{U}(\alpha, \text{F})$ , E=30 MeV; measured fission fragment yield, $E\gamma$ , $I\gamma$ , (fragment) $\gamma$ -coin. $^{117,118,120}\text{Pd}$ , $^{122,124}\text{Cd}$ deduced levels, $J, \pi$ . JOUR NUPAB 787 455c
$^{117}\text{Cd}$	2007H022	NUCLEAR REACTIONS $\text{Be}^{(136}\text{Xe}, \text{X})$ , E=120 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{125}\text{Cd}$ , $^{126}\text{Cd}$ , $^{127}\text{Cd}$ , $^{128}\text{Cd}$ deduced levels, $J, \pi$ , isomers, half-lives, band structure; $^{100,115,117,119,121,122,123,124}\text{Cd}$ ; level systematics. JOUR PRVCA 76 044324
$^{117}\text{In}$	2007VIZZ	NUCLEAR REACTIONS $^{118}\text{Sn}(\gamma, \text{p})$ , $(\gamma, \text{d})$ , $^{121}\text{Sb}(\gamma, \text{n})$ , $(\gamma, \alpha)$ , $(\gamma, \alpha\text{n})$ , E(end point)=22 MeV; measured integral cross-sections. Betatron, activation method, NaI(Tl) detector. CONF Voronezh(Nucleus-2007), Contrib, P121, Vishnevsky
$^{117}\text{Sn}$	2006VI11	NUCLEAR REACTIONS $^{114}\text{Cd}(\text{n}, \gamma)$ , $^{116}\text{Sn}(\text{n}, \gamma)$ , $^{124}\text{Te}(\text{n}, \gamma)$ , E=reactor spectrum; measured x-ray spectra. deduced K-shell internal conversion coefficients. JOUR BRSPE 70 1842
	2007EG02	NUCLEAR REACTIONS $^{91}\text{Zr}$ , $^{116,118,119,120,122,124}\text{Sn}$ , $^{143}\text{Nd}$ , $^{177}\text{Hf}(\text{n}, \gamma)$ ; E=thermal; measured $E\gamma$ , $I\gamma$ , cross sections. JOUR ARISE 65 1290
	2007RE12	NUCLEAR REACTIONS $\text{Sn}(\alpha, \text{X})^{116}\text{Te} / ^{117}\text{Te} / ^{118}\text{Te} / ^{119}\text{Te} / ^{121}\text{Te} / ^{123}\text{Te} / ^{117}\text{Sb} / ^{118}\text{Sb} / ^{120}\text{Sb} / ^{122}\text{Sb} / ^{124}\text{Sb} / ^{126}\text{Sb} / ^{117}\text{Sn} / ^{111}\text{In}$ , E=12-38 MeV; measured $E\gamma$ , $I\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672

**A=117 (continued)**

<sup>117</sup> Sb	2007RE12	NUCLEAR REACTIONS Sn( $\alpha$ , X) <sup>116</sup> Te / <sup>117</sup> Te / <sup>118</sup> Te / <sup>119</sup> Te / <sup>121</sup> Te / <sup>123</sup> Te / <sup>117</sup> Sb / <sup>118</sup> Sb / <sup>120</sup> Sb / <sup>122</sup> Sb / <sup>124</sup> Sb / <sup>126</sup> Sb / <sup>117</sup> Sn / <sup>111</sup> In, E=12-38 MeV; measured E $\gamma$ , I $\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672
<sup>117</sup> Te	2007RE12	NUCLEAR REACTIONS Sn( $\alpha$ , X) <sup>116</sup> Te / <sup>117</sup> Te / <sup>118</sup> Te / <sup>119</sup> Te / <sup>121</sup> Te / <sup>123</sup> Te / <sup>117</sup> Sb / <sup>118</sup> Sb / <sup>120</sup> Sb / <sup>122</sup> Sb / <sup>124</sup> Sb / <sup>126</sup> Sb / <sup>117</sup> Sn / <sup>111</sup> In, E=12-38 MeV; measured E $\gamma$ , I $\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672

**A=118**

<sup>118</sup> Rh	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
<sup>118</sup> Pd	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007ST19	NUCLEAR REACTIONS <sup>238</sup> U( $\alpha$ , F), E=30 MeV; measured fission fragment yield, E $\gamma$ , I $\gamma$ , (fragment) $\gamma$ -coin. <sup>117,118,120</sup> Pd, <sup>122,124</sup> Cd deduced levels, J, $\pi$ . JOUR NUPAB 787 455c
<sup>118</sup> Sn	2006H023	NUCLEAR REACTIONS <sup>117</sup> Sn(n, $\gamma$ ), E=thermal; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, two-step cascade intensities. <sup>118</sup> Sn deduced levels. JOUR FIZBE 15 189
	2006NIZT	NUCLEAR REACTIONS <sup>117,119</sup> Sn(n, $\gamma$ ), E=10-100, 570 keV; measured E $\gamma$ , I $\gamma$ , capture $\sigma$ . Comparison with model predictions. REPT JAEA-Conf 2006-009, P101, Nishiyama
	2007GA44	NUCLEAR REACTIONS <sup>112,114,116,118,120,122,124</sup> Sn( $\alpha$ , $\alpha'$ ), E=400 MeV; measured E $\alpha$ , I $\alpha$ , $\sigma$ (E, $\theta$ ). <sup>112,114,116,118,120,122,124</sup> Sn deduced GMR energy, strength distributions, moment ratios. Comparison with other data and calculations. JOUR NUPAB 788 36c
	2007LI61	NUCLEAR REACTIONS <sup>112,114,116,118,120,122,124</sup> Sn( $\alpha$ , $\alpha'$ ), E=400 MeV; measured E $\alpha$ , I $\alpha$ . Deduced GMR strength distributions. JOUR PRLTA 99 162503
	2007LIZX	NUCLEAR REACTIONS <sup>112,114,116,118,120,122,124</sup> Sn( $\alpha$ , $\alpha'$ ), E=400 MeV; measured E $\alpha$ , I $\alpha$ . Deduced GMR strength distributions. PREPRINT arXiv:0709.0567v1 [nucl-ex]
<sup>118</sup> Sb	2007RE12	NUCLEAR REACTIONS Sn( $\alpha$ , X) <sup>116</sup> Te / <sup>117</sup> Te / <sup>118</sup> Te / <sup>119</sup> Te / <sup>121</sup> Te / <sup>123</sup> Te / <sup>117</sup> Sb / <sup>118</sup> Sb / <sup>120</sup> Sb / <sup>122</sup> Sb / <sup>124</sup> Sb / <sup>126</sup> Sb / <sup>117</sup> Sn / <sup>111</sup> In, E=12-38 MeV; measured E $\gamma$ , I $\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672

**A=118 (*continued*)**

	2007ZE06	NUCLEAR REACTIONS $^{12,13}\text{C}$ , $^{18}\text{O}$ , $^{26}\text{Mg}$ , $^{58}\text{Ni}$ , $^{60}\text{Ni}$ , $^{90}\text{Zr}$ , $^{118}\text{Sn}$ , $^{208}\text{Pb}(\text{He}, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
	2007ZEZZ	NUCLEAR REACTIONS $^{12,13}\text{C}$ , $^{18}\text{O}$ , $^{26}\text{Mg}$ , $^{58}\text{Ni}$ , $^{60}\text{Ni}$ , $^{90}\text{Zr}$ , $^{118}\text{Sn}$ , $^{208}\text{Pb}(\text{He}, \text{t})$ , E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]
$^{118}\text{Te}$	2007HE20	NUCLEAR REACTIONS $^{64}\text{Ni}(\text{He}, \text{F})$ , E=255, 261 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc, charged particle angular distributions. $^{118}\text{Te}$ , $^{124}\text{Xe}$ , $^{124,125}\text{Cs}$ deduced levels, J. JOUR APOBB 38 1421
	2007RE12	NUCLEAR REACTIONS $\text{Sn}(\alpha, X)$ $^{116}\text{Te}$ / $^{117}\text{Te}$ / $^{118}\text{Te}$ / $^{119}\text{Te}$ / $^{121}\text{Te}$ / $^{123}\text{Te}$ / $^{117}\text{Sb}$ / $^{118}\text{Sb}$ / $^{120}\text{Sb}$ / $^{122}\text{Sb}$ / $^{124}\text{Sb}$ / $^{126}\text{Sb}$ / $^{117}\text{Sn}$ / $^{111}\text{In}$ , E=12-38 MeV; measured $E\gamma$ , $I\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672

**A=119**

$^{119}\text{Pd}$	2007HA20	ATOMIC MASSES $^{106,107,108,109,110}\text{Tc}$ , $^{106,107,108,109,110,111,112,113,114,115}\text{Ru}$ , $^{108,109,110,111,112,113,114,115,116,117,118}\text{Rh}$ , $^{112,113,114,115,116,117,118,119,120}\text{Pd}$ ; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
$^{119}\text{Cd}$	2007H022	NUCLEAR REACTIONS $\text{Be}(\text{He}, X)$ , E=120 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{125}\text{Cd}$ , $^{126}\text{Cd}$ , $^{127}\text{Cd}$ , $^{128}\text{Cd}$ deduced levels, J, $\pi$ , isomers, half-lives, band structure; $^{100,115,117,119,121,122,123,124}\text{Cd}$ ; level systematics. JOUR PRVCA 76 044324
$^{119}\text{Sn}$	2007EG02	NUCLEAR REACTIONS $^{91}\text{Zr}$ , $^{116,118,119,120,122,124}\text{Sn}$ , $^{143}\text{Nd}$ , $^{177}\text{Hf}(n, \gamma)$ ; E=thermal; measured $E\gamma$ , $I\gamma$ , cross sections. JOUR ARISE 65 1290
	2007LOZZ	RADIOACTIVITY $^{119}\text{Sn}(\text{IT})$ [from $^{118}\text{Sn}(n, \gamma)$ ]; measured $E\gamma$ , $I\gamma$ , ce, (ce) $\gamma$ -coin, $T_{1/2}$ . Half-life dependence on $^{119}\text{Sn}$ / $^{119m^2}\text{Sn}$ ratio observed; inhibition effect due to Moessbauer backscattering is discussed. REPT PNPI-2732,Loginov
$^{119}\text{Te}$	2007PAZX	NUCLEAR REACTIONS $^{120,130}\text{Te}(\gamma, n)$ , E(end point)=25-30 MeV; measured $E\gamma$ , $I\gamma$ ; $^{119m,119g,129m,129g}\text{Te}$ deduced yield ratio $Y_m$ / $Y_g$ . Betatron, activation method, Ge(Li) detector. CONF Voronezh(Nucleus-2007),Contrib,P146,Palvanov
	2007RE12	NUCLEAR REACTIONS $\text{Sn}(\alpha, X)$ $^{116}\text{Te}$ / $^{117}\text{Te}$ / $^{118}\text{Te}$ / $^{119}\text{Te}$ / $^{121}\text{Te}$ / $^{123}\text{Te}$ / $^{117}\text{Sb}$ / $^{118}\text{Sb}$ / $^{120}\text{Sb}$ / $^{122}\text{Sb}$ / $^{124}\text{Sb}$ / $^{126}\text{Sb}$ / $^{117}\text{Sn}$ / $^{111}\text{In}$ , E=12-38 MeV; measured $E\gamma$ , $I\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672

**A=120**

<sup>120</sup> Pd	2007HA20	ATOMIC MASSES <sup>106,107,108,109,110</sup> Tc, <sup>106,107,108,109,110,111,112,113,114,115</sup> Ru, <sup>108,109,110,111,112,113,114,115,116,117,118</sup> Rh, <sup>112,113,114,115,116,117,118,119,120</sup> Pd; measured masses using the JYFLTRAP double penning trap setup. JOUR PRVCA 75 064302
	2007ST19	NUCLEAR REACTIONS <sup>238</sup> U( $\alpha$ , F), E=30 MeV; measured fission fragment yield, E $\gamma$ , I $\gamma$ , (fragment) $\gamma$ -coin. <sup>117,118,120</sup> Pd, <sup>122,124</sup> Cd deduced levels, J, $\pi$ . JOUR NUPAB 787 455c
<sup>120</sup> Sn	2006NIZT	NUCLEAR REACTIONS <sup>117,119</sup> Sn(n, $\gamma$ ), E=10-100, 570 keV; measured E $\gamma$ , I $\gamma$ , capture $\sigma$ . Comparison with model predictions. REPT JAEA-Conf 2006-009, P101, Nishiyama
	2007BA43	RADIOACTIVITY <sup>120</sup> Te( $\beta^+$ EC); measured E $\gamma$ , I $\gamma$ . Deduced limits for (0 $\nu$ +2 $\nu$ ) and (0 $\nu$ ) T <sub>1/2</sub> . JOUR JPGPE 34 1721
	2007BAZZ	RADIOACTIVITY <sup>120</sup> Te( $\beta^+$ EC), (2EC); measured T <sub>1/2</sub> lower limits for decay to ground and excited states. PREPRINT nucl-ex/0703020, 3/14/2007
	2007BL15	RADIOACTIVITY <sup>70</sup> Zn, <sup>116</sup> Cd, <sup>128,130</sup> Te( $\beta^-$ $\beta^-$ ); <sup>64</sup> Zn, <sup>106</sup> Cd, <sup>120</sup> Te( $\beta^+$ $\beta^+$ ); measured summed E $\beta$ . Deduced upper limits for T <sub>1/2</sub> . JOUR PRVCA 76 025501
	2007EG02	NUCLEAR REACTIONS <sup>91</sup> Zr, <sup>116,118,119,120,122,124</sup> Sn, <sup>143</sup> Nd, <sup>177</sup> Hf(n, $\gamma$ ); E=thermal; measured E $\gamma$ , I $\gamma$ , cross sections. JOUR ARISE 65 1290
	2007GA44	NUCLEAR REACTIONS <sup>112,114,116,118,120,122,124</sup> Sn( $\alpha$ , $\alpha'$ ), E=400 MeV; measured E $\alpha$ , I $\alpha$ , $\sigma$ (E, $\theta$ ). <sup>112,114,116,118,120,122,124</sup> Sn deduced GMR energy, strength distributions, moment ratios. Comparison with other data and calculations. JOUR NUPAB 788 36c
	2007LI61	NUCLEAR REACTIONS <sup>112,114,116,118,120,122,124</sup> Sn( $\alpha$ , $\alpha'$ ), E=400 MeV; measured E $\alpha$ , I $\alpha$ . Deduced GMR strength distributions. JOUR PRLTA 99 162503
	2007LIZX	NUCLEAR REACTIONS <sup>112,114,116,118,120,122,124</sup> Sn( $\alpha$ , $\alpha'$ ), E=400 MeV; measured E $\alpha$ , I $\alpha$ . Deduced GMR strength distributions. PREPRINT arXiv:0709.0567v1 [nucl-ex]
	2007OZ04	NUCLEAR REACTIONS <sup>112,120</sup> Sn( $\gamma$ , $\gamma'$ ), E≈9-11 MeV bremsstrahlung; measured E $\gamma$ , I $\gamma$ . <sup>112</sup> Sn deduced B(E1) strength distribution. Sn analyzed B(E1). JOUR NUPAB 788 385c
	2007ST03	NUCLEAR REACTIONS <sup>120</sup> Sn( <sup>68</sup> Cu, <sup>68</sup> Cu'), ( <sup>70</sup> Cu, <sup>70</sup> Cu'), E=2.83 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>68,70</sup> Cu deduced transitions B(E2). Isomeric beams, comparison with large-scale shell model calculations. JOUR PRLTA 98 122701
	2007VA20	NUCLEAR REACTIONS <sup>108</sup> Pd, <sup>120</sup> Sn( <sup>74</sup> Zn, <sup>74</sup> Zn'), ( <sup>76</sup> Zn, <sup>76</sup> Zn'), ( <sup>78</sup> Zn, <sup>78</sup> Zn'), ( <sup>80</sup> Zn, <sup>80</sup> Zn'), E=2.79-2.87 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . <sup>74,76,78,80</sup> Zn deduced B(E2). JOUR PRLTA 99 142501
<sup>120</sup> Sb	2007RE12	NUCLEAR REACTIONS Sn( $\alpha$ , X) <sup>116</sup> Te / <sup>117</sup> Te / <sup>118</sup> Te / <sup>119</sup> Te / <sup>121</sup> Te / <sup>123</sup> Te / <sup>117</sup> Sb / <sup>118</sup> Sb / <sup>120</sup> Sb / <sup>122</sup> Sb / <sup>124</sup> Sb / <sup>126</sup> Sb / <sup>117</sup> Sn / <sup>111</sup> In, E=12-38 MeV; measured E $\gamma$ , I $\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672

**KEYNUMBERS AND KEYWORDS**

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**A=120 (*continued*)**

2007SKZZ	NUCLEAR REACTIONS $^{115,116,120}\text{Sn}$ (p, n), E=4.5-9.0 MeV; measured cross sections using activation technique. Compared cross sections, S-factors and reaction rates to Hauser-Feshbach statistical theory predictions. CONF Geneva(NIC-IX) 204
2007VIZY	NUCLEAR REACTIONS $^{121}\text{Sb}$ ( $\gamma$ , n), $^{153}\text{Eu}$ ( $\gamma$ , n), E(end point)=12.5, 22 MeV; $^{151}\text{Eu}$ (n, $\gamma$ ), E=thermal, slow; measured $E_\gamma$ , $I_\gamma$ ; $^{120m,120g}\text{Sb}$ , $^{152m,152g}\text{Eu}$ deduced yield ratio $Y_m / Y_g$ ; $^{152m,152g}\text{Eu}$ deduced $\sigma(8^-) / \sigma(0^-)$ . Microtron, betatron, reactor, activation method, NaI(Tl), Ge detectors. CONF Voronezh(Nucleus-2007), Contrib,P135,Vishnevsky
2007VIZZ	NUCLEAR REACTIONS $^{118}\text{Sn}$ ( $\gamma$ , p), ( $\gamma$ , d), $^{121}\text{Sb}$ ( $\gamma$ , n), ( $\gamma$ , $\alpha$ ), ( $\gamma$ , $\alpha$ n), E(end point)=22 MeV; measured integral cross-sections. Betatron, activation method, NaI(Tl) detector. CONF Voronezh(Nucleus-2007), Contrib,P121,Vishnevsky
$^{120}\text{Te}$	2006SI40 NUCLEAR MOMENTS 120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136 $^{120}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
2007BA43	RADIOACTIVITY $^{120}\text{Te}$ ( $\beta^+$ EC); measured $E_\gamma$ , $I_\gamma$ . Dduced limits for $(0\nu+2\nu)$ and $(0\nu)$ $T_{1/2}$ . JOUR JPGPE 34 1721
2007BAZZ	RADIOACTIVITY $^{120}\text{Te}$ ( $\beta^+$ EC), (2EC); measured $T_{1/2}$ lower limits for decay to ground and excited states. PREPRINT nucl-ex/0703020,3/14/2007
2007BL15	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128,130}\text{Te}$ ( $\beta^-$ $\beta^-$ ); $^{64}\text{Zn}$ , $^{106}\text{Cd}$ , $^{120}\text{Te}$ ( $\beta^+$ $\beta^+$ ); measured summed $E\beta$ . Dduced upper limits for $T_{1/2}$ . JOUR PRVCA 76 025501

**A=121**

$^{121}\text{Cd}$	2007H022 NUCLEAR REACTIONS Be( $^{136}\text{Xe}$ , X), E=120 MeV / nucleon; measured $E_\gamma$ , $I_\gamma$ . $^{125}\text{Cd}$ , $^{126}\text{Cd}$ , $^{127}\text{Cd}$ , $^{128}\text{Cd}$ deduced levels, J, $\pi$ , isomers, half-lives, band structure; $^{100,115,117,119,121,122,123,124}\text{Cd}$ ; level systematics. JOUR PRVCA 76 044324
$^{121}\text{Sn}$	2007EG02 NUCLEAR REACTIONS $^{91}\text{Zr}$ , $^{116,118,119,120,122,124}\text{Sn}$ , $^{143}\text{Nd}$ , $^{177}\text{Hf}$ (n, $\gamma$ ); E=thermal; measured $E_\gamma$ , $I_\gamma$ , cross sections. JOUR ARISE 65 1290
$^{121}\text{Te}$	2006SI40 NUCLEAR MOMENTS 120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136 $^{120}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
2007ME09	NUCLEAR REACTIONS $^{127}\text{I}$ ( $\mu^-$ , $\nu$ ), ( $\mu^-$ , $n\nu$ ), ( $\mu^-$ , $2n\nu$ ), ( $\mu^-$ , $3n\nu$ ), ( $\mu^-$ , $4n\nu$ ), ( $\mu^-$ , $5n\nu$ ), ( $\mu^-$ , $6n\nu$ ), E at rest; $^{197}\text{Au}$ ( $\mu^-$ , $n\nu$ ), ( $\mu^-$ , $3n\nu$ ), E at rest; $^{209}\text{Bi}$ ( $\mu^-$ , $n\nu$ ), ( $\mu^-$ , $2n\nu$ ), ( $\mu^-$ , $3n\nu$ ), ( $\mu^-$ , $4n\nu$ ), ( $\mu^-$ , $5n\nu$ ), E at rest; measured $E_\gamma$ , $I_\gamma$ , X-ray spectra. JOUR PRVCA 75 045501

**A=121 (continued)**

2007RE12 NUCLEAR REACTIONS Sn( $\alpha$ , X) $^{116}\text{Te}$  /  $^{117}\text{Te}$  /  $^{118}\text{Te}$  /  $^{119}\text{Te}$  /  $^{121}\text{Te}$  /  $^{123}\text{Te}$  /  $^{117}\text{Sb}$  /  $^{118}\text{Sb}$  /  $^{120}\text{Sb}$  /  $^{122}\text{Sb}$  /  $^{124}\text{Sb}$  /  $^{126}\text{Sb}$  /  $^{117}\text{Sn}$  /  $^{111}\text{In}$ , E=12-38 MeV; measured  $E\gamma$ ,  $I\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672

**A=122**

$^{122}\text{Cd}$	2007H022	NUCLEAR REACTIONS Be( $^{136}\text{Xe}$ , X), E=120 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{125}\text{Cd}$ , $^{126}\text{Cd}$ , $^{127}\text{Cd}$ , $^{128}\text{Cd}$ deduced levels, J, $\pi$ , isomers, half-lives, band structure; $^{100,115,117,119,121,122,123,124}\text{Cd}$ ; level systematics. JOUR PRVCA 76 044324
	2007ST19	NUCLEAR REACTIONS $^{238}\text{U}(\alpha, \text{F})$ , E=30 MeV; measured fission fragment yield, $E\gamma$ , $I\gamma$ , (fragment) $\gamma$ -coin. $^{117,118,120}\text{Pd}$ , $^{122,124}\text{Cd}$ deduced levels, J, $\pi$ . JOUR NUPAB 787 455c
$^{122}\text{Sn}$	2007GA44	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ , $\sigma(E, \theta)$ . $^{112,114,116,118,120,122,124}\text{Sn}$ deduced GMR energy, strength distributions, moment ratios. Comparison with other data and calculations. JOUR NUPAB 788 36c
	2007LI61	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ . Deduced GMR strength distributions. JOUR PRLTA 99 162503
	2007LIZX	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , E=400 MeV; measured $E\alpha$ , $I\alpha$ . Deduced GMR strength distributions. PREPRINT arXiv:0709.0567v1 [nucl-ex]
$^{122}\text{Sb}$	2007MA15	NUCLEAR REACTIONS Sb( $^7\text{Li}$ , X) $^{125}\text{Xe}$ / $^{123}\text{Xe}$ / $^{124}\text{I}$ / $^{123}\text{I}$ / $^{122}\text{Sb}$ , E=32, 35, 38, 42, 45, 48 MeV; measured yields. JOUR RAACA 95 133
	2007RE12	NUCLEAR REACTIONS Sn( $\alpha$ , X) $^{116}\text{Te}$ / $^{117}\text{Te}$ / $^{118}\text{Te}$ / $^{119}\text{Te}$ / $^{121}\text{Te}$ / $^{123}\text{Te}$ / $^{117}\text{Sb}$ / $^{118}\text{Sb}$ / $^{120}\text{Sb}$ / $^{122}\text{Sb}$ / $^{124}\text{Sb}$ / $^{126}\text{Sb}$ / $^{117}\text{Sn}$ / $^{111}\text{In}$ , E=12-38 MeV; measured $E\gamma$ , $I\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672
$^{122}\text{Te}$	2006SI40	NUCLEAR MOMENTS $^{120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007ME09	NUCLEAR REACTIONS $^{127}\text{I}(\mu^-, \nu)$ , $(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , $(\mu^-, 6n\nu)$ , E at rest; $^{197}\text{Au}(\mu^-, n\nu)$ , $(\mu^-, 3n\nu)$ , E at rest; $^{209}\text{Bi}(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , E at rest; measured $E\gamma$ , $I\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
	2007ST24	NUCLEAR REACTIONS Te( $^{58}\text{Ni}$ , $\gamma$ ) $^{122}\text{Te}$ / $^{124}\text{Te}$ / $^{125}\text{Te}$ / $^{126}\text{Te}$ / $^{128}\text{Te}$ / $^{130}\text{Te}$ , E=195 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ angular correlations. $^{122,124,125,126,128,130}\text{Te}$ deduced g-factors. JOUR PRVCA 76 034306

**A=123**

<sup>123</sup> Cd	2007H022	NUCLEAR REACTIONS Be( <sup>136</sup> Xe, X), E=120 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . <sup>125</sup> Cd, <sup>126</sup> Cd, <sup>127</sup> Cd, <sup>128</sup> Cd deduced levels, J, $\pi$ , isomers, half-lives, band structure; <sup>100,115,117,119,121,122,123,124</sup> Cd; level systematics. JOUR PRVCA 76 044324
<sup>123</sup> Sn	2007EG02	NUCLEAR REACTIONS <sup>91</sup> Zr, <sup>116,118,119,120,122,124</sup> Sn, <sup>143</sup> Nd, <sup>177</sup> Hf(n, $\gamma$ ); E=thermal; measured E $\gamma$ , I $\gamma$ , cross sections. JOUR ARISE 65 1290
<sup>123</sup> Te	2006SI40	NUCLEAR MOMENTS <sup>120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136</sup> Te; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007ME09	NUCLEAR REACTIONS <sup>127</sup> I( $\mu^-$ , $\nu$ ), ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , 4n $\nu$ ), ( $\mu^-$ , 5n $\nu$ ), ( $\mu^-$ , 6n $\nu$ ), E at rest; <sup>197</sup> Au( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), E at rest; <sup>209</sup> Bi( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , 4n $\nu$ ), ( $\mu^-$ , 5n $\nu$ ), E at rest; measured E $\gamma$ , I $\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
	2007RE12	NUCLEAR REACTIONS Sn( $\alpha$ , X) <sup>116</sup> Te / <sup>117</sup> Te / <sup>118</sup> Te / <sup>119</sup> Te / <sup>121</sup> Te / <sup>123</sup> Te / <sup>117</sup> Sb / <sup>118</sup> Sb / <sup>120</sup> Sb / <sup>122</sup> Sb / <sup>124</sup> Sb / <sup>126</sup> Sb / <sup>117</sup> Sn / <sup>111</sup> In, E=12-38 MeV; measured E $\gamma$ , I $\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672
<sup>123</sup> I	2007BEZT	NUCLEAR REACTIONS <sup>127</sup> I( $\gamma$ , n), ( $\gamma$ , 3n), ( $\gamma$ , 4n), E(end point)=50 MeV; measured E $\gamma$ ; deduced yields of reactions. Microtron, activation method, HPGe detector. CONF Voronezh(Nucleus-2007), Contrib,P132,Belyshev
	2007MA15	NUCLEAR REACTIONS Sb( <sup>7</sup> Li, X) <sup>125</sup> Xe / <sup>123</sup> Xe / <sup>124</sup> I / <sup>123</sup> I / <sup>122</sup> Sb, E=32, 35, 38, 42, 45, 48 MeV; measured yields. JOUR RAACA 95 133
<sup>123</sup> Xe	2007MA15	NUCLEAR REACTIONS Sb( <sup>7</sup> Li, X) <sup>125</sup> Xe / <sup>123</sup> Xe / <sup>124</sup> I / <sup>123</sup> I / <sup>122</sup> Sb, E=32, 35, 38, 42, 45, 48 MeV; measured yields. JOUR RAACA 95 133

**A=124**

<sup>124</sup> Cd	2007H022	NUCLEAR REACTIONS Be( <sup>136</sup> Xe, X), E=120 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . <sup>125</sup> Cd, <sup>126</sup> Cd, <sup>127</sup> Cd, <sup>128</sup> Cd deduced levels, J, $\pi$ , isomers, half-lives, band structure; <sup>100,115,117,119,121,122,123,124</sup> Cd; level systematics. JOUR PRVCA 76 044324
	2007ST19	NUCLEAR REACTIONS <sup>238</sup> U( $\alpha$ , F), E=30 MeV; measured fission fragment yield, E $\gamma$ , I $\gamma$ , (fragment) $\gamma$ -coin. <sup>117,118,120</sup> Pd, <sup>122,124</sup> Cd deduced levels, J, $\pi$ . JOUR NUPAB 787 455c
<sup>124</sup> Sn	2007DAZX	RADIOACTIVITY <sup>124</sup> Sn( $2\beta^-$ ); <sup>112</sup> Sn( $\beta^+$ EC), (2EC); measured E $\gamma$ , I $\gamma$ . Deduced lower limits for T <sub>1/2</sub> . PREPRINT arXiv:0709.4342v1 [nucl-ex]
	2007GA44	NUCLEAR REACTIONS <sup>112,114,116,118,120,122,124</sup> Sn( $\alpha$ , $\alpha'$ ), E=400 MeV; measured E $\alpha$ , I $\alpha$ , $\sigma(E, \theta)$ . <sup>112,114,116,118,120,122,124</sup> Sn deduced GMR energy, strength distributions, moment ratios. Comparison with other data and calculations. JOUR NUPAB 788 36c

**A=124 (continued)**

2007KI13	RADIOACTIVITY $^{64}\text{Zn}$ , $^{112}\text{Sn}(\beta^+)$ , (EC); $^{124}\text{Sn}(2\beta^-)$ ; measured $E\gamma$ , $I\gamma$ ; deduced $T_{1/2}$ lower limits for $\beta^+$ , EC and $0\nu$ -accompanying 2 $\beta$ -decay to ground and excited states. Comparison with theoretical values and previous data. JOUR NUPAB 793 171	
2007KL05	NUCLEAR REACTIONS $\text{Be}^{(238)\text{U}}$ , X), $E=550$ MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}^{(129)\text{Sn}}$ , X), ( $^{130}\text{Sn}$ , X), ( $^{131}\text{Sn}$ , X), ( $^{132}\text{Sn}$ , X), ( $^{133}\text{Sn}$ , X), $E \approx 500$ MeV / nucleon; measured $E_n$ , $E\gamma$ , $n\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, $B(E1)$ , pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , $E$ not given; analyzed $E\gamma$ , $I\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced $B(E1)$ . JOUR NUPAB 788 145c	
2007LI61	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , $E=400$ MeV; measured $E\alpha$ , $I\alpha$ . Deduced GMR strength distributions. JOUR PRLTA 99 162503	
2007LIZX	NUCLEAR REACTIONS $^{112,114,116,118,120,122,124}\text{Sn}(\alpha, \alpha')$ , $E=400$ MeV; measured $E\alpha$ , $I\alpha$ . Deduced GMR strength distributions. PREPRINT arXiv:0709.0567v1 [nucl-ex]	
$^{124}\text{Sb}$	2007RE12	NUCLEAR REACTIONS $\text{Sn}(\alpha, X)$ $^{116}\text{Te} / ^{117}\text{Te} / ^{118}\text{Te} / ^{119}\text{Te} / ^{121}\text{Te} / ^{123}\text{Te} / ^{117}\text{Sb} / ^{118}\text{Sb} / ^{120}\text{Sb} / ^{122}\text{Sb} / ^{124}\text{Sb} / ^{126}\text{Sb} / ^{117}\text{Sn} / ^{111}\text{In}$ , $E=12-38$ MeV; measured $E\gamma$ , $I\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672
$^{124}\text{Te}$	2006SI40	NUCLEAR MOMENTS $^{120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
2007DAZX	RADIOACTIVITY $^{124}\text{Sn}(2\beta^-)$ ; $^{112}\text{Sn}(\beta^+/\text{EC})$ , (2EC); measured $E\gamma$ , $I\gamma$ . Deduced lower limits for $T_{1/2}$ . PREPRINT arXiv:0709.4342v1 [nucl-ex]	
2007KI13	RADIOACTIVITY $^{64}\text{Zn}$ , $^{112}\text{Sn}(\beta^+)$ , (EC); $^{124}\text{Sn}(2\beta^-)$ ; measured $E\gamma$ , $I\gamma$ ; deduced $T_{1/2}$ lower limits for $\beta^+$ , EC and $0\nu$ -accompanying 2 $\beta$ -decay to ground and excited states. Comparison with theoretical values and previous data. JOUR NUPAB 793 171	
2007ME09	NUCLEAR REACTIONS $^{127}\text{I}(\mu^-, \nu)$ , $(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , $(\mu^-, 6n\nu)$ , E at rest; $^{197}\text{Au}(\mu^-, n\nu)$ , $(\mu^-, 3n\nu)$ , E at rest; $^{209}\text{Bi}(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , E at rest; measured $E\gamma$ , $I\gamma$ , X-ray spectra. JOUR PRVCA 75 045501	
2007QA02	RADIOACTIVITY $^{64}\text{Cu}(\beta^-)$ , $(\beta^+)$ , (EC) [from $^{66}\text{Zn}(\text{d}, \alpha)$ and $\text{Zn}(\text{d}, \text{X})$ ]; $^{76}\text{Br}$ , $^{124}\text{I}(\beta^+)$ , (EC) [from $^{76}\text{Se}$ , $^{124}\text{Te}(\text{p}, \text{n})$ ]; measured $E\gamma$ , $E\beta$ , X-ray spectra, $\gamma\gamma$ , $\beta\gamma$ -coin; deduced positron emission intensities. JOUR RAACA 95 67	
2007ST24	NUCLEAR REACTIONS $\text{Te}^{(58)\text{Ni}}$ , $\gamma$ ) $^{122}\text{Te} / ^{124}\text{Te} / ^{125}\text{Te} / ^{126}\text{Te} / ^{128}\text{Te} / ^{130}\text{Te}$ , $E=195$ MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ angular correlations. $^{122,124,125,126,128,130}\text{Te}$ deduced g-factors. JOUR PRVCA 76 034306	

**KEYNUMBERS AND KEYWORDS**

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**A=124 (*continued*)**

$^{124}\text{I}$	2007BEZT	NUCLEAR REACTIONS $^{127}\text{I}(\gamma, \text{n})$ , $(\gamma, 3\text{n})$ , $(\gamma, 4\text{n})$ , E(end point)=50 MeV; measured $E\gamma$ ; deduced yields of reactions. Microtron, activation method, HPGe detector. CONF Voronezh(Nucleus-2007), Contrib,P132,Belyshev
	2007MA15	NUCLEAR REACTIONS Sb( $^7\text{Li}$ , X) $^{125}\text{Xe} / ^{123}\text{Xe} / ^{124}\text{I} / ^{123}\text{I} / ^{122}\text{Sb}$ , E=32, 35, 38, 42, 45, 48 MeV; measured yields. JOUR RAACA 95 133
	2007NY01	NUCLEAR REACTIONS $^{124}\text{Te}(\text{p}, \text{n})$ , E=11 MeV; measured thick-target yield. JOUR ARISE 65 407
	2007QA02	RADIOACTIVITY $^{64}\text{Cu}(\beta^-)$ , $(\beta^+)$ , (EC) [from $^{66}\text{Zn}(\text{d}, \alpha)$ and $\text{Zn}(\text{d}, \text{X})$ ]; $^{76}\text{Br}$ , $^{124}\text{I}(\beta^+)$ , (EC) [from $^{76}\text{Se}$ , $^{124}\text{Te}(\text{p}, \text{n})$ ]; measured $E\gamma$ , $E\beta$ , X-ray spectra, $\gamma\gamma$ -, $\beta\gamma$ -coin; deduced positron emission intensities. JOUR RAACA 95 67
$^{124}\text{Xe}$	2007AL37	NUCLEAR REACTIONS $^{82}\text{Se}(^{48}\text{Ca}, \text{X})$ , E=205 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc using Gammasphere. $^{124,125,126}\text{Xe}$ deduced levels, $J$ , $\pi$ . JOUR APOBB 38 1431
	2007HE20	NUCLEAR REACTIONS $^{64}\text{Ni}(^{64}\text{Ni}, \text{F})$ , E=255, 261 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc, charged particle angular distributions. $^{118}\text{Te}$ , $^{124}\text{Xe}$ , $^{124,125}\text{Cs}$ deduced levels, $J$ . JOUR APOBB 38 1421
$^{124}\text{Cs}$	2007HE20	NUCLEAR REACTIONS $^{64}\text{Ni}(^{64}\text{Ni}, \text{F})$ , E=255, 261 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc, charged particle angular distributions. $^{118}\text{Te}$ , $^{124}\text{Xe}$ , $^{124,125}\text{Cs}$ deduced levels, $J$ . JOUR APOBB 38 1421

**A=125**

$^{125}\text{Cd}$	2007H022	NUCLEAR REACTIONS Be( $^{136}\text{Xe}$ , X), E=120 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{125}\text{Cd}$ , $^{126}\text{Cd}$ , $^{127}\text{Cd}$ , $^{128}\text{Cd}$ deduced levels, $J$ , $\pi$ , isomers, half-lives, band structure; $^{100,115,117,119,121,122,123,124}\text{Cd}$ ; level systematics. JOUR PRVCA 76 044324
$^{125}\text{Sn}$	2007EG02	NUCLEAR REACTIONS $^{91}\text{Zr}$ , $^{116,118,119,120,122,124}\text{Sn}$ , $^{143}\text{Nd}$ , $^{177}\text{Hf}(\text{n}, \gamma)$ ; E=thermal; measured $E\gamma$ , $I\gamma$ , cross sections. JOUR ARISE 65 1290
$^{125}\text{Te}$	2006SI40	NUCLEAR MOMENTS $^{120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2006VI11	NUCLEAR REACTIONS $^{114}\text{Cd}(\text{n}, \gamma)$ , $^{116}\text{Sn}(\text{n}, \gamma)$ , $^{124}\text{Te}(\text{n}, \gamma)$ , E=reactor spectrum; measured x-ray spectra. deduced K-shell internal conversion coefficients. JOUR BRSPE 70 1842
	2007ME09	NUCLEAR REACTIONS $^{127}\text{I}(\mu^-, \nu)$ , $(\mu^-, \text{n}\nu)$ , $(\mu^-, 2\text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , $(\mu^-, 4\text{n}\nu)$ , $(\mu^-, 5\text{n}\nu)$ , $(\mu^-, 6\text{n}\nu)$ , E at rest; $^{197}\text{Au}(\mu^-, \text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , E at rest; $^{209}\text{Bi}(\mu^-, \text{n}\nu)$ , $(\mu^-, 2\text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , $(\mu^-, 4\text{n}\nu)$ , $(\mu^-, 5\text{n}\nu)$ , E at rest; measured $E\gamma$ , $I\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
	2007ST24	NUCLEAR REACTIONS Te( $^{58}\text{Ni}$ , $\gamma$ ) $^{122}\text{Te} / ^{124}\text{Te} / ^{125}\text{Te} / ^{126}\text{Te} / ^{128}\text{Te} / ^{130}\text{Te}$ , E=195 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ angular correlations. $^{122,124,125,126,128,130}\text{Te}$ deduced g-factors. JOUR PRVCA 76 034306

**A=125 (continued)**

$^{125}\text{Xe}$	2007AL37	NUCLEAR REACTIONS $^{82}\text{Se}(^{48}\text{Ca}, \text{X})$ , E=205 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ , $\gamma\gamma$ -coinc using Gammasphere. $^{124,125,126}\text{Xe}$ deduced levels, J, $\pi$ . JOUR APOBB 38 1431
	2007MA15	NUCLEAR REACTIONS $\text{Sb}(^{7}\text{Li}, \text{X})^{125}\text{Xe} / ^{123}\text{Xe} / ^{124}\text{I} / ^{123}\text{I} / ^{122}\text{Sb}$ , E=32, 35, 38, 42, 45, 48 MeV; measured yields. JOUR RAACA 95 133
$^{125}\text{Cs}$	2007HE20	NUCLEAR REACTIONS $^{64}\text{Ni}(^{64}\text{Ni}, \text{F})$ , E=255, 261 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ , (particle) $\gamma$ -coinc, charged particle angular distributions. $^{118}\text{Te}$ , $^{124}\text{Xe}$ , $^{124,125}\text{Cs}$ deduced levels, J. JOUR APOBB 38 1421
$^{125}\text{Ce}$	2007SU07	ATOMIC MASSES $^{69}\text{Ge}$ , $^{125}\text{Ce}$ ; measured masses. $^{125}\text{Ce}$ deduced long-lived isomeric state, excitation energy, $T_{1/2}$ . JOUR ZAANE 31 393

**A=126**

$^{126}\text{Cd}$	2007H022	NUCLEAR REACTIONS $\text{Be}(^{136}\text{Xe}, \text{X})$ , E=120 MeV / nucleon; measured $\text{E}\gamma$ , $\text{I}\gamma$ . $^{125}\text{Cd}$ , $^{126}\text{Cd}$ , $^{127}\text{Cd}$ , $^{128}\text{Cd}$ deduced levels, J, $\pi$ , isomers, half-lives, band structure; $^{100,115,117,119,121,122,123,124}\text{Cd}$ ; level systematics. JOUR PRVCA 76 044324
$^{126}\text{Sb}$	2007RE12	NUCLEAR REACTIONS $\text{Sn}(\alpha, \text{X})^{116}\text{Te} / ^{117}\text{Te} / ^{118}\text{Te} / ^{119}\text{Te} / ^{121}\text{Te} / ^{123}\text{Te} / ^{117}\text{Sb} / ^{118}\text{Sb} / ^{120}\text{Sb} / ^{122}\text{Sb} / ^{124}\text{Sb} / ^{126}\text{Sb} / ^{117}\text{Sn} / ^{111}\text{In}$ , E=12-38 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ , cross sections and excitation functions using stacked foil activation technique. JOUR NIMBE 260 672
$^{126}\text{Te}$	2006SI40	NUCLEAR MOMENTS $^{120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007ME09	NUCLEAR REACTIONS $^{127}\text{I}(\mu^-, \nu)$ , $(\mu^-, \text{n}\nu)$ , $(\mu^-, 2\text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , $(\mu^-, 4\text{n}\nu)$ , $(\mu^-, 5\text{n}\nu)$ , $(\mu^-, 6\text{n}\nu)$ , E at rest; $^{197}\text{Au}(\mu^-, \text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , E at rest; $^{209}\text{Bi}(\mu^-, \text{n}\nu)$ , $(\mu^-, 2\text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , $(\mu^-, 4\text{n}\nu)$ , $(\mu^-, 5\text{n}\nu)$ , E at rest; measured $\text{E}\gamma$ , $\text{I}\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
	2007ST24	NUCLEAR REACTIONS $\text{Te}(^{58}\text{Ni}, \gamma)^{122}\text{Te} / ^{124}\text{Te} / ^{125}\text{Te} / ^{126}\text{Te} / ^{128}\text{Te} / ^{130}\text{Te}$ , E=195 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ , (particle) $\gamma$ angular correlations. $^{122,124,125,126,128,130}\text{Te}$ deduced g-factors. JOUR PRVCA 76 034306
$^{126}\text{I}$	2007BEZT	NUCLEAR REACTIONS $^{127}\text{I}(\gamma, \text{n})$ , $(\gamma, 3\text{n})$ , $(\gamma, 4\text{n})$ , E(end point)=50 MeV; measured $\text{E}\gamma$ ; deduced yields of reactions. Microtron, activation method, HPGe detector. CONF Voronezh(Nucleus-2007), Contrib,P132,Belyshev
$^{126}\text{Xe}$	2007AL37	NUCLEAR REACTIONS $^{82}\text{Se}(^{48}\text{Ca}, \text{X})$ , E=205 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ , $\gamma\gamma$ -coinc using Gammasphere. $^{124,125,126}\text{Xe}$ deduced levels, J, $\pi$ . JOUR APOBB 38 1431
	2007HA34	NUCLEAR REACTIONS $^{82}\text{Se}(^{48}\text{Ca}, 4\text{n})^{126}\text{Xe}$ , E=190, 200 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ , $\gamma\gamma$ -coinc using the Gammasphere and the Euroball array. $^{126}\text{Xe}$ deduced levels, J, $\pi$ . JOUR PRVCA 76 034311

**KEYNUMBERS AND KEYWORDS**

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**A=126 (*continued*)**

<sup>126</sup>Cs      2007WA09      NUCLEAR REACTIONS <sup>116</sup>Cd(<sup>14</sup>N, 4n), E=65 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>126</sup>Cs deduced high-spin levels, J,  $\pi$ , configurations. JOUR PRVCA 75 037302

**A=127**

<sup>127</sup>Cd      2007H022      NUCLEAR REACTIONS Be(<sup>136</sup>Xe, X), E=120 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . <sup>125</sup>Cd, <sup>126</sup>Cd, <sup>127</sup>Cd, <sup>128</sup>Cd deduced levels, J,  $\pi$ , isomers, half-lives, band structure; <sup>100,115,117,119,121,122,123,124</sup>Cd; level systematics. JOUR PRVCA 76 044324

<sup>127</sup>Sn      2006ZH47      NUCLEAR REACTIONS <sup>126</sup>Sn(n,  $\gamma$ ), E=thermal; measured production  $\sigma$  for ground and metastable states. Activation, radiochemical separation. JOUR RAACA 94 385

                2006ZH47      RADIOACTIVITY <sup>127,127m</sup>Sn, <sup>127</sup>Sb( $\beta^-$ ) [from <sup>126</sup>Sn(n,  $\gamma$ ) and subsequent decay]; measured E $\gamma$ , I $\gamma$ . JOUR RAACA 94 385

                2007AT03      NUCLEAR REACTIONS <sup>136</sup>Xe(Be, x)<sup>127</sup>Sn, E=600 MeV / nucleon; measured g-factor for 19 / 2 $^+$  isomer using time-differential perturbed angular distribution method. JOUR PPNPD 59 355

                2007NE10      NUCLEAR REACTIONS <sup>9</sup>Be(<sup>238</sup>U, F)<sup>127</sup>Sn, E=750 MeV / nucleon; <sup>9</sup>Be(<sup>136</sup>Xe, X)<sup>127</sup>Sn, E=650 MeV / nucleon; measured E $\gamma$ , I $\gamma(\theta, H, t)$ , (particle) $\gamma$ -coinc. <sup>127</sup>Sn deduced g-factor using TDPAD method. JOUR APOBB 38 1237

<sup>127</sup>Sb      2006ZH47      RADIOACTIVITY <sup>127,127m</sup>Sn, <sup>127</sup>Sb( $\beta^-$ ) [from <sup>126</sup>Sn(n,  $\gamma$ ) and subsequent decay]; measured E $\gamma$ , I $\gamma$ . JOUR RAACA 94 385

<sup>127</sup>Te      2006SI40      NUCLEAR MOMENTS  
120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136Te; measured hfs, isotope shifts; deduced  $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173

                2006ZH47      RADIOACTIVITY <sup>127,127m</sup>Sn, <sup>127</sup>Sb( $\beta^-$ ) [from <sup>126</sup>Sn(n,  $\gamma$ ) and subsequent decay]; measured E $\gamma$ , I $\gamma$ . JOUR RAACA 94 385

                2007ME09      NUCLEAR REACTIONS <sup>127</sup>I( $\mu^-$ ,  $\nu$ ), ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , 4n $\nu$ ), ( $\mu^-$ , 5n $\nu$ ), ( $\mu^-$ , 6n $\nu$ ), E at rest; <sup>197</sup>Au( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), E at rest; <sup>209</sup>Bi( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , 4n $\nu$ ), ( $\mu^-$ , 5n $\nu$ ), E at rest; measured E $\gamma$ , I $\gamma$ , X-ray spectra. JOUR PRVCA 75 045501

<sup>127</sup>I        2007MA58      NUCLEAR REACTIONS <sup>27</sup>Al, <sup>127</sup>I, <sup>206,207,208</sup>Pb(n, n' $\gamma$ ), E not give; <sup>10</sup>B( $\alpha$ , p $\gamma$ ), E=2.27 MeV; <sup>9</sup>Be( $\alpha$ , n $\gamma$ ), E=2.27 MeV; measured yields. JOUR PRVCA 76 022801

**A=128**

<sup>128</sup>Cd      2007H022      NUCLEAR REACTIONS Be(<sup>136</sup>Xe, X), E=120 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . <sup>125</sup>Cd, <sup>126</sup>Cd, <sup>127</sup>Cd, <sup>128</sup>Cd deduced levels, J,  $\pi$ , isomers, half-lives, band structure; <sup>100,115,117,119,121,122,123,124</sup>Cd; level systematics. JOUR PRVCA 76 044324

**KEYNUMBERS AND KEYWORDS**

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**A=128 (*continued*)**

<sup>128</sup> Sb	2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(\text{n}, \text{F})^{128}\text{Sb}$ / $^{130}\text{Sb}$ / $^{132}\text{Sb}$ / $^{131}\text{Te}$ / $^{133}\text{Te}$ / $^{132}\text{I}$ / $^{134}\text{I}$ / $^{136}\text{I}$ / $^{135}\text{Xe}$ / $^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
<sup>128</sup> Te	2006SI40	NUCLEAR MOMENTS 120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136 Te; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007BL15	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128,130}\text{Te}(\beta^-\beta^-)$ ; $^{64}\text{Zn}$ , $^{106}\text{Cd}$ , $^{120}\text{Te}(\beta^+\beta^+)$ ; measured summed $E\beta$ . Deduced upper limits for $T_{1/2}$ . JOUR PRVCA 76 025501
	2007BLZY	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128}\text{Te}$ , $^{130}\text{Te}(2\beta^-)$ ; measured summed $\beta$ energies. Deduced $T_{1/2}$ limits. PREPRINT arXiv:0707.2756v1 [nucl-ex]
<sup>128</sup> Xe	2007ST24	NUCLEAR REACTIONS $\text{Te}(\text{Ni}^{58}, \gamma)^{122}\text{Te}$ / $^{124}\text{Te}$ / $^{125}\text{Te}$ / $^{126}\text{Te}$ / $^{128}\text{Te}$ / $^{130}\text{Te}$ , E=195 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ angular correlations. $^{122,124,125,126,128,130}\text{Te}$ deduced g-factors. JOUR PRVCA 76 034306
	2007BL15	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128,130}\text{Te}(\beta^-\beta^-)$ ; $^{64}\text{Zn}$ , $^{106}\text{Cd}$ , $^{120}\text{Te}(\beta^+\beta^+)$ ; measured summed $E\beta$ . Deduced upper limits for $T_{1/2}$ . JOUR PRVCA 76 025501
	2007BLZY	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128}\text{Te}$ , $^{130}\text{Te}(2\beta^-)$ ; measured summed $\beta$ energies. Deduced $T_{1/2}$ limits. PREPRINT arXiv:0707.2756v1 [nucl-ex]
<sup>128</sup> Ce	2006BA75	NUCLEAR REACTIONS $^{100}\text{Mo}(\text{S}^{32}, 4\text{n})$ , E=120 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, DSA. $^{128}\text{Ce}$ levels deduced $T_{1/2}$ , B(E2), symmetry features. DSAM and recoil-distance techniques. JOUR IMPEE 15 1735

**A=129**

<sup>129</sup> Sn	2007KL05	NUCLEAR REACTIONS $\text{Be}(\text{U}^{238}, \text{X})$ , E=550 MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}(\text{Sn}^{129}, \text{X})$ , $(^{130}\text{Sn}, \text{X})$ , $(^{131}\text{Sn}, \text{X})$ , $(^{132}\text{Sn}, \text{X})$ , $(^{133}\text{Sn}, \text{X})$ , E $\approx$ 500 MeV / nucleon; measured En, $E\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , E not given; analyzed $E\gamma$ , $I\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced B(E1). JOUR NUPAB 788 145c
<sup>129</sup> Te	2006SI40	NUCLEAR MOMENTS 120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136 Te; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173

**A=129 (continued)**

	2007PAZX	NUCLEAR REACTIONS $^{120,130}\text{Te}(\gamma, \text{n})$ , E(end point)=25-30 MeV; measured $E\gamma, I\gamma$ ; $^{119m,119g,129m,129g}\text{Te}$ deduced yield ratio $Y_m / Y_g$ . Betatron, activation method, Ge(Li) detector. CONF Voronezh(Nucleus-2007), Contrib, P146, Palvanov
$^{129}\text{Xe}$	2007KI06	NUCLEAR MOMENTS $^{129}\text{Xe}$ ; measured precession, transverse relaxation of polarized gas in weak magnetic fields. JOUR ZDDNE 42 197

**A=130**

$^{130}\text{Cd}$	2007JU05	RADIOACTIVITY $^{130}\text{Cd}(\text{IT})$ [from $\text{Be}(^{136}\text{Xe}, 6\text{n})$ , E=750 MeV / nucleon]; measured $E\gamma, I\gamma, \gamma\gamma$ -coinc. $^{130}\text{Cd}$ deduced levels, J, $\pi$ . JOUR PRLTA 99 132501
$^{130}\text{Sn}$	2007KL05	NUCLEAR REACTIONS $\text{Be}(^{238}\text{U}, X)$ , E=550 MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}$ ( $^{129}\text{Sn}$ , X), ( $^{130}\text{Sn}$ , X), ( $^{131}\text{Sn}$ , X), ( $^{132}\text{Sn}$ , X), ( $^{133}\text{Sn}$ , X), $E \approx 500$ MeV / nucleon; measured En, $E\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , E not given; analyzed $E\gamma, I\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced B(E1). JOUR NUPAB 788 145c
$^{130}\text{Sb}$	2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(\text{n}, F)$ $^{128}\text{Sb} / ^{130}\text{Sb} / ^{132}\text{Sb} / ^{131}\text{Te} / ^{133}\text{Te} / ^{132}\text{I} / ^{134}\text{I} / ^{136}\text{I} / ^{135}\text{Xe} / ^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
$^{130}\text{Te}$	2006CR04	RADIOACTIVITY $^{130}\text{Te}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. JOUR PANUE 69 2083
	2006SI40	NUCLEAR MOMENTS $^{120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007BL15	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128,130}\text{Te}(\beta^-\beta^-)$ ; $^{64}\text{Zn}$ , $^{106}\text{Cd}$ , $^{120}\text{Te}(\beta^+\beta^+)$ ; measured summed $E\beta$ . Deduced upper limits for $T_{1/2}$ . JOUR PRVCA 76 025501
	2007BLZY	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128}\text{Te}$ , $^{130}\text{Te}(2\beta^-)$ ; measured summed $\beta$ energies. Deduced $T_{1/2}$ limits. PREPRINT arXiv:0707.2756v1 [nucl-ex]
	2007ST24	NUCLEAR REACTIONS $\text{Te}(^{58}\text{Ni}, \gamma)$ $^{122}\text{Te} / ^{124}\text{Te} / ^{125}\text{Te} / ^{126}\text{Te} / ^{128}\text{Te} / ^{130}\text{Te}$ , E=195 MeV; measured $E\gamma, I\gamma$ , (particle) $\gamma$ angular correlations. $^{122,124,125,126,128,130}\text{Te}$ deduced g-factors. JOUR PRVCA 76 034306
$^{130}\text{Xe}$	2006CR04	RADIOACTIVITY $^{130}\text{Te}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. JOUR PANUE 69 2083

**KEYNUMBERS AND KEYWORDS**

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**A=130 (*continued*)**

2007BL15	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128,130}\text{Te}(\beta^-\beta^-)$ ; $^{64}\text{Zn}$ , $^{106}\text{Cd}$ , $^{120}\text{Te}(\beta^+\beta^+)$ ; measured summed E $\beta$ . Deduced upper limits for T <sub>1/2</sub> . JOUR PRVCA 76 025501
2007BLZY	RADIOACTIVITY $^{70}\text{Zn}$ , $^{116}\text{Cd}$ , $^{128}\text{Te}$ , $^{130}\text{Te}(2\beta^-)$ ; measured summed $\beta$ energies. Deduced T <sub>1/2</sub> limits. PREPRINT arXiv:0707.2756v1 [nucl-ex]

**A=131**

$^{131}\text{Sn}$	2007KL05	NUCLEAR REACTIONS Be( $^{238}\text{U}$ , X), E=550 MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}$ ( $^{129}\text{Sn}$ , X), ( $^{130}\text{Sn}$ , X), ( $^{131}\text{Sn}$ , X), ( $^{132}\text{Sn}$ , X), ( $^{133}\text{Sn}$ , X), E≈ 500 MeV / nucleon; measured En, E $\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , E not given; analyzed E $\gamma$ , I $\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced B(E1). JOUR NUPAB 788 145c
$^{131}\text{Te}$	2006SI40	NUCLEAR MOMENTS 120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136Te; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(n, F)$ $^{128}\text{Sb}$ / $^{130}\text{Sb}$ / $^{132}\text{Sb}$ / $^{131}\text{Te}$ / $^{133}\text{Te}$ / $^{132}\text{I}$ / $^{134}\text{I}$ / $^{136}\text{I}$ / $^{135}\text{Xe}$ / $^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
$^{131}\text{I}$	2007YA02	RADIOACTIVITY $^{51}\text{Cr}$ , $^{55}\text{Fe}$ , $^{67}\text{Ga}$ , $^{111}\text{In}$ , $^{133}\text{Ba}$ , $^{201}\text{Tl(EC)}$ ; $^{99m}\text{Tc(IT)}$ , ( $\beta^-$ ); $^{131}\text{I}$ , $^{133}\text{Xe}$ , $^{137}\text{Cs}(\beta^-)$ ; $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
$^{131}\text{Xe}$	2007YA02	RADIOACTIVITY $^{51}\text{Cr}$ , $^{55}\text{Fe}$ , $^{67}\text{Ga}$ , $^{111}\text{In}$ , $^{133}\text{Ba}$ , $^{201}\text{Tl(EC)}$ ; $^{99m}\text{Tc(IT)}$ , ( $\beta^-$ ); $^{131}\text{I}$ , $^{133}\text{Xe}$ , $^{137}\text{Cs}(\beta^-)$ ; $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182

**A=132**

$^{132}\text{Sn}$	2007IB01	NUCLEAR REACTIONS $^{238}\text{U}(\gamma, F)$ $^{78}\text{Zn}$ / $^{132}\text{Sn}$ , E not given; measured fission fragment yields. ALTO facility. $^{238}\text{U}(n, F)$ $^{81}\text{Zn}$ / $^{83}\text{Ga}$ , E not given; measured E $\gamma$ , I $\gamma$ , E $\beta$ , I $\beta$ , $\gamma\gamma$ -coin. $^{81}\text{Ga}$ , $^{83}\text{Ge}$ deduced levels, J, $\pi$ . Online mass separator. JOUR NUPAB 787 110c
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**KEYNUMBERS AND KEYWORDS**

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**A=132 (*continued*)**

	2007KL05	NUCLEAR REACTIONS Be( $^{238}\text{U}$ , X), E=550 MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}$ ( $^{129}\text{Sn}$ , X), ( $^{130}\text{Sn}$ , X), ( $^{131}\text{Sn}$ , X), ( $^{132}\text{Sn}$ , X), ( $^{133}\text{Sn}$ , X), E $\approx$ 500 MeV / nucleon; measured En, E $\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , E not given; analyzed E $\gamma$ , I $\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced B(E1). JOUR NUPAB 788 145c
$^{132}\text{Sb}$	2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(n, F)$ $^{128}\text{Sb}$ / $^{130}\text{Sb}$ / $^{132}\text{Sb}$ / $^{131}\text{Te}$ / $^{133}\text{Te}$ / $^{132}\text{I}$ / $^{134}\text{I}$ / $^{136}\text{I}$ / $^{135}\text{Xe}$ / $^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
$^{132}\text{Te}$	2006SI40	NUCLEAR MOMENTS $^{120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007G003	NUCLEAR REACTIONS $^{235}\text{U}(n, F)$ , E=thermal; $^{235}\text{U}(\gamma, F)$ , E=12-30 MeV bremsstrahlung; analyzed fission fragment spin vs mass. $^{239}\text{Pu}(n, F)$ $^{132}\text{Te}$ , E=thermal; measured delayed E $\gamma$ , fission fragment kinetic energy, (fragment) $\gamma$ -coin; deduced high-spin isomer yield. JOUR IMPEE 16 410
$^{132}\text{I}$	2006MA87	RADIOACTIVITY $^{132}\text{I}(\beta^-)$ [from U(n, F)]; measured E $\gamma$ , I $\gamma$ , T <sub>1/2</sub> . Radiochemical preparation, place-relay method. JOUR RAACA 94 403
	2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(n, F)$ $^{128}\text{Sb}$ / $^{130}\text{Sb}$ / $^{132}\text{Sb}$ / $^{131}\text{Te}$ / $^{133}\text{Te}$ / $^{132}\text{I}$ / $^{134}\text{I}$ / $^{136}\text{I}$ / $^{135}\text{Xe}$ / $^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
$^{132}\text{Xe}$	2006MA87	RADIOACTIVITY $^{132}\text{I}(\beta^-)$ [from U(n, F)]; measured E $\gamma$ , I $\gamma$ , T <sub>1/2</sub> . Radiochemical preparation, place-relay method. JOUR RAACA 94 403
$^{132}\text{Ce}$	2007BR24	NUCLEAR REACTIONS $^{68}\text{Zn}$ ( $^{64}\text{Ni}$ , X) $^{132}\text{Ce}$ , E=300, 400, 500 MeV; $^{116}\text{Sn}$ ( $^{16}\text{O}$ , X) $^{132}\text{Ce}$ , E=130, 250 MeV; measured E $\gamma$ , I $\gamma$ , E $\alpha$ , I $\alpha$ , (residual) $\gamma$ -coin using Hector and Garfield arrays; deduced average giant dipole resonance width and energy. JOUR NUPAB 788 205c
	2007VE02	NUCLEAR REACTIONS $^{141}\text{Pr}(p, X)$ $^{132}\text{Ce}$ / $^{133m}\text{Ce}$ / $^{135}\text{Ce}$ / $^{137m}\text{Ce}$ / $^{139}\text{Ce}$ , E $\approx$ 21-97 MeV; La(p, X) $^{139}\text{Ce}$ , E $\approx$ 4-11 MeV; measured production $\sigma$ ; deduced thick-target yields. JOUR NIMBE 255 331
	2007WI08	NUCLEAR REACTIONS $^{68}\text{Zn}$ ( $^{64}\text{Ni}$ , F), E=300, 400, 500 MeV; $^{116}\text{Sn}$ ( $^{16}\text{O}$ , F), E=130, 250 MeV; measured E $\gamma$ , I $\gamma$ from GDR decay. $^{132}\text{Ce}$ deduced GDR parameters. JOUR APOBB 38 1447

**A=133**

$^{133}\text{Sn}$	2006KEZZ	RADIOACTIVITY $^{133,135}\text{Sn}$ , $^{137,138}\text{Sb}$ , $^{138,139,140}\text{Te}$ , $^{142,143}\text{I}(\beta^-)$ [from Pb( $^{238}\text{U}$ , X)]; measured T <sub>1/2</sub> . REPT GSI 2006-1,P154,Kessler
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**A=133 (continued)**

2007J009	NUCLEAR REACTIONS $^2\text{H}(^{82}\text{Ge}, \text{p})$ , E=4 MeV / nucleon; $^2\text{H}(^{84}\text{Se}, \text{p})$ , E=4.5 MeV / nucleon; $^2\text{H}(^{132}\text{Sn}, \text{p})$ , E=4.77 MeV / nucleon; measured Ep and angular distributions. $^{83}\text{Ge}$ , $^{85}\text{Se}$ , $^{133}\text{Sn}$ deduced levels, J, $\pi$ and spectroscopic factors. Compared results to model calculations. JOUR APOBB 38 1205
2007KL05	NUCLEAR REACTIONS $\text{Be}(^{238}\text{U}, \text{X})$ , E=550 MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}(^{129}\text{Sn}, \text{X})$ , $(^{130}\text{Sn}, \text{X})$ , $(^{131}\text{Sn}, \text{X})$ , $(^{132}\text{Sn}, \text{X})$ , $(^{133}\text{Sn}, \text{X})$ , E $\approx$ 500 MeV / nucleon; measured En, E $\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , E not given; analyzed E $\gamma$ , I $\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced B(E1). JOUR NUPAB 788 145c
$^{133}\text{Sb}$	2006KEZZ RADIOACTIVITY $^{133,135}\text{Sn}$ , $^{137,138}\text{Sb}$ , $^{138,139,140}\text{Te}$ , $^{142,143}\text{I}(\beta^-)$ [from $\text{Pb}(^{238}\text{U}, \text{X})$ ]; measured T <sub>1/2</sub> . REPT GSI 2006-1,P154,Kessler
$^{133}\text{Te}$	2006SI40 NUCLEAR MOMENTS $^{120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136}\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(\text{n}, \text{F})^{128}\text{Sb} / ^{130}\text{Sb} / ^{132}\text{Sb} / ^{131}\text{Te} / ^{133}\text{Te} / ^{132}\text{I} / ^{134}\text{I} / ^{136}\text{I} / ^{135}\text{Xe} / ^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
$^{133}\text{Xe}$	2007YA02 RADIOACTIVITY $^{51}\text{Cr}$ , $^{55}\text{Fe}$ , $^{67}\text{Ga}$ , $^{111}\text{In}$ , $^{133}\text{Ba}$ , $^{201}\text{Tl}(\text{EC})$ ; $^{99m}\text{Tc}(\text{IT})$ , $(\beta^-)$ ; $^{131}\text{I}$ , $^{133}\text{Xe}$ , $^{137}\text{Cs}(\beta^-)$ ; $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
$^{133}\text{Cs}$	2007KE09 ATOMIC MASSES $^{74,75,76,77,79,80,83,87}\text{Rb}$ ; $^{64}\text{Zn}$ ; $^{71,74}\text{Ga}$ ; $^{84,88}\text{Sr}$ ; $^{133}\text{Cs}$ ; measured atomic masses. ISOLTRAP Penning Trap. JOUR PRVCA 76 045504
2007YA02	RADIOACTIVITY $^{51}\text{Cr}$ , $^{55}\text{Fe}$ , $^{67}\text{Ga}$ , $^{111}\text{In}$ , $^{133}\text{Ba}$ , $^{201}\text{Tl}(\text{EC})$ ; $^{99m}\text{Tc}(\text{IT})$ , $(\beta^-)$ ; $^{131}\text{I}$ , $^{133}\text{Xe}$ , $^{137}\text{Cs}(\beta^-)$ ; $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
$^{133}\text{Ba}$	2007YA02 RADIOACTIVITY $^{51}\text{Cr}$ , $^{55}\text{Fe}$ , $^{67}\text{Ga}$ , $^{111}\text{In}$ , $^{133}\text{Ba}$ , $^{201}\text{Tl}(\text{EC})$ ; $^{99m}\text{Tc}(\text{IT})$ , $(\beta^-)$ ; $^{131}\text{I}$ , $^{133}\text{Xe}$ , $^{137}\text{Cs}(\beta^-)$ ; $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
$^{133}\text{Ce}$	2007VE02 NUCLEAR REACTIONS $^{141}\text{Pr}(\text{p}, \text{X})^{132}\text{Ce} / ^{133m}\text{Ce} / ^{135}\text{Ce} / ^{137m}\text{Ce} / ^{139}\text{Ce}$ , E $\approx$ 21-97 MeV; La(p, X) $^{139}\text{Ce}$ , E $\approx$ 4-11 MeV; measured production $\sigma$ ; deduced thick-target yields. JOUR NIMBE 255 331

**A=134**

$^{134}\text{Te}$	2006SI40	NUCLEAR MOMENTS 120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136 $\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
$^{134}\text{I}$	2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(\text{n}, \text{F})^{128}\text{Sb} / ^{130}\text{Sb} / ^{132}\text{Sb} / ^{131}\text{Te} / ^{133}\text{Te} / ^{132}\text{I} / ^{134}\text{I} / ^{136}\text{I} / ^{135}\text{Xe} / ^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
$^{134}\text{Cs}$	2007NI04	RADIOACTIVITY $^{137}\text{Cs}(\beta^-)$ ; $^{134m}\text{Cs}(\text{IT})$ [from $^{133}\text{Cs}(\text{n}, \gamma)$ ]; measured $E\gamma$ , $I\gamma$ , X-ray spectra. $^{134}\text{Cs}$ , $^{137}\text{Ba}$ transitions deduced ICC. Comparison with model predictions. JOUR PRVCA 75 024308
$^{134}\text{La}$	2007KU13	NUCLEAR REACTIONS $^{124}\text{Sn}(^{14}\text{N}, 4\text{n})$ , E=67 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc, lifetimes. $^{134}\text{La}$ deduced levels, $J$ , $\pi$ . JOUR PRVCA 76 014309
$^{134}\text{Pr}$	2007T021	NUCLEAR REACTIONS $^{119}\text{Sn}(^{19}\text{F}, 4\text{n}\gamma)$ , E=83, 87 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, lifetimes, multipolarity, linear polarization. $^{134}\text{Pr}$ ; deduced levels, $J$ , $\pi$ , band structure, chiral behavior, TQPTT and IBFFM model calculations, B(E2), B(M1). JOUR PRVCA 76 044313

**A=135**

$^{135}\text{Sn}$	2006KEZZ	RADIOACTIVITY $^{133,135}\text{Sn}$ , $^{137,138}\text{Sb}$ , $^{138,139,140}\text{Te}$ , $^{142,143}\text{I}(\beta^-)$ [from $\text{Pb}^{(238)\text{U}}$ , X)]; measured $T_{1/2}$ . REPT GSI 2006-1,P154,Kessler
	2007K066	RADIOACTIVITY $^{135}\text{Sn}(\beta^-)$ [from $^{235}\text{U}(\text{n}, \text{X})$ , E=thermal]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ , $\gamma\gamma$ -coinc. $^{135}\text{Sb}$ deduced $T_{1/2}$ , B(M1), B(E2). JOUR ZAANE 32 25
$^{135}\text{Sb}$	2006KEZZ	RADIOACTIVITY $^{133,135}\text{Sn}$ , $^{137,138}\text{Sb}$ , $^{138,139,140}\text{Te}$ , $^{142,143}\text{I}(\beta^-)$ [from $\text{Pb}^{(238)\text{U}}$ , X)]; measured $T_{1/2}$ . REPT GSI 2006-1,P154,Kessler
	2007K066	RADIOACTIVITY $^{135}\text{Sn}(\beta^-)$ [from $^{235}\text{U}(\text{n}, \text{X})$ , E=thermal]; measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ , $\gamma\gamma$ -coinc. $^{135}\text{Sb}$ deduced $T_{1/2}$ , B(M1), B(E2). JOUR ZAANE 32 25
	2007MA40	RADIOACTIVITY $^{136}\text{Sn}(\beta^-)$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{135}\text{Sb}$ deduced levels, B(E2). JOUR APOBB 38 1213
$^{135}\text{Te}$	2006SI40	NUCLEAR MOMENTS 120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136 $\text{Te}$ ; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007F002	RADIOACTIVITY $^{135,136}\text{Te}(\beta^-)$ ; measured $E\beta$ , $E\gamma$ , $\beta\gamma$ -coinc. Deduced $\beta$ endpoint energies and mass excess. JOUR PRVCA 75 054308
$^{135}\text{I}$	2007F002	RADIOACTIVITY $^{135,136}\text{Te}(\beta^-)$ ; measured $E\beta$ , $E\gamma$ , $\beta\gamma$ -coinc. Deduced $\beta$ endpoint energies and mass excess. JOUR PRVCA 75 054308
$^{135}\text{Xe}$	2007F003	RADIOACTIVITY $^{135}\text{Xe}$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. Deduced high spin level structure, $J$ , $\pi$ . JOUR PRVCA 75 054322

**A=135 (continued)**

	2007F003	NUCLEAR REACTIONS $^{136}\text{Xe}(n, 2n\gamma)$ , E not given; measured excitation functions. JOUR PRVCA 75 054322
	2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(n, F)^{128}\text{Sb} / ^{130}\text{Sb} / ^{132}\text{Sb} / ^{131}\text{Te} / ^{133}\text{Te} / ^{132}\text{I} / ^{134}\text{I} / ^{136}\text{I} / ^{135}\text{Xe} / ^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
$^{135}\text{Ce}$	2007VE02	NUCLEAR REACTIONS $^{141}\text{Pr}(p, X)^{132}\text{Ce} / ^{133m}\text{Ce} / ^{135}\text{Ce} / ^{137m}\text{Ce} / ^{139}\text{Ce}$ , E $\approx$ 21-97 MeV; $\text{La}(p, X)^{139}\text{Ce}$ , E $\approx$ 4-11 MeV; measured production $\sigma$ ; deduced thick-target yields. JOUR NIMBE 255 331
$^{135}\text{Nd}$	2007MU14	NUCLEAR REACTIONS $^{100}\text{Mo}(^{40}\text{Ar}, 5n)$ , E=175 MeV; measured $E\gamma$ , $I\gamma$ , lifetimes. $^{135}\text{Nd}$ deduced B(M1), B(E2). JOUR PRLTA 99 172501

**A=136**

$^{136}\text{Sn}$	2007MA40	RADIOACTIVITY $^{136}\text{Sn}(\beta^-)$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{135}\text{Sb}$ deduced levels, B(E2). JOUR APOBB 38 1213
$^{136}\text{Sb}$	2007MA40	RADIOACTIVITY $^{136}\text{Sn}(\beta^-)$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{135}\text{Sb}$ deduced levels, B(E2). JOUR APOBB 38 1213
	2007SI27	NUCLEAR REACTIONS $^{241}\text{Pu}(n, F)$ , E=thermal; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, X-ray spectra, i(X-ray) $\gamma$ -coin, conversion electrons. $^{136}\text{Sb}$ ; deduced levels, J, $\pi$ , half-lives, isomer. JOUR PRVCA 76 041303
$^{136}\text{Te}$	2006SI40	NUCLEAR MOMENTS 120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136 Te; measured hfs, isotope shifts; deduced $\mu$ , quadrupole moments, radii. Laser spectroscopy, comparison with model predictions. JOUR HYIND 171 173
	2007F002	RADIOACTIVITY $^{135,136}\text{Te}(\beta^-)$ ; measured $E\beta$ , $E\gamma$ , $\beta\gamma$ -coinc. Deduced $\beta$ endpoint energies and mass excess. JOUR PRVCA 75 054308
$^{136}\text{I}$	2007F002	RADIOACTIVITY $^{135,136}\text{Te}(\beta^-)$ ; measured $E\beta$ , $E\gamma$ , $\beta\gamma$ -coinc. Deduced $\beta$ endpoint energies and mass excess. JOUR PRVCA 75 054308
	2007NA04	NUCLEAR REACTIONS $^{243}\text{Am}(n, F)^{128}\text{Sb} / ^{130}\text{Sb} / ^{132}\text{Sb} / ^{131}\text{Te} / ^{133}\text{Te} / ^{132}\text{I} / ^{134}\text{I} / ^{136}\text{I} / ^{135}\text{Xe} / ^{138}\text{Cs}$ , E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
$^{136}\text{Xe}$	2006GA44	RADIOACTIVITY $^{136}\text{Xe}(2\beta^-)$ ; measured $T_{1/2}$ lower limits for $0\nu\beta\beta$ and $2\nu\beta\beta$ -decay. JOUR PANUE 69 2129
	2007RE03	ATOMIC MASSES $^{136}\text{Xe}$ ; measured mass; deduced Q-value for $2\beta$ -decay. JOUR PRLTA 98 053003
$^{136}\text{Ba}$	2006GA44	RADIOACTIVITY $^{136}\text{Xe}(2\beta^-)$ ; measured $T_{1/2}$ lower limits for $0\nu\beta\beta$ and $2\nu\beta\beta$ -decay. JOUR PANUE 69 2129
$^{136}\text{Ce}$	2007AH02	RADIOACTIVITY $^{136}\text{Pr}(\text{EC}), (\beta^+)$ [from $^{134}\text{Ba}(^6\text{Li}, 4n)$ ]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{136}\text{Ce}$ deduced levels, J, $\pi$ , $\delta$ , B(E2) / B(M1), possible mixed-symmetry state. JOUR PRVCA 75 014313

**KEYNUMBERS AND KEYWORDS**

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**A=136 (*continued*)**

<sup>136</sup>Pr      2007AH02      RADIOACTIVITY <sup>136</sup>Pr(EC), ( $\beta^+$ ) [from <sup>134</sup>Ba(<sup>6</sup>Li, 4n)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>136</sup>Ce deduced levels, J,  $\pi$ ,  $\delta$ , B(E2) / B(M1), possible mixed-symmetry state. JOUR PRVCA 75 014313

**A=137**

<sup>137</sup>Sb      2006KEZZ      RADIOACTIVITY <sup>133,135</sup>Sn, <sup>137,138</sup>Sb, <sup>138,139,140</sup>Te, <sup>142,143</sup>I( $\beta^-$ ) [from Pb(<sup>238</sup>U, X)]; measured T<sub>1/2</sub>. REPT GSI 2006-1,P154,Kessler

<sup>137</sup>Te      2006KEZZ      RADIOACTIVITY <sup>133,135</sup>Sn, <sup>137,138</sup>Sb, <sup>138,139,140</sup>Te, <sup>142,143</sup>I( $\beta^-$ ) [from Pb(<sup>238</sup>U, X)]; measured T<sub>1/2</sub>. REPT GSI 2006-1,P154,Kessler

<sup>137</sup>Cs      2007LI21      RADIOACTIVITY <sup>252</sup>Cf(SF); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>137,138</sup>Cs deduced high-spin levels, J,  $\pi$ , configurations. Gammasphere array, comparison with shell model predictions. JOUR PRVCA 75 044314

                2007NI04      RADIOACTIVITY <sup>137</sup>Cs( $\beta^-$ ); <sup>134m</sup>Cs(IT) [from <sup>133</sup>Cs(n,  $\gamma$ )]; measured E $\gamma$ , I $\gamma$ , X-ray spectra. <sup>134</sup>Cs, <sup>137</sup>Ba transitions deduced ICC. Comparison with model predictions. JOUR PRVCA 75 024308

                2007SE05      RADIOACTIVITY <sup>137</sup>Cs( $\beta^-$ ); measured E $\gamma$ , I $\gamma$ . Deduced branching ratio and ft value. JOUR BRSPE 71 827

                2007YA02      RADIOACTIVITY <sup>51</sup>Cr, <sup>55</sup>Fe, <sup>67</sup>Ga, <sup>111</sup>In, <sup>133</sup>Ba, <sup>201</sup>Tl(EC); <sup>99m</sup>Tc(IT), ( $\beta^-$ ); <sup>131</sup>I, <sup>133</sup>Xe, <sup>137</sup>Cs( $\beta^-$ ); <sup>226</sup>Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182

<sup>137</sup>Ba      2007NI04      RADIOACTIVITY <sup>137</sup>Cs( $\beta^-$ ); <sup>134m</sup>Cs(IT) [from <sup>133</sup>Cs(n,  $\gamma$ )]; measured E $\gamma$ , I $\gamma$ , X-ray spectra. <sup>134</sup>Cs, <sup>137</sup>Ba transitions deduced ICC. Comparison with model predictions. JOUR PRVCA 75 024308

                2007SE05      RADIOACTIVITY <sup>137</sup>Cs( $\beta^-$ ); measured E $\gamma$ , I $\gamma$ . Deduced branching ratio and ft value. JOUR BRSPE 71 827

                2007YA02      RADIOACTIVITY <sup>51</sup>Cr, <sup>55</sup>Fe, <sup>67</sup>Ga, <sup>111</sup>In, <sup>133</sup>Ba, <sup>201</sup>Tl(EC); <sup>99m</sup>Tc(IT), ( $\beta^-$ ); <sup>131</sup>I, <sup>133</sup>Xe, <sup>137</sup>Cs( $\beta^-$ ); <sup>226</sup>Ra( $\alpha$ ); measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182

<sup>137</sup>Ce      2007VE02      NUCLEAR REACTIONS <sup>141</sup>Pr(p, X)<sup>132</sup>Ce / <sup>133m</sup>Ce / <sup>135</sup>Ce / <sup>137m</sup>Ce / <sup>139</sup>Ce, E ≈ 21-97 MeV; La(p, X)<sup>139</sup>Ce, E ≈ 4-11 MeV; measured production  $\sigma$ ; deduced thick-target yields. JOUR NIMBE 255 331

<sup>137</sup>Pr      2007AG13      NUCLEAR REACTIONS <sup>122</sup>Sn(<sup>19</sup>F, 4n), E=80 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coinc. <sup>137</sup>Pr deduced levels, J,  $\pi$ , multipolarity. JOUR PRVCA 76 024321

**A=138**

<sup>138</sup>Sb      2006KEZZ      RADIOACTIVITY <sup>133,135</sup>Sn, <sup>137,138</sup>Sb, <sup>138,139,140</sup>Te, <sup>142,143</sup>I( $\beta^-$ ) [from Pb(<sup>238</sup>U, X)]; measured T<sub>1/2</sub>. REPT GSI 2006-1,P154,Kessler

<sup>138</sup>Te      2006KEZZ      RADIOACTIVITY <sup>133,135</sup>Sn, <sup>137,138</sup>Sb, <sup>138,139,140</sup>Te, <sup>142,143</sup>I( $\beta^-$ ) [from Pb(<sup>238</sup>U, X)]; measured T<sub>1/2</sub>. REPT GSI 2006-1,P154,Kessler

<sup>138</sup>I      2006KEZZ      RADIOACTIVITY <sup>133,135</sup>Sn, <sup>137,138</sup>Sb, <sup>138,139,140</sup>Te, <sup>142,143</sup>I( $\beta^-$ ) [from Pb(<sup>238</sup>U, X)]; measured T<sub>1/2</sub>. REPT GSI 2006-1,P154,Kessler

**A=138 (*continued*)**

<sup>138</sup> Cs	2007RZ01 2007LI21	RADIOACTIVITY <sup>138</sup> I [from <sup>248</sup> Cm(SF)]; measured prompt and delayed E $\gamma$ , I $\gamma$ . Deduced level energies, J, $\pi$ . JOUR PRVCA 75 054319 RADIOACTIVITY <sup>252</sup> Cf(SF); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>137,138</sup> Cs deduced high-spin levels, J, $\pi$ , configurations. Gammasphere array, comparison with shell model predictions. JOUR PRVCA 75 044314
	2007NA04	NUCLEAR REACTIONS <sup>243</sup> Am(n, F) <sup>128</sup> Sb / <sup>130</sup> Sb / <sup>132</sup> Sb / <sup>131</sup> Te / <sup>133</sup> Te / <sup>132</sup> I / <sup>134</sup> I / <sup>136</sup> I / <sup>135</sup> Xe / <sup>138</sup> Cs, E=fast; measured isomeric yield ratios; deduced fission fragment angular momenta, single-particle spin effect. Comparison with results from other fissioning systems. JOUR ZAANE 31 195
	2007RZ03	RADIOACTIVITY <sup>138</sup> Cs(IT) [from <sup>248</sup> Cm(SF)]; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>138</sup> Cs deduced levels, J, $\pi$ . JOUR ZAANE 32 5
<sup>138</sup> Ba	2007KL05	NUCLEAR REACTIONS Be( <sup>238</sup> U, X), E=550 MeV / nucleon; measured fragment yields. <sup>12</sup> C, <sup>208</sup> Pb( <sup>129</sup> Sn, X), ( <sup>130</sup> Sn, X), ( <sup>131</sup> Sn, X), ( <sup>132</sup> Sn, X), ( <sup>133</sup> Sn, X), E≈ 500 MeV / nucleon; measured En, E $\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma$ (E). <sup>129,130,131,132,133</sup> Sn deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb( $\gamma$ , $\gamma'$ ), E not given; analyzed E $\gamma$ , I $\gamma$ . <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb deduced B(E1). JOUR NUPAB 788 145c
<sup>138</sup> La	2007BY02	NUCLEAR REACTIONS <sup>138</sup> Ba, <sup>180</sup> Hf( <sup>3</sup> He, t), E=140 MeV / nucleon; measured particle spectra. <sup>138</sup> La, <sup>180</sup> Ta deduced Gamow-Teller strength distributions. Implications for stellar nucleosynthesis discussed. JOUR PRLTA 98 082501
<sup>138</sup> Ce	2007PI13	NUCLEAR REACTIONS <sup>12</sup> C( <sup>138</sup> Ce, <sup>138</sup> Ce'), E=480 MeV; measured E $\gamma$ , I $\gamma$ , angular distributions following projectile Coulomb excitation. <sup>138</sup> Ce deduced levels, J, $\pi$ , B(M1), B(E2), matrix elements, $\delta$ , mixed-symmetry state. Gammasphere array. JOUR NUPAB 788 85c
<sup>138</sup> Pr	2007LI12	NUCLEAR REACTIONS <sup>128</sup> Te( <sup>14</sup> N, 4n), E=64 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>138</sup> Pr deduced high-spin levels, J, $\pi$ , configurations. JOUR PRVCA 75 034304

**A=139**

<sup>139</sup> Te	2006KEZZ	RADIOACTIVITY <sup>133,135</sup> Sn, <sup>137,138</sup> Sb, <sup>138,139,140</sup> Te, <sup>142,143</sup> I( $\beta^-$ ) [from Pb( <sup>238</sup> U, X)]; measured T <sub>1/2</sub> . REPT GSI 2006-1,P154,Kessler
<sup>139</sup> I	2006KEZZ	RADIOACTIVITY <sup>133,135</sup> Sn, <sup>137,138</sup> Sb, <sup>138,139,140</sup> Te, <sup>142,143</sup> I( $\beta^-$ ) [from Pb( <sup>238</sup> U, X)]; measured T <sub>1/2</sub> . REPT GSI 2006-1,P154,Kessler
<sup>139</sup> La	2006SC30 2007SC18	NUCLEAR MOMENTS <sup>139</sup> La; measured hfs; deduced magnetic dipole and electric quadrupole hyperfine constants. JOUR PHSTB 73 217 NUCLEAR REACTIONS <sup>139</sup> La, <sup>141</sup> Pr( $\gamma$ , $\gamma'$ ), E=4.1 MeV bremsstrahlung; measured E $\gamma$ , I $\gamma$ . <sup>139</sup> La, <sup>141</sup> Pr deduced level energies, widths, B(E1), B(M1), dipole strength distributions, blocking effect. JOUR PRVCA 75 044313
<sup>139</sup> Ce	2007VE02	NUCLEAR REACTIONS <sup>141</sup> Pr(p, X) <sup>132</sup> Ce / <sup>133m</sup> Ce / <sup>135</sup> Ce / <sup>137m</sup> Ce / <sup>139</sup> Ce, E ≈ 21-97 MeV; La(p, X) <sup>139</sup> Ce, E ≈ 4-11 MeV; measured production $\sigma$ ; deduced thick-target yields. JOUR NIMBE 255 331

**KEYNUMBERS AND KEYWORDS**

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**A=139 (*continued*)**

<sup>139</sup> Nd	2007KU12	NUCLEAR REACTIONS <sup>128</sup> Te( <sup>16</sup> O, 5n), E=85 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc, polarization assymetry. <sup>139</sup> Nd deduced levels, J, $\pi$ . JOUR PRVCA 76 014306
<sup>139</sup> Sm	2007LIZY	NUCLEAR REACTIONS <sup>114</sup> Sn( <sup>32</sup> S, n2p $\alpha$ ), ( <sup>32</sup> S, n2p), E=160 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, DSAM. <sup>139</sup> Sm, <sup>142</sup> Gd deduced high-spin levels, J, $\pi$ , $\tau$ . EUROBALL IV array. CONF Voronezh(Nucleus-2007),Contrib,P94,Lieder

**A=140**

<sup>140</sup> Te	2006KEZZ	RADIOACTIVITY <sup>133,135</sup> Sn, <sup>137,138</sup> Sb, <sup>138,139,140</sup> Te, <sup>142,143</sup> I( $\beta^-$ ) [from Pb( <sup>238</sup> U, X)]; measured T <sub>1/2</sub> . REPT GSI 2006-1,P154,Kessler
<sup>140</sup> I	2006KEZZ	RADIOACTIVITY <sup>133,135</sup> Sn, <sup>137,138</sup> Sb, <sup>138,139,140</sup> Te, <sup>142,143</sup> I( $\beta^-$ ) [from Pb( <sup>238</sup> U, X)]; measured T <sub>1/2</sub> . REPT GSI 2006-1,P154,Kessler
<sup>140</sup> La	2007MAZW	NUCLEAR REACTIONS <sup>139</sup> La(n, $\gamma$ ), <sup>151</sup> Sm(n, $\gamma$ ), E< 1 MeV; measured yields, cross sections. CONF Geneva(NIC-IX) 138
	2007TAZW	NUCLEAR REACTIONS <sup>139</sup> La, <sup>152</sup> Sm, <sup>192,193</sup> Ir(n, $\gamma$ ), E=55, 144 keV; measured cross sections relative to <sup>197</sup> Au. CONF Tokai-mura (Nuclear Data) Proc,PV.02,Tan
	2007TE03	NUCLEAR REACTIONS <sup>139</sup> La(n, $\gamma$ ), E=0.6-9000 eV; measured capture $\sigma$ ; deduced resonance parameters, level densities, Maxwellian averaged $\sigma$ . Astrophysical implications discussed. JOUR PRVCA 75 035807
<sup>140</sup> Ce	2007KL05	NUCLEAR REACTIONS Be( <sup>238</sup> U, X), E=550 MeV / nucleon; measured fragment yields. <sup>12</sup> C, <sup>208</sup> Pb( <sup>129</sup> Sn, X), ( <sup>130</sup> Sn, X), ( <sup>131</sup> Sn, X), ( <sup>132</sup> Sn, X), ( <sup>133</sup> Sn, X), E≈ 500 MeV / nucleon; measured En, E $\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma$ (E). <sup>129,130,131,132,133</sup> Sn deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb( $\gamma$ , $\gamma'$ ), E not given; analyzed E $\gamma$ , I $\gamma$ . <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb deduced B(E1). JOUR NUPAB 788 145c
	2007SA25	RADIOACTIVITY <sup>140</sup> Ce( $\beta^-$ ); measured E $\gamma$ , I $\gamma$ , angular anisotropy for source implanted in highly oriented pyrolytic graphite. Time-differential perturbed angular correlation. JOUR JRNCD 272 665
	2007SA48	NUCLEAR REACTIONS <sup>140</sup> Ce( $\alpha$ , $\alpha'$ ), E=136 MeV; measured E $\alpha$ , E $\gamma$ , $\alpha\gamma$ -coin, $\sigma(\theta)$ . <sup>140</sup> Ce deduced electric dipole strength distribution, pygmy resonance features. JOUR NUPAB 788 165c
	2007W006	NUCLEAR REACTIONS <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb( $\alpha$ , $\alpha'$ ), ( $\alpha$ , n $\alpha$ ), E=200 MeV; measured E $\gamma$ , E $\alpha$ , En, $\sigma(E, \theta)$ , excitation energy spectra. <sup>90</sup> Zr, <sup>116</sup> Sn, <sup>208</sup> Pb deduced isoscalar GDR neutron decay features. <sup>140</sup> Ce( $\alpha$ , $\alpha\gamma$ ), E=136 MeV; measured E $\gamma$ , E $\alpha$ . <sup>140</sup> Ce deduced E1 strength distribution. JOUR NUPAB 788 27c
<sup>140</sup> Pr	2007SA25	RADIOACTIVITY <sup>140</sup> Ce( $\beta^-$ ); measured E $\gamma$ , I $\gamma$ , angular anisotropy for source implanted in highly oriented pyrolytic graphite. Time-differential perturbed angular correlation. JOUR JRNCD 272 665

**KEYNUMBERS AND KEYWORDS**

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**A=140 (*continued*)**

$^{140}\text{Nd}$	2007QA03	NUCLEAR REACTIONS Sr(p, nx) $^{88}\text{Y}$ , E=9-14 MeV; Rb( $\alpha$ , nx) $^{88}\text{Y}$ , E=12-18 MeV; $^{141}\text{Pr}(p, 2n)$ , E=15-30 MeV; Ce( $^3\text{He}$ , nx) $^{140}\text{Nd}$ , E=20-35 MeV; $^{153}\text{Eu}(n, p)$ , E=14 MeV; $^{150}\text{Nd}(\alpha, n)$ , E=15-25 MeV; measured yields, excitation function and cross section. JOUR RAACA 95 313
	2007ZH23	NUCLEAR REACTIONS Ce( $^3\text{He}$ , nx), E< 33.5 MeV; $^{141}\text{Pr}(p, 2n)$ , E=16.2-18.6 MeV; measured yields. JOUR RAACA 95 319
$^{140}\text{Gd}$	2006OL09	NUCLEAR REACTIONS $^{92}\text{Mo}(^{54}\text{Fe}, 2p\alpha)$ , E=240 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{140}\text{GD}$ deduced high-spin levels $J, \pi$ . JOUR BJPHE 36 1371

**A=141**

$^{141}\text{Pr}$	2007SC18	NUCLEAR REACTIONS $^{139}\text{La}$ , $^{141}\text{Pr}(\gamma, \gamma')$ , E=4.1 MeV bremsstrahlung; measured $E\gamma$ , $I\gamma$ . $^{139}\text{La}$ , $^{141}\text{Pr}$ deduced level energies, widths, B(E1), B(M1), dipole strength distributions, blocking effect. JOUR PRVCA 75 044313
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**A=142**

$^{142}\text{I}$	2006KEZZ	RADIOACTIVITY $^{133,135}\text{Sn}$ , $^{137,138}\text{Sb}$ , $^{138,139,140}\text{Te}$ , $^{142,143}\text{I}(\beta^-)$ [from Pb( $^{238}\text{U}$ , X)]; measured $T_{1/2}$ . REPT GSI 2006-1,P154,Kessler
$^{142}\text{Xe}$	2006KEZZ	RADIOACTIVITY $^{133,135}\text{Sn}$ , $^{137,138}\text{Sb}$ , $^{138,139,140}\text{Te}$ , $^{142,143}\text{I}(\beta^-)$ [from Pb( $^{238}\text{U}$ , X)]; measured $T_{1/2}$ . REPT GSI 2006-1,P154,Kessler
$^{142}\text{Pr}$	2007ZH42	NUCLEAR REACTIONS $^{141}\text{Pr}(n, \gamma)$ , E=0.54, 1.09, 1.59 MeV; measured $E\gamma$ , $I\gamma$ , cross sections using the activation method. Compared results to model calculations. JOUR ARISE 65 1314
$^{142}\text{Nd}$	2007KL05	NUCLEAR REACTIONS Be( $^{238}\text{U}$ , X), E=550 MeV / nucleon; measured fragment yields. $^{12}\text{C}$ , $^{208}\text{Pb}$ ( $^{129}\text{Sn}$ , X), ( $^{130}\text{Sn}$ , X), ( $^{131}\text{Sn}$ , X), ( $^{132}\text{Sn}$ , X), ( $^{133}\text{Sn}$ , X), $E \approx 500$ MeV / nucleon; measured $E\gamma$ , $n\gamma$ -coin; deduced electromagnetic dissociation $\sigma(E)$ . $^{129,130,131,132,133}\text{Sn}$ deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}(\gamma, \gamma')$ , E not given; analyzed $E\gamma$ , $I\gamma$ . $^{40,44,48}\text{Ca}$ , $^{116,124}\text{Sn}$ , $^{138}\text{Ba}$ , $^{140}\text{Ce}$ , $^{142}\text{Nd}$ , $^{144}\text{Sm}$ , $^{208}\text{Pb}$ deduced B(E1). JOUR NUPAB 788 145c
$^{142}\text{Gd}$	2007LIZY	NUCLEAR REACTIONS $^{114}\text{Sn}$ ( $^{32}\text{S}$ , n2p $\alpha$ ), ( $^{32}\text{S}$ , n2p), E=160 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, DSAM. $^{139}\text{Sm}$ , $^{142}\text{Gd}$ deduced high-spin levels, $J, \pi, \tau$ . EUROBALL IV array. CONF Voronezh(Nucleus-2007),Contrib,P94,Lieder

**A=143**

$^{143}\text{I}$	2006KEZZ	RADIOACTIVITY $^{133,135}\text{Sn}$ , $^{137,138}\text{Sb}$ , $^{138,139,140}\text{Te}$ , $^{142,143}\text{I}(\beta^-)$ [from Pb( $^{238}\text{U}$ , X)]; measured $T_{1/2}$ . REPT GSI 2006-1,P154,Kessler
$^{143}\text{Xe}$	2006KEZZ	RADIOACTIVITY $^{133,135}\text{Sn}$ , $^{137,138}\text{Sb}$ , $^{138,139,140}\text{Te}$ , $^{142,143}\text{I}(\beta^-)$ [from Pb( $^{238}\text{U}$ , X)]; measured $T_{1/2}$ . REPT GSI 2006-1,P154,Kessler

**A=143 (continued)**

<sup>143</sup> La	2007WA20	RADIOACTIVITY <sup>143</sup> La[from <sup>252</sup> Cf(SF)]; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>143</sup> La deduced levels, J, $\pi$ for high spin levels. JOUR PRVCA 75 064301
<sup>143</sup> Sm	2006ARZX	NUCLEAR REACTIONS <sup>27</sup> Al(n, $\alpha$ ), E=14 MeV; <sup>144</sup> Sm, <sup>206,208</sup> Pb(n, 2n), E=14 MeV; measured isomer production $\sigma$ . REPT JAEA-Conf 2006-009,P89,Arakita
	2007PAZY	NUCLEAR REACTIONS <sup>144</sup> Sm( $\gamma$ , n), E(end point)=20-30 MeV; measured E $\gamma$ , I $\gamma$ ; <sup>143m,143g</sup> Sm deduced yield ratio Y <sub>m</sub> / Y <sub>g</sub> . Betatron, activation method, Ge(Li) detector. CONF Voronezh(Nucleus-2007),Contrib,P145,Palvanov
<sup>143</sup> Gd	2007LIZY	NUCLEAR REACTIONS <sup>114</sup> Sn( <sup>32</sup> S, n2p $\alpha$ ), ( <sup>32</sup> S, n2p), E=160 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, DSAM. <sup>139</sup> Sm, <sup>142</sup> Gd deduced high-spin levels, J, $\pi$ , $\tau$ . EUROBALL IV array. CONF Voronezh(Nucleus-2007),Contrib,P94,Lieder
<sup>143</sup> Tb	2007RAZZ	ATOMIC MASSES <sup>143,147</sup> Tb, <sup>143,144,145,146,147,148</sup> Dy, <sup>144,145,146,147,148</sup> Ho, <sup>146,147,148</sup> Er, <sup>147,148</sup> Tm; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
<sup>143</sup> Dy	2007RAZZ	ATOMIC MASSES <sup>143,147</sup> Tb, <sup>143,144,145,146,147,148</sup> Dy, <sup>144,145,146,147,148</sup> Ho, <sup>146,147,148</sup> Er, <sup>147,148</sup> Tm; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007

**A=144**

<sup>144</sup> Nd	2007EG02	NUCLEAR REACTIONS <sup>91</sup> Zr, <sup>116,118,119,120,122,124</sup> Sn, <sup>143</sup> Nd, <sup>177</sup> Hf(n, $\gamma$ ); E=thermal; measured E $\gamma$ , I $\gamma$ , cross sections. JOUR ARISE 65 1290
<sup>144</sup> Sm	2007KL05	NUCLEAR REACTIONS Be( <sup>238</sup> U, X), E=550 MeV / nucleon; measured fragment yields. <sup>12</sup> C, <sup>208</sup> Pb( <sup>129</sup> Sn, X), ( <sup>130</sup> Sn, X), ( <sup>131</sup> Sn, X), ( <sup>132</sup> Sn, X), ( <sup>133</sup> Sn, X), E $\approx$ 500 MeV / nucleon; measured En, E $\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation $\sigma$ (E). <sup>129,130,131,132,133</sup> Sn deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations. <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb( $\gamma$ , $\gamma'$ ), E not given; analyzed E $\gamma$ , I $\gamma$ . <sup>40,44,48</sup> Ca, <sup>116,124</sup> Sn, <sup>138</sup> Ba, <sup>140</sup> Ce, <sup>142</sup> Nd, <sup>144</sup> Sm, <sup>208</sup> Pb deduced B(E1). JOUR NUPAB 788 145c
<sup>144</sup> Dy	2007RAZZ	ATOMIC MASSES <sup>143,147</sup> Tb, <sup>143,144,145,146,147,148</sup> Dy, <sup>144,145,146,147,148</sup> Ho, <sup>146,147,148</sup> Er, <sup>147,148</sup> Tm; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
<sup>144</sup> Ho	2007RAZZ	ATOMIC MASSES <sup>143,147</sup> Tb, <sup>143,144,145,146,147,148</sup> Dy, <sup>144,145,146,147,148</sup> Ho, <sup>146,147,148</sup> Er, <sup>147,148</sup> Tm; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007

**KEYNUMBERS AND KEYWORDS**

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**A=145**

$^{145}\text{Dy}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{145}\text{Ho}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{145}\text{Tm}$	2007SE06	NUCLEAR REACTIONS $^{58}\text{Ni}(^{92}\text{Mo}, 4\text{np})$ , E=417 MeV; measured $E\gamma$ , $I\gamma$ , $E\gamma$ , p $\gamma$ -coinc. $^{145}\text{Tm}$ deduced levels, J, $\pi$ . JOUR PRLTA 99 082502

**A=146**

$^{146}\text{Sm}$	2007HA49	NUCLEAR REACTIONS $^{147}\text{Sm}(\gamma, n)$ , E < 50 MeV; $^{147}\text{Sm}(n, 2n)$ , E=6-10 MeV; $^{147}\text{Sm}(p, 2n)$ , E=21 MeV; measured $E\alpha$ , $I\alpha$ . JOUR JNRSA 8 109
$^{146}\text{Eu}$	2007HA49	NUCLEAR REACTIONS $^{147}\text{Sm}(\gamma, n)$ , E < 50 MeV; $^{147}\text{Sm}(n, 2n)$ , E=6-10 MeV; $^{147}\text{Sm}(p, 2n)$ , E=21 MeV; measured $E\alpha$ , $I\alpha$ . JOUR JNRSA 8 109
$^{146}\text{Dy}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{146}\text{Ho}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{146}\text{Er}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007

**A=147**

$^{147}\text{Pm}$	2007BE48	RADIOACTIVITY $^{151}\text{Eu}(\alpha)$ ; measured $E\alpha$ , $I\alpha$ . Dduced lower lime for $T_{1/2}$ . JOUR NUPAB 789 15
$^{147}\text{Sm}$	2007K054	NUCLEAR REACTIONS $^{147}\text{Sm}(n, \gamma)$ , E=spectrum; measured $E\gamma$ , $I\gamma$ , multiplicities. $^{147}\text{Sm}$ deduced resonance energies and spins. JOUR PRVCA 76 025804
$^{147}\text{Tb}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{147}\text{Dy}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007

**KEYNUMBERS AND KEYWORDS**

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**A=147 (*continued*)**

$^{147}\text{Ho}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{147}\text{Er}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{147}\text{Tm}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007

**A=148**

$^{148}\text{Ce}$	2007G021	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, fission fragment and light charged particle yields. $^{108,110,112}\text{Ru}$ deduced levels, $J$ , $\pi$ . $^{104}\text{Zr}$ , $^{106}\text{Mo}$ , $^{148}\text{Ce}(\text{IT})$ ; measured $T_{1/2}$ , $B(\text{E}2)$ . Gammasphere array. JOUR NUPAB 787 231c
$^{148}\text{Sm}$	2007K054	NUCLEAR REACTIONS $^{147}\text{Sm}(\text{n}, \gamma)$ , $E=\text{spectrum}$ ; measured $E\gamma$ , $I\gamma$ , multiplicities. $^{147}\text{Sm}$ deduced resonance energies and spins. JOUR PRVCA 76 025804
	2007KOZY	NUCLEAR REACTIONS $^{147}\text{Sm}(\text{n}, \gamma)$ , $E=\text{spectrum}$ ; measured $E\gamma$ , yields. Deduced resonance parameters. PREPRINT ArXiv:0708.0218v1 [nucl-ex]
$^{148}\text{Dy}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{148}\text{Ho}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{148}\text{Er}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007
$^{148}\text{Tm}$	2007RAZZ	ATOMIC MASSES $^{143,147}\text{Tb}$ , $^{143,144,145,146,147,148}\text{Dy}$ , $^{144,145,146,147,148}\text{Ho}$ , $^{146,147,148}\text{Er}$ , $^{147,148}\text{Tm}$ ; measured masses. Penning-trap mass spectrometer. PREPRINT nucl-ex/0701030,01/22/2007

**A=149**

$^{149}\text{La}$	2007UR03	RADIOACTIVITY $^{149}\text{La}$ [from $^{248}\text{Cm}(\text{SF})$ ]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{149}\text{La}$ deduced levels, $J$ , $\pi$ . JOUR PRVCA 76 037301
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**A=150**

$^{150}\text{Nd}$	2006SH31	RADIOACTIVITY $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limits. JOUR BRSPE 70 731
$^{150}\text{Sm}$	2006SH31	RADIOACTIVITY $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limit. $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . JOUR PANUE 69 2090
	2006SH32	RADIOACTIVITY $^{82}\text{Se}$ , $^{96}\text{Zr}$ , $^{100}\text{Mo}$ , $^{116}\text{Cd}$ , $^{150}\text{Nd}(2\beta^-)$ ; measured $2\nu\beta\beta$ -decay $T_{1/2}$ . $^{82}\text{Se}$ , $^{100}\text{Mo}(2\beta^-)$ ; measured $0\nu\beta\beta$ -decay $T_{1/2}$ lower limits. JOUR BRSPE 70 731

**A=151**

$^{151}\text{Sm}$	2007DA23	NUCLEAR REACTIONS $^{150}\text{Sm}(n, \gamma)$ , $E=1-35$ MeV; measured $E\gamma$ , $I\gamma$ , excitation functions and partial $\gamma$ -ray production cross sections. Compared results to model calculations. JOUR NIMBE 261 948
	2007HA24	NUCLEAR REACTIONS $^{152}\text{Sm}$ , $^{197}\text{Au}(\gamma, n)$ , $E=8.3-12.4$ MeV; measured cross sections. JOUR JNSTA 44 938
$^{151}\text{Eu}$	2007BE48	RADIOACTIVITY $^{151}\text{Eu}(\alpha)$ ; measured $E\alpha$ , $I\alpha$ . Dduced lower lime for $T_{1/2}$ . JOUR NUPAB 789 15
$^{151}\text{Tb}$	2007BE20	NUCLEAR REACTIONS $^{130}\text{Te}(^{27}\text{Al}, 6n)$ , $E=155$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{151}\text{Tb}$ deduced unresolved superdeformed bands, decay-out features. Euroball IV array, comparison with band mixing model predictions. JOUR PRVCA 75 047301

**A=152**

$^{152}\text{Sm}$	2007KU20	RADIOACTIVITY $^{152}\text{Eu}(\beta^+)$ , (EC); measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{152}\text{Sm}$ deduced levels, $J$ , $\Pi$ . JOUR PRVCA 76 034319
	2007LI43	NUCLEAR REACTIONS $^{152}\text{Sm}(^{16}\text{O}, ^{16}\text{O})$ , $(^{16}\text{O}, ^{16}\text{O}')$ , $(^{16}\text{O}, X)$ , $E(cm)=45-70$ MeV; measured $\sigma(\theta=156, \theta=160, \theta=164)$ , evaporation residue $\sigma$ for boron, carbon, nitrogen and oxygen isotopes; deduced reaction mechanism features. $^{208}\text{Pb}(^6\text{Li}, ^6\text{Li})$ , $(^6\text{Li}, ^6\text{Li}')$ , $(^6\text{Li}, X)$ , $(^7\text{Li}, ^7\text{Li})$ , $(^7\text{Li}, ^7\text{Li}')$ , $(^7\text{Li}, X)$ , $E(cm)=18-42$ MeV; $^{90,96}\text{Zr}(^{32}\text{S}, X)$ , $E(cm)=60-95$ MeV; measured $\sigma$ ; deduced reaction mechanism features. $^{208}\text{Pb}(^6\text{Li}, ^6\text{Li})$ , $E(cm)=26-40$ MeV; measured fusion $\sigma$ ; deduced reaction mechanism features. Comparison with coupled-channels model. JOUR NUPAB 787 281c
	2007MAZW	NUCLEAR REACTIONS $^{139}\text{La}(n, \gamma)$ , $^{151}\text{Sm}(n, \gamma)$ , $E < 1$ MeV; measured yields, cross sections. CONF Geneva(NIC-IX) 138
$^{152}\text{Eu}$	2007AG09	NUCLEAR REACTIONS $^{151,153}\text{Eu}(n, \gamma)$ , $E=0.1-100$ keV; measured $E\gamma$ , $I\gamma$ , and multiplicity distributions. JOUR NIMBE 261 934
	2007KU20	RADIOACTIVITY $^{152}\text{Eu}(\beta^+)$ , (EC); measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{152}\text{Sm}$ deduced levels, $J$ , $\Pi$ . JOUR PRVCA 76 034319

**KEYNUMBERS AND KEYWORDS**

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**A=152 (*continued*)**

	2007VIZY	NUCLEAR REACTIONS $^{121}\text{Sb}(\gamma, \text{n})$ , $^{153}\text{Eu}(\gamma, \text{n})$ , E(end point)=12.5, 22 MeV; $^{151}\text{Eu}(\text{n}, \gamma)$ , E=thermal, slow; measured $E\gamma$ , $I\gamma$ ; $^{120m,120g}\text{Sb}$ , $^{152m,152g}\text{Eu}$ deduced yield ratio $Y_m / Y_g$ ; $^{152m,152g}\text{Eu}$ deduced $\sigma(8^-) / \sigma(0^-)$ . Microtron, betatron, reactor, activation method, NaI(Tl), Ge detectors. CONF Voronezh(Nucleus-2007), Contrib,P135,Vishnevsky
$^{152}\text{Gd}$	2007CA25	NUCLEAR REACTIONS $^{124}\text{Sn}(^{36}\text{S}, 4\text{n})^{152}\text{Gd}$ , e=175 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc using the Gammasphere. $^{152}\text{Gd}$ deduced levels, J, $\pi$ . Compared results to model calculations. JOUR PRVCA 75 064314
$^{152}\text{Dy}$	2007LA20	NUCLEAR REACTIONS $^{108}\text{Pd}(^{48}\text{Ca}, 4\text{n})^{152}\text{Dy}$ , E=191 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. Analyzed quasicontinuum and ridge spectra and feeding intensity of the superdeformed bands. JOUR PRVCA 75 064309

**A=153**

$^{153}\text{Sm}$	2007KA16	NUCLEAR REACTIONS $^{152}\text{Sm}(\text{n}, \gamma)$ , E=thermal; measured capture $\sigma$ ; deduced resonance integral. Comparison with previous results. JOUR ANEND 34 188
	2007QA03	NUCLEAR REACTIONS $\text{Sr}(\text{p}, \text{nx})^{88}\text{Y}$ , E=9-14 MeV; $\text{Rb}(\alpha, \text{nx})^{88}\text{Y}$ , E=12-18 MeV; $^{141}\text{Pr}(\text{p}, 2\text{n})$ , E=15-30 MeV; $\text{Ce}(^3\text{He}, \text{nx})^{140}\text{Nd}$ , E=20-35 MeV; $^{153}\text{Eu}(\text{n}, \text{p})$ , E=14 MeV; $^{150}\text{Nd}(\alpha, \text{n})$ , E=15-25 MeV; measured yields, excitation function and cross section. JOUR RAACA 95 313
	2007TAZW	NUCLEAR REACTIONS $^{139}\text{La}$ , $^{152}\text{Sm}$ , $^{192,193}\text{Ir}(\text{n}, \gamma)$ , E=55, 144 keV; measured cross sections relative to $^{197}\text{Au}$ . CONF Tokai-mura (Nuclear Data) Proc,PV.02,Tan

**A=154**

$^{154}\text{Eu}$	2007AG09	NUCLEAR REACTIONS $^{151,153}\text{Eu}(\text{n}, \gamma)$ , E=0.1-100 keV; measured $E\gamma$ , $I\gamma$ , and multiplicity distributions. JOUR NIMBE 261 934
$^{154}\text{Hf}$	2007PA27	RADIOACTIVITY $^{159}\text{Re}(\alpha)$ [from $^{106}\text{Cd}(^{58}\text{Ni}, \text{X})$ ]; $^{155}\text{Ta}(\text{p})$ ; measured $E\alpha$ , $I\alpha$ , $E\text{p}$ , $I\text{p}$ . deduced separation energies. JOUR PRVCA 75 061302

**A=155**

$^{155}\text{Tm}$	2007RA21	NUCLEAR REACTIONS $^{144}\text{Sm}(^{14}\text{N}, 3\text{n})$ , E=70 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{155}\text{Tm}$ deduced levels, J, $\pi$ . JOUR NUPAB 794 1
$^{155}\text{Ta}$	2007PA27	RADIOACTIVITY $^{159}\text{Re}(\alpha)$ [from $^{106}\text{Cd}(^{58}\text{Ni}, \text{X})$ ]; $^{155}\text{Ta}(\text{p})$ ; measured $E\alpha$ , $I\alpha$ , $E\text{p}$ , $I\text{p}$ . deduced separation energies. JOUR PRVCA 75 061302

**KEYNUMBERS AND KEYWORDS**

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**A=156**

$^{156}\text{Nd}$	2007SH05	RADIOACTIVITY $^{156}\text{Nd}$ , $^{156}\text{Pm}(\beta^-)$ [from $^{235}\text{U}(n, F)$ and subsequent decay]; $^{156m}\text{Pm}(\beta^-)$ , (IT) [from $^{156}\text{Nd}$ decay]; measured $E\gamma$ , $I\gamma$ , $E(\text{ce})$ , $I(\text{ce})$ , $T_{1/2}$ . $^{156}\text{Pm}$ , $^{156}\text{Sm}$ deduced levels, $J$ , $\pi$ , ICC, configurations. Mass separator. JOUR ZAANE 31 171
$^{156}\text{Pm}$	2007SH05	RADIOACTIVITY $^{156}\text{Nd}$ , $^{156}\text{Pm}(\beta^-)$ [from $^{235}\text{U}(n, F)$ and subsequent decay]; $^{156m}\text{Pm}(\beta^-)$ , (IT) [from $^{156}\text{Nd}$ decay]; measured $E\gamma$ , $I\gamma$ , $E(\text{ce})$ , $I(\text{ce})$ , $T_{1/2}$ . $^{156}\text{Pm}$ , $^{156}\text{Sm}$ deduced levels, $J$ , $\pi$ , ICC, configurations. Mass separator. JOUR ZAANE 31 171
$^{156}\text{Sm}$	2007SH05	RADIOACTIVITY $^{156}\text{Nd}$ , $^{156}\text{Pm}(\beta^-)$ [from $^{235}\text{U}(n, F)$ and subsequent decay]; $^{156m}\text{Pm}(\beta^-)$ , (IT) [from $^{156}\text{Nd}$ decay]; measured $E\gamma$ , $I\gamma$ , $E(\text{ce})$ , $I(\text{ce})$ , $T_{1/2}$ . $^{156}\text{Pm}$ , $^{156}\text{Sm}$ deduced levels, $J$ , $\pi$ , ICC, configurations. Mass separator. JOUR ZAANE 31 171
$^{156}\text{Gd}$	2007CH09	NUCLEAR REACTIONS $^{155,157}\text{Gd}(n, \gamma)$ , $E=10-550$ keV; measured $E\gamma$ , capture $\sigma$ . Comparison with previous results. JOUR KPSJA 50 409

**A=157**

$^{157}\text{Gd}$	2007CH37	NUCLEAR REACTIONS $^{156,158}\text{Gd}(n, \gamma)$ , $E=10-90$ keV; measured capture cross sections relative to standard capture cross sections for $^{197}\text{Au}$ . JOUR KPSJA 50 1592
$^{157}\text{Er}$	2007PA03	NUCLEAR REACTIONS $^{114}\text{Cd}(^{48}\text{Ca}, 4n)$ , $(^{48}\text{Ca}, 5n)$ , $E=215$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{157,158}\text{Er}$ deduced high-spin levels, $J$ , $\pi$ , configurations, collective rotation above band-terminating states. Gammasphere array, cranked Nilsson-Strutinsky calculations. JOUR PRLTA 98 012501
$^{157}\text{Ta}$	2007ST16	NUCLEAR REACTIONS $^{93}\text{Nb}(^{65}\text{Ge}, n)$ , $E$ not given; measured $E\gamma$ , $I\gamma$ and transition rates using recoil distance method. $^{64}\text{Ge}$ deduced $B(E2)$ and lifetimes. JOUR PRLTA 99 042503

**A=158**

$^{158}\text{Gd}$	2007CH09	NUCLEAR REACTIONS $^{155,157}\text{Gd}(n, \gamma)$ , $E=10-550$ keV; measured $E\gamma$ , capture $\sigma$ . Comparison with previous results. JOUR KPSJA 50 409
	2007LE29	NUCLEAR REACTIONS $^{158}\text{Gd}(n, n'\gamma)$ , $E < 3.3$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc, excitation functions and angular distributions. $^{158}\text{Gd}$ deduced level energies, lifetimes, $B(E1)$ , $B(E2)$ for $0^+$ states. JOUR PRVCA 76 034318
$^{158}\text{Er}$	2007PA03	NUCLEAR REACTIONS $^{114}\text{Cd}(^{48}\text{Ca}, 4n)$ , $(^{48}\text{Ca}, 5n)$ , $E=215$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{157,158}\text{Er}$ deduced high-spin levels, $J$ , $\pi$ , configurations, collective rotation above band-terminating states. Gammasphere array, cranked Nilsson-Strutinsky calculations. JOUR PRLTA 98 012501

**KEYNUMBERS AND KEYWORDS**

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**A=159**

$^{159}\text{Gd}$	2007CH37	NUCLEAR REACTIONS $^{156,158}\text{Gd}(\text{n}, \gamma)$ , E=10-90 keV; measured capture cross sections relative to standard capture cross sections for $^{197}\text{Au}$ . JOUR KPSJA 50 1592
$^{159}\text{Ho}$	2007VAZX	RADIOACTIVITY $^{159,161}\text{Er}(\text{EC})$ ; measured ce; $^{159,161}\text{Ho}$ deduced multipolarities. Mass-separator, Si(Li) detector with mini-orange magnetic filter. CONF Voronezh(Nucleus-2007),Contrib,P76,Vaganov
$^{159}\text{Er}$	2007VAZX	RADIOACTIVITY $^{159,161}\text{Er}(\text{EC})$ ; measured ce; $^{159,161}\text{Ho}$ deduced multipolarities. Mass-separator, Si(Li) detector with mini-orange magnetic filter. CONF Voronezh(Nucleus-2007),Contrib,P76,Vaganov
$^{159}\text{Re}$	2007PA27	RADIOACTIVITY $^{159}\text{Re}(\alpha)$ [from $^{106}\text{Cd}(\text{Ni}, X)$ ]; $^{155}\text{Ta}(\text{p})$ ; measured $E\alpha$ , $I\alpha$ , $E\pi$ , $I\pi$ . deduced separation energies. JOUR PRVCA 75 061302

**A=160**

$^{160}\text{Tb}$	2007BU29	NUCLEAR REACTIONS $^{161,163}\text{Dy}(\text{H}, \alpha)$ , E=17 MeV; measured $E\alpha$ , $I\alpha$ , $\sigma(\theta)$ , Q-value. $^{160,162}\text{Tb}$ deduced levels, $J$ , $\pi$ , atomic masses. Enriched targets, magnetic spectrograph, DWBA analysis. JOUR NUPAB 794 149
$^{160}\text{Dy}$	2006B037	RADIOACTIVITY $^{160}\text{Ho}(\text{EC})$ [from $^{160}\text{Er}(\text{EC})$ ]; measured $E(\text{ce})$ , $I(\text{ce})$ . $^{160}\text{Dy}$ deduced E0 transitions. Magnetic spectrograph, photoplate. JOUR BRSPE 70 354
	2007ADZY	RADIOACTIVITY $^{160}\text{Ho}(\text{EC})$ ; measured $E(\text{ce})$ ; $^{160}\text{Dy}$ deduced levels, $J$ , $\pi$ , $J\pi=0^+$ level. CONF Voronezh(Nucleus-2007),Contrib,P106,Adam
$^{160}\text{Ho}$	2006B037	RADIOACTIVITY $^{160}\text{Ho}(\text{EC})$ [from $^{160}\text{Er}(\text{EC})$ ]; measured $E(\text{ce})$ , $I(\text{ce})$ . $^{160}\text{Dy}$ deduced E0 transitions. Magnetic spectrograph, photoplate. JOUR BRSPE 70 354
	2007ADZY	RADIOACTIVITY $^{160}\text{Ho}(\text{EC})$ ; measured $E(\text{ce})$ ; $^{160}\text{Dy}$ deduced levels, $J$ , $\pi$ , $J\pi=0^+$ level. CONF Voronezh(Nucleus-2007),Contrib,P106,Adam
$^{160}\text{Er}$	2007GA26	RADIOACTIVITY $^{160}\text{Er}(\text{IT})$ ; measured $E\gamma$ , $I\gamma$ , $e\gamma$ -coinc. Deduced levels, $J$ , $\pi$ . JOUR APOBB 38 1169

**A=161**

$^{161}\text{Ho}$	2007VAZX	RADIOACTIVITY $^{159,161}\text{Er}(\text{EC})$ ; measured ce; $^{159,161}\text{Ho}$ deduced multipolarities. Mass-separator, Si(Li) detector with mini-orange magnetic filter. CONF Voronezh(Nucleus-2007),Contrib,P76,Vaganov
$^{161}\text{Er}$	2007VAZX	RADIOACTIVITY $^{159,161}\text{Er}(\text{EC})$ ; measured ce; $^{159,161}\text{Ho}$ deduced multipolarities. Mass-separator, Si(Li) detector with mini-orange magnetic filter. CONF Voronezh(Nucleus-2007),Contrib,P76,Vaganov

**A=162**

$^{162}\text{Tb}$	2007BU29	NUCLEAR REACTIONS $^{161,163}\text{Dy}(\text{H}, \alpha)$ , E=17 MeV; measured $E\alpha$ , $I\alpha$ , $\sigma(\theta)$ , Q-value. $^{160,162}\text{Tb}$ deduced levels, $J$ , $\pi$ , atomic masses. Enriched targets, magnetic spectrograph, DWBA analysis. JOUR NUPAB 794 149
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### A=163

$^{163}\text{Tm}$	2007PA22	NUCLEAR REACTIONS $^{130}\text{Te}(\text{d}, \text{n})^{163}\text{Tm}$ , E=170 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{163}\text{Tm}$ deduced high-spin levels, J, $\pi$ , triaxial superdeformed bands, B(M1) / B(E2). Gammasphere array, potential energy surface calculations. JOUR PYLBB 647 243
	2007TA11	NUCLEAR REACTIONS Er(d, x) $^{163}\text{Tm} / ^{165}\text{Tm} / ^{166}\text{Tm} / ^{167}\text{Tm} / ^{168}\text{Tm} / ^{170}\text{Tm} / ^{171}\text{Er}$ , E< 40 MeV; measured excitation functions and cross section using stacked foil activation technique. Compared results to model calculations. JOUR NIMBE 259 829
	2007WA21	NUCLEAR REACTIONS $^{130}\text{Te}(\text{d}, \text{n})^{163}\text{Tm}$ , E=165 MeV; measured E, I $\gamma$ , $\gamma\gamma$ -coinc, mean lifetimes using DSAM and the Gammasphere array. $^{163}\text{Tm}$ deduced quadrupole transition moments for proposed triaxial strongly deformed bands. JOUR PRVCA 75 064315
	2007WAZZ	NUCLEAR REACTIONS $^{130}\text{Te}(\text{d}, \text{n})^{163}\text{Tm}$ , E=165 MeV; measured E $\gamma$ , I $\gamma$ using Gammasphere. Deduced quadrupole transition moments for two triaxial strongly deformed bands using doppler shift attenuation method. PREPRINT arXiv:0705.1987v1 [nucl-ex]

### A=164

$^{164}\text{Lu}$	2007BR09	NUCLEAR REACTIONS $^{121}\text{Sb}(\text{d}, \text{n})^{164}\text{Lu}$ , E=215 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{164}\text{Lu}$ deduced high-spin levels, J, $\pi$ , triaxial superdeformed bands, octupole vibration. Gammasphere array. JOUR PRVCA 75 044306
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### A=165

$^{165}\text{Tm}$	2007TA11	NUCLEAR REACTIONS Er(d, x) $^{163}\text{Tm} / ^{165}\text{Tm} / ^{166}\text{Tm} / ^{167}\text{Tm} / ^{168}\text{Tm} / ^{170}\text{Tm} / ^{171}\text{Er}$ , E< 40 MeV; measured excitation functions and cross section using stacked foil activation technique. Compared results to model calculations. JOUR NIMBE 259 829
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### A=166

$^{166}\text{Ho}$	2007R010	NUCLEAR REACTIONS $^{165}\text{Ho}(\text{n}, \gamma)$ , E=10-90 keV; measured capture cross sections relative to standard capture cross sections for $^{197}\text{Au}$ . JOUR KPSJA 50 1494
$^{166}\text{Tm}$	2007SI30	NUCLEAR REACTIONS $^{159}\text{Tb}(\text{d}, \text{n})^{166}\text{Tm} / ^{167}\text{Yb} / ^{167}\text{Lu} / ^{168m}\text{Lu}$ , E≈90 MeV; $^{169}\text{Tm}(\text{d}, \text{n})^{177}\text{Hf} / ^{178}\text{Ta} / ^{177}\text{W} / ^{177}\text{Re} / ^{179}\text{Re}$ , E≈87 MeV; measured E $\gamma$ , I $\gamma$ ; deduced (in-)complete fusion evaporation residue yields, $\sigma$ , T <sub>1/2</sub> , recoil range distributions. JOUR ZAANE 34 29
	2007TA11	NUCLEAR REACTIONS Er(d, x) $^{163}\text{Tm} / ^{165}\text{Tm} / ^{166}\text{Tm} / ^{167}\text{Tm} / ^{168}\text{Tm} / ^{170}\text{Tm} / ^{171}\text{Er}$ , E< 40 MeV; measured excitation functions and cross section using stacked foil activation technique. Compared results to model calculations. JOUR NIMBE 259 829

**A=166 (*continued*)**

<sup>166</sup>Re      2007HA45      RADIOACTIVITY <sup>170</sup>Ir( $\alpha$ ); measured E( $\alpha$ ). <sup>166</sup>Re; deduced levels.  
JOUR PRVCA 76 044312

**A=167**

<sup>167</sup>Tm      2007TA09      NUCLEAR REACTIONS <sup>169</sup>Tm(d, 2n), E ≈ 4-20.5 MeV; measured excitation functions; deduced integral yield. <sup>169</sup>Tm(d, 2np), (d, 3np), E ≈ 4-20.5 MeV; measured excitation functions. Stacked foil activation, comparison with model predictions. JOUR ARISE 65 663  
 2007TA11      NUCLEAR REACTIONS Er(d, x)<sup>163</sup>Tm / <sup>165</sup>Tm / <sup>166</sup>Tm / <sup>167</sup>Tm / <sup>168</sup>Tm / <sup>170</sup>Tm / <sup>171</sup>Er, E < 40 MeV; measured excitation functions and cross section using stacked foil activation technique. Compared results to model calculations. JOUR NIMBE 259 829

<sup>167</sup>Yb      2007SI30      NUCLEAR REACTIONS <sup>159</sup>Tb(<sup>16</sup>O, X)<sup>166</sup>Tm / <sup>167</sup>Yb / <sup>167</sup>Lu / <sup>168m</sup>Lu, E ≈ 90 MeV; <sup>169</sup>Tm(<sup>16</sup>O, X)<sup>177</sup>Hf / <sup>178</sup>Ta / <sup>177</sup>W / <sup>177</sup>Re / <sup>179</sup>Re, E ≈ 87 MeV; measured E $\gamma$ , I $\gamma$ ; deduced (in-)complete fusion evaporation residue yields,  $\sigma$ , T<sub>1/2</sub>, recoil range distributions. JOUR ZAANE 34 29

<sup>167</sup>Lu      2007BE33      NUCLEAR REACTIONS <sup>123</sup>Sb(<sup>48</sup>Ca, X)<sup>167</sup>Lu, E = 203 MeV; measured E $\gamma$ , I $\gamma$ , conversion electron energies,  $\gamma\gamma$ -coinc, (conversion-electron) $\gamma$ -coinc. <sup>167</sup>Lu deduced conversion coefficients. JOUR APOBB 38 1535  
 2007SI30      NUCLEAR REACTIONS <sup>159</sup>Tb(<sup>16</sup>O, X)<sup>166</sup>Tm / <sup>167</sup>Yb / <sup>167</sup>Lu / <sup>168m</sup>Lu, E ≈ 90 MeV; <sup>169</sup>Tm(<sup>16</sup>O, X)<sup>177</sup>Hf / <sup>178</sup>Ta / <sup>177</sup>W / <sup>177</sup>Re / <sup>179</sup>Re, E ≈ 87 MeV; measured E $\gamma$ , I $\gamma$ ; deduced (in-)complete fusion evaporation residue yields,  $\sigma$ , T<sub>1/2</sub>, recoil range distributions. JOUR ZAANE 34 29

**A=168**

<sup>168</sup>Er      2007BU25      NUCLEAR REACTIONS <sup>170</sup>Er(p, t), E = 25 MeV; measured reaction product energies energies and angular distributions. <sup>168</sup>Er deduced 0<sup>+</sup> and 2<sup>+</sup> level energies and reaction transfer strength distributions. JOUR PANUE 70 1336  
 168Tm      2007CAZW      NUCLEAR REACTIONS <sup>164</sup>Dy(<sup>11</sup>B, 3n $\alpha$ ), E = 65 MeV; measured E $\gamma$ , I $\gamma$ . <sup>168</sup>Tm deduced high spin levels, J,  $\pi$ . GASP array. CONF Iguazu(Nuclear Physics and Applications) Proc,P446,Cardona  
 2007TA09      NUCLEAR REACTIONS <sup>169</sup>Tm(d, 2n), E ≈ 4-20.5 MeV; measured excitation functions; deduced integral yield. <sup>169</sup>Tm(d, 2np), (d, 3np), E ≈ 4-20.5 MeV; measured excitation functions. Stacked foil activation, comparison with model predictions. JOUR ARISE 65 663  
 2007TA11      NUCLEAR REACTIONS Er(d, x)<sup>163</sup>Tm / <sup>165</sup>Tm / <sup>166</sup>Tm / <sup>167</sup>Tm / <sup>168</sup>Tm / <sup>170</sup>Tm / <sup>171</sup>Er, E < 40 MeV; measured excitation functions and cross section using stacked foil activation technique. Compared results to model calculations. JOUR NIMBE 259 829

**A=168 (*continued*)**

<sup>168</sup>Lu      2007SI30      NUCLEAR REACTIONS <sup>159</sup>Tb(<sup>16</sup>O, X)<sup>166</sup>Tm / <sup>167</sup>Yb / <sup>167</sup>Lu / <sup>168m</sup>Lu, E≈90 MeV; <sup>169</sup>Tm(<sup>16</sup>O, X)<sup>177</sup>Hf / <sup>178</sup>Ta / <sup>177</sup>W / <sup>177</sup>Re / <sup>179</sup>Re, E≈87 MeV; measured E $\gamma$ , I $\gamma$ ; deduced (in-)complete fusion evaporation residue yields,  $\sigma$ , T<sub>1/2</sub>, recoil range distributions. JOUR ZAANE 34 29

**A=169**

<sup>169</sup>Yb      2007TA09      NUCLEAR REACTIONS <sup>169</sup>Tm(d, 2n), E ≈ 4-20.5 MeV; measured excitation functions; deduced integral yield. <sup>169</sup>Tm(d, 2np), (d, 3np), E ≈ 4-20.5 MeV; measured excitation functions. Stacked foil activation, comparison with model predictions. JOUR ARISE 65 663

<sup>169</sup>Ir      2007SA33      NUCLEAR REACTIONS <sup>112</sup>Sn(<sup>60</sup>Ni, 2np), E=266 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (particle) $\gamma$ -coinc. Deduced level energies, J,  $\pi$ . JOUR PRVCA 75 054321

**A=170**

<sup>170</sup>Er      2007I001      NUCLEAR REACTIONS <sup>168</sup>Er(<sup>28</sup>Si, 4n)<sup>192</sup>Pb, <sup>170</sup>Er(<sup>29</sup>Si, 5n)<sup>170</sup>Er, E not given; measured E $\gamma$ , I $\gamma$ (θ, E, t). <sup>192,194</sup>Pb deduced quadrupole moments of isomeric states using the TDPAD method. JOUR APOBB 38 1249

<sup>170</sup>Tm      2007TA11      NUCLEAR REACTIONS Er(d, x)<sup>163</sup>Tm / <sup>165</sup>Tm / <sup>166</sup>Tm / <sup>167</sup>Tm / <sup>168</sup>Tm / <sup>170</sup>Tm / <sup>171</sup>Er, E < 40 MeV; measured excitation functions and cross section using stacked foil activation technique. Compared results to model calculations. JOUR NIMBE 259 829

<sup>170</sup>Hf      2006C020      NUCLEAR REACTIONS <sup>158</sup>Gd(<sup>16</sup>O, 4n), E=80 MeV; measured prompt and delayed E $\gamma$ , I $\gamma$ . <sup>170</sup>Hf levels deduced T<sub>1/2</sub>, B(E2). Pulsed beam, level systematics in neighboring nuclides discussed. JOUR PRVCA 74 067301

                2007W008      RADIOACTIVITY <sup>170</sup>Ta(β<sup>+</sup>), (EC) [from <sup>159</sup>Tb(<sup>16</sup>O, 5n), E=100 MeV]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ (θ) in static magnetic field. <sup>170</sup>Hf; deduced levels, J,  $\pi$ , g-factor of first 2+ state. JOUR PRVCA 76 047308

<sup>170</sup>Ta      2007W008      RADIOACTIVITY <sup>170</sup>Ta(β<sup>+</sup>), (EC) [from <sup>159</sup>Tb(<sup>16</sup>O, 5n), E=100 MeV]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ (θ) in static magnetic field. <sup>170</sup>Hf; deduced levels, J,  $\pi$ , g-factor of first 2+ state. JOUR PRVCA 76 047308

<sup>170</sup>Ir      2007HA45      NUCLEAR REACTIONS <sup>112</sup>Sn(<sup>60</sup>Ni, np), E=266 MeV; measured E $\gamma$ , I $\gamma$ , recoil decay tagging,  $\gamma\gamma$ -, (recoil) $\gamma$ -coin; <sup>170</sup>Ir deduced levels, J,  $\pi$ , bands, half-lives. JUROGAM array used with RITU, GREAT spectrometer. JOUR PRVCA 76 044312

                2007HA45      RADIOACTIVITY <sup>170</sup>Ir(α); measured E(α). <sup>166</sup>Re; deduced levels. JOUR PRVCA 76 044312

## KEYNUMBERS AND KEYWORDS

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### A=171

$^{171}\text{Er}$	2007TA11	NUCLEAR REACTIONS $\text{Er}(\text{d}, \text{x})^{163}\text{Tm} / ^{165}\text{Tm} / ^{166}\text{Tm} / ^{167}\text{Tm} / ^{168}\text{Tm} / ^{170}\text{Tm} / ^{171}\text{Er}$ , $E < 40$ MeV; measured excitation functions and cross section using stacked foil activation technique. Compared results to model calculations. JOUR NIMBE 259 829
	2007YU02	NUCLEAR REACTIONS $^{170}\text{Er}(\text{n}, \gamma)$ , $E=\text{thermal}$ ; measured $E\gamma, I\gamma$ . Deduced cross section and resonance integral. JOUR PRVCA 76 034610
$^{171}\text{Tm}$	2007TS10	RADIOACTIVITY $^{171}\text{Tm}(\beta^-)$ ; measured $E\gamma, I\gamma$ , multipolarity, linear polarization of Mossbauer $\gamma$ -ray, test of time-reversal symmetry. JOUR PRVCA 76 045503
$^{171}\text{Yb}$	2007TS10	RADIOACTIVITY $^{171}\text{Tm}(\beta^-)$ ; measured $E\gamma, I\gamma$ , multipolarity, linear polarization of Mossbauer $\gamma$ -ray, test of time-reversal symmetry. JOUR PRVCA 76 045503

### A=172

No references found

### A=173

$^{173}\text{Lu}$	2007TI03	NUCLEAR REACTIONS $\text{Pb}, ^{208}\text{Pb}, ^{209}\text{Bi}(\text{p}, \text{X})^7\text{Be} / ^{24}\text{Na} / ^{59}\text{Fe} / ^{86}\text{Rb} / ^{101m}\text{Rh} / ^{173}\text{Lu} / ^{190}\text{Ir} / ^{192}\text{Ir} / ^{196}\text{Au} / ^{199}\text{Tl} / ^{200}\text{Tl} / ^{203}\text{Pb}$ , $E=0.04-2.6$ GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289
$^{173}\text{Hf}$	2007VL01	NUCLEAR REACTIONS $^{72,74}\text{Ge}(\text{n}, \alpha), ^{72,73}\text{Ge}(\text{n}, \text{p}), ^{174,176}\text{Hf}(\text{n}, 2\text{n})$ , $E \approx 8-11.5$ MeV; measured $\sigma$ . Activation method, comparison with previous results. JOUR JRNCD 272 219

### A=174

$^{174}\text{Yb}$	2007KA27	RADIOACTIVITY $^{178}\text{Hf}(\alpha)$ ; measured partial half lives and hindrance factors. JOUR PRVCA 75 057301
$^{174}\text{Re}$	2007ZH21	NUCLEAR REACTIONS $^{152}\text{Sm}(^{27}\text{Al}, 5\text{n})$ , $E=140$ MeV; measured $E\gamma, I\gamma, \gamma\gamma$ -coin. $^{174}\text{Re}$ deduced high-spin levels, $J, \pi$ , identified new rotational band. JOUR CPLEE 24 1203

### A=175

$^{175}\text{Hf}$	2007VL01	NUCLEAR REACTIONS $^{72,74}\text{Ge}(\text{n}, \alpha), ^{72,73}\text{Ge}(\text{n}, \text{p}), ^{174,176}\text{Hf}(\text{n}, 2\text{n})$ , $E \approx 8-11.5$ MeV; measured $\sigma$ . Activation method, comparison with previous results. JOUR JRNCD 272 219
	2007V002	NUCLEAR REACTIONS $^{174,180,182}\text{Hf}(\text{n}, \gamma)$ , $E=\text{spectrum}$ ; measured capture $\sigma$ ; deduced Maxwellian averaged $\sigma$ , stellar enhancement factors. Comparison with model predictions. JOUR PRVCA 75 015804

**A=176**

$^{176}\text{Yb}$	2007BI14	NUCLEAR MOMENTS $^{97m}\text{Y}$ , $^{176,176m}\text{Yb}$ , $^{178,178m}\text{Hf}$ ; measured isomer shifts, $\mu$ , quadrupole moments, radii; deduced hyperfine structure coefficients. Laser spectroscopy. JOUR PYLBB 645 330
$^{176}\text{Lu}$	2007WA08	NUCLEAR REACTIONS $^{176}\text{Lu}(\gamma, \gamma')$ , E=2.3, 3.1 MeV bremsstrahlung; measured $E\gamma$ , $I\gamma$ . $^{176}\text{Lu}$ deduced transitions, B(M1), B(E1), strength distribution. JOUR PRVCA 75 034301

**A=177**

$^{177}\text{Lu}$	2007WIZZ	NUCLEAR REACTIONS $^{176m}\text{Lu}(n, \gamma)$ , E=spectrum; measured cross section using activation technique. CONF Geneva(NIC-IX) 186
$^{177}\text{Hf}$	2007SI30	NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, X)^{166}\text{Tm} / ^{167}\text{Yb} / ^{167}\text{Lu} / ^{168m}\text{Lu}$ , E≈90 MeV; $^{169}\text{Tm}(^{16}\text{O}, X)^{177}\text{Hf} / ^{178}\text{Ta} / ^{177}\text{W} / ^{177}\text{Re} / ^{179}\text{Re}$ , E≈87 MeV; measured $E\gamma$ , $I\gamma$ ; deduced (in-)complete fusion evaporation residue yields, $\sigma$ , $T_{1/2}$ , recoil range distributions. JOUR ZAANE 34 29
$^{177}\text{Ta}$	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(n, \gamma)$ , (n, 2n), $^{197}\text{Au}(n, \gamma)$ , (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), $^{59}\text{Co}(n, \alpha)$ , (n, 2n), (n, 4n), (n, 5n), $^{181}\text{Ta}(n, \gamma)$ , (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
$^{177}\text{W}$	2007SI30	NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, X)^{166}\text{Tm} / ^{167}\text{Yb} / ^{167}\text{Lu} / ^{168m}\text{Lu}$ , E≈90 MeV; $^{169}\text{Tm}(^{16}\text{O}, X)^{177}\text{Hf} / ^{178}\text{Ta} / ^{177}\text{W} / ^{177}\text{Re} / ^{179}\text{Re}$ , E≈87 MeV; measured $E\gamma$ , $I\gamma$ ; deduced (in-)complete fusion evaporation residue yields, $\sigma$ , $T_{1/2}$ , recoil range distributions. JOUR ZAANE 34 29
$^{177}\text{Re}$	2007SI30	NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, X)^{166}\text{Tm} / ^{167}\text{Yb} / ^{167}\text{Lu} / ^{168m}\text{Lu}$ , E≈90 MeV; $^{169}\text{Tm}(^{16}\text{O}, X)^{177}\text{Hf} / ^{178}\text{Ta} / ^{177}\text{W} / ^{177}\text{Re} / ^{179}\text{Re}$ , E≈87 MeV; measured $E\gamma$ , $I\gamma$ ; deduced (in-)complete fusion evaporation residue yields, $\sigma$ , $T_{1/2}$ , recoil range distributions. JOUR ZAANE 34 29

**A=178**

$^{178}\text{Lu}$	2007G038	NUCLEAR REACTIONS $^{181}\text{Ta}(\gamma, n2p)$ , E < 1.2 GeV; measured $E\gamma$ , $I\gamma$ , from isomer decay, production cross section. JOUR UKPJA 52 823
$^{178}\text{Hf}$	2007BI14	NUCLEAR MOMENTS $^{97m}\text{Y}$ , $^{176,176m}\text{Yb}$ , $^{178,178m}\text{Hf}$ ; measured isomer shifts, $\mu$ , quadrupole moments, radii; deduced hyperfine structure coefficients. Laser spectroscopy. JOUR PYLBB 645 330
	2007EG02	NUCLEAR REACTIONS $^{91}\text{Zr}$ , $^{116,118,119,120,122,124}\text{Sn}$ , $^{143}\text{Nd}$ , $^{177}\text{Hf}(n, \gamma)$ ; E=thermal; measured $E\gamma$ , $I\gamma$ , cross sections. JOUR ARISE 65 1290
	2007HA05	NUCLEAR REACTIONS $^{178}\text{Hf}(^{136}\text{Xe}, ^{136}\text{Xe}')$ , E=650 MeV; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (particle) $\gamma$ -coin following Coulomb excitation. $\text{Ta}(^{178}\text{Hf}, ^{178}\text{Hf}')$ , E ≈ 700-850 MeV; measured isomer production $\sigma$ . $^{178}\text{Hf}$ deduced levels, $J$ , $\pi$ , rotational bands, transition matrix elements, K-mixing features. Gammasphere, Chico arrays. JOUR PRVCA 75 034308

**A=178 (*continued*)**

2007KA27	RADIOACTIVITY $^{178}\text{Hf}(\alpha)$ ; measured partial half lives and hindrance factors. JOUR PRVCA 75 057301
2007K043	NUCLEAR REACTIONS $^{160}\text{Gd}(^{18}\text{O}, \text{X})^{178}\text{Hf}$ , E=79-156 MeV; measured $\text{E}\alpha$ , $\text{E}\gamma$ , particle $\gamma$ -coinc. Deduced total cross sections for xn channels. Compared results to model calculations. JOUR PRVCA 75 064611
2007LA14	RADIOACTIVITY $^{178}\text{Ta}(\text{EC})$ [from $^{179}\text{Hf}(\text{p}, 2\text{n})$ ]; measured $\text{E}\gamma$ , $\text{I}\gamma$ and internal conversion electron spectra. $^{178}\text{Hf}$ deduced energy of the $8_2^-$ level. JOUR BRSPE 71 441
2007LA33	RADIOACTIVITY $^{178}\text{Ta}(\text{EC})$ [from $^{175}\text{Lu}(\alpha, \text{n})$ , E=18 MeV]; measured $\beta$ -delayed $\text{E}\gamma$ , $\text{I}\gamma$ , second forbidden ft values. JOUR UKPJA 52 826
2007LAZW	RADIOACTIVITY $^{178}\text{Ta}(\text{EC})$ [from $^{175}\text{Lu}(\alpha, \text{n})$ , E=18 MeV]; measured $\text{E}\gamma$ , $\text{I}\gamma$ ; $^{178}\text{Hf}$ deduced levels, calculated log ft. CONF Voronezh(Nucleus-2007), Contrib, P109, Lashko
$^{178}\text{Ta}$	2007LA14      RADIOACTIVITY $^{178}\text{Ta}(\text{EC})$ [from $^{179}\text{Hf}(\text{p}, 2\text{n})$ ]; measured $\text{E}\gamma$ , $\text{I}\gamma$ and internal conversion electron spectra. $^{178}\text{Hf}$ deduced energy of the $8_2^-$ level. JOUR BRSPE 71 441
2007LA33	RADIOACTIVITY $^{178}\text{Ta}(\text{EC})$ [from $^{175}\text{Lu}(\alpha, \text{n})$ , E=18 MeV]; measured $\beta$ -delayed $\text{E}\gamma$ , $\text{I}\gamma$ , second forbidden ft values. JOUR UKPJA 52 826
2007LAZW	RADIOACTIVITY $^{178}\text{Ta}(\text{EC})$ [from $^{175}\text{Lu}(\alpha, \text{n})$ , E=18 MeV]; measured $\text{E}\gamma$ , $\text{I}\gamma$ ; $^{178}\text{Hf}$ deduced levels, calculated log ft. CONF Voronezh(Nucleus-2007), Contrib, P109, Lashko
2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $^{197}\text{Au}(\text{n}, \gamma)$ , $(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 6\text{n})$ , $(\text{n}, 7\text{n})$ , $(\text{n}, 8\text{n})$ , $(\text{n}, 6\text{np})$ , $^{59}\text{Co}(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $^{181}\text{Ta}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $(\text{n}, \text{np})$ , E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
2007SI30	NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, \text{X})^{166}\text{Tm} / ^{167}\text{Yb} / ^{167}\text{Lu} / ^{168m}\text{Lu}$ , E≈90 MeV; $^{169}\text{Tm}(^{16}\text{O}, \text{X})^{177}\text{Hf} / ^{178}\text{Ta} / ^{177}\text{W} / ^{177}\text{Re} / ^{179}\text{Re}$ , E≈87 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ ; deduced (in-)complete fusion evaporation residue yields, $\sigma$ , $T_{1/2}$ , recoil range distributions. JOUR ZAANE 34 29

**A=179**

$^{179}\text{Re}$	2007SI30	NUCLEAR REACTIONS $^{159}\text{Tb}(^{16}\text{O}, \text{X})^{166}\text{Tm} / ^{167}\text{Yb} / ^{167}\text{Lu} / ^{168m}\text{Lu}$ , E≈90 MeV; $^{169}\text{Tm}(^{16}\text{O}, \text{X})^{177}\text{Hf} / ^{178}\text{Ta} / ^{177}\text{W} / ^{177}\text{Re} / ^{179}\text{Re}$ , E≈87 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ ; deduced (in-)complete fusion evaporation residue yields, $\sigma$ , $T_{1/2}$ , recoil range distributions. JOUR ZAANE 34 29
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**KEYNUMBERS AND KEYWORDS**

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**A=180**

$^{180}\text{Hf}$	2007NG03	NUCLEAR REACTIONS $^{180}\text{Hf}(^{136}\text{Xe}, \text{X})^{180}\text{Hf} / ^{182}\text{Hf}$ , E=750 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (particle) $\gamma$ -coin. $^{180,182}\text{Hf}$ deduced levels, $J$ , $\pi$ , rotational and vibrational bands features. Gammasphere, Chico arrays. JOUR PRVCA 75 034305
	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(\text{n}, \gamma)$ , (n, 2n), $^{197}\text{Au}(\text{n}, \gamma)$ , (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), $^{59}\text{Co}(\text{n}, \alpha)$ , (n, 2n), (n, 4n), (n, 5n), $^{181}\text{Ta}(\text{n}, \gamma)$ , (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
	2007ST20	RADIOACTIVITY $^{180}\text{Hf}(\text{IT})$ ; measured $E\gamma$ , $I\gamma$ , angular distributions and mixing ratio. Deduced presence of irregular E2 admixture in the isomeric transition. JOUR PRVCA 76 025502
	2007STZY	RADIOACTIVITY $^{180}\text{Hf}(\text{IT})$ ; measured $E\gamma$ , $I\gamma$ , angular distribution and multipole mixing ratio. PREPRINT arXiv:0707.1061v1 [nucl-ex]
	2007ZAZX	RADIOACTIVITY $^{180}\text{Hf}(\text{IT})$ ; measured $E\gamma$ , $I\gamma$ , angular distribution. Deduced multipole mixing ratio. CONF Bormio (XLV Winter Meeting) Proc,P348
$^{180}\text{Ta}$	2007BY02	NUCLEAR REACTIONS $^{138}\text{Ba}$ , $^{180}\text{Hf}(^3\text{He}, \text{t})$ , E=140 MeV / nucleon; measured particle spectra. $^{138}\text{La}$ , $^{180}\text{Ta}$ deduced Gamow-Teller strength distributions. Implications for stellar nucleosynthesis discussed. JOUR PRLTA 98 082501
	2007GOZZ	NUCLEAR REACTIONS $^{181}\text{Ta}(\gamma, \text{n})$ , E=9-13 MeV; measured partial and total photoneutron cross sections. CONF Geneva(NIC-IX) 253
	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(\text{n}, \gamma)$ , (n, 2n), $^{197}\text{Au}(\text{n}, \gamma)$ , (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), $^{59}\text{Co}(\text{n}, \alpha)$ , (n, 2n), (n, 4n), (n, 5n), $^{181}\text{Ta}(\text{n}, \gamma)$ , (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307

**A=181**

$^{181}\text{Hf}$	2007V002	NUCLEAR REACTIONS $^{174,180,182}\text{Hf}(\text{n}, \gamma)$ , E=spectrum; measured capture $\sigma$ ; deduced Maxwellian averaged $\sigma$ , stellar enhancement factors. Comparison with model predictions. JOUR PRVCA 75 015804
$^{181}\text{W}$	2007KAZY	NUCLEAR REACTIONS $^{180}\text{W}(\text{n}, \gamma)$ , E=thermal; measured capture $\sigma$ . $^{180,184,186}\text{W}(\text{n}, \gamma)$ , E=thermal; measured delayed $E\gamma$ , $I\gamma$ ; deduced production rate. Use of $^{181}\text{W}$ as neutrino source discussed. PREPRINT arXiv:0704.3042v2 [nucl-ex]
$^{181}\text{Re}$	2007KHZZ	NUCLEAR REACTIONS $\text{W}(\text{p}, \text{X})^{181}\text{Re} / ^{182}\text{Re} / ^{182m}\text{Re} / ^{183}\text{Re} / ^{184}\text{Re} / ^{186}\text{Re} / ^{183}\text{Ta} / ^{184}\text{Ta}$ , E=6.6-40 MeV; measured excitation functions. Stacked-foil activation. PREPRINT nucl-ex/0703035,3/23/2007
	2007LA01	NUCLEAR REACTIONS $\text{W}(\text{p}, \text{xn})^{181}\text{Re} / ^{182}\text{Re} / ^{182m}\text{Re} / ^{183}\text{Re} / ^{184}\text{Re} / ^{186}\text{Re}$ , E=6-17.6 MeV; measured production $\sigma$ . Stacked-foil activation technique. JOUR ARISE 65 345

**KEYNUMBERS AND KEYWORDS**

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**A=182**

$^{182}\text{Hf}$	2007NG03	NUCLEAR REACTIONS $^{180}\text{Hf}(^{136}\text{Xe}, \text{X})^{180}\text{Hf} / ^{182}\text{Hf}$ , E=750 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (particle) $\gamma$ -coin. $^{180,182}\text{Hf}$ deduced levels, J, $\pi$ , rotational and vibrational bands features. Gammasphere, Chico arrays. JOUR PRVCA 75 034305
$^{182}\text{Ta}$	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(\text{n}, \gamma)$ , (n, 2n), $^{197}\text{Au}(\text{n}, \gamma)$ , (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), $^{59}\text{Co}(\text{n}, \alpha)$ , (n, 2n), (n, 4n), (n, 5n), $^{181}\text{Ta}(\text{n}, \gamma)$ , (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
	2007TR10	NUCLEAR REACTIONS $^{92}\text{Zr}$ , $^{183}\text{W}(\gamma, \text{p})$ , E=10-25 MeV; measured $E\gamma$ , $I\gamma$ . Dduced isomeric ratios. JOUR PPNLA 4 397
$^{182}\text{Re}$	2007KHZZ	NUCLEAR REACTIONS W(p, X) $^{181}\text{Re} / ^{182}\text{Re} / ^{182m}\text{Re} / ^{183}\text{Re} / ^{184}\text{Re} / ^{186}\text{Re} / ^{183}\text{Ta} / ^{184}\text{Ta}$ , E=6.6-40 MeV; measured excitation functions. Stacked-foil activation. PREPRINT nucl-ex/0703035,3/23/2007
	2007LA01	NUCLEAR REACTIONS W(p, xn) $^{181}\text{Re} / ^{182}\text{Re} / ^{182m}\text{Re} / ^{183}\text{Re} / ^{184}\text{Re} / ^{186}\text{Re}$ , E=6-17.6 MeV; measured production $\sigma$ . Stacked-foil activation technique. JOUR ARISE 65 345
$^{182}\text{Os}$	2007CA04	RADIOACTIVITY $^{182}\text{Ir}(\beta^+)$ , (EC) [from Pt(p, xn) and subsequent decay]; measured $E\gamma$ , $I\gamma$ , E(ce), I(ce); deduced log ft. $^{182}\text{Os}$ deduced levels, J, $\pi$ , ICC. Level systematics in neighboring isotopes discussed. JOUR ZAANE 31 141
$^{182}\text{Ir}$	2006VE10	NUCLEAR MOMENTS $^{182,183,184,185,186,186m,187,188,189,191,193}\text{Ir}$ ; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
	2007CA04	RADIOACTIVITY $^{182}\text{Ir}(\beta^+)$ , (EC) [from Pt(p, xn) and subsequent decay]; measured $E\gamma$ , $I\gamma$ , E(ce), I(ce); deduced log ft. $^{182}\text{Os}$ deduced levels, J, $\pi$ , ICC. Level systematics in neighboring isotopes discussed. JOUR ZAANE 31 141
	2007H020	RADIOACTIVITY $^{182}\text{PT}(\beta^+)$ , (EC); measured delayed $E\gamma$ , $I\gamma$ , Ee, (electron) $\gamma$ -coinc. $^{182}\text{Ir}$ deduced levels, J, $\pi$ , multipolarity. Compared results to model calculations. JOUR ZAANE 33 193
$^{182}\text{Pt}$	2007H020	RADIOACTIVITY $^{182}\text{PT}(\beta^+)$ , (EC); measured delayed $E\gamma$ , $I\gamma$ , Ee, (electron) $\gamma$ -coinc. $^{182}\text{Ir}$ deduced levels, J, $\pi$ , multipolarity. Compared results to model calculations. JOUR ZAANE 33 193
$^{182}\text{Pb}$	2006SE18	NUCLEAR MOMENTS $^{182,183,184,185,186,187,188,189,190}\text{Pb}$ ; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225

**A=183**

$^{183}\text{Hf}$	2007V002	NUCLEAR REACTIONS $^{174,180,182}\text{Hf}(\text{n}, \gamma)$ , E=spectrum; measured capture $\sigma$ ; deduced Maxwellian averaged $\sigma$ , stellar enhancement factors. Comparison with model predictions. JOUR PRVCA 75 015804
$^{183}\text{Ta}$	2007KHZZ	NUCLEAR REACTIONS W(p, X) $^{181}\text{Re} / ^{182}\text{Re} / ^{182m}\text{Re} / ^{183}\text{Re} / ^{184}\text{Re} / ^{186}\text{Re} / ^{183}\text{Ta} / ^{184}\text{Ta}$ , E=6.6-40 MeV; measured excitation functions. Stacked-foil activation. PREPRINT nucl-ex/0703035,3/23/2007

**A=183 (continued)**

<sup>183</sup> Re	2007KHZZ	NUCLEAR REACTIONS W(p, X) <sup>181</sup> Re / <sup>182</sup> Re / <sup>182m</sup> Re / <sup>183</sup> Re / <sup>184</sup> Re / <sup>186</sup> Re / <sup>183</sup> Ta / <sup>184</sup> Ta, E=6.6-40 MeV; measured excitation functions. Stacked-foil activation. PREPRINT nucl-ex/0703035,3/23/2007
	2007LA01	NUCLEAR REACTIONS W(p, xn) <sup>181</sup> Re / <sup>182</sup> Re / <sup>182m</sup> Re / <sup>183</sup> Re / <sup>184</sup> Re / <sup>186</sup> Re, E=6-17.6 MeV; measured production $\sigma$ . Stacked-foil activation technique. JOUR ARISE 65 345
<sup>183</sup> Ir	2006VE10	NUCLEAR MOMENTS <sup>182,183,184,185,186,186m,187,188,189,191,193</sup> Ir; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
<sup>183</sup> Pb	2006SE18	NUCLEAR MOMENTS <sup>182,183,184,185,186,187,188,189,190</sup> Pb; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225

**A=184**

<sup>184</sup> Ta	2007KHZZ	NUCLEAR REACTIONS W(p, X) <sup>181</sup> Re / <sup>182</sup> Re / <sup>182m</sup> Re / <sup>183</sup> Re / <sup>184</sup> Re / <sup>186</sup> Re / <sup>183</sup> Ta / <sup>184</sup> Ta, E=6.6-40 MeV; measured excitation functions. Stacked-foil activation. PREPRINT nucl-ex/0703035,3/23/2007
<sup>184</sup> W	2006HA51	RADIOACTIVITY <sup>184,184m</sup> Re(EC), ( $\beta^+$ ) [from <sup>185</sup> Re( $\gamma$ , n)]; measured $E\gamma$ , $I\gamma$ , $T_{1/2}$ . <sup>184</sup> W deduced transitions. JOUR PRVCA 74 065802
<sup>184</sup> Re	2006HA51	RADIOACTIVITY <sup>184,184m</sup> Re(EC), ( $\beta^+$ ) [from <sup>185</sup> Re( $\gamma$ , n)]; measured $E\gamma$ , $I\gamma$ , $T_{1/2}$ . <sup>184</sup> W deduced transitions. JOUR PRVCA 74 065802
	2006HA51	NUCLEAR REACTIONS <sup>185</sup> Re( $\gamma$ , n), $E \approx 2-20$ MeV; measured $\beta$ -delayed $E\gamma$ , $I\gamma$ ; deduced isomer yield ratio. JOUR PRVCA 74 065802
	2007KHZZ	NUCLEAR REACTIONS W(p, X) <sup>181</sup> Re / <sup>182</sup> Re / <sup>182m</sup> Re / <sup>183</sup> Re / <sup>184</sup> Re / <sup>186</sup> Re / <sup>183</sup> Ta / <sup>184</sup> Ta, E=6.6-40 MeV; measured excitation functions. Stacked-foil activation. PREPRINT nucl-ex/0703035,3/23/2007
	2007LA01	NUCLEAR REACTIONS W(p, xn) <sup>181</sup> Re / <sup>182</sup> Re / <sup>182m</sup> Re / <sup>183</sup> Re / <sup>184</sup> Re / <sup>186</sup> Re, E=6-17.6 MeV; measured production $\sigma$ . Stacked-foil activation technique. JOUR ARISE 65 345
<sup>184</sup> Os	2006AV09	NUCLEAR MOMENTS <sup>184,186,187,188,189,190,192</sup> Os; measured hfs, isotope shifts. Laser spectroscopy. JOUR HYIND 171 217
<sup>184</sup> Ir	2006VE10	NUCLEAR MOMENTS <sup>182,183,184,185,186,186m,187,188,189,191,193</sup> Ir; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
<sup>184</sup> Pb	2006SE18	NUCLEAR MOMENTS <sup>182,183,184,185,186,187,188,189,190</sup> Pb; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225
	2007KNZZ	NUCLEAR REACTIONS <sup>144,154</sup> Sm( <sup>48</sup> Ca, $\gamma$ ), ( <sup>40</sup> Ca, $\gamma$ ), $E=163-252$ MeV; measured fission fragment mass, energy distributions and $\sigma$ . CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P185

**KEYNUMBERS AND KEYWORDS**

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**A=185**

$^{185}\text{Ta}$	2007SH42	NUCLEAR REACTIONS $^{186}\text{W}(^{18}\text{O}, ^{19}\text{F})$ , E=180 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, $\gamma\gamma$ -coin. $^{185}\text{Ta}$ deduced levels, J, $\pi$ . JOUR ZAANE 34 1
$^{185}\text{W}$	2007KAZY	NUCLEAR REACTIONS $^{180}\text{W}(n, \gamma)$ , E=thermal; measured capture $\sigma$ . $^{180,184,186}\text{W}(n, \gamma)$ , E=thermal; measured delayed $E\gamma$ , $I\gamma$ ; deduced production rate. Use of $^{181}\text{W}$ as neutrino source discussed. PREPRINT arXiv:0704.3042v2 [nucl-ex]
$^{185}\text{Ir}$	2006VE10	NUCLEAR MOMENTS $^{182,183,184,185,186,186m,187,188,189,191,193}\text{Ir}$ ; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
$^{185}\text{Pb}$	2006SE18	NUCLEAR MOMENTS $^{182,183,184,185,186,187,188,189,190}\text{Pb}$ ; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225

**A=186**

$^{186}\text{Re}$	2007KHZZ	NUCLEAR REACTIONS W(p, X) $^{181}\text{Re} / ^{182}\text{Re} / ^{182m}\text{Re} / ^{183}\text{Re} / ^{184}\text{Re} / ^{186}\text{Re} / ^{183}\text{Ta} / ^{184}\text{Ta}$ , E=6.6-40 MeV; measured excitation functions. Stacked-foil activation. PREPRINT nucl-ex/0703035,3/23/2007
	2007LA01	NUCLEAR REACTIONS W(p, xn) $^{181}\text{Re} / ^{182}\text{Re} / ^{182m}\text{Re} / ^{183}\text{Re} / ^{184}\text{Re} / ^{186}\text{Re}$ , E=6-17.6 MeV; measured production $\sigma$ . Stacked-foil activation technique. JOUR ARISE 65 345
	2007TA30	NUCLEAR REACTIONS $^{186}\text{W}(p, n)$ , E < 30 MeV; measured cross sections and excitation function using the activation technique. Compared results to existing data and model calculations. JOUR NIMBE 264 389
$^{186}\text{Os}$	2006AV09	NUCLEAR MOMENTS $^{184,186,187,188,189,190,192}\text{Os}$ ; measured hfs, isotope shifts. Laser spectroscopy. JOUR HYIND 171 217
$^{186}\text{Ir}$	2006VE10	NUCLEAR MOMENTS $^{182,183,184,185,186,186m,187,188,189,191,193}\text{Ir}$ ; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
$^{186}\text{Pb}$	2006ANZT	RADIOACTIVITY $^{194}\text{Rn}, ^{190}\text{Po}(\alpha)$ [from $^{144}\text{Sm}(^{52}\text{Cr}, 2n)$ ]; measured $E\alpha$ , $T_{1/2}$ . REPT GSI 2006-1,P196,Andreyev
	2006SE18	NUCLEAR MOMENTS $^{182,183,184,185,186,187,188,189,190}\text{Pb}$ ; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225
	2007PA05	NUCLEAR REACTIONS $^{106}\text{Pd}(^{83}\text{Kr}, 3n)$ , E=355 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{186}\text{Pb}$ deduced levels, J, $\pi$ , rotational and vibrational bands, deformation. Recoil-decay tagging, interacting boson model and mean-field model calculations. JOUR PRVCA 75 014302

**KEYNUMBERS AND KEYWORDS**

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**A=187**

$^{187}\text{W}$	2007KAZY	NUCLEAR REACTIONS $^{180}\text{W}(\text{n}, \gamma)$ , E=thermal; measured capture $\sigma$ . $^{180,184,186}\text{W}(\text{n}, \gamma)$ , E=thermal; measured delayed $E\gamma, I\gamma$ ; deduced production rate. Use of $^{181}\text{W}$ as neutrino source discussed. PREPRINT arXiv:0704.3042v2 [nucl-ex]
	2007KI03	NUCLEAR REACTIONS $^{63}\text{Cu}, ^{186}\text{W}(\text{n}, \gamma)$ , E=1-2 MeV; measured capture $\sigma$ . JOUR JRNCD 271 553
$^{187}\text{Os}$	2006AV09	NUCLEAR MOMENTS $^{184,186,187,188,189,190,192}\text{Os}$ ; measured hfs, isotope shifts. Laser spectroscopy. JOUR HYIND 171 217
	2007HU17	NUCLEAR REACTIONS $^{186,188,189,190}\text{Os}(\text{n}, \gamma)$ , E=spectrum; measured correlated isotopic anomalies. Deduced neutron capture cross section ratios relevant to the astrophysical S-process. JOUR ASJOA 664 L59
	2007M017	NUCLEAR REACTIONS $^{186,187,188}\text{Os}(\text{n}, \gamma)$ , E=1 eV to 1 MeV; measured cross section at the CERN n_TOF facility. $^{187}\text{Os}(\text{n}, \text{n}')$ , E=30 keV; measured inelastic scattering cross section. JOUR PPNPD 59 165
	2007SE07	NUCLEAR REACTIONS $^{186,187,189}\text{Os}(\text{n}, \gamma)$ , E=5-90 keV; measured $E\gamma, I\gamma$ , neutron capture cross sections. JOUR PRVCA 76 022802
	2007SEZY	NUCLEAR REACTIONS $^{186,187,189}\text{Os}(\text{n}, \gamma)$ , E=low; measured prompt $\gamma$ ray, cross sections. $^{187}\text{Os}(\text{n}, \text{n}')$ , E=10-70 keV; measured cross sections. CONF Geneva(NIC-IX) 054
$^{187}\text{Ir}$	2006VE10	NUCLEAR MOMENTS $^{182,183,184,185,186,186m,187,188,189,191,193}\text{Ir}$ ; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
$^{187}\text{Pt}$	2007CAZV	NUCLEAR REACTIONS $^{181}\text{Ta}(^{11}\text{B}, 5\text{n})$ , E=71 MeV; measured $E\gamma, I\gamma$ . $^{187}\text{Pt}$ deduced high spin levels, J, $\pi$ , shape coexistence. CONF Iguazu(Nuclear Physics and Applications) Proc,P448,Cardona
	2007ZH09	NUCLEAR REACTIONS $^{173}\text{Yb}(^{18}\text{O}, 4\text{n})$ , E=78, 85 MeV; measured $E\gamma, I\gamma, \gamma\gamma$ -coin. $^{187}\text{Pt}$ deduced high-spin levels, J, $\pi$ , configurations, B(M1) / B(E2). Comparison with model predictions. JOUR PRVCA 75 034314
$^{187}\text{Pb}$	2006SE18	NUCLEAR MOMENTS $^{182,183,184,185,186,187,188,189,190}\text{Pb}$ ; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225
$^{187}\text{Po}$	2007AN19	NUCLEAR REACTIONS $^{144}\text{Sm}(^{46}\text{Ti}, 3\text{n})^{187}\text{Po}$ , E=224 MeV; $^{144}\text{Sm}(^{52}\text{Cr}, \text{X})^{193,194}\text{Rn}$ , E=232, 252 meV; measured $E\alpha$ . $^{187}\text{Po}$ , $^{193,194}\text{Rn}$ deduced levels. JOUR APOBB 38 1557

**A=188**

$^{188}\text{Os}$	2006AV09	NUCLEAR MOMENTS $^{184,186,187,188,189,190,192}\text{Os}$ ; measured hfs, isotope shifts. Laser spectroscopy. JOUR HYIND 171 217
	2006M040	NUCLEAR REACTIONS $^{192}\text{Os}(^{82}\text{Se}, \text{X})^{188}\text{Os} / ^{190}\text{Os}$ , E=460 MeV; measured $E\gamma, I\gamma, \gamma\gamma$ -coin. $^{188,190}\text{Os}$ deduced high-spin levels, J, $\pi$ . GASP array. JOUR IMPEE 15 1797
	2007MA43	NUCLEAR REACTIONS $^{176}\text{Yb}(^{12}\text{C}, \text{F})$ , E=65, 84 MeV; measured $E\gamma, I\gamma$ , angular anisotropy from GDR decay. $^{188}\text{Os}$ deduced shape parameters. JOUR APOBB 38 1463

**A=188 (*continued*)**

	2007M017	NUCLEAR REACTIONS $^{186,187,188}\text{Os}(n, \gamma)$ , E=1 eV to 1 MeV; measured cross section at the CERN n_TOF facility. $^{187}\text{Os}(n, n')$ , E=30 keV; measured inelastic scattering cross section. JOUR PPNPD 59 165
	2007SE07	NUCLEAR REACTIONS $^{186,187,189}\text{Os}(n, \gamma)$ , E=5-90 keV; measured $E\gamma, I\gamma$ , neutron capture cross sections. JOUR PRVCA 76 022802
	2007SEZY	NUCLEAR REACTIONS $^{186,187,189}\text{Os}(n, \gamma)$ , E=low; measured prompt $\gamma$ ray, cross sections. $^{187}\text{Os}(n, n')$ , E=10-70 keV; measured cross sections. CONF Geneva(NIC-IX) 054
$^{188}\text{Ir}$	2006VE10	NUCLEAR MOMENTS $^{182,183,184,185,186,186m,187,188,189,191,193}\text{Ir}$ ; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
$^{188}\text{Pb}$	2006SE18	NUCLEAR MOMENTS $^{182,183,184,185,186,187,188,189,190}\text{Pb}$ ; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225

**A=189**

$^{189}\text{Os}$	2006AV09	NUCLEAR MOMENTS $^{184,186,187,188,189,190,192}\text{Os}$ ; measured hfs, isotope shifts. Laser spectroscopy. JOUR HYIND 171 217
	2007HU17	NUCLEAR REACTIONS $^{186,188,189,190}\text{Os}(n, \gamma)$ , E=spectrum; measured correlated isotopic anomalies. Deduced neutron capture cross section ratios relevant to the astrophysical S-process. JOUR ASJOA 664 L59
	2007M017	NUCLEAR REACTIONS $^{186,187,188}\text{Os}(n, \gamma)$ , E=1 eV to 1 MeV; measured cross section at the CERN n_TOF facility. $^{187}\text{Os}(n, n')$ , E=30 keV; measured inelastic scattering cross section. JOUR PPNPD 59 165
$^{189}\text{Ir}$	2006VE10	NUCLEAR MOMENTS $^{182,183,184,185,186,186m,187,188,189,191,193}\text{Ir}$ ; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
	2007ZHZZ	NUCLEAR REACTIONS $^{190}\text{Ir}(\gamma, n), ^{196}\text{Au}(\gamma, n)$ , E(end point)=12.0, 12.5, 14.5, 22 MeV; $^{197}\text{Au}(n, \gamma)$ E=thermal, slow; measured $E\gamma, I\gamma$ ; $^{190m,190g}\text{Ir}, ^{196m,196g}\text{Au}$ deduced $\sigma_m / \sigma_g$ ; $^{197m,197g}\text{Au}$ deduced $\sigma_m / \sigma_m + \sigma_g$ . Microtron, betatron, reactor, activation method, NaI(Tl), Ge detectors. CONF Voronezh(Nucleus-2007), Contrib,P136,Zheltonozhsky
$^{189}\text{Tl}$	2007CH41	NUCLEAR REACTIONS $^{165}\text{Ho}(^{28}\text{Si}, 4n)^{189}\text{Tl}$ , E=138 MeV; measured $E\gamma, I\gamma$ , lifetimes of high spin states using recoil distance measurement technique. Deduced transition quadrupole moment and deformation parameters. JOUR PRVCA 75 054323
$^{189}\text{Pb}$	2006SE18	NUCLEAR MOMENTS $^{182,183,184,185,186,187,188,189,190}\text{Pb}$ ; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225
$^{189}\text{Po}$	2006AN36	RADIOACTIVITY $^{193,194}\text{Rn}(\alpha)$ [from $^{144}\text{Sm}(^{52}\text{Cr}, xn)$ ]; measured $E\alpha, I\alpha, T_{1/2}$ ; deduced deformation effects. JOUR PRVCA 74 064303

**KEYNUMBERS AND KEYWORDS**

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**A=190**

<sup>190</sup> Os	2006AV09	NUCLEAR MOMENTS <sup>184,186,187,188,189,190,192</sup> Os; measured hfs, isotope shifts. Laser spectroscopy. JOUR HYIND 171 217
	2006M040	NUCLEAR REACTIONS <sup>192</sup> Os( <sup>82</sup> Se, X) <sup>188</sup> Os / <sup>190</sup> Os, E=460 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>188,190</sup> Os deduced high-spin levels, J, $\pi$ . GASP array. JOUR IMPEE 15 1797
	2007HU17	NUCLEAR REACTIONS <sup>186,188,189,190</sup> Os(n, $\gamma$ ), E=spectrum; measured correlated isotopic anomalies. Deduced neutron capture cross section ratios relevant to the astrophysical S-process. JOUR ASJOA 664 L59
	2007SE07	NUCLEAR REACTIONS <sup>186,187,189</sup> Os(n, $\gamma$ ), E=5-90 keV; measured E $\gamma$ , I $\gamma$ , neutron capture cross sections. JOUR PRVCA 76 022802
	2007SEZY	NUCLEAR REACTIONS <sup>186,187,189</sup> Os(n, $\gamma$ ), E=low; measured prompt $\gamma$ ray, cross sections. <sup>187</sup> Os(n, n'), E=10-70 keV; measured cross sections. CONF Geneva(NIC-IX) 054
<sup>190</sup> Ir	2007PA14	NUCLEAR REACTIONS <sup>191</sup> Ir(n, 2n), E=10.0-11.3 MeV; measured activation $\sigma$ , isomer ratio. Comparison with statistical model predictions. JOUR PRVCA 75 034607
	2007TI03	NUCLEAR REACTIONS Pb, <sup>208</sup> Pb, <sup>209</sup> Bi(p, X) <sup>7</sup> Be / <sup>24</sup> Na / <sup>59</sup> Fe / <sup>86</sup> Rb / <sup>101m</sup> Rh / <sup>173</sup> Lu / <sup>190</sup> Ir / <sup>192</sup> Ir / <sup>196</sup> Au / <sup>199</sup> Tl / <sup>200</sup> Tl / <sup>203</sup> Pb, E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289
<sup>190</sup> Au	2007SH15	NUCLEAR REACTIONS <sup>232</sup> Th(n, $\gamma$ ), (n, 2n), <sup>197</sup> Au(n, $\gamma$ ), (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), <sup>59</sup> Co(n, $\alpha$ ), (n, 2n), (n, 4n), (n, 5n), <sup>181</sup> Ta(n, $\gamma$ ), (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
<sup>190</sup> Hg	2006LE44	NUCLEAR REACTIONS <sup>188,190,192</sup> Pt( $\alpha$ , 2n) <sup>190,192,194</sup> Pt, E=27 MeV; measured g-factors of isomeric states using integral perturbed angular distribution of $\gamma$ -rays in an external magnetic field of 2.9T. JOUR BRSPE 70 1822
<sup>190</sup> Pb	2006SE18	NUCLEAR MOMENTS <sup>182,183,184,185,186,187,188,189,190</sup> Pb; measured hfs, isotope shifts; deduced charge radii. Resonance ionization spectroscopy. JOUR HYIND 171 225
<sup>190</sup> Po	2006AN36	RADIOACTIVITY <sup>193,194</sup> Rn( $\alpha$ ) [from <sup>144</sup> Sm( <sup>52</sup> Cr, xn)]; measured E $\alpha$ , I $\alpha$ , T <sub>1/2</sub> ; deduced deformation effects. JOUR PRVCA 74 064303
	2006ANZT	RADIOACTIVITY <sup>194</sup> Rn, <sup>190</sup> Po( $\alpha$ ) [from <sup>144</sup> Sm( <sup>52</sup> Cr, 2n)]; measured E $\alpha$ , T <sub>1/2</sub> . REPT GSI 2006-1, P196, Andreyev

**A=191**

<sup>191</sup> Os	2007HU17	NUCLEAR REACTIONS <sup>186,188,189,190</sup> Os(n, $\gamma$ ), E=spectrum; measured correlated isotopic anomalies. Deduced neutron capture cross section ratios relevant to the astrophysical S-process. JOUR ASJOA 664 L59
<sup>191</sup> Ir	2006VE10	NUCLEAR MOMENTS <sup>182,183,184,185,186,186m,187,188,189,191,193</sup> Ir; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489

**A=191 (*continued*)**

<sup>191</sup> Pt	2007LA18	RADIOACTIVITY <sup>191</sup> Pt(EC); measured E $\gamma$ , I $\gamma$ . <sup>191</sup> Ir deduced level energies. JOUR BRSPE 71 742
	2007LAZX	RADIOACTIVITY <sup>191</sup> Pt(EC); measured E $\gamma$ ; <sup>191</sup> Ir deduced levels. CONF Voronezh(Nucleus-2007), Contrib,P108,Lashko
	2007LA18	RADIOACTIVITY <sup>191</sup> Pt(EC); measured E $\gamma$ , I $\gamma$ . <sup>191</sup> Ir deduced level energies. JOUR BRSPE 71 742
	2007LAZX	RADIOACTIVITY <sup>191</sup> Pt(EC); measured E $\gamma$ ; <sup>191</sup> Ir deduced levels. CONF Voronezh(Nucleus-2007), Contrib,P108,Lashko
	2007SH15	NUCLEAR REACTIONS <sup>232</sup> Th(n, $\gamma$ ), (n, 2n), <sup>197</sup> Au(n, $\gamma$ ), (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), <sup>59</sup> Co(n, $\alpha$ ), (n, 2n), (n, 4n), (n, 5n), <sup>181</sup> Ta(n, $\gamma$ ), (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
<sup>191</sup> Au	2007OK05	NUCLEAR REACTIONS <sup>186</sup> W( <sup>11</sup> B, 4n), ( <sup>11</sup> B, 4np), ( <sup>11</sup> B, 6n), E=68 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ , linear polarization. <sup>191,193</sup> Au, <sup>192</sup> Pt deduced levels, J, $\pi$ ; calculated deformation parameters using Particle-Plus-Triaxial Rotor model. JOUR PRVCA 76 044315
	2007SH15	NUCLEAR REACTIONS <sup>232</sup> Th(n, $\gamma$ ), (n, 2n), <sup>197</sup> Au(n, $\gamma$ ), (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), <sup>59</sup> Co(n, $\alpha$ ), (n, 2n), (n, 4n), (n, 5n), <sup>181</sup> Ta(n, $\gamma$ ), (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307

**A=192**

<sup>192</sup> Os	2006AV09	NUCLEAR MOMENTS <sup>184,186,187,188,189,190,192</sup> Os; measured hfs, isotope shifts. Laser spectroscopy. JOUR HYIND 171 217
<sup>192</sup> Ir	2007TA28	NUCLEAR REACTIONS <sup>192</sup> Os(d, 2n), (d, p), E < 21 MeV; measured E $\gamma$ , I $\gamma$ , cross sections and excitation functions using stacked foil activation. Compared results to model calculations. JOUR ARISE 65 1215
	2007TI03	NUCLEAR REACTIONS Pb, <sup>208</sup> Pb, <sup>209</sup> Bi(p, X) <sup>7</sup> Be / <sup>24</sup> Na / <sup>59</sup> Fe / <sup>86</sup> Rb / <sup>101m</sup> Rh / <sup>173</sup> Lu / <sup>190</sup> Ir / <sup>192</sup> Ir / <sup>196</sup> Au / <sup>199</sup> Tl / <sup>200</sup> Tl / <sup>203</sup> Pb, E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289
<sup>192</sup> Pt	2007OK05	NUCLEAR REACTIONS <sup>186</sup> W( <sup>11</sup> B, 4n), ( <sup>11</sup> B, 4np), ( <sup>11</sup> B, 6n), E=68 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$ , linear polarization. <sup>191,193</sup> Au, <sup>192</sup> Pt deduced levels, J, $\pi$ ; calculated deformation parameters using Particle-Plus-Triaxial Rotor model. JOUR PRVCA 76 044315
<sup>192</sup> Au	2007SH15	NUCLEAR REACTIONS <sup>232</sup> Th(n, $\gamma$ ), (n, 2n), <sup>197</sup> Au(n, $\gamma$ ), (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), <sup>59</sup> Co(n, $\alpha$ ), (n, 2n), (n, 4n), (n, 5n), <sup>181</sup> Ta(n, $\gamma$ ), (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
<sup>192</sup> Hg	2006LE44	NUCLEAR REACTIONS <sup>188,190,192</sup> Pt( $\alpha$ , 2n) <sup>190,192,194</sup> Pt, E=27 MeV; measured g-factors of isomeric states using integral perturbed angular distribution of $\gamma$ -rays in an external magnetic field of 2.9T. JOUR BRSPE 70 1822

**A=192 (continued)**

<sup>192</sup> Pb	2007I001	NUCLEAR REACTIONS <sup>168</sup> Er( <sup>28</sup> Si, 4n) <sup>192</sup> Pb, <sup>170</sup> Er( <sup>29</sup> Si, 5n) <sup>170</sup> Er, E not given; measured E $\gamma$ , I $\gamma$ ( $\theta$ , E, t). <sup>192,194</sup> Pb deduced quadrupole moments of isomeric states using the TDPAD method. JOUR APOBB 38 1249
	2007I003	NUCLEAR REACTIONS <sup>168</sup> Er( <sup>28</sup> Si, 4n), <sup>170</sup> Er( <sup>28</sup> Si, 5n), E=143 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, time differential perturbed angular distributions, lifetimes. <sup>192</sup> Pb, <sup>194</sup> Pb deduced levels, J, $\pi$ , spectroscopic quadrupole moments. JOUR PYLBB 650 141
	2007KNZZ	NUCLEAR REACTIONS <sup>144,154</sup> Sm( <sup>48</sup> Ca, $\gamma$ ), ( <sup>40</sup> Ca, $\gamma$ ), E=163-252 MeV; measured fission fragment mass, energy distributions and $\sigma$ . CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P185

**A=193**

<sup>193</sup> Os	2007TA28	NUCLEAR REACTIONS <sup>192</sup> Os(d, 2n), (d, p), E < 21 MeV; measured E $\gamma$ , I $\gamma$ , cross sections and excitation functions using stacked foil activation. Compared results to model calculations. JOUR ARISE 65 1215
	2007ZAZZ	RADIOACTIVITY <sup>193</sup> Os( $\beta^-$ ); measured E $\gamma$ , $\gamma\gamma$ angular correlation. <sup>193</sup> Ir deduced multipole mixing ratio. CONF Iguazu(Nuclear Physics and Applications) Proc,P442,Zahn
<sup>193</sup> Ir	2006VE10	NUCLEAR MOMENTS <sup>182,183,184,185,186,186m,187,188,189,191,193</sup> Ir; measured hfs, isotope shift; deduced $\mu$ , quadrupole moments, radii, $\beta_2$ . Laser spectroscopy. JOUR ZAANE 30 489
	2007TAZW	NUCLEAR REACTIONS <sup>139</sup> La, <sup>152</sup> Sm, <sup>192,193</sup> Ir(n, $\gamma$ ), E=55, 144 keV; measured cross sections relative to <sup>197</sup> Au. CONF Tokai-mura (Nuclear Data) Proc,PV.02,Tan
	2007ZAZZ	RADIOACTIVITY <sup>193</sup> Os( $\beta^-$ ); measured E $\gamma$ , $\gamma\gamma$ angular correlation. <sup>193</sup> Ir deduced multipole mixing ratio. CONF Iguazu(Nuclear Physics and Applications) Proc,P442,Zahn
<sup>193</sup> Au	2007OK05	NUCLEAR REACTIONS <sup>186</sup> W( <sup>11</sup> B, 4n), ( <sup>11</sup> B, 4np), ( <sup>11</sup> B, 6n), E=68 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, $\gamma\gamma$ ( $\theta$ ), linear polarization. <sup>191,193</sup> Au, <sup>192</sup> Pt deduced levels, J, $\pi$ ; calculated deformation parameters using Particle-Plus-Triaxial Rotor model. JOUR PRVCA 76 044315
<sup>193</sup> Pb	2007I003	NUCLEAR REACTIONS <sup>168</sup> Er( <sup>28</sup> Si, 4n), <sup>170</sup> Er( <sup>28</sup> Si, 5n), E=143 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, time differential perturbed angular distributions, lifetimes. <sup>192</sup> Pb, <sup>194</sup> Pb deduced levels, J, $\pi$ , spectroscopic quadrupole moments. JOUR PYLBB 650 141
<sup>193</sup> Rn	2006AN36	RADIOACTIVITY <sup>193,194</sup> Rn( $\alpha$ ) [from <sup>144</sup> Sm( <sup>52</sup> Cr, xn)]; measured E $\alpha$ , I $\alpha$ , T <sub>1/2</sub> ; deduced deformation effects. JOUR PRVCA 74 064303
	2006AN36	NUCLEAR REACTIONS <sup>144</sup> Sm( <sup>52</sup> Cr, 2n), ( <sup>52</sup> Cr, 3n), E=231-252 MeV; measured production $\sigma$ . Velocity filter. JOUR PRVCA 74 064303
	2006ANZT	NUCLEAR REACTIONS <sup>144</sup> Sm( <sup>52</sup> Cr, 2n), ( <sup>52</sup> Cr, 3n), E=230 MeV; measured E $\gamma$ , I $\gamma$ , delayed E $\alpha$ , (recoil) $\alpha$ -coin. REPT GSI 2006-1,P196,Andreyev
	2007AN19	NUCLEAR REACTIONS <sup>144</sup> Sm( <sup>46</sup> Ti, 3n) <sup>187</sup> Po, E=224 MeV; <sup>144</sup> Sm( <sup>52</sup> Cr, X) <sup>193,194</sup> Rn, E=232, 252 meV; measured E $\alpha$ . <sup>187</sup> Po, <sup>193,194</sup> Rn deduced levels. JOUR APOBB 38 1557

**A=194**

$^{194}\text{Re}$	2007KUZZ	RADIOACTIVITY $^{194,195,196}\text{Re}$ , $^{198,202}\text{Ir}$ [from $^{208}\text{Pb}$ fragmentation]; measured $T_{1/2}$ . Comparison with model predictions. CONF Geneva(NIC-IX) 008
$^{194}\text{Ir}$	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $^{197}\text{Au}(\text{n}, \gamma)$ , $(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 6\text{n})$ , $(\text{n}, 7\text{n})$ , $(\text{n}, 8\text{n})$ , $(\text{n}, 6\text{np})$ , $^{59}\text{Co}(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $^{181}\text{Ta}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $(\text{n}, \text{np})$ , E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
	2007TAZW	NUCLEAR REACTIONS $^{139}\text{La}$ , $^{152}\text{Sm}$ , $^{192,193}\text{Ir}(\text{n}, \gamma)$ , E=55, 144 keV; measured cross sections relative to $^{197}\text{Au}$ . CONF Tokai-mura (Nuclear Data) Proc,PV.02,Tan
$^{194}\text{Pt}$	2007ME09	NUCLEAR REACTIONS $^{127}\text{I}(\mu^-, \nu)$ , $(\mu^-, \text{n}\nu)$ , $(\mu^-, 2\text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , $(\mu^-, 4\text{n}\nu)$ , $(\mu^-, 5\text{n}\nu)$ , $(\mu^-, 6\text{n}\nu)$ , E at rest; $^{197}\text{Au}(\mu^-, \text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , E at rest; $^{209}\text{Bi}(\mu^-, \text{n}\nu)$ , $(\mu^-, 2\text{n}\nu)$ , $(\mu^-, 3\text{n}\nu)$ , $(\mu^-, 4\text{n}\nu)$ , $(\mu^-, 5\text{n}\nu)$ , E at rest; measured $E\gamma$ , $I\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
$^{194}\text{Au}$	2007PE02	NUCLEAR REACTIONS $^{197}\text{Au}(^6\text{He}, 2\text{n})$ , $(^6\text{He}, 3\text{n})$ , $(^6\text{He}, 4\text{n})$ , $(^6\text{He}, 5\text{n})$ , $(^6\text{He}, 6\text{n})$ , $(^6\text{He}, 7\text{n})$ , E $\approx$ 10-70 MeV; $^{206}\text{Pb}(^6\text{He}, 2\text{n})$ , E $\approx$ 10-26 MeV; $^{197}\text{Au}(^6\text{He}, \text{X})^{194}\text{Au} / {^{196}\text{Au}} / {^{198}\text{Au}}$ , E $\approx$ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185
	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $^{197}\text{Au}(\text{n}, \gamma)$ , $(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 6\text{n})$ , $(\text{n}, 7\text{n})$ , $(\text{n}, 8\text{n})$ , $(\text{n}, 6\text{np})$ , $^{59}\text{Co}(\text{n}, \alpha)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $^{181}\text{Ta}(\text{n}, \gamma)$ , $(\text{n}, 2\text{n})$ , $(\text{n}, 4\text{n})$ , $(\text{n}, 5\text{n})$ , $(\text{n}, \text{np})$ , E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
$^{194}\text{Hg}$	2006LE44	NUCLEAR REACTIONS $^{188,190,192}\text{Pt}(\alpha, 2\text{n})^{190,192,194}\text{Pt}$ , E=27 MeV; measured g-factors of isomeric states using integral perturbed angular distribution of $\gamma$ -rays in an external magnetic field of 2.9T. JOUR BRSPE 70 1822
$^{194}\text{Pb}$	2007I001	NUCLEAR REACTIONS $^{168}\text{Er}(^{28}\text{Si}, 4\text{n})^{192}\text{Pb}$ , $^{170}\text{Er}(^{29}\text{Si}, 5\text{n})^{170}\text{Er}$ , E not given; measured $E\gamma$ , $I\gamma(\theta, E, t)$ . $^{192,194}\text{Pb}$ deduced quadrupole moments of isomeric states using the TDPAD method. JOUR APOBB 38 1249
	2007I003	NUCLEAR REACTIONS $^{168}\text{Er}(^{28}\text{Si}, 4\text{n})$ , $^{170}\text{Er}(^{28}\text{Si}, 5\text{n})$ , E=143 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, time differential perturbed angular distributions, lifetimes. $^{192}\text{Pb}$ , $^{194}\text{Pb}$ deduced levels, $J$ , $\pi$ , spectroscopic quadrupole moments. JOUR PYLBB 650 141
	2007KNZZ	NUCLEAR REACTIONS $^{144,154}\text{Sm}(^{48}\text{Ca}, \gamma)$ , $(^{40}\text{Ca}, \gamma)$ , E=163-252 MeV; measured fission fragment mass, energy distributions and $\sigma$ . CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P185
$^{194}\text{Rn}$	2006AN36	RADIOACTIVITY $^{193,194}\text{Rn}(\alpha)$ [from $^{144}\text{Sm}(^{52}\text{Cr}, \text{xn})$ ]; measured $E\alpha$ , $I\alpha$ , $T_{1/2}$ ; deduced deformation effects. JOUR PRVCA 74 064303
	2006AN36	NUCLEAR REACTIONS $^{144}\text{Sm}(^{52}\text{Cr}, 2\text{n})$ , $(^{52}\text{Cr}, 3\text{n})$ , E=231-252 MeV; measured production $\sigma$ . Velocity filter. JOUR PRVCA 74 064303
	2006ANZT	NUCLEAR REACTIONS $^{144}\text{Sm}(^{52}\text{Cr}, 2\text{n})$ , $(^{52}\text{Cr}, 3\text{n})$ , E=230 MeV; measured $E\gamma$ , $I\gamma$ , delayed $E\alpha$ , (recoil) $\alpha$ -coin. REPT GSI 2006-1,P196,Andreyev

**A=194 (*continued*)**

2006ANZT	RADIOACTIVITY $^{194}\text{Rn}$ , $^{190}\text{Po}(\alpha)$ [from $^{144}\text{Sm}(^{52}\text{Cr}, 2n)$ ]; measured $\text{E}\alpha$ , $T_{1/2}$ . REPT GSI 2006-1,P196,Andreyev
2007AN19	NUCLEAR REACTIONS $^{144}\text{Sm}(^{46}\text{Ti}, 3n)^{187}\text{Po}$ , $E=224$ MeV; $^{144}\text{Sm}(^{52}\text{Cr}, X)^{193,194}\text{Rn}$ , $E=232$ , 252 meV; measured $\text{E}\alpha$ . $^{187}\text{Po}$ , $^{193,194}\text{Rn}$ deduced levels. JOUR APOBB 38 1557

**A=195**

$^{195}\text{Re}$	2007KUZZ	RADIOACTIVITY $^{194,195,196}\text{Re}$ , $^{198,202}\text{Ir}$ [from $^{208}\text{Pb}$ fragmentation]; measured $T_{1/2}$ . Comparison with model predictions. CONF Geneva(NIC-IX) 008
$^{195}\text{Pt}$	2006BI19	NUCLEAR REACTIONS $^{113}\text{In}$ , $^{195}\text{Pt}$ , $^{199}\text{Hg}(\gamma, \gamma')$ , $E=4\text{-}12$ MeV; measured isomer production $\sigma$ . JOUR BRSPE 70 292
$^{195}\text{Au}$	2007ZHZZ	NUCLEAR REACTIONS $^{190}\text{Ir}(\gamma, n)$ , $^{196}\text{Au}(\gamma, n)$ , $E(\text{end point})=12.0$ , 12.5, 14.5, 22 MeV; $^{197}\text{Au}(n, \gamma)$ $E=\text{thermal}$ , slow; measured $\text{E}\gamma$ , $I\gamma$ ; $^{190m,190g}\text{Ir}$ , $^{196m,196g}\text{Au}$ deduced $\sigma_m / \sigma_g$ ; $^{197m,197g}\text{Au}$ deduced $\sigma_m / \sigma_m + \sigma_g$ . Microtron, betatron, reactor, activation method, NaI(Tl), Ge detectors. CONF Voronezh(Nucleus-2007),Contrib,P136,Zheltonozhsky

**A=196**

$^{196}\text{Re}$	2007KUZZ	RADIOACTIVITY $^{194,195,196}\text{Re}$ , $^{198,202}\text{Ir}$ [from $^{208}\text{Pb}$ fragmentation]; measured $T_{1/2}$ . Comparison with model predictions. CONF Geneva(NIC-IX) 008
$^{196}\text{Pt}$	2007ME09	NUCLEAR REACTIONS $^{127}\text{I}(\mu^-, \nu)$ , $(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , $(\mu^-, 6n\nu)$ , $E$ at rest; $^{197}\text{Au}(\mu^-, n\nu)$ , $(\mu^-, 3n\nu)$ , $E$ at rest; $^{209}\text{Bi}(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , $E$ at rest; measured $\text{E}\gamma$ , $I\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
	2007PE28	NUCLEAR REACTIONS $^{196}\text{Pt}(d, 2n)$ , $E=12.2$ MeV; measured $\text{E}\gamma$ , $I\gamma$ . $^{196}\text{Pt}$ deduced levels $T_{1/2}$ , B(E1), B(E2), B(M1) using centroid shift analysis. JOUR NUPAB 796 1
$^{196}\text{Au}$	2006PE37	NUCLEAR REACTIONS $^{197}\text{Au}(^6\text{He}, 2n)$ , $(^6\text{He}, 3n)$ , $(^6\text{He}, 4n)$ , $(^6\text{He}, 5n)$ , $(^6\text{He}, 6n)$ , $(^6\text{He}, 7n)$ , $E \approx 10\text{-}70$ MeV; $^{206}\text{Pb}(^6\text{He}, 2n)$ , $E \approx 10\text{-}26$ MeV; $^{197}\text{Au}(^6\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , $E \approx 10\text{-}70$ MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
	2007HA24	NUCLEAR REACTIONS $^{152}\text{Sm}$ , $^{197}\text{Au}(\gamma, n)$ , $E=8.3\text{-}12.4$ MeV; measured cross sections. JOUR JNSTA 44 938
	2007KU25	NUCLEAR REACTIONS $^{197}\text{Au}(^6\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{196}\text{Tl} / ^{198}\text{Tl}$ , $E=7\text{-}60$ MeV; measured $\text{E}\gamma$ , $I\gamma$ , cross sections, and excitation functions using stacked foil technique. JOUR JPGPE 34 2297
	2007KUZX	NUCLEAR REACTIONS $^{197}\text{Au}(\alpha, xn)$ , $(\alpha, n\alpha)$ , $(\alpha, 2np)$ , $E=14\text{-}36$ MeV; measured excitation functions using stacked foil activation. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P196

**A=196 (*continued*)**

2007PE02	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E $\approx$ 10-70 MeV; $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E $\approx$ 10-26 MeV; $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{194}\text{Au}$ / $^{196}\text{Au}$ / $^{198}\text{Au}$ , E $\approx$ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185	
2007PE28	NUCLEAR REACTIONS $^{196}\text{Pt}$ (d, 2n), E=12.2 MeV; measured $E\gamma$ , $I\gamma$ . $^{196}\text{Pt}$ deduced levels $T_{1/2}$ , B(E1), B(E2), B(M1) using centroid shift analysis. JOUR NUPAB 796 1	
2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}$ (n, $\gamma$ ), (n, 2n), $^{197}\text{Au}$ (n, $\gamma$ ), (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), $^{59}\text{Co}$ (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 5n), $^{181}\text{Ta}$ (n, $\gamma$ ), (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307	
2007TI03	NUCLEAR REACTIONS $\text{Pb}$ , $^{208}\text{Pb}$ , $^{209}\text{Bi}$ (p, X) $^7\text{Be}$ / $^{24}\text{Na}$ / $^{59}\text{Fe}$ / $^{86}\text{Rb}$ / $^{101m}\text{Rh}$ / $^{173}\text{Lu}$ / $^{190}\text{Ir}$ / $^{192}\text{Ir}$ / $^{196}\text{Au}$ / $^{199}\text{Tl}$ / $^{200}\text{Tl}$ / $^{203}\text{Pb}$ , E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289	
$^{196}\text{Tl}$	2006PE37	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E $\approx$ 10-70 MeV; $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E $\approx$ 10-26 MeV; $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{196}\text{Au}$ / $^{198}\text{Au}$ / $^{199}\text{Au}$ , E $\approx$ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
2007KU25	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{196}\text{Au}$ / $^{198}\text{Au}$ / $^{196}\text{Tl}$ / $^{198}\text{Tl}$ , E=7-60 MeV; measured $E\gamma$ , $I\gamma$ , cross sections, and excitation functions using stacked foil technique. JOUR JPGPE 34 2297	
2007PE02	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E $\approx$ 10-70 MeV; $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E $\approx$ 10-26 MeV; $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{194}\text{Au}$ / $^{196}\text{Au}$ / $^{198}\text{Au}$ , E $\approx$ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185	

**A=197**

$^{197}\text{Au}$	2007SM01	NUCLEAR REACTIONS $^{197}\text{Au}$ (n, n), E $\approx$ 4.5-10.0 MeV; measured $\sigma(\theta)$ . Optical-statistical, dispersion, and coupled-channels model analysis. JOUR NSENA 155 74
	2007VA22	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^{106}\text{Sn}$ , $^{106}\text{Sn}'$ ), ( $^{108}\text{Sn}$ , $^{108}\text{Sn}'$ ), ( $^{110}\text{Sn}$ , $^{110}\text{Sn}'$ ), ( $^{112}\text{Sn}$ , $^{112}\text{Sn}'$ ), E=78-81 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc from projectile coulomb excitation. $^{106,108,110,112}\text{Sn}$ deduced B(E2). JOUR PRLTA 99 162501
$^{197}\text{Tl}$	2006PE37	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E $\approx$ 10-70 MeV; $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E $\approx$ 10-26 MeV; $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{196}\text{Au}$ / $^{198}\text{Au}$ / $^{199}\text{Au}$ , E $\approx$ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362

**A=197 (continued)**

	2007PE02	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E ≈ 10-70 MeV; $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E ≈ 10-26 MeV; $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{194}\text{Au}$ / $^{196}\text{Au}$ / $^{198}\text{Au}$ , E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185
	2007SI28	NUCLEAR REACTIONS $^{181}\text{Ta}$ ( $^{16}\text{O}$ , F), E=105, 110, 115 MeV; $^{178}\text{Hf}$ ( $^{19}\text{F}$ , F), E=108, 113, 118 MeV; measured neutron spectra, neutron multiplicities, angular momentum, dissipation strengths as function of excitation energies. $^{197}\text{Tl}$ ; deduced compound nucleus fission channels. JOUR PRVCA 76 044610
$^{197}\text{Bi}$	2007MU07	NUCLEAR REACTIONS $^{109}\text{Ag}$ ( $^{88}\text{Kr}$ , $\gamma$ ), $^{109}\text{Ag}$ ( $^{92}\text{Kr}$ , $\gamma$ ); E= 2.2 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc using MINIBALL. Deduced B(E2). JOUR PPNPD 59 361

**A=198**

$^{198}\text{Ir}$	2007KUZZ	RADIOACTIVITY $^{194,195,196}\text{Re}$ , $^{198,202}\text{Ir}$ [from $^{208}\text{Pb}$ fragmentation]; measured $T_{1/2}$ . Comparison with model predictions. CONF Geneva(NIC-IX) 008
$^{198}\text{Au}$	2006PE37	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E ≈ 10-70 MeV; $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E ≈ 10-26 MeV; $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{196}\text{Au}$ / $^{198}\text{Au}$ / $^{199}\text{Au}$ , E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
	2007KU25	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{196}\text{Au}$ / $^{198}\text{Au}$ / $^{196}\text{Tl}$ / $^{198}\text{Tl}$ , E=7-60 MeV; measured $E\gamma$ , $I\gamma$ , cross sections, and excitation functions using stacked foil technique. JOUR JPGPE 34 2297
	2007PE02	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E ≈ 10-70 MeV; $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E ≈ 10-26 MeV; $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{194}\text{Au}$ / $^{196}\text{Au}$ / $^{198}\text{Au}$ , E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185
	2007SH15	NUCLEAR REACTIONS $^{232}\text{Th}$ (n, $\gamma$ ), (n, 2n), $^{197}\text{Au}$ (n, $\gamma$ ), (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, 8n), (n, 6np), $^{59}\text{Co}$ (n, $\alpha$ ), (n, 2n), (n, 4n), (n, 5n), $^{181}\text{Ta}$ (n, $\gamma$ ), (n, 2n), (n, 4n), (n, 5n), (n, np), E=spectrum; measured spectrum-averaged $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307
	2007SP01	RADIOACTIVITY $^{198}\text{Au}$ ( $\beta^-$ ); measured $T_{1/2}$ for source in metallic environment; deduced temperature dependence. JOUR ZAANE 31 203
	2007ZHZZ	NUCLEAR REACTIONS $^{190}\text{Ir}$ ( $\gamma$ , n), $^{196}\text{Au}$ ( $\gamma$ , n), E(end point)=12.0, 12.5, 14.5, 22 MeV; $^{197}\text{Au}$ (n, $\gamma$ ) E=thermal, slow; measured $E\gamma$ , $I\gamma$ ; $^{190m,190g}\text{Ir}$ , $^{196m,196g}\text{Au}$ deduced $\sigma_m$ / $\sigma_g$ ; $^{197m,197g}\text{Au}$ deduced $\sigma_m$ / $\sigma_m + \sigma_g$ . Microtron, betatron, reactor, activation method, NaI(Tl), Ge detectors. CONF Voronezh(Nucleus-2007), Contrib,P136,Zheltonozhsky
$^{198}\text{Hg}$	2007KUZX	NUCLEAR REACTIONS $^{197}\text{Au}$ ( $\alpha$ , xn), ( $\alpha$ , na), ( $\alpha$ , 2np), E=14-36 MeV; measured excitation functions using stacked foil activation. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P196

**A=198 (*continued*)**

<sup>198</sup> Tl	2007SP01 2006PE37	RADIOACTIVITY <sup>198</sup> Au( $\beta^-$ ); measured T <sub>1/2</sub> for source in metallic environment; deduced temperature dependence. JOUR ZAANE 31 203 NUCLEAR REACTIONS <sup>197</sup> Au( <sup>6</sup> He, 2n), ( <sup>6</sup> He, 3n), ( <sup>6</sup> He, 4n), ( <sup>6</sup> He, 5n), ( <sup>6</sup> He, 6n), ( <sup>6</sup> He, 7n), E ≈ 10-70 MeV; <sup>206</sup> Pb( <sup>6</sup> He, 2n), E ≈ 10-26 MeV; <sup>197</sup> Au( <sup>6</sup> He, X) <sup>196</sup> Au / <sup>198</sup> Au / <sup>199</sup> Au, E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
	2007KU09	NUCLEAR REACTIONS <sup>197</sup> Au( $\alpha$ , n), ( $\alpha$ , 2n), ( $\alpha$ , 3n), E=14-36 MeV; measured E $\gamma$ , I $\gamma$ . Deduced excitation functions using stack activation technique. JOUR PANUE 70 613
	2007KU25	NUCLEAR REACTIONS <sup>197</sup> Au( <sup>6</sup> He, X) <sup>196</sup> Au / <sup>198</sup> Au / <sup>196</sup> Tl / <sup>198</sup> Tl, E=7-60 MeV; measured E $\gamma$ , I $\gamma$ , cross sections, and excitation functions using stacked foil technique. JOUR JPGPE 34 2297
	2007LA22	NUCLEAR REACTIONS <sup>197</sup> Au( $\alpha$ , 3n) <sup>198</sup> Tl, E=40 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coinc. <sup>198</sup> Tl deduced levels, J, $\pi$ . JOUR APOBB 38 1417
	2007PE02	NUCLEAR REACTIONS <sup>197</sup> Au( <sup>6</sup> He, 2n), ( <sup>6</sup> He, 3n), ( <sup>6</sup> He, 4n), ( <sup>6</sup> He, 5n), ( <sup>6</sup> He, 6n), ( <sup>6</sup> He, 7n), E ≈ 10-70 MeV; <sup>206</sup> Pb( <sup>6</sup> He, 2n), E ≈ 10-26 MeV; <sup>197</sup> Au( <sup>6</sup> He, X) <sup>194</sup> Au / <sup>196</sup> Au / <sup>198</sup> Au, E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185

**A=199**

<sup>199</sup> Au	2006PE37	NUCLEAR REACTIONS <sup>197</sup> Au( <sup>6</sup> He, 2n), ( <sup>6</sup> He, 3n), ( <sup>6</sup> He, 4n), ( <sup>6</sup> He, 5n), ( <sup>6</sup> He, 6n), ( <sup>6</sup> He, 7n), E ≈ 10-70 MeV; <sup>206</sup> Pb( <sup>6</sup> He, 2n), E ≈ 10-26 MeV; <sup>197</sup> Au( <sup>6</sup> He, X) <sup>196</sup> Au / <sup>198</sup> Au / <sup>199</sup> Au, E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
<sup>199</sup> Hg	2006BI19	NUCLEAR REACTIONS <sup>113</sup> In, <sup>195</sup> Pt, <sup>199</sup> Hg( $\gamma$ , $\gamma'$ ), E=4-12 MeV; measured isomer production $\sigma$ . JOUR BRSPE 70 292
<sup>199</sup> Tl	2006PE37	NUCLEAR REACTIONS <sup>197</sup> Au( <sup>6</sup> He, 2n), ( <sup>6</sup> He, 3n), ( <sup>6</sup> He, 4n), ( <sup>6</sup> He, 5n), ( <sup>6</sup> He, 6n), ( <sup>6</sup> He, 7n), E ≈ 10-70 MeV; <sup>206</sup> Pb( <sup>6</sup> He, 2n), E ≈ 10-26 MeV; <sup>197</sup> Au( <sup>6</sup> He, X) <sup>196</sup> Au / <sup>198</sup> Au / <sup>199</sup> Au, E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
	2007AS04	NUCLEAR REACTIONS <sup>203</sup> Tl( $\gamma$ , n), ( $\gamma$ , 2n), ( $\gamma$ , 3n), ( $\gamma$ , 4n), E $\gamma$ =50 MeV Bremsstrahlung; measured photonuclear cross sections by detecting $\gamma$ -ray spectra from the residual activity of the irradiated sample. JOUR BRSPE 71 332
	2007BA04	NUCLEAR REACTIONS <sup>197</sup> Au( $\alpha$ , $\gamma$ ), ( $\alpha$ , 2n), E=17.9-23.9 MeV; <sup>197</sup> Au( $\alpha$ , n), E=13.4-23.9 MeV; measured $\sigma$ . <sup>64</sup> Zn( $\alpha$ , $\gamma$ ), E=7-14 MeV; <sup>63</sup> Cu( $\alpha$ , $\gamma$ ), E=7 MeV; measured thick target yields. Activation technique, comparison with model predictions. JOUR PRVCA 75 015802
	2007KU09	NUCLEAR REACTIONS <sup>197</sup> Au( $\alpha$ , n), ( $\alpha$ , 2n), ( $\alpha$ , 3n), E=14-36 MeV; measured E $\gamma$ , I $\gamma$ . Deduced excitation functions using stack activation technique. JOUR PANUE 70 613

## KEYNUMBERS AND KEYWORDS

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### A=199 (*continued*)

- 2007PE02 NUCLEAR REACTIONS  $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E ≈ 10-70 MeV;  $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E ≈ 10-26 MeV;  $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{194}\text{Au}$  /  $^{196}\text{Au}$  /  $^{198}\text{Au}$ , E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185
- 2007TI03 NUCLEAR REACTIONS Pb,  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ (p, X) $^7\text{Be}$  /  $^{24}\text{Na}$  /  $^{59}\text{Fe}$  /  $^{86}\text{Rb}$  /  $^{101m}\text{Rh}$  /  $^{173}\text{Lu}$  /  $^{190}\text{Ir}$  /  $^{192}\text{Ir}$  /  $^{196}\text{Au}$  /  $^{199}\text{Tl}$  /  $^{200}\text{Tl}$  /  $^{203}\text{Pb}$ , E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289

### A=200

- $^{200}\text{Tl}$  2006PE37 NUCLEAR REACTIONS  $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E ≈ 10-70 MeV;  $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E ≈ 10-26 MeV;  $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{196}\text{Au}$  /  $^{198}\text{Au}$  /  $^{199}\text{Au}$ , E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
- 2007AS04 NUCLEAR REACTIONS  $^{203}\text{Tl}$ ( $\gamma$ , n), ( $\gamma$ , 2n), ( $\gamma$ , 3n), ( $\gamma$ , 4n), E $\gamma$ =50 MeV Bremsstrahlung; measured photonuclear cross sections by detecting  $\gamma$ -ray spectra from the residual activity of the irradiated sample. JOUR BRSPE 71 332
- 2007BA04 NUCLEAR REACTIONS  $^{197}\text{Au}$ ( $\alpha$ ,  $\gamma$ ), ( $\alpha$ , 2n), E=17.9-23.9 MeV;  $^{197}\text{Au}$ ( $\alpha$ , n), E=13.4-23.9 MeV; measured  $\sigma$ .  $^{64}\text{Zn}$ ( $\alpha$ ,  $\gamma$ ), E=7-14 MeV;  $^{63}\text{Cu}$ ( $\alpha$ ,  $\gamma$ ), E=7 MeV; measured thick target yields. Activation technique, comparison with model predictions. JOUR PRVCA 75 015802
- 2007KU09 NUCLEAR REACTIONS  $^{197}\text{Au}$ ( $\alpha$ , n), ( $\alpha$ , 2n), ( $\alpha$ , 3n), E=14-36 MeV; measured E $\gamma$ , I $\gamma$ . Deduced excitation functions using stack activation technique. JOUR PANUE 70 613
- 2007PE02 NUCLEAR REACTIONS  $^{197}\text{Au}$ ( $^6\text{He}$ , 2n), ( $^6\text{He}$ , 3n), ( $^6\text{He}$ , 4n), ( $^6\text{He}$ , 5n), ( $^6\text{He}$ , 6n), ( $^6\text{He}$ , 7n), E ≈ 10-70 MeV;  $^{206}\text{Pb}$ ( $^6\text{He}$ , 2n), E ≈ 10-26 MeV;  $^{197}\text{Au}$ ( $^6\text{He}$ , X) $^{194}\text{Au}$  /  $^{196}\text{Au}$  /  $^{198}\text{Au}$ , E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185
- 2007TI03 NUCLEAR REACTIONS Pb,  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ (p, X) $^7\text{Be}$  /  $^{24}\text{Na}$  /  $^{59}\text{Fe}$  /  $^{86}\text{Rb}$  /  $^{101m}\text{Rh}$  /  $^{173}\text{Lu}$  /  $^{190}\text{Ir}$  /  $^{192}\text{Ir}$  /  $^{196}\text{Au}$  /  $^{199}\text{Tl}$  /  $^{200}\text{Tl}$  /  $^{203}\text{Pb}$ , E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289

### A=201

- $^{201}\text{Hg}$  2007ME12 RADIOACTIVITY  $^{201}\text{Hg}$ [from  $^{201}\text{Tl}$ (EC)]; measured E $\gamma$ , I $\gamma$ , e $\gamma$ -coinc, T<sub>1/2</sub> of the first excited state.  $^{201}\text{Hg}$  deduced B(M1) and B(E2). JOUR PRVCA 75 064306

**A=201 (*continued*)**

$^{201}\text{Tl}$	2007YA02	RADIOACTIVITY $^{51}\text{Cr}$ , $^{55}\text{Fe}$ , $^{67}\text{Ga}$ , $^{111}\text{In}$ , $^{133}\text{Ba}$ , $^{201}\text{Tl}(\text{EC})$ ; $^{99m}\text{Tc}(\text{IT})$ , $(\beta^-)$ ; $^{131}\text{I}$ , $^{133}\text{Xe}$ , $^{137}\text{Cs}(\beta^-)$ ; $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
	2006PE37	NUCLEAR REACTIONS $^{197}\text{Au}(\text{He}, 2n)$ , $(^6\text{He}, 3n)$ , $(^6\text{He}, 4n)$ , $(^6\text{He}, 5n)$ , $(^6\text{He}, 6n)$ , $(^6\text{He}, 7n)$ , $E \approx 10\text{-}70 \text{ MeV}$ ; $^{206}\text{Pb}(\text{He}, 2n)$ , $E \approx 10\text{-}26 \text{ MeV}$ ; $^{197}\text{Au}(\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , $E \approx 10\text{-}70 \text{ MeV}$ ; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
	2007AS04	NUCLEAR REACTIONS $^{203}\text{Tl}(\gamma, n)$ , $(\gamma, 2n)$ , $(\gamma, 3n)$ , $(\gamma, 4n)$ , $E\gamma=50 \text{ MeV}$ Bremsstrahlung; measured photonuclear cross sections by detecting $\gamma$ -ray spectra from the residual activity of the irradiated sample. JOUR BRSPE 71 332
	2007BA04	NUCLEAR REACTIONS $^{197}\text{Au}(\alpha, \gamma)$ , $(\alpha, 2n)$ , $E=17.9\text{-}23.9 \text{ MeV}$ ; $^{197}\text{Au}(\alpha, n)$ , $E=13.4\text{-}23.9 \text{ MeV}$ ; measured $\sigma$ . $^{64}\text{Zn}(\alpha, \gamma)$ , $E=7\text{-}14 \text{ MeV}$ ; $^{63}\text{Cu}(\alpha, \gamma)$ , $E=7 \text{ MeV}$ ; measured thick target yields. Activation technique, comparison with model predictions. JOUR PRVCA 75 015802
	2007PE02	NUCLEAR REACTIONS $^{197}\text{Au}(\text{He}, 2n)$ , $(^6\text{He}, 3n)$ , $(^6\text{He}, 4n)$ , $(^6\text{He}, 5n)$ , $(^6\text{He}, 6n)$ , $(^6\text{He}, 7n)$ , $E \approx 10\text{-}70 \text{ MeV}$ ; $^{206}\text{Pb}(\text{He}, 2n)$ , $E \approx 10\text{-}26 \text{ MeV}$ ; $^{197}\text{Au}(\text{He}, X)^{194}\text{Au} / ^{196}\text{Au} / ^{198}\text{Au}$ , $E \approx 10\text{-}70 \text{ MeV}$ ; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185
	2007YA02	RADIOACTIVITY $^{51}\text{Cr}$ , $^{55}\text{Fe}$ , $^{67}\text{Ga}$ , $^{111}\text{In}$ , $^{133}\text{Ba}$ , $^{201}\text{Tl}(\text{EC})$ ; $^{99m}\text{Tc}(\text{IT})$ , $(\beta^-)$ ; $^{131}\text{I}$ , $^{133}\text{Xe}$ , $^{137}\text{Cs}(\beta^-)$ ; $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182
$^{201}\text{Pb}$	2007AL13	NUCLEAR REACTIONS $\text{Tl}(p, X)^{201}\text{Pb} / ^{202m}\text{Pb} / ^{203}\text{Pb} / ^{204m}\text{Pb}$ , $E \approx 6\text{-}27 \text{ MeV}$ ; measured excitation functions; deduced integral yields. Stacked foil activation technique. JOUR RAACA 95 127
$^{201}\text{Bi}$	2007MU07	NUCLEAR REACTIONS $^{109}\text{Ag}(^{88}\text{Kr}, \gamma)$ , $^{109}\text{Ag}(^{92}\text{Kr}, \gamma)$ ; $E=2.2 \text{ MeV}$ / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc using MINIBALL. Deduced $B(E2)$ . JOUR PPNPD 59 361

**A=202**

$^{202}\text{Ir}$	2007KUZZ	RADIOACTIVITY $^{194,195,196}\text{Re}$ , $^{198,202}\text{Ir}$ [from $^{208}\text{Pb}$ fragmentation]; measured $T_{1/2}$ . Comparison with model predictions. CONF Geneva(NIC-IX) 008
$^{202}\text{Tl}$	2007AS04	NUCLEAR REACTIONS $^{203}\text{Tl}(\gamma, n)$ , $(\gamma, 2n)$ , $(\gamma, 3n)$ , $(\gamma, 4n)$ , $E\gamma=50 \text{ MeV}$ Bremsstrahlung; measured photonuclear cross sections by detecting $\gamma$ -ray spectra from the residual activity of the irradiated sample. JOUR BRSPE 71 332
	2007F006	NUCLEAR REACTIONS $^{203}\text{Tl}(n, 2n\gamma)$ , $E=0.6\text{-}250 \text{ MeV}$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc, and excitation functions. $^{202}\text{Tl}$ deduced levels, $J, \pi$ . JOUR PRVCA 76 014302

**A=202 (*continued*)**

$^{202}\text{Pb}$	2007AL13	NUCLEAR REACTIONS Tl(p, X) $^{201}\text{Pb}$ / $^{202m}\text{Pb}$ / $^{203}\text{Pb}$ / $^{204m}\text{Pb}$ , E $\approx$ 6-27 MeV; measured excitation functions; deduced integral yields. Stacked foil activation technique. JOUR RAACA 95 127
	2007KNZZ	NUCLEAR REACTIONS $^{144,154}\text{Sm}$ ( $^{48}\text{Ca}, \gamma$ ), ( $^{40}\text{Ca}, \gamma$ ), E=163-252 MeV; measured fission fragment mass, energy distributions and $\sigma$ . CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P185

**A=203**

$^{203}\text{Pb}$	2007AL13	NUCLEAR REACTIONS Tl(p, X) $^{201}\text{Pb}$ / $^{202m}\text{Pb}$ / $^{203}\text{Pb}$ / $^{204m}\text{Pb}$ , E $\approx$ 6-27 MeV; measured excitation functions; deduced integral yields. Stacked foil activation technique. JOUR RAACA 95 127
	2007TI03	NUCLEAR REACTIONS Pb, $^{208}\text{Pb}$ , $^{209}\text{Bi}$ (p, X) $^7\text{Be}$ / $^{24}\text{Na}$ / $^{59}\text{Fe}$ / $^{86}\text{Rb}$ / $^{101m}\text{Rh}$ / $^{173}\text{Lu}$ / $^{190}\text{Ir}$ / $^{192}\text{Ir}$ / $^{196}\text{Au}$ / $^{199}\text{Tl}$ / $^{200}\text{Tl}$ / $^{203}\text{Pb}$ , E=0.04-2.6 GeV; measured excitation functions. Comparison with model predictions and previous data. JOUR PRAMC 68 289

**A=204**

$^{204}\text{Pb}$	2007AL13	NUCLEAR REACTIONS Tl(p, X) $^{201}\text{Pb}$ / $^{202m}\text{Pb}$ / $^{203}\text{Pb}$ / $^{204m}\text{Pb}$ , E $\approx$ 6-27 MeV; measured excitation functions; deduced integral yields. Stacked foil activation technique. JOUR RAACA 95 127
	2007ME09	NUCLEAR REACTIONS $^{127}\text{I}$ ( $\mu^-$ , $\nu$ ), ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , 4n $\nu$ ), ( $\mu^-$ , 5n $\nu$ ), ( $\mu^-$ , 6n $\nu$ ), E at rest; $^{197}\text{Au}$ ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), E at rest; $^{209}\text{Bi}$ ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , 4n $\nu$ ), ( $\mu^-$ , 5n $\nu$ ), E at rest; measured E $\gamma$ , I $\gamma$ , X-ray spectra. JOUR PRVCA 75 045501

**A=205**

$^{205}\text{Pb}$	2006ARZX	NUCLEAR REACTIONS $^{27}\text{Al}$ (n, $\alpha$ ), E=14 MeV; $^{144}\text{Sm}$ , $^{206,208}\text{Pb}$ (n, 2n), E=14 MeV; measured isomer production $\sigma$ . REPT JAEA-Conf 2006-009, P89, Arakita
	2007C007	RADIOACTIVITY $^{209}\text{Po}$ ( $\alpha$ ); measured decay rates from standard source; deduced possible error in previously published T <sub>1/2</sub> . JOUR ARISE 65 728
	2007D002	NUCLEAR REACTIONS $^{204}\text{Pb}$ (n, $\gamma$ ), E=0.001-440 keV; measured capture $\sigma$ ; deduced resonance parameters. JOUR PRVCA 75 015806
	2007ME09	NUCLEAR REACTIONS $^{127}\text{I}$ ( $\mu^-$ , $\nu$ ), ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , 4n $\nu$ ), ( $\mu^-$ , 5n $\nu$ ), ( $\mu^-$ , 6n $\nu$ ), E at rest; $^{197}\text{Au}$ ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), E at rest; $^{209}\text{Bi}$ ( $\mu^-$ , n $\nu$ ), ( $\mu^-$ , 2n $\nu$ ), ( $\mu^-$ , 3n $\nu$ ), ( $\mu^-$ , 4n $\nu$ ), ( $\mu^-$ , 5n $\nu$ ), E at rest; measured E $\gamma$ , I $\gamma$ , X-ray spectra. JOUR PRVCA 75 045501

**A=206**

$^{206}\text{Pb}$	2007B022	RADIOACTIVITY $^{210}\text{Po}(\alpha)$ ; measured $E\alpha$ , $E\gamma$ , $\alpha\gamma$ -coinc. Deduced differential bremsstrahlung emission probability. JOUR PRLTA 99 022505
	2007B024	NUCLEAR REACTIONS $^{206}\text{Pb}(n, n')$ , $(n, \gamma)$ , $E=1-620$ keV; measured $En$ , $E\gamma$ , and yields. Deduced resonance parameters. JOUR PRVCA 76 014605
	2007BOZZ	RADIOACTIVITY $^{210}\text{Po}(\alpha)$ ; measured $E\gamma$ , $I\gamma$ , $\alpha\gamma$ -coinc for bremsstrahlung photons. Deduced differential emission probability and angular correlations PREPRINT arXiv:0706.2109v1 [nucl-ex]
	2007MA58	NUCLEAR REACTIONS $^{27}\text{Al}$ , $^{127}\text{I}$ , $^{206,207,208}\text{Pb}(n, n'\gamma)$ , $E$ not give; $^{10}\text{B}(\alpha, p\gamma)$ , $E=2.27$ MeV; $^9\text{Be}(\alpha, n\gamma)$ , $E=2.27$ MeV; measured yields. JOUR PRVCA 76 022801
	2007ME09	NUCLEAR REACTIONS $^{127}\text{I}(\mu^-, \nu)$ , $(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , $(\mu^-, 6n\nu)$ , $E$ at rest; $^{197}\text{Au}(\mu^-, n\nu)$ , $(\mu^-, 3n\nu)$ , $E$ at rest; $^{209}\text{Bi}(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , $E$ at rest; measured $E\gamma$ , $I\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
	2007RA22	RADIOACTIVITY $^{210}\text{Po}(\alpha)$ ; measured $E\alpha$ , $I\alpha$ , $T_{1/2}$ as a function of temperature by implanting Po ions in cooled metallic copper. JOUR ZAANE 32 51
$^{206}\text{Fr}$	2007HA29	NUCLEAR REACTIONS $^{169}\text{Tm}(^{40}\text{Ar}, 3n)$ , $E=170$ MeV; $^{208}\text{Pb}(^{40}\text{Ar}, 3n)$ , $E=199$ MeV; $^{238}\text{U}(^{22}\text{Ne}, 5n)$ , $E=105.9-120.9$ MeV; $^{248}\text{Cm}(^{18}\text{O}, 5n)$ , $E=94.4$ MeV; measured $E\alpha$ , $I\alpha$ , superheavy element production yields using a gas filled recoil separator. JOUR ZDDNE 45 81

**A=207**

$^{207}\text{Tl}$	2006MAZU	RADIOACTIVITY $^{207}\text{Tl}(\beta^-)$ ; measured decay constant for bound-state beta decay. Schottky analysis. REPT GSI 2006-1,P143,Maier
$^{207}\text{Pb}$	2006ARZX	NUCLEAR REACTIONS $^{27}\text{Al}(n, \alpha)$ , $E=14$ MeV; $^{144}\text{Sm}$ , $^{206,208}\text{Pb}(n, 2n)$ , $E=14$ MeV; measured isomer production $\sigma$ . REPT JAEA-Conf 2006-009,P89,Arakita
	2006MAZU	RADIOACTIVITY $^{207}\text{Tl}(\beta^-)$ ; measured decay constant for bound-state beta decay. Schottky analysis. REPT GSI 2006-1,P143,Maier
	2007B024	NUCLEAR REACTIONS $^{206}\text{Pb}(n, n')$ , $(n, \gamma)$ , $E=1-620$ keV; measured $En$ , $E\gamma$ , and yields. Deduced resonance parameters. JOUR PRVCA 76 014605
	2007D018	NUCLEAR REACTIONS $^{206}\text{Pb}(n, \gamma)$ , $E<1$ MeV; measured $E\gamma$ , $I\gamma$ ; $^{207}\text{Pb}$ deduced levels, $J$ , $\pi$ , resonance parameters, reaction cross sections. CERN n_TOF facility. JOUR PRVCA 76 045805
	2007DOZY	NUCLEAR REACTIONS $^{206}\text{Pb}(n, \gamma)$ , $E=0.001-600$ keV; measured $E\gamma$ , $I\gamma$ , yields. Deduced resonance parameters and maxwellian averaged cross sections. PREPRINT arXiv:0707.3679v1 [nucl-ex]
	2007HU02	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, n\alpha)$ , $E=200$ MeV; measured $E\gamma$ , $E\alpha$ , $En$ , $\sigma(E, \theta)$ . $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. JOUR PRVCA 75 014606

**A=207 (continued)**

2007HU16	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha'n)$ , E=200 MeV; measured $\sigma$ , angular distributions. Deduced ISGDR direct-decay branching ratios. JOUR APOBB 38 1479
2007HU20	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha'n)$ , E=200 MeV; measured $\sigma$ and angular distributions. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced branching ratios for direct and statistical neutron decay of isoscalar giant dipole resonance. JOUR PANUE 70 1407
2007MA58	NUCLEAR REACTIONS $^{27}\text{Al}$ , $^{127}\text{I}$ , $^{206,207,208}\text{Pb}(n, n'\gamma)$ , E not give; $^{10}\text{B}(\alpha, p\gamma)$ , E=2.27 MeV; $^9\text{Be}(\alpha, n\gamma)$ , E=2.27 MeV; measured yields. JOUR PRVCA 76 022801
2007ME09	NUCLEAR REACTIONS $^{127}\text{I}(\mu^-, \nu)$ , $(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , $(\mu^-, 6n\nu)$ , E at rest; $^{197}\text{Au}(\mu^-, n\nu)$ , $(\mu^-, 3n\nu)$ , E at rest; $^{209}\text{Bi}(\mu^-, n\nu)$ , $(\mu^-, 2n\nu)$ , $(\mu^-, 3n\nu)$ , $(\mu^-, 4n\nu)$ , $(\mu^-, 5n\nu)$ , E at rest; measured $E_\gamma$ , $I_\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
2007W006	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, n\alpha)$ , E=200 MeV; measured $E_\gamma$ , $E_\alpha$ , $E_n$ , $\sigma(E, \theta)$ , excitation energy spectra. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. $^{140}\text{Ce}(\alpha, \alpha\gamma)$ , E=136 MeV; measured $E_\gamma$ , $E_\alpha$ . $^{140}\text{Ce}$ deduced E1 strength distribution. JOUR NUPAB 788 27c

**A=208**

$^{208}\text{Pb}$	2007BL10	NUCLEAR REACTIONS $^{12}\text{C}$ , $^{208}\text{Pb}(n, n)$ , E=96 MeV; Fe, Pb, U(n, pX), (n, dX), (n, tX), E=96 MeV; measured $\sigma(\theta)$ . $^{181}\text{Ta}$ , W, $^{197}\text{Au}$ , Pb, $^{208}\text{Pb}(n, F)$ , E=20-200 MeV; measured fission $\sigma$ . Cu(n, X) $^{56}\text{Co}$ , E=50-180 MeV; measured $\sigma$ . JOUR PRAMC 68 269
	2007GOZV	NUCLEAR REACTIONS $^{208}\text{Pb}(^{23}\text{Al}, p^{22}\text{Mg})$ , E=48.4 MeV / nucleon; measured particle energies, emission angles, $E_\gamma$ , $I_\gamma$ , (particle) $\gamma$ -coinc, $\sigma$ . $^{22}\text{Mg}(p, \gamma)$ ; deduced reaction rate. REPT RIKEN-NC-NP-14, Gomi
	2007HE01	NUCLEAR REACTIONS $^{207}\text{Pb}(d, p)$ , $E^*=5.2-5.7$ MeV; measured $E_p$ , $\sigma(\theta)$ . $^{208}\text{Pb}$ deduced $0^-$ states level energies, configuration, spectroscopic factors, mixing strength. JOUR PRVCA 75 024312
	2007HEZZ	NUCLEAR REACTIONS $^{207}\text{Pb}(d, p)$ , $E^*=5.2-5.7$ MeV; measured $E_p$ , $\sigma(\theta)$ . $^{208}\text{Pb}$ deduced $0^-$ states level energies, spectroscopic factors, mixing strength. PREPRINT Heusler, 1/23/2007
	2007HU02	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha')$ , $(\alpha, n\alpha)$ , E=200 MeV; measured $E_\gamma$ , $E_\alpha$ , $E_n$ , $\sigma(E, \theta)$ . $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced isoscalar GDR neutron decay features. JOUR PRVCA 75 014606
	2007HU20	NUCLEAR REACTIONS $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}(\alpha, \alpha'n)$ , E=200 MeV; measured $\sigma$ and angular distributions. $^{90}\text{Zr}$ , $^{116}\text{Sn}$ , $^{208}\text{Pb}$ deduced branching ratios for direct and statistical neutron decay of isoscalar giant dipole resonance. JOUR PANUE 70 1407

**A=208 (continued)**

- 2007KL05 NUCLEAR REACTIONS Be( $^{238}\text{U}$ , X), E=550 MeV / nucleon; measured fragment yields.  $^{12}\text{C}$ ,  $^{208}\text{Pb}$ ( $^{129}\text{Sn}$ , X), ( $^{130}\text{Sn}$ , X), ( $^{131}\text{Sn}$ , X), ( $^{132}\text{Sn}$ , X), ( $^{133}\text{Sn}$ , X), E  $\approx$  500 MeV / nucleon; measured En, E $\gamma$ , n $\gamma$ -coin; deduced electromagnetic dissociation  $\sigma(E)$ .  $^{129,130,131,132,133}\text{Sn}$  deduced dipole strength distributions, B(E1), pygmy and giant dipole resonance parameters. Comparison with RPA calculations.  $^{40,44,48}\text{Ca}$ ,  $^{116,124}\text{Sn}$ ,  $^{138}\text{Ba}$ ,  $^{140}\text{Ce}$ ,  $^{142}\text{Nd}$ ,  $^{144}\text{Sm}$ ,  $^{208}\text{Pb}(\gamma, \gamma')$ , E not given; analyzed E $\gamma$ , I $\gamma$ .  $^{40,44,48}\text{Ca}$ ,  $^{116,124}\text{Sn}$ ,  $^{138}\text{Ba}$ ,  $^{140}\text{Ce}$ ,  $^{142}\text{Nd}$ ,  $^{144}\text{Sm}$ ,  $^{208}\text{Pb}$  deduced B(E1). JOUR NUPAB 788 145c
- 2007KLZZ NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ (p-bar, X), E at 106 MeV / c; measured X-ray spectra from decay of antiprotonic atoms.  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$  deduced neutron density distributions, radii. PREPRINT nucl-ex/0702016, 2/9/2007
- 2007KUZY NUCLEAR REACTIONS  $^{208}\text{Pb}$ ( $^{152}\text{Sm}$ ,  $^{152}\text{Sm}'$ ), E=652 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coinc.  $^{152}\text{Sm}$ , deduced level energies, J,  $\pi$ , B(E2). PREPRINT arXiv:0706.4129v2 [nucl-ex]
- 2007LI43 NUCLEAR REACTIONS  $^{152}\text{Sm}$ ( $^{16}\text{O}$ ,  $^{16}\text{O}$ ), ( $^{16}\text{O}$ ,  $^{16}\text{O}'$ ), ( $^{16}\text{O}$ , X), E(cm)=45-70 MeV; measured  $\sigma(\theta=156, \theta=160, \theta=164)$ , evaporation residue  $\sigma$  for boron, carbon, nitrogen and oxygen isotopes; deduced reaction mechanism features.  $^{208}\text{Pb}$ ( $^6\text{Li}$ ,  $^6\text{Li}'$ ), ( $^6\text{Li}$ ,  $^6\text{Li}'$ ), ( $^6\text{Li}$ , X), ( $^7\text{Li}$ ,  $^7\text{Li}$ ), ( $^7\text{Li}$ ,  $^7\text{Li}'$ ), ( $^7\text{Li}$ , X), E(cm)=18-42 MeV;  $^{90,96}\text{Zr}$ ( $^{32}\text{S}$ , X), E(cm)=60-95 MeV; measured  $\sigma$ ; deduced reaction mechanism features.  $^{208}\text{Pb}$ ( $^6\text{Li}$ ,  $^6\text{Li}'$ ), E(cm)=26-40 MeV; measured fusion  $\sigma$ ; deduced reaction mechanism features. Comparison with coupled-channels model. JOUR NUPAB 787 281c
- 2007MA58 NUCLEAR REACTIONS  $^{27}\text{Al}$ ,  $^{127}\text{I}$ ,  $^{206,207,208}\text{Pb}(n, n'\gamma)$ , E not give;  $^{10}\text{B}(\alpha, p\gamma)$ , E=2.27 MeV;  $^9\text{Be}(\alpha, n\gamma)$ , E=2.27 MeV; measured yields. JOUR PRVCA 76 022801
- 2007ME09 NUCLEAR REACTIONS  $^{127}\text{I}(\mu^-, \nu)$ , ( $\mu^-, n\nu$ ), ( $\mu^-, 2n\nu$ ), ( $\mu^-, 3n\nu$ ), ( $\mu^-, 4n\nu$ ), ( $\mu^-, 5n\nu$ ), ( $\mu^-, 6n\nu$ ), E at rest;  $^{197}\text{Au}(\mu^-, n\nu)$ , ( $\mu^-, 3n\nu$ ), E at rest;  $^{209}\text{Bi}(\mu^-, n\nu)$ , ( $\mu^-, 2n\nu$ ), ( $\mu^-, 3n\nu$ ), ( $\mu^-, 4n\nu$ ), ( $\mu^-, 5n\nu$ ), E at rest; measured E $\gamma$ , I $\gamma$ , X-ray spectra. JOUR PRVCA 75 045501
- 2007SU18 NUCLEAR REACTIONS  $^{208}\text{Pb}$ ( $^{11}\text{Be}$ ,  $^{11}\text{Be}'$ ), E=38.6 MeV / nucleon; measured Coulomb excitation  $\sigma$ .  $^{11}\text{Be}$  deduced B(E1) strengths; calculated  $\sigma$ . Extended continuum discretized coupled channels method. Comparison with previous data. JOUR PYLBB 650 124
- 2007W006 NUCLEAR REACTIONS  $^{90}\text{Zr}$ ,  $^{116}\text{Sn}$ ,  $^{208}\text{Pb}(\alpha, \alpha')$ , ( $\alpha$ ,  $n\alpha$ ), E=200 MeV; measured E $\gamma$ , E $\alpha$ , En,  $\sigma(E, \theta)$ , excitation energy spectra.  $^{90}\text{Zr}$ ,  $^{116}\text{Sn}$ ,  $^{208}\text{Pb}$  deduced isoscalar GDR neutron decay features.  $^{140}\text{Ce}(\alpha, \alpha\gamma)$ , E=136 MeV; measured E $\gamma$ , E $\alpha$ .  $^{140}\text{Ce}$  deduced E1 strength distribution. JOUR NUPAB 788 27c
- $^{208}\text{Bi}$  2007ZE06 NUCLEAR REACTIONS  $^{12,13}\text{C}$ ,  $^{18}\text{O}$ ,  $^{26}\text{Mg}$ ,  $^{58}\text{Ni}$ ,  $^{60}\text{Ni}$ ,  $^{90}\text{Zr}$ ,  $^{118}\text{Sn}$ ,  $^{208}\text{Pb}$ ( $^3\text{He}$ , t), E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). JOUR PRLTA 99 202501
- 2007ZEZZ NUCLEAR REACTIONS  $^{12,13}\text{C}$ ,  $^{18}\text{O}$ ,  $^{26}\text{Mg}$ ,  $^{58}\text{Ni}$ ,  $^{60}\text{Ni}$ ,  $^{90}\text{Zr}$ ,  $^{118}\text{Sn}$ ,  $^{208}\text{Pb}$ ( $^3\text{He}$ , t), E=420 MeV; measured triton spectra and cross sections. Deduced B(GT). PREPRINT arXiv:0707.2840v1 [nucl-ex]

**A=209**

<sup>209</sup> Bi	2006M042	NUCLEAR MOMENTS <sup>209</sup> Bi; measured hfs. Resonance ionization spectroscopy. JOUR HYIND 171 135
	2007KLZZ	NUCLEAR REACTIONS <sup>208</sup> Pb, <sup>209</sup> Bi(p-bar, X), E at 106 MeV / c; measured X-ray spectra from decay of antiprotonic atoms. <sup>208</sup> Pb, <sup>209</sup> Bi deduced neutron density distributions, radii. PREPRINT nucl-ex/0702016,2/9/2007
	2007K023	NUCLEAR REACTIONS <sup>209</sup> Bi( <sup>6</sup> He, 2n $\alpha$ ), E=22.5 MeV; measured En, E $\alpha$ , n $\alpha$ -coin, $\sigma(\theta)$ ; deduced reaction mechanism features. <sup>6</sup> He level deduced B(E2). JOUR PRVCA 75 031302
<sup>209</sup> Po	2007C007	RADIOACTIVITY <sup>209</sup> Po( $\alpha$ ); measured decay rates from standard source; deduced possible error in previously published T <sub>1/2</sub> . JOUR ARISE 65 728
<sup>209</sup> At	2007TA17	RADIOACTIVITY <sup>209</sup> Rn(EC); measured E $\gamma$ , I $\gamma$ , polarization and relaxation. JOUR NIMAE 579 472
<sup>209</sup> Rn	2006KU26	RADIOACTIVITY <sup>213,213m,214,214m</sup> Ra( $\alpha$ ) [from <sup>170</sup> Er( <sup>48</sup> Ca, xn), ( <sup>50</sup> Ti, 3n) and subsequent decay]; measured E $\gamma$ , E $\alpha$ , $\alpha\gamma$ -, $\gamma\gamma$ -coin, T <sub>1/2</sub> . <sup>209,210</sup> Rn deduced levels, J, $\pi$ , ICC. Velocity filter. JOUR ZAANE 30 551
	2007TA17	RADIOACTIVITY <sup>209</sup> Rn(EC); measured E $\gamma$ , I $\gamma$ , polarization and relaxation. JOUR NIMAE 579 472

**A=210**

<sup>210</sup> Pb	2007ES06	NUCLEAR REACTIONS <sup>208</sup> Pb( <sup>6</sup> He, $\alpha$ ), E=14, 16, 18, 22 MeV; measured E $\alpha$ , I $\alpha$ , $\sigma(E, \theta)$ ; deduced reaction mechanism features using DWBA analysis. JOUR NUPAB 792 2
<sup>210</sup> Bi	2007BIZY	NUCLEAR REACTIONS <sup>209</sup> Bi(n, $\gamma$ ), E=spectrum; measured cross section. CONF Geneva(NIC-IX) 077
	2007ST08	NUCLEAR REACTIONS <sup>209</sup> Bi(n, $\gamma$ ) <sup>210m</sup> Bi, E=thermal; measured cross section using accelerator mass spectrometry. JOUR NIMBE 259 739
<sup>210</sup> Po	2006PE37	NUCLEAR REACTIONS <sup>197</sup> Au( <sup>6</sup> He, 2n), ( <sup>6</sup> He, 3n), ( <sup>6</sup> He, 4n), ( <sup>6</sup> He, 5n), ( <sup>6</sup> He, 6n), ( <sup>6</sup> He, 7n), E ≈ 10-70 MeV; <sup>206</sup> Pb( <sup>6</sup> He, 2n), E ≈ 10-26 MeV; <sup>197</sup> Au( <sup>6</sup> He, X) <sup>196</sup> Au / <sup>198</sup> Au / <sup>199</sup> Au, E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR PPNLA 3 362
	2007B022	RADIOACTIVITY <sup>210</sup> Po( $\alpha$ ); measured E $\alpha$ , E $\gamma$ , $\alpha\gamma$ -coinc. Deduced differential bremsstrahlung emission probability. JOUR PRLTA 99 022505
	2007BOZZ	RADIOACTIVITY <sup>210</sup> Po( $\alpha$ ); measured E $\gamma$ , I $\gamma$ , $\alpha\gamma$ -coinc for bremsstrahlung photons. Deduced differential emission probability and angular correlations PREPRINT arXiv:0706.2109v1 [nucl-ex]
	2007PE02	NUCLEAR REACTIONS <sup>197</sup> Au( <sup>6</sup> He, 2n), ( <sup>6</sup> He, 3n), ( <sup>6</sup> He, 4n), ( <sup>6</sup> He, 5n), ( <sup>6</sup> He, 6n), ( <sup>6</sup> He, 7n), E ≈ 10-70 MeV; <sup>206</sup> Pb( <sup>6</sup> He, 2n), E ≈ 10-26 MeV; <sup>197</sup> Au( <sup>6</sup> He, X) <sup>194</sup> Au / <sup>196</sup> Au / <sup>198</sup> Au, E ≈ 10-70 MeV; measured excitation functions. Comparison with model predictions. JOUR ZAANE 31 185

## KEYNUMBERS AND KEYWORDS

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### A=210 (*continued*)

	2007RA22	RADIOACTIVITY $^{210}\text{Po}(\alpha)$ ; measured E $\alpha$ , I $\alpha$ , T $_{1/2}$ as a function of temperature by implanting Po ions in cooled metallic copper. JOUR ZAANE 32 51
$^{210}\text{Rn}$	2006KU26	RADIOACTIVITY $^{213,213m,214,214m}\text{Ra}(\alpha)$ [from $^{170}\text{Er}(^{48}\text{Ca}, \text{xn})$ , ( $^{50}\text{Ti}, 3\text{n}$ ) and subsequent decay]; measured E $\gamma$ , E $\alpha$ , $\alpha\gamma$ -, $\gamma\gamma$ -coin, T $_{1/2}$ . $^{209,210}\text{Rn}$ deduced levels, J, $\pi$ , ICC. Velocity filter. JOUR ZAANE 30 551

### A=211

$^{211}\text{Po}$	2006GA40	NUCLEAR REACTIONS $^{209}\text{Bi}(^6\text{Li}, X)^{212}\text{At}$ , E=28-48 MeV; $^{209}\text{Bi}(^7\text{Li}, X)^{212}\text{At} / ^{211}\text{Po}$ , E=26-52 MeV; $^{208}\text{Pb}(^9\text{Be}, X)^{211}\text{Po}$ , E=36-51 MeV; measured ground and isomeric state $\sigma$ ; deduced angular momentum distribution, related reaction mechanism features. JOUR PRVCA 74 064615
$^{211}\text{Th}$	2007MA57	ATOMIC MASSES $^{211,213,217,218}\text{Th}$ ; measured masses and relative abundances using inductively coupled plasma sector field mass spectrometry. JOUR PRVCA 76 021303

### A=212

$^{212}\text{At}$	2006GA40	NUCLEAR REACTIONS $^{209}\text{Bi}(^6\text{Li}, X)^{212}\text{At}$ , E=28-48 MeV; $^{209}\text{Bi}(^7\text{Li}, X)^{212}\text{At} / ^{211}\text{Po}$ , E=26-52 MeV; $^{208}\text{Pb}(^9\text{Be}, X)^{211}\text{Po}$ , E=36-51 MeV; measured ground and isomeric state $\sigma$ ; deduced angular momentum distribution, related reaction mechanism features. JOUR PRVCA 74 064615
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### A=213

$^{213}\text{Ra}$	2006KU26	RADIOACTIVITY $^{213,213m,214,214m}\text{Ra}(\alpha)$ [from $^{170}\text{Er}(^{48}\text{Ca}, \text{xn})$ , ( $^{50}\text{Ti}, 3\text{n}$ ) and subsequent decay]; measured E $\gamma$ , E $\alpha$ , $\alpha\gamma$ -, $\gamma\gamma$ -coin, T $_{1/2}$ . $^{209,210}\text{Rn}$ deduced levels, J, $\pi$ , ICC. Velocity filter. JOUR ZAANE 30 551
$^{213}\text{Th}$	2007MA57	ATOMIC MASSES $^{211,213,217,218}\text{Th}$ ; measured masses and relative abundances using inductively coupled plasma sector field mass spectrometry. JOUR PRVCA 76 021303

### A=214

$^{214}\text{Ra}$	2006KU26	RADIOACTIVITY $^{213,213m,214,214m}\text{Ra}(\alpha)$ [from $^{170}\text{Er}(^{48}\text{Ca}, \text{xn})$ , ( $^{50}\text{Ti}, 3\text{n}$ ) and subsequent decay]; measured E $\gamma$ , E $\alpha$ , $\alpha\gamma$ -, $\gamma\gamma$ -coin, T $_{1/2}$ . $^{209,210}\text{Rn}$ deduced levels, J, $\pi$ , ICC. Velocity filter. JOUR ZAANE 30 551
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## KEYNUMBERS AND KEYWORDS

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### A=214 (*continued*)

$^{214}\text{Th}$  2007LE14 RADIOACTIVITY  $^{218,219}\text{U}(\alpha)$  [from  $^{182}\text{W}(^{40}\text{Ar}, \text{X})$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . Deduced hindrance factors and reduced widths. JOUR PRVCA 75 054307

### A=215

$^{215}\text{Rn}$  2007DEZV NUCLEAR REACTIONS  $^{207}\text{Pb}(^{18}\text{O}, 2n2\alpha)$ ,  $E=93$  MeV; measured  $E\gamma$ ,  $E\alpha$ ,  $\gamma\gamma\alpha$  coincidences.  $^{215}\text{Rn}$  deduced high spin states, octupole instability. GASP, ISIS arrays. CONF Iguazu(Nuclear Physics and Applications) Proc,P450,Debray

$^{215}\text{Th}$  2007LE14 RADIOACTIVITY  $^{218,219}\text{U}(\alpha)$  [from  $^{182}\text{W}(^{40}\text{Ar}, \text{X})$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . Deduced hindrance factors and reduced widths. JOUR PRVCA 75 054307

### A=216

No references found

### A=217

$^{217}\text{At}$  2007JE07 RADIOACTIVITY  $^{221}\text{Fr}(\alpha)$ ; measured  $E\alpha$ ,  $I\alpha$ ,  $T_{1/2}$  implanted in a number of materials. JOUR ZAANE 32 31

$^{217}\text{Th}$  2007MA57 ATOMIC MASSES  $^{211,213,217,218}\text{Th}$ ; measured masses and relative abundances using inductively coupled plasma sector field mass spectrometry. JOUR PRVCA 76 021303

### A=218

$^{218}\text{Th}$  2007MA57 ATOMIC MASSES  $^{211,213,217,218}\text{Th}$ ; measured masses and relative abundances using inductively coupled plasma sector field mass spectrometry. JOUR PRVCA 76 021303

$^{218}\text{U}$  2007LE14 RADIOACTIVITY  $^{218,219}\text{U}(\alpha)$  [from  $^{182}\text{W}(^{40}\text{Ar}, \text{X})$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . Deduced hindrance factors and reduced widths. JOUR PRVCA 75 054307

### A=219

$^{219}\text{Th}$  2007RE14 NUCLEAR REACTIONS  $^{198}\text{Pt}(^{26}\text{Mg}, \text{X})^{224}\text{Th}$ ,  $E=128$  MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coinc, (particle) $\gamma$ -coinc.  $^{219,220}\text{Th}$  deduced levels,  $J$ ,  $\pi$ . JOUR APOBB 38 1547

$^{219}\text{U}$  2007LE14 RADIOACTIVITY  $^{218,219}\text{U}(\alpha)$  [from  $^{182}\text{W}(^{40}\text{Ar}, \text{X})$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . Deduced hindrance factors and reduced widths. JOUR PRVCA 75 054307

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**A=220**

$^{220}\text{Th}$  2007RE14 NUCLEAR REACTIONS  $^{198}\text{Pt}(^{26}\text{Mg}, \text{X})^{224}\text{Th}$ , E=128 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coinc, (particle) $\gamma$ -coinc.  $^{219,220}\text{Th}$  deduced levels, J,  $\pi$ . JOUR APOBB 38 1547

**A=221**

$^{221}\text{Fr}$  2007JE07 RADIOACTIVITY  $^{221}\text{Fr}(\alpha)$ ; measured  $E\alpha$ ,  $I\alpha$ ,  $T_{1/2}$  implanted in a number of materials. JOUR ZAANE 32 31

**A=222**

$^{222}\text{Rn}$  2007YA02 RADIOACTIVITY  $^{51}\text{Cr}$ ,  $^{55}\text{Fe}$ ,  $^{67}\text{Ga}$ ,  $^{111}\text{In}$ ,  $^{133}\text{Ba}$ ,  $^{201}\text{Tl}(\text{EC})$ ;  $^{99m}\text{Tc}(\text{IT})$ ,  $(\beta^-)$ ;  $^{131}\text{I}$ ,  $^{133}\text{Xe}$ ,  $^{137}\text{Cs}(\beta^-)$ ;  $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182

**A=223**

No references found

**A=224**

$^{224}\text{Th}$  2007RE14 NUCLEAR REACTIONS  $^{198}\text{Pt}(^{26}\text{Mg}, \text{X})^{224}\text{Th}$ , E=128 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coinc, (particle) $\gamma$ -coinc.  $^{219,220}\text{Th}$  deduced levels, J,  $\pi$ . JOUR APOBB 38 1547

**A=225**

$^{225}\text{Ra}$  2007GU05 NUCLEAR MOMENTS  $^{225}\text{Ra}$ ; measured hfs. Laser trapping. JOUR PRLTA 98 093001

**A=226**

$^{226}\text{Ra}$  2007YA02 RADIOACTIVITY  $^{51}\text{Cr}$ ,  $^{55}\text{Fe}$ ,  $^{67}\text{Ga}$ ,  $^{111}\text{In}$ ,  $^{133}\text{Ba}$ ,  $^{201}\text{Tl}(\text{EC})$ ;  $^{99m}\text{Tc}(\text{IT})$ ,  $(\beta^-)$ ;  $^{131}\text{I}$ ,  $^{133}\text{Xe}$ ,  $^{137}\text{Cs}(\beta^-)$ ;  $^{226}\text{Ra}(\alpha)$ ; measured K X-ray intensity ratios following decay and photoionization. JOUR NIMBE 254 182

**A=227**

No references found

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**KEYNUMBERS AND KEYWORDS**

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**A=228**

No references found

**A=229**

$^{229}\text{Th}$       2007BE16      RADIOACTIVITY  $^{233}\text{U}(\alpha)$ ; measured  $E\gamma$ ,  $I\gamma$ .  $^{229}\text{Th}$  deduced excited state energy. JOUR PRLTA 98 142501

**A=230**

No references found

**A=231**

$^{231}\text{Th}$       2007SH15      NUCLEAR REACTIONS  $^{232}\text{Th}(n, \gamma)$ ,  $(n, 2n)$ ,  $^{197}\text{Au}(n, \gamma)$ ,  $(n, \alpha)$ ,  $(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 8n)$ ,  $(n, 6np)$ ,  $^{59}\text{Co}(n, \alpha)$ ,  $(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $^{181}\text{Ta}(n, \gamma)$ ,  $(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, np)$ , E=spectrum; measured spectrum-averaged  $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307

**A=232**

No references found

**A=233**

$^{233}\text{Th}$       2007NE11      NUCLEAR REACTIONS  $^{232}\text{Th}(n, \gamma)$ , E=1.3-1.8 MeV; measured  $E\gamma$ ,  $I\gamma$  from fission fragments. Deduced fission fragment yields. JOUR ZAANE 32 165

2007NE11      RADIOACTIVITY  $^{233}\text{Th}$ ; measured  $E\gamma$ ,  $I\gamma$  from fission fragments. Deduced evidence for existence of hyperdeformed octupole shapes. JOUR ZAANE 32 165

2007SH15      NUCLEAR REACTIONS  $^{232}\text{Th}(n, \gamma)$ ,  $(n, 2n)$ ,  $^{197}\text{Au}(n, \gamma)$ ,  $(n, \alpha)$ ,  $(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 8n)$ ,  $(n, 6np)$ ,  $^{59}\text{Co}(n, \alpha)$ ,  $(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $^{181}\text{Ta}(n, \gamma)$ ,  $(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, np)$ , E=spectrum; measured spectrum-averaged  $\sigma$ . Spallation neutrons from proton-induced reaction. JOUR PRAMC 68 307

$^{233}\text{Pa}$       2006HA53      RADIOACTIVITY  $^{233}\text{Pa}$ ,  $^{238}\text{Np}(\beta^-)$ ; measured  $E\gamma$ ,  $I\gamma$ ; deduced  $\gamma$ -ray emission probabilities. JOUR JNSTA 43 1289

$^{233}\text{U}$       2006HA53      RADIOACTIVITY  $^{233}\text{Pa}$ ,  $^{238}\text{Np}(\beta^-)$ ; measured  $E\gamma$ ,  $I\gamma$ ; deduced  $\gamma$ -ray emission probabilities. JOUR JNSTA 43 1289

2007BE16      RADIOACTIVITY  $^{233}\text{U}(\alpha)$ ; measured  $E\gamma$ ,  $I\gamma$ .  $^{229}\text{Th}$  deduced excited state energy. JOUR PRLTA 98 142501

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**KEYNUMBERS AND KEYWORDS**

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**A=234**

No references found

**A=235**

$^{235}\text{U}$	20070B02	NUCLEAR REACTIONS $^{234}\text{U}(\text{n}, \gamma)^{235}\text{U}$ , E=0.95, 1.27 MeV; measured delayed fission fragment spectra from the decay of the shape isomer, isomeric fission $T_{1/2}$ and cross section. JOUR PRLTA 99 042502
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**A=236**

$^{236}\text{Th}$	2007IS09	NUCLEAR REACTIONS $^{238}\text{U}(^{18}\text{O}, ^{20}\text{Ne})$ , E=200 MeV; $^{244}\text{Pu}(^{16}\text{O}, ^{20}\text{Ne})$ , E=162 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc. $^{236}\text{Th}$ , $^{242}\text{U}$ deduced levels, $J$ , $\pi$ . JOUR PRVCA 76 011303
	2007XU04	NUCLEAR REACTIONS $^{238}\text{U}(^{18}\text{O}, ^{20}\text{Ne})$ , E=60 MeV / nucleon; measured $E\gamma$ , $I\gamma$ ; deduced $\sigma$ . JOUR JRNCD 272 227
$^{236}\text{U}$	2007AH05	RADIOACTIVITY $^{244}\text{Cm}$ , $^{240}\text{Pu}(\alpha)$ ; measured $E\alpha$ , $I\alpha$ and $T_{1/2}$ . JOUR NIMAE 579 458
	2007BR16	NUCLEAR REACTIONS $^{235}\text{U}$ , $^{252}\text{Cf}(\text{n}, \gamma)$ , ( $\text{n}$ , X), E < 18 eV; measured $E\gamma$ , $I\gamma$ , fission fragments. Deduced cross sections. JOUR NIMBE 261 986

**A=237**

No references found

**A=238**

$^{238}\text{Np}$	2006HA53	RADIOACTIVITY $^{233}\text{Pa}$ , $^{238}\text{Np}(\beta^-)$ ; measured $E\gamma$ , $I\gamma$ ; deduced $\gamma$ -ray emission probabilities. JOUR JNSTA 43 1289
	2006HA53	NUCLEAR REACTIONS $^{237}\text{Np}(\text{n}, \gamma)$ , E=thermal; analyzed decay data; deduced thermal capture $\sigma$ . JOUR JNSTA 43 1289
$^{238}\text{Pu}$	2006HA53	RADIOACTIVITY $^{233}\text{Pa}$ , $^{238}\text{Np}(\beta^-)$ ; measured $E\gamma$ , $I\gamma$ ; deduced $\gamma$ -ray emission probabilities. JOUR JNSTA 43 1289
$^{238}\text{Cm}$	2006QIZZ	NUCLEAR REACTIONS $^{232}\text{Th}(^{12}\text{C}, 4\text{n})$ , $(^{12}\text{C}, 6\text{n})$ , E=70, 74 MeV; measured delayed $E\alpha$ . $^{239}\text{Cm}$ deduced upper limit on $\alpha$ -decay branching ratio. REPT GSI 2006-1,P197,Qin

**A=239**

$^{239}\text{Np}$	2007AG02	RADIOACTIVITY $^{243}\text{Am}(\alpha)$ ; measured $E\alpha$ , $T_{1/2}$ . Relative activity method. JOUR NIMAE 571 663
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**A=239 (*continued*)**

<sup>239</sup>Cm      2006QIZZ      NUCLEAR REACTIONS <sup>232</sup>Th(<sup>12</sup>C, 4n), (<sup>12</sup>C, 6n), E=70, 74 MeV; measured delayed E $\alpha$ . <sup>239</sup>Cm deduced upper limit on  $\alpha$ -decay branching ratio. REPT GSI 2006-1,P197,Qin

**A=240**

<sup>240</sup>U      2006AG15      RADIOACTIVITY <sup>244</sup>Pu( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>. Thermal ionization mass spectrometry, relative activity method. JOUR RAACA 94 397

2007IS09      NUCLEAR REACTIONS <sup>238</sup>U(<sup>18</sup>O, <sup>20</sup>Ne), E=200 MeV; <sup>244</sup>Pu(<sup>16</sup>O, <sup>20</sup>Ne), E=162 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc. <sup>236</sup>Th, <sup>242</sup>U deduced levels, J,  $\pi$ . JOUR PRVCA 76 011303

2007IS11      NUCLEAR REACTIONS U(<sup>18</sup>O, <sup>16</sup>O)<sup>240</sup>U, E=200 MeV; <sup>244</sup>Pu(<sup>18</sup>O, <sup>16</sup>O)<sup>246</sup>Pu, E=200 MeV; <sup>248</sup>Cm(<sup>18</sup>O, <sup>16</sup>O), e=200 meV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc. <sup>240</sup>U, <sup>246</sup>Pu, <sup>250</sup>Cm deduced levels, J,  $\pi$ , moments of inertia. JOUR PANUE 70 1457

<sup>240</sup>Pu      2007AH05      RADIOACTIVITY <sup>244</sup>Cm, <sup>240</sup>Pu( $\alpha$ ); measured E $\alpha$ , I $\alpha$  and T<sub>1/2</sub>. JOUR NIMAE 579 458

2007BU19      RADIOACTIVITY <sup>240</sup>Pu(SF); measured E $\gamma$ , I $\gamma$  from fission products. Deduced fission product yields. JOUR AENGA 102 232

<sup>240</sup>Am      2007PE07      NUCLEAR REACTIONS <sup>241</sup>Am(n, 2n), E=8.8-11.1 MeV; measured  $\sigma$ . Activation method. Comparison with model predictions, previous results. JOUR JRNC 272 223

<sup>240</sup>Cm      2006QIZZ      NUCLEAR REACTIONS <sup>232</sup>Th(<sup>12</sup>C, 4n), (<sup>12</sup>C, 6n), E=70, 74 MeV; measured delayed E $\alpha$ . <sup>239</sup>Cm deduced upper limit on  $\alpha$ -decay branching ratio. REPT GSI 2006-1,P197,Qin

<sup>240</sup>Cf      2007HI04      NUCLEAR REACTIONS <sup>208</sup>Pb(<sup>32</sup>S, X)<sup>240</sup>Cf, <sup>206</sup>Pb(<sup>34</sup>S, X)<sup>240</sup>Cf, <sup>204</sup>Pb(<sup>36</sup>S, X)<sup>240</sup>Cf, E=152-212 MeV; measured  $\sigma$ , fusion excitation functions, fission anisotropies. Deduced fusion barried energy systematics. JOUR PRVCA 75 054603

**A=241**

No references found

**A=242**

<sup>242</sup>U      2007IS09      NUCLEAR REACTIONS <sup>238</sup>U(<sup>18</sup>O, <sup>20</sup>Ne), E=200 MeV; <sup>244</sup>Pu(<sup>16</sup>O, <sup>20</sup>Ne), E=162 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coinc. <sup>236</sup>Th, <sup>242</sup>U deduced levels, J,  $\pi$ . JOUR PRVCA 76 011303

<sup>242</sup>Pu      2007K001      RADIOACTIVITY <sup>246</sup>Cm, <sup>250</sup>Cf( $\alpha$ ); measured E $\alpha$ , I $\alpha$ , T<sub>1/2</sub>; deduced  $\alpha$ -emission probabilities. Comparison with previous results. JOUR ARISE 65 335

## KEYNUMBERS AND KEYWORDS

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### A=243

$^{243}\text{Am}$	2007AG02	RADIOACTIVITY $^{243}\text{Am}(\alpha)$ ; measured $E\alpha$ , $T_{1/2}$ . Relative activity method. JOUR NIMAE 571 663
$^{243}\text{Cf}$	2006HE27	RADIOACTIVITY $^{255}\text{Rf}$ , $^{251}\text{No}$ , $^{247}\text{Fm}(\alpha)$ [from $^{207}\text{Pb}(^{50}\text{Ti}, 2n)$ , $^{206}\text{Pb}(^{48}\text{Ca}, 3n)$ , and subsequent decay]; measured $E\gamma$ , $E\alpha$ , $\alpha\gamma$ -, $\gamma\gamma$ -coin. $^{243}\text{Cf}$ , $^{247}\text{Fm}$ , $^{251}\text{No}$ deduced levels, $J$ , $\pi$ , ICC, isomeric states features. Velocity filter. JOUR ZAANE 30 561

### A=244

$^{244}\text{Pu}$	2006AG15	RADIOACTIVITY $^{244}\text{Pu}(\alpha)$ ; measured $E\alpha$ , $T_{1/2}$ . Thermal ionization mass spectrometry, relative activity method. JOUR RAACA 94 397
$^{244}\text{Am}$	2006OH06	NUCLEAR REACTIONS $^{243}\text{Am}(n, \gamma)$ , E=thermal; measured effective capture $\sigma$ . Activation technique, comparison with previous results. JOUR JNSTA 43 1441
$^{244}\text{Cm}$	2007AH05	RADIOACTIVITY $^{244}\text{Cm}$ , $^{240}\text{Pu}(\alpha)$ ; measured $E\alpha$ , $I\alpha$ and $T_{1/2}$ . JOUR NIMAE 579 458

### A=245

$^{245}\text{Fm}$	2007HA29	NUCLEAR REACTIONS $^{169}\text{Tm}(^{40}\text{Ar}, 3n)$ , E=170 MeV; $^{208}\text{Pb}(^{40}\text{Ar}, 3n)$ , E=199 MeV; $^{238}\text{U}(^{22}\text{Ne}, 5n)$ , E=105.9-120.9 MeV; $^{248}\text{Cm}(^{18}\text{O}, 5n)$ , E=94.4 MeV; measured $E\alpha$ , $I\alpha$ , superheavy element production yields using a gas filled recoil separator. JOUR ZDDNE 45 81
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### A=246

$^{246}\text{Pu}$	2007IS11	NUCLEAR REACTIONS $^{18}\text{O}(^{18}\text{O}, ^{16}\text{O})^{240}\text{U}$ , E=200 MeV; $^{244}\text{Pu}(^{18}\text{O}, ^{16}\text{O})^{246}\text{Pu}$ , E=200 MeV; $^{248}\text{Cm}(^{18}\text{O}, ^{16}\text{O})$ , e=200 meV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coinc. $^{240}\text{U}$ , $^{246}\text{Pu}$ , $^{250}\text{Cm}$ deduced levels, $J$ , $\pi$ , moments of inertia. JOUR PANUE 70 1457
$^{246}\text{Cm}$	2007K001	RADIOACTIVITY $^{246}\text{Cm}$ , $^{250}\text{Cf}(\alpha)$ ; measured $E\alpha$ , $I\alpha$ , $T_{1/2}$ ; deduced $\alpha$ -emission probabilities. Comparison with previous results. JOUR ARISE 65 335

### A=247

$^{247}\text{Fm}$	2006HE27	RADIOACTIVITY $^{255}\text{Rf}$ , $^{251}\text{No}$ , $^{247}\text{Fm}(\alpha)$ [from $^{207}\text{Pb}(^{50}\text{Ti}, 2n)$ , $^{206}\text{Pb}(^{48}\text{Ca}, 3n)$ , and subsequent decay]; measured $E\gamma$ , $E\alpha$ , $\alpha\gamma$ -, $\gamma\gamma$ -coin. $^{243}\text{Cf}$ , $^{247}\text{Fm}$ , $^{251}\text{No}$ deduced levels, $J$ , $\pi$ , ICC, isomeric states features. Velocity filter. JOUR ZAANE 30 561
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**KEYNUMBERS AND KEYWORDS**

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**A=248**

$^{248}\text{Cm}$  2006PI14 RADIOACTIVITY  $^{248}\text{Cm}(\text{SF})$ ; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{105}\text{Mo}$  deduced levels,  $J$ ,  $\pi$ , rotational bands, configurations, triaxial deformation. Eurogam2 array. JOUR PRVCA 74 064304

**A=249**

$^{249}\text{Bk}$  2007SE08 RADIOACTIVITY  $^{253}\text{Es}(\alpha)$ ; measured  $T_{1/2}$  at low temperatures. JOUR PRVCA 76 024304

$^{249}\text{Fm}$  2007L011 RADIOACTIVITY  $^{253}\text{No}(\alpha)$  [from  $^{207}\text{Bi}(^{48}\text{Ca}, 2n)$  and subsequent decay]; measured  $E\alpha$ ,  $E\gamma$ ,  $E(\text{ce})$ ,  $\alpha\gamma$ -,  $\alpha(\text{ce})$ -coin,  $T_{1/2}$ .  $^{253}\text{No}$  deduced levels,  $J$ ,  $\pi$ , configurations. JOUR ZAANE 32 245

**A=250**

$^{250}\text{Cm}$  2006IS07 NUCLEAR REACTIONS  $^{248}\text{Cm}(^{18}\text{O}, ^{16}\text{O})$ ,  $E=162$  MeV; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin.  $^{250}\text{Cm}$  deduced levels,  $J$ ,  $\pi$ . JOUR JUPSA 75 043201

2007IS11 NUCLEAR REACTIONS  $U(^{18}\text{O}, ^{16}\text{O})^{240}\text{U}$ ,  $E=200$  MeV;  $^{244}\text{Pu}(^{18}\text{O}, ^{16}\text{O})^{246}\text{Pu}$ ,  $E=200$  MeV;  $^{248}\text{Cm}(^{18}\text{O}, ^{16}\text{O})$ ,  $e=200$  meV; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin.  $^{240}\text{U}$ ,  $^{246}\text{Pu}$ ,  $^{250}\text{Cm}$  deduced levels,  $J$ ,  $\pi$ , moments of inertia. JOUR PANUE 70 1457

$^{250}\text{Bk}$  2006GU32 RADIOACTIVITY  $^{254}\text{Es}(\alpha)$ ;  $^{250}\text{Bk}(\beta^-)$ ; measured  $E\alpha$ ,  $E\gamma$ , angular distribution for decay from oriented sources. JOUR BRSPE 70 282

$^{250}\text{Cf}$  2006GU32 RADIOACTIVITY  $^{254}\text{Es}(\alpha)$ ;  $^{250}\text{Bk}(\beta^-)$ ; measured  $E\alpha$ ,  $E\gamma$ , angular distribution for decay from oriented sources. JOUR BRSPE 70 282

2007K001 RADIOACTIVITY  $^{246}\text{Cm}$ ,  $^{250}\text{Cf}(\alpha)$ ; measured  $E\alpha$ ,  $I\alpha$ ,  $T_{1/2}$ ; deduced  $\alpha$ -emission probabilities. Comparison with previous results. JOUR ARISE 65 335

**A=251**

$^{251}\text{Md}$  2007CH26 NUCLEAR REACTIONS  $^{205}\text{Tl}(^{48}\text{Ca}, 2n)$ ,  $E=211, 214, 217$  MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -, (recoil) $\gamma$ -coin; deduced  $\sigma$ .  $^{251}\text{Md}$  deduced high-spin levels,  $J$ ,  $\pi$ , configurations. Jurogam array, recoil-decay tagging. JOUR PRLTA 98 132503

$^{251}\text{No}$  2006HE27 RADIOACTIVITY  $^{255}\text{Rf}$ ,  $^{251}\text{No}$ ,  $^{247}\text{Fm}(\alpha)$  [from  $^{207}\text{Pb}(^{50}\text{Ti}, 2n)$ ,  $^{206}\text{Pb}(^{48}\text{Ca}, 3n)$ , and subsequent decay]; measured  $E\gamma$ ,  $E\alpha$ ,  $\alpha\gamma$ -,  $\gamma\gamma$ -coin.  $^{243}\text{Cf}$ ,  $^{247}\text{Fm}$ ,  $^{251}\text{No}$  deduced levels,  $J$ ,  $\pi$ , ICC, isomeric states features. Velocity filter. JOUR ZAANE 30 561

2007OG05 NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}(^{48}\text{Ca}, n)$ ,  $(^{50}\text{Ti}, n)$ ,  $(^{54}\text{Cr}, n)$ ,  $(^{58}\text{Fe}, n)$ ,  $(^{62}\text{Ni}, n)$ ,  $(^{64}\text{Ni}, n)$ ,  $(^{70}\text{Zn}, n)$ ,  $E$  not given; analyzed  $\sigma$ .  $^{233}\text{U}$ ,  $^{237}\text{Np}$ ,  $^{244}\text{Pu}$ ,  $^{248}\text{Cm}$ ,  $^{249}\text{Cf}(^{22}\text{Ne}, 4n)$ ,  $(^{26}\text{Mg}, 4n)$ ,  $(^{36}\text{S}, 5n)$ ,  $(^{48}\text{Ca}, 4n)$ ,  $E$  not given; measured  $E\alpha$ ,  $\alpha\alpha$ -coin following residual nucleus decay; analyzed  $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**KEYNUMBERS AND KEYWORDS**

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**A=252**

$^{252}\text{Cf}$	2007DI09	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -conic using the Gammasphere array. $^{108}\text{Mo}$ deduced level energies, $J$ , $\pi$ . JOUR CPLEE 24 1517
	2007G021	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, fission fragment and light charged particle yields. $^{108,110,112}\text{Ru}$ deduced levels, $J$ , $\pi$ . $^{104}\text{Zr}$ , $^{106}\text{Mo}$ , $^{148}\text{Ce}(\text{IT})$ ; measured $T_{1/2}$ , $B(E2)$ . Gammasphere array. JOUR NUPAB 787 231c
	2007GR08	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured fission fragment energy distributions using a hybrid semiconductor detector. JOUR NIMAE 574 472
	2007LI21	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{137,138}\text{Cs}$ deduced high-spin levels, $J$ , $\pi$ , configurations. Gammasphere array, comparison with shell model predictions. JOUR PRVCA 75 044314
	2007PRZZ	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured neutron energies and correlations. CONF Khanty-Mansiysk (Exotic Nuclei) Proc, P179
	2007ZH24	RADIOACTIVITY $^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma\gamma$ -coinc with Gammasphere. A=99-114; deduced new band structures and significant extensions of previously known bands. JOUR PPNPD 59 329
$^{252}\text{No}$	2006SUZW	NUCLEAR REACTIONS $^{206,208}\text{Pb}(^{48}\text{Ca}, 2n)$ , E not given; measured prompt and delayed $E\gamma$ , $I\gamma$ , (X-ray) $\gamma$ -coin. $^{252}\text{No}$ deduced levels, $J$ , $\pi$ , isomeric states $T_{1/2}$ . REPT GSI 2006-1,P194,Sulignano
	2007SU19	NUCLEAR REACTIONS $^{206}\text{Pb}(^{48}\text{Ca}, 2n)$ $^{252}\text{No}$ , $E(\text{cm})=173.6-177$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coinc. $^{252}\text{No}$ deduced levels, $J$ , $\pi$ . JOUR ZAANE 33 327

**A=253**

$^{253}\text{Cf}$	2007BR16	NUCLEAR REACTIONS $^{235}\text{U}$ , $^{252}\text{Cf}(n, \gamma)$ , $(n, X)$ , $E < 18$ eV; measured $E\gamma$ , $I\gamma$ , fission fragments. Deduced cross sections. JOUR NIMBE 261 986
$^{253}\text{Es}$	2007SE08	RADIOACTIVITY $^{253}\text{Es}(\alpha)$ ; measured $T_{1/2}$ at low temperatures. JOUR PRVCA 76 024304
$^{253}\text{No}$	2007L011	NUCLEAR REACTIONS $^{207}\text{Pb}(^{48}\text{Ca}, 2n)$ , $E \sim 217$ MeV; measured $E\alpha$ , $E\gamma$ , $E(\text{ce})$ with the Gabriela detector. $^{253}\text{No}$ deduced levels, $J$ , $\pi$ , configurations. JOUR ZAANE 32 245
	2007L011	RADIOACTIVITY $^{253}\text{No}(\alpha)$ [from $^{207}\text{Bi}(^{48}\text{Ca}, 2n)$ and subsequent decay]; measured $E\alpha$ , $E\gamma$ , $E(\text{ce})$ , $\alpha\gamma$ -, $\alpha(\text{ce})$ -coin, $T_{1/2}$ . $^{253}\text{No}$ deduced levels, $J$ , $\pi$ , configurations. JOUR ZAANE 32 245

**A=254**

$^{254}\text{Es}$	2006GU32	RADIOACTIVITY $^{254}\text{Es}(\alpha)$ ; $^{250}\text{Bk}(\beta^-)$ ; measured $E\alpha$ , $E\gamma$ , angular distribution for decay from oriented sources. JOUR BRSPE 70 282
$^{254}\text{No}$	2006SUZW	NUCLEAR REACTIONS $^{206,208}\text{Pb}(^{48}\text{Ca}, 2n)$ , E not given; measured prompt and delayed $E\gamma$ , $I\gamma$ , (X-ray) $\gamma$ -coin. $^{252}\text{No}$ deduced levels, $J$ , $\pi$ , isomeric states $T_{1/2}$ . REPT GSI 2006-1,P194,Sulignano

**A=255**

$^{255}\text{No}$	2007HA29	NUCLEAR REACTIONS $^{169}\text{Tm}(^{40}\text{Ar}, 3\text{n})$ , E=170 MeV; $^{208}\text{Pb}(^{40}\text{Ar}, 3\text{n})$ , E=199 MeV; $^{238}\text{U}(^{22}\text{Ne}, 5\text{n})$ , E=105.9-120.9 MeV; $^{248}\text{Cm}(^{18}\text{O}, 5\text{n})$ , E=94.4 MeV; measured $\text{E}\alpha$ , $\text{I}\alpha$ , superheavy element production yields using a gas filled recoil separator. JOUR ZDDNE 45 81
	2007OG05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , ( $^{50}\text{Ti}, \text{n}$ ), ( $^{54}\text{Cr}, \text{n}$ ), ( $^{58}\text{Fe}, \text{n}$ ), ( $^{62}\text{Ni}, \text{n}$ ), ( $^{64}\text{Ni}, \text{n}$ ), ( $^{70}\text{Zn}, \text{n}$ ), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , ( $^{26}\text{Mg}, 4\text{n}$ ), ( $^{36}\text{S}, 5\text{n}$ ), ( $^{48}\text{Ca}, 4\text{n}$ ), E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c
$^{255}\text{Lr}$	2007OG05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , ( $^{50}\text{Ti}, \text{n}$ ), ( $^{54}\text{Cr}, \text{n}$ ), ( $^{58}\text{Fe}, \text{n}$ ), ( $^{62}\text{Ni}, \text{n}$ ), ( $^{64}\text{Ni}, \text{n}$ ), ( $^{70}\text{Zn}, \text{n}$ ), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , ( $^{26}\text{Mg}, 4\text{n}$ ), ( $^{36}\text{S}, 5\text{n}$ ), ( $^{48}\text{Ca}, 4\text{n}$ ), E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c
$^{255}\text{Rf}$	2006HE27	RADIOACTIVITY $^{255}\text{Rf}$ , $^{251}\text{No}$ , $^{247}\text{Fm}(\alpha)$ [from $^{207}\text{Pb}(^{50}\text{Ti}, 2\text{n})$ , $^{206}\text{Pb}(^{48}\text{Ca}, 3\text{n})$ , and subsequent decay]; measured $\text{E}\gamma$ , $\text{E}\alpha$ , $\alpha\gamma$ -, $\gamma\gamma$ -coin. $^{243}\text{Cf}$ , $^{247}\text{Fm}$ , $^{251}\text{No}$ deduced levels, $J$ , $\pi$ , ICC, isomeric states features. Velocity filter. JOUR ZAANE 30 561
	2007OG05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , ( $^{50}\text{Ti}, \text{n}$ ), ( $^{54}\text{Cr}, \text{n}$ ), ( $^{58}\text{Fe}, \text{n}$ ), ( $^{62}\text{Ni}, \text{n}$ ), ( $^{64}\text{Ni}, \text{n}$ ), ( $^{70}\text{Zn}, \text{n}$ ), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , ( $^{26}\text{Mg}, 4\text{n}$ ), ( $^{36}\text{S}, 5\text{n}$ ), ( $^{48}\text{Ca}, 4\text{n}$ ), E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=256**

$^{256}\text{Lr}$	2007OG05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , ( $^{50}\text{Ti}, \text{n}$ ), ( $^{54}\text{Cr}, \text{n}$ ), ( $^{58}\text{Fe}, \text{n}$ ), ( $^{62}\text{Ni}, \text{n}$ ), ( $^{64}\text{Ni}, \text{n}$ ), ( $^{70}\text{Zn}, \text{n}$ ), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , ( $^{26}\text{Mg}, 4\text{n}$ ), ( $^{36}\text{S}, 5\text{n}$ ), ( $^{48}\text{Ca}, 4\text{n}$ ), E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c
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**A=257**

$^{257}\text{Rf}$	2007OG05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , ( $^{50}\text{Ti}, \text{n}$ ), ( $^{54}\text{Cr}, \text{n}$ ), ( $^{58}\text{Fe}, \text{n}$ ), ( $^{62}\text{Ni}, \text{n}$ ), ( $^{64}\text{Ni}, \text{n}$ ), ( $^{70}\text{Zn}, \text{n}$ ), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , ( $^{26}\text{Mg}, 4\text{n}$ ), ( $^{36}\text{S}, 5\text{n}$ ), ( $^{48}\text{Ca}, 4\text{n}$ ), E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c
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## KEYNUMBERS AND KEYWORDS

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### A=258

<sup>258</sup>Db      20070G05      NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed  $\sigma$ .  $^{233}\text{U}$ ,  $^{237}\text{Np}$ ,  $^{244}\text{Pu}$ ,  $^{248}\text{Cm}$ ,  $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured  $E\alpha$ ,  $\alpha\alpha$ -coin following residual nucleus decay; analyzed  $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

### A=259

<sup>259</sup>Db      20070G05      NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed  $\sigma$ .  $^{233}\text{U}$ ,  $^{237}\text{Np}$ ,  $^{244}\text{Pu}$ ,  $^{248}\text{Cm}$ ,  $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured  $E\alpha$ ,  $\alpha\alpha$ -coin following residual nucleus decay; analyzed  $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

### A=260

No references found

### A=261

<sup>261</sup>Rf      2007HA29      NUCLEAR REACTIONS  $^{169}\text{Tm}$ ( $^{40}\text{Ar}$ , 3n), E=170 MeV;  $^{208}\text{Pb}$ ( $^{40}\text{Ar}$ , 3n), E=199 MeV;  $^{238}\text{U}$ ( $^{22}\text{Ne}$ , 5n), E=105.9-120.9 MeV;  $^{248}\text{Cm}$ ( $^{18}\text{O}$ , 5n), E=94.4 MeV; measured  $E\alpha$ ,  $I\alpha$ , superheavy element production yields using a gas filled recoil separator. JOUR ZDDNE 45 81  
2007M009      RADIOACTIVITY  $^{277}\text{Rb}$ ,  $^{273}\text{Ds}$ ,  $^{269}\text{Hs}$ ,  $^{265}\text{Sg}$ ( $\alpha$ ) [from  $^{208}\text{Pb}$ ( $^{70}\text{Zn}$ , n) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Gas-filled separator.  
JOUR JUPSA 76 043201  
2007MOZZ      RADIOACTIVITY  $^{277}\text{Rb}$ ,  $^{273}\text{Ds}$ ,  $^{269}\text{Hs}$ ,  $^{265}\text{Sg}$ ( $\alpha$ ) [from  $^{208}\text{Pb}$ ( $^{70}\text{Zn}$ , n) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . REPT  
RIKEN-NC-NP-2,Morita  
<sup>261</sup>Sg      20070G05      NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed  $\sigma$ .  $^{233}\text{U}$ ,  $^{237}\text{Np}$ ,  $^{244}\text{Pu}$ ,  $^{248}\text{Cm}$ ,  $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured  $E\alpha$ ,  $\alpha\alpha$ -coin following residual nucleus decay; analyzed  $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c  
2007ST12      NUCLEAR REACTIONS  $^{208}\text{Pb}$ ( $^{54}\text{Cr}$ , X) $^{261}\text{Sg}$ , e=4.70-5.17 MeV / nucleon; measured  $E\gamma$ , EX,  $E\alpha$ ,  $\alpha\gamma$ -coinc.  $^{261}\text{Sg}$  deduced levels,  $J$ ,  $\pi$ .  
JOUR APOBB 38 1561

**A=262**

$^{262}\text{Lr}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}\text{112}$ , $^{280,281,282,283,284}\text{113}$ , $^{286,287,288,289}\text{114}$ , $^{287,288}\text{115}$ , $^{290,291,292,293}\text{116}$ , $^{294}\text{118}(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}\text{112}$ , $^{286,288}\text{114}(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{262}\text{Rf}$	20070G05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , $(^{50}\text{Ti}, \text{n})$ , $(^{54}\text{Cr}, \text{n})$ , $(^{58}\text{Fe}, \text{n})$ , $(^{62}\text{Ni}, \text{n})$ , $(^{64}\text{Ni}, \text{n})$ , $(^{70}\text{Zn}, \text{n})$ , E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , $(^{26}\text{Mg}, 4\text{n})$ , $(^{36}\text{S}, 5\text{n})$ , $(^{48}\text{Ca}, 4\text{n})$ , E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c
$^{262}\text{Db}$	2007MOZY	RADIOACTIVITY $^{278}\text{113}$ , $^{274}\text{Rg}$ , $^{270}\text{Mt}$ , $^{266}\text{Bh}(\alpha)$ [from $^{209}\text{Bi}(^{70}\text{Zn}, \text{n})$ and subsequent decay]; measured $\text{E}\alpha$ , $T_{1/2}$ . REPT RIKEN-NC-NP-3, Morita
$^{262}\text{Bh}$	20070G05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , $(^{50}\text{Ti}, \text{n})$ , $(^{54}\text{Cr}, \text{n})$ , $(^{58}\text{Fe}, \text{n})$ , $(^{62}\text{Ni}, \text{n})$ , $(^{64}\text{Ni}, \text{n})$ , $(^{70}\text{Zn}, \text{n})$ , E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , $(^{26}\text{Mg}, 4\text{n})$ , $(^{36}\text{S}, 5\text{n})$ , $(^{48}\text{Ca}, 4\text{n})$ , E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=263**

$^{263}\text{Lr}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}\text{112}$ , $^{280,281,282,283,284}\text{113}$ , $^{286,287,288,289}\text{114}$ , $^{287,288}\text{115}$ , $^{290,291,292,293}\text{116}$ , $^{294}\text{118}(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}\text{112}$ , $^{286,288}\text{114}(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
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**A=264**

$^{264}\text{Lr}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}\text{112}$ , $^{280,281,282,283,284}\text{113}$ , $^{286,287,288,289}\text{114}$ , $^{287,288}\text{115}$ , $^{290,291,292,293}\text{116}$ , $^{294}\text{118}(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}\text{112}$ , $^{286,288}\text{114}(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{264}\text{Hs}$	20070G05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , $(^{50}\text{Ti}, \text{n})$ , $(^{54}\text{Cr}, \text{n})$ , $(^{58}\text{Fe}, \text{n})$ , $(^{62}\text{Ni}, \text{n})$ , $(^{64}\text{Ni}, \text{n})$ , $(^{70}\text{Zn}, \text{n})$ , E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , $(^{26}\text{Mg}, 4\text{n})$ , $(^{36}\text{S}, 5\text{n})$ , $(^{48}\text{Ca}, 4\text{n})$ , E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**KEYNUMBERS AND KEYWORDS**

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**A=265**

$^{265}\text{Rf}$	20070G05	RADIOACTIVITY 266,267,268Db, 269,271Sg, 270,272Bh, 275Hs, 274,275,276Mt, 279,281Ds, 278,279,280Rg, 283,284,285112, 280,281,282,283,284113, 286,287,288,289114, 287,288115, 290,291,292,293116, 294118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . 267Rf, 271Sg, 279,281Ds, 282,283,284,285112, 286,288114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{265}\text{Sg}$	2007M009	RADIOACTIVITY 277112, 273Ds, 269Hs, 265Sg( $\alpha$ ) [from <sup>208</sup> Pb( <sup>70</sup> Zn, n) and subsequent decay]; measured E $\alpha$ , T <sub>1/2</sub> . Gas-filled separator.
	2007MOZZ	JOUR JUPSA 76 043201 RADIOACTIVITY 277112, 273Ds, 269Hs, 265Sg( $\alpha$ ) [from <sup>208</sup> Pb( <sup>70</sup> Zn, n) and subsequent decay]; measured E $\alpha$ , T <sub>1/2</sub> . REPT
$^{265}\text{Hs}$	20070G05	RIKEN-NC-NP-2,Morita NUCLEAR REACTIONS 208Pb, 209Bi( <sup>48</sup> Ca, n), ( <sup>50</sup> Ti, n), ( <sup>54</sup> Cr, n), ( <sup>58</sup> Fe, n), ( <sup>62</sup> Ni, n), ( <sup>64</sup> Ni, n), ( <sup>70</sup> Zn, n), E not given; analyzed $\sigma$ . 233U, 237Np, 244Pu, 248Cm, 249Cf( <sup>22</sup> Ne, 4n), ( <sup>26</sup> Mg, 4n), ( <sup>36</sup> S, 5n), ( <sup>48</sup> Ca, 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=266**

$^{266}\text{Db}$	20070G05	RADIOACTIVITY 266,267,268Db, 269,271Sg, 270,272Bh, 275Hs, 274,275,276Mt, 279,281Ds, 278,279,280Rg, 283,284,285112, 280,281,282,283,284113, 286,287,288,289114, 287,288115, 290,291,292,293116, 294118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . 267Rf, 271Sg, 279,281Ds, 282,283,284,285112, 286,288114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{266}\text{Sg}$	20070G05	NUCLEAR REACTIONS 208Pb, 209Bi( <sup>48</sup> Ca, n), ( <sup>50</sup> Ti, n), ( <sup>54</sup> Cr, n), ( <sup>58</sup> Fe, n), ( <sup>62</sup> Ni, n), ( <sup>64</sup> Ni, n), ( <sup>70</sup> Zn, n), E not given; analyzed $\sigma$ . 233U, 237Np, 244Pu, 248Cm, 249Cf( <sup>22</sup> Ne, 4n), ( <sup>26</sup> Mg, 4n), ( <sup>36</sup> S, 5n), ( <sup>48</sup> Ca, 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c
$^{266}\text{Bh}$	2007MOZY	RADIOACTIVITY 278113, 274Rg, 270Mt, 266Bh( $\alpha$ ) [from <sup>209</sup> Bi( <sup>70</sup> Zn, n) and subsequent decay]; measured E $\alpha$ , T <sub>1/2</sub> . REPT
$^{266}\text{Mt}$	20070G05	RIKEN-NC-NP-3,Morita NUCLEAR REACTIONS 208Pb, 209Bi( <sup>48</sup> Ca, n), ( <sup>50</sup> Ti, n), ( <sup>54</sup> Cr, n), ( <sup>58</sup> Fe, n), ( <sup>62</sup> Ni, n), ( <sup>64</sup> Ni, n), ( <sup>70</sup> Zn, n), E not given; analyzed $\sigma$ . 233U, 237Np, 244Pu, 248Cm, 249Cf( <sup>22</sup> Ne, 4n), ( <sup>26</sup> Mg, 4n), ( <sup>36</sup> S, 5n), ( <sup>48</sup> Ca, 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**KEYNUMBERS AND KEYWORDS**

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**A=267**

$^{267}\text{Rf}$	20070G05	RADIOACTIVITY 266,267,268Db, 269,271Sg, 270,272Bh, 275Hs, 274,275,276Mt, 279,281Ds, 278,279,280Rg, 283,284,285112, 280,281,282,283,284113, 286,287,288,289114, 287,288115, 290,291,292,293116, 294118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . 267Rf, 271Sg, 279,281Ds, 282,283,284,285112, 286,288114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{267}\text{Db}$	20070G05	RADIOACTIVITY 266,267,268Db, 269,271Sg, 270,272Bh, 275Hs, 274,275,276Mt, 279,281Ds, 278,279,280Rg, 283,284,285112, 280,281,282,283,284113, 286,287,288,289114, 287,288115, 290,291,292,293116, 294118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . 267Rf, 271Sg, 279,281Ds, 282,283,284,285112, 286,288114(SF); measured T <sub>1/2</sub> . Comparison with model predictions.
$^{267}\text{Hs}$	20070G05	Comparison with other data. JOUR NUPAB 787 343c NUCLEAR REACTIONS 208Pb, 209Bi( <sup>48</sup> Ca, n), ( <sup>50</sup> Ti, n), ( <sup>54</sup> Cr, n), ( <sup>58</sup> Fe, n), ( <sup>62</sup> Ni, n), ( <sup>64</sup> Ni, n), ( <sup>70</sup> Zn, n), E not given; analyzed $\sigma$ . <sup>233</sup> U, <sup>237</sup> Np, <sup>244</sup> Pu, <sup>248</sup> Cm, <sup>249</sup> Cf( <sup>22</sup> Ne, 4n), ( <sup>26</sup> Mg, 4n), ( <sup>36</sup> S, 5n), ( <sup>48</sup> Ca, 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=268**

$^{268}\text{Db}$	20070G05	RADIOACTIVITY 266,267,268Db, 269,271Sg, 270,272Bh, 275Hs, 274,275,276Mt, 279,281Ds, 278,279,280Rg, 283,284,285112, 280,281,282,283,284113, 286,287,288,289114, 287,288115, 290,291,292,293116, 294118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . 267Rf, 271Sg, 279,281Ds, 282,283,284,285112, 286,288114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
	2007ST18	RADIOACTIVITY <sup>268</sup> Db(SF); <sup>272</sup> Bh, <sup>276</sup> Mt, <sup>280</sup> Rg, <sup>284</sup> 113, <sup>288</sup> 115( $\alpha$ ); measured E $\alpha$ , E(fragment), T <sub>1/2</sub> . JOUR NUPAB 787 388c
$^{268}\text{Mt}$	20070G05	NUCLEAR REACTIONS 208Pb, 209Bi( <sup>48</sup> Ca, n), ( <sup>50</sup> Ti, n), ( <sup>54</sup> Cr, n), ( <sup>58</sup> Fe, n), ( <sup>62</sup> Ni, n), ( <sup>64</sup> Ni, n), ( <sup>70</sup> Zn, n), E not given; analyzed $\sigma$ . <sup>233</sup> U, <sup>237</sup> Np, <sup>244</sup> Pu, <sup>248</sup> Cm, <sup>249</sup> Cf( <sup>22</sup> Ne, 4n), ( <sup>26</sup> Mg, 4n), ( <sup>36</sup> S, 5n), ( <sup>48</sup> Ca, 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=269**

$^{269}\text{Sg}$	20070G05	RADIOACTIVITY 266,267,268Db, 269,271Sg, 270,272Bh, 275Hs, 274,275,276Mt, 279,281Ds, 278,279,280Rg, 283,284,285112, 280,281,282,283,284113, 286,287,288,289114, 287,288115, 290,291,292,293116, 294118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . 267Rf, 271Sg, 279,281Ds, 282,283,284,285112, 286,288114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{269}\text{Hs}$	2007M009	RADIOACTIVITY <sup>277</sup> 112, <sup>273</sup> Ds, <sup>269</sup> Hs, <sup>265</sup> Sg( $\alpha$ ) [from <sup>208</sup> Pb( <sup>70</sup> Zn, n) and subsequent decay]; measured E $\alpha$ , T <sub>1/2</sub> . Gas-filled separator. JOUR JUPSA 76 043201

**A=269 (*continued*)**

<sup>2007MOZZ</sup>	RADIOACTIVITY $^{277}112$ , $^{273}\text{Ds}$ , $^{269}\text{Hs}$ , $^{265}\text{Sg}$ ( $\alpha$ ) [from $^{208}\text{Pb}$ ( $^{70}\text{Zn}$ , n) and subsequent decay]; measured E $\alpha$ , T <sub>1/2</sub> . REPT RIKEN-NC-NP-2,Morita
<sup>269</sup> Ds	20070G05 NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=270**

<sup>270</sup> Bh	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured E $\alpha$ , T <sub>1/2</sub> . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114$ (SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
<sup>270</sup> Hs	20070G05 NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c
<sup>270</sup> Mt	2007MOZY RADIOACTIVITY $^{278}113$ , $^{274}\text{Rg}$ , $^{270}\text{Mt}$ , $^{266}\text{Bh}$ ( $\alpha$ ) [from $^{209}\text{Bi}$ ( $^{70}\text{Zn}$ , n) and subsequent decay]; measured E $\alpha$ , T <sub>1/2</sub> . REPT RIKEN-NC-NP-3,Morita
<sup>270</sup> Rg	20070G05 NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=271**

<sup>271</sup> Sg	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured E $\alpha$ , T <sub>1/2</sub> . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114$ (SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
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## KEYNUMBERS AND KEYWORDS

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### A=271 (*continued*)

$^{271}\text{Bh}$	20070G05	RADIOACTIVITY 266,267,268Db, 269, $^{271}\text{Sg}$ , 270,272Bh, 275Hs, 274,275,276Mt, 279,281Ds, 278,279,280Rg, 283,284,285112, 280,281,282,283,284113, 286,287,288,289114, 287,288115, 290,291,292,293116, 294118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . 267Rf, 271Sg, 279,281Ds, 282,283,284,285112, 286,288114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{271}\text{Ds}$	20070G05	NUCLEAR REACTIONS 208Pb, 209Bi( <sup>48</sup> Ca, n), ( <sup>50</sup> Ti, n), ( <sup>54</sup> Cr, n), ( <sup>58</sup> Fe, n), ( <sup>62</sup> Ni, n), ( <sup>64</sup> Ni, n), ( <sup>70</sup> Zn, n), E not given; analyzed $\sigma$ . 233U, 237Np, 244Pu, 248Cm, 249 Cf( <sup>22</sup> Ne, 4n), ( <sup>26</sup> Mg, 4n), ( <sup>36</sup> S, 5n), ( <sup>48</sup> Ca, 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

### A=272

$^{272}\text{Bh}$	20070G05	RADIOACTIVITY 266,267,268Db, 269, $^{271}\text{Sg}$ , 270,272Bh, 275Hs, 274,275,276Mt, 279,281Ds, 278,279,280Rg, 283,284,285112, 280,281,282,283,284113, 286,287,288,289114, 287,288115, 290,291,292,293116, 294118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . 267Rf, 271Sg, 279,281Ds, 282,283,284,285112, 286,288114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
	2007ST18	RADIOACTIVITY 268Db(SF); 272Bh, 276Mt, 280Rg, 284113, 288115( $\alpha$ ); measured E $\alpha$ , E(fragment), T <sub>1/2</sub> . JOUR NUPAB 787 388c
$^{272}\text{Rg}$	20070G05	NUCLEAR REACTIONS 208Pb, 209Bi( <sup>48</sup> Ca, n), ( <sup>50</sup> Ti, n), ( <sup>54</sup> Cr, n), ( <sup>58</sup> Fe, n), ( <sup>62</sup> Ni, n), ( <sup>64</sup> Ni, n), ( <sup>70</sup> Zn, n), E not given; analyzed $\sigma$ . 233U, 237Np, 244Pu, 248Cm, 249 Cf( <sup>22</sup> Ne, 4n), ( <sup>26</sup> Mg, 4n), ( <sup>36</sup> S, 5n), ( <sup>48</sup> Ca, 4n), E not given; measured E $\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

### A=273

$^{273}\text{Ds}$	2007M009	RADIOACTIVITY 277112, 273Ds, 269Hs, 265Sg( $\alpha$ ) [from 208Pb( <sup>70</sup> Zn, n) and subsequent decay]; measured E $\alpha$ , T <sub>1/2</sub> . Gas-filled separator. JOUR JUPSA 76 043201
	2007MOZZ	RADIOACTIVITY 277112, 273Ds, 269Hs, 265Sg( $\alpha$ ) [from 208Pb( <sup>70</sup> Zn, n) and subsequent decay]; measured E $\alpha$ , T <sub>1/2</sub> . REPT RIKEN-NC-NP-2,Morita

**KEYNUMBERS AND KEYWORDS**

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**A=274**

$^{274}\text{Mt}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{274}\text{Rg}$	2007MOZY	RADIOACTIVITY $^{278}113$ , $^{274}\text{Rg}$ , $^{270}\text{Mt}$ , $^{266}\text{Bh}(\alpha)$ [from $^{209}\text{Bi}(^{70}\text{Zn}, \text{n})$ and subsequent decay]; measured $\text{E}\alpha$ , $T_{1/2}$ . REPT RIKEN-NC-NP-3, Morita

**A=275**

$^{275}\text{Hs}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{275}\text{Mt}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{275}\text{Ds}$	20070G05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , $(^{50}\text{Ti}, \text{n})$ , $(^{54}\text{Cr}, \text{n})$ , $(^{58}\text{Fe}, \text{n})$ , $(^{62}\text{Ni}, \text{n})$ , $(^{64}\text{Ni}, \text{n})$ , $(^{70}\text{Zn}, \text{n})$ , E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , $(^{26}\text{Mg}, 4\text{n})$ , $(^{36}\text{S}, 5\text{n})$ , $(^{48}\text{Ca}, 4\text{n})$ , E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=276**

$^{276}\text{Mt}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
	2007ST18	RADIOACTIVITY $^{268}\text{Db}(\text{SF})$ ; $^{272}\text{Bh}$ , $^{276}\text{Mt}$ , $^{280}\text{Rg}$ , $^{284}113$ , $^{288}115(\alpha)$ ; measured $\text{E}\alpha$ , E(fragment), $T_{1/2}$ . JOUR NUPAB 787 388c
$^{276}\text{Rg}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

KEYNUMBERS AND KEYWORDS

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**A=277**

$^{277}\text{Hs}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{277}\text{Rg}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{277}112$	2007M009	NUCLEAR REACTIONS $^{208}\text{Pb}(^{70}\text{Zn}, \text{n})$ , $E=349.5$ MeV; measured delayed $\text{E}\alpha$ , $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced production $\sigma$ . Gas-filled separator. JOUR JUPSA 76 043201
	2007M009	RADIOACTIVITY $^{277}112$ , $^{273}\text{Ds}$ , $^{269}\text{Hs}$ , $^{265}\text{Sg}(\alpha)$ [from $^{208}\text{Pb}(^{70}\text{Zn}, \text{n})$ and subsequent decay]; measured $\text{E}\alpha$ , $T_{1/2}$ . Gas-filled separator. JOUR JUPSA 76 043201
	2007MOZZ	NUCLEAR REACTIONS $^{208}\text{Pb}(^{70}\text{Zn}, \text{n})$ , $E=349.5$ MeV; measured delayed $\text{E}\alpha$ , $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced production $\sigma$ . REPT RIKEN-NC-NP-2,Morita
	2007MOZZ	RADIOACTIVITY $^{277}112$ , $^{273}\text{Ds}$ , $^{269}\text{Hs}$ , $^{265}\text{Sg}(\alpha)$ [from $^{208}\text{Pb}(^{70}\text{Zn}, \text{n})$ and subsequent decay]; measured $\text{E}\alpha$ , $T_{1/2}$ . REPT RIKEN-NC-NP-2,Morita
	20070G05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(^{48}\text{Ca}, \text{n})$ , $(^{50}\text{Ti}, \text{n})$ , $(^{54}\text{Cr}, \text{n})$ , $(^{58}\text{Fe}, \text{n})$ , $(^{62}\text{Ni}, \text{n})$ , $(^{64}\text{Ni}, \text{n})$ , $(^{70}\text{Zn}, \text{n})$ , $E$ not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(^{22}\text{Ne}, 4\text{n})$ , $(^{26}\text{Mg}, 4\text{n})$ , $(^{36}\text{S}, 5\text{n})$ , $(^{48}\text{Ca}, 4\text{n})$ , $E$ not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=278**

$^{278}\text{Rg}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{278}113$	2007MOZY	NUCLEAR REACTIONS $^{209}\text{Bi}(^{70}\text{Zn}, \text{n})$ , $E=353$ MeV; measured delayed $\text{E}\alpha$ , $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced production $\sigma$ . REPT RIKEN-NC-NP-3,Morita
	2007MOZY	RADIOACTIVITY $^{278}113$ , $^{274}\text{Rg}$ , $^{270}\text{Mt}$ , $^{266}\text{Bh}(\alpha)$ [from $^{209}\text{Bi}(^{70}\text{Zn}, \text{n})$ and subsequent decay]; measured $\text{E}\alpha$ , $T_{1/2}$ . REPT RIKEN-NC-NP-3,Morita

**A=278 (*continued*)**

20070G05 NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed  $\sigma$ .  $^{233}\text{U}$ ,  $^{237}\text{Np}$ ,  $^{244}\text{Pu}$ ,  $^{248}\text{Cm}$ ,  $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured  $\text{E}\alpha$ ,  $\alpha\alpha$ -coin following residual nucleus decay; analyzed  $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=279**

$^{279}\text{Ds}$	2007EI02	RADIOACTIVITY $^{283}112(\alpha)$ ; $^{287}114(\alpha)$ , (SF); measured $\text{E}\alpha$ , E(fragment), $T_{1/2}$ . JOUR NUPAB 787 373c
	2007H018	RADIOACTIVITY $^{283}112(\alpha)$ , (SF) [from $^{238}\text{U}$ ( $^{48}\text{Ca}$ , X)]; measured $\text{E}\alpha$ , (recoil) $\alpha$ -coin, $T_{1/2}$ . JOUR ZAAANE 32 251
	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114$ (SF); measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{279}\text{Rg}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114$ (SF); measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{279}112$	20070G05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=280**

$^{280}\text{Ds}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114$ (SF); measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{280}\text{Rg}$	20070G05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}112$ , $^{280,281,282,283,284}113$ , $^{286,287,288,289}114$ , $^{287,288}115$ , $^{290,291,292,293}116$ , $^{294}118(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}112$ , $^{286,288}114$ (SF); measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

**KEYNUMBERS AND KEYWORDS**

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**A=280 (*continued*)**

$^{280}\text{Rg}$	2007ST18	RADIOACTIVITY $^{268}\text{Db}(\text{SF})$ ; $^{272}\text{Bh}$ , $^{276}\text{Mt}$ , $^{280}\text{Rg}$ , $^{284}\text{113}$ , $^{288}\text{115}(\alpha)$ ; measured $\text{E}\alpha$ , E(fragment), $T_{1/2}$ . JOUR NUPAB 787 388c
$^{280}\text{113}$	2007TG05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}\text{112}$ , $^{280,281,282,283,284}\text{113}$ , $^{286,287,288,289}\text{114}$ , $^{287,288}\text{115}$ , $^{290,291,292,293}\text{116}$ , $^{294}\text{118}(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}\text{112}$ , $^{286,288}\text{114}(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{280}\text{114}$	2007TG05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(\text{^{48}\text{Ca}, n})$ , $(^{50}\text{Ti}, \text{n})$ , $(^{54}\text{Cr}, \text{n})$ , $(^{58}\text{Fe}, \text{n})$ , $(^{62}\text{Ni}, \text{n})$ , $(^{64}\text{Ni}, \text{n})$ , $(^{70}\text{Zn}, \text{n})$ , E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(\text{^{22}\text{Ne}, 4n})$ , $(^{26}\text{Mg}, 4\text{n})$ , $(^{36}\text{S}, 5\text{n})$ , $(^{48}\text{Ca}, 4\text{n})$ , E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

**A=281**

$^{281}\text{Ds}$	2007TG05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}\text{112}$ , $^{280,281,282,283,284}\text{113}$ , $^{286,287,288,289}\text{114}$ , $^{287,288}\text{115}$ , $^{290,291,292,293}\text{116}$ , $^{294}\text{118}(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}\text{112}$ , $^{286,288}\text{114}(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{281}\text{113}$	2007TG05	NUCLEAR REACTIONS $^{208}\text{Pb}$ , $^{209}\text{Bi}(\text{^{48}\text{Ca}, n})$ , $(^{50}\text{Ti}, \text{n})$ , $(^{54}\text{Cr}, \text{n})$ , $(^{58}\text{Fe}, \text{n})$ , $(^{62}\text{Ni}, \text{n})$ , $(^{64}\text{Ni}, \text{n})$ , $(^{70}\text{Zn}, \text{n})$ , E not given; analyzed $\sigma$ . $^{233}\text{U}$ , $^{237}\text{Np}$ , $^{244}\text{Pu}$ , $^{248}\text{Cm}$ , $^{249}\text{Cf}(\text{^{22}\text{Ne}, 4n})$ , $(^{26}\text{Mg}, 4\text{n})$ , $(^{36}\text{S}, 5\text{n})$ , $(^{48}\text{Ca}, 4\text{n})$ , E not given; measured $\text{E}\alpha$ , $\alpha\alpha$ -coin following residual nucleus decay; analyzed $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c
	2007TG05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}\text{112}$ , $^{280,281,282,283,284}\text{113}$ , $^{286,287,288,289}\text{114}$ , $^{287,288}\text{115}$ , $^{290,291,292,293}\text{116}$ , $^{294}\text{118}(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}\text{112}$ , $^{286,288}\text{114}(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

**A=282**

$^{282}\text{Rg}$	2007TG05	RADIOACTIVITY $^{266,267,268}\text{Db}$ , $^{269,271}\text{Sg}$ , $^{270,272}\text{Bh}$ , $^{275}\text{Hs}$ , $^{274,275,276}\text{Mt}$ , $^{279,281}\text{Ds}$ , $^{278,279,280}\text{Rg}$ , $^{283,284,285}\text{112}$ , $^{280,281,282,283,284}\text{113}$ , $^{286,287,288,289}\text{114}$ , $^{287,288}\text{115}$ , $^{290,291,292,293}\text{116}$ , $^{294}\text{118}(\alpha)$ ; measured $\text{E}\alpha$ , $T_{1/2}$ . $^{267}\text{Rf}$ , $^{271}\text{Sg}$ , $^{279,281}\text{Ds}$ , $^{282,283,284,285}\text{112}$ , $^{286,288}\text{114}(\text{SF})$ ; measured $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
$^{282}\text{113}$	2007TG02	NUCLEAR REACTIONS $^{237}\text{Np}(\text{^{48}\text{Ca}, 3n})^{282}\text{113}$ , E=244 MeV; measured $\text{E}\alpha$ , production cross section and $T_{1/2}$ . JOUR PRVCA 76 011601

**A=282 (continued)**

20070G05      RADIOACTIVITY  $^{266,267,268}\text{Db}$ ,  $^{269,271}\text{Sg}$ ,  $^{270,272}\text{Bh}$ ,  $^{275}\text{Hs}$ ,  
 $^{274,275,276}\text{Mt}$ ,  $^{279,281}\text{Ds}$ ,  $^{278,279,280}\text{Rg}$ ,  $^{283,284,285}112$ ,  
 $^{280,281,282,283,284}113$ ,  $^{286,287,288,289}114$ ,  $^{287,288}115$ ,  $^{290,291,292,293}116$ ,  
 $^{294}118(\alpha)$ ; measured  $\text{E}\alpha$ ,  $T_{1/2}$ .  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{282,283,284,285}112$ ,  
 $^{286,288}114(\text{SF})$ ; measured  $T_{1/2}$ . Comparison with model predictions.  
Comparison with other data. JOUR NUPAB 787 343c

**A=283**

$^{283}112$     2006EI01    NUCLEAR REACTIONS  $^{238}\text{U}(^{48}\text{Ca}, \text{X})$ ,  $E=231, 235$  MeV; measured delayed fission,  $\text{E}\alpha$ , (fission) $\alpha$ -coin; deduced no evidence for  $^{283}112$ . Thermochromatography. JOUR RAACA 94 181

2006HOZX    NUCLEAR REACTIONS  $^{238}\text{U}(^{48}\text{Ca}, \text{X})$ ,  $E=233-239$  MeV; measured delayed fission fragment spectra; deduced evidence for  $^{283}112$ . REPT GSI 2006-1, P191, Hofmann

2007EI02    NUCLEAR REACTIONS  $^{238}\text{U}(^{48}\text{Ca}, 3\text{n})$ ,  $^{242}\text{Pu}(^{48}\text{Ca}, 3\text{n})$ ,  $E=237$  MeV; measured super heavy element yield,  $\text{E}\alpha$ ,  $\text{I}\alpha$ ; analyzed production  $\sigma$ . JOUR NUPAB 787 373c

2007EI02    RADIOACTIVITY  $^{283}112(\alpha)$ ;  $^{287}114(\alpha)$ , (SF); measured  $\text{E}\alpha$ ,  $E(\text{fragment})$ ,  $T_{1/2}$ . JOUR NUPAB 787 373c

2007H018    RADIOACTIVITY  $^{283}112(\alpha)$ , (SF) [from  $^{238}\text{U}(^{48}\text{Ca}, \text{X})$ ]; measured  $\text{E}\alpha$ , (recoil) $\alpha$ -coin,  $T_{1/2}$ . JOUR ZAANE 32 251

20070G05    RADIOACTIVITY  $^{266,267,268}\text{Db}$ ,  $^{269,271}\text{Sg}$ ,  $^{270,272}\text{Bh}$ ,  $^{275}\text{Hs}$ ,  
 $^{274,275,276}\text{Mt}$ ,  $^{279,281}\text{Ds}$ ,  $^{278,279,280}\text{Rg}$ ,  $^{283,284,285}112$ ,  
 $^{280,281,282,283,284}113$ ,  $^{286,287,288,289}114$ ,  $^{287,288}115$ ,  $^{290,291,292,293}116$ ,  
 $^{294}118(\alpha)$ ; measured  $\text{E}\alpha$ ,  $T_{1/2}$ .  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{282,283,284,285}112$ ,  
 $^{286,288}114(\text{SF})$ ; measured  $T_{1/2}$ . Comparison with model predictions.  
Comparison with other data. JOUR NUPAB 787 343c

2007ST18    NUCLEAR REACTIONS  $^{238}\text{U}(^{48}\text{Ca}, 3\text{n})$ ,  $E=247$  MeV; measured super heavy element yield,  $\text{E}\alpha$ ,  $\text{I}\alpha$ ; analyzed production  $\sigma$ . Detailed chemical analysis procedure given. JOUR NUPAB 787 388c

$^{283}113$     20070G05    RADIOACTIVITY  $^{266,267,268}\text{Db}$ ,  $^{269,271}\text{Sg}$ ,  $^{270,272}\text{Bh}$ ,  $^{275}\text{Hs}$ ,  
 $^{274,275,276}\text{Mt}$ ,  $^{279,281}\text{Ds}$ ,  $^{278,279,280}\text{Rg}$ ,  $^{283,284,285}112$ ,  
 $^{280,281,282,283,284}113$ ,  $^{286,287,288,289}114$ ,  $^{287,288}115$ ,  $^{290,291,292,293}116$ ,  
 $^{294}118(\alpha)$ ; measured  $\text{E}\alpha$ ,  $T_{1/2}$ .  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{282,283,284,285}112$ ,  
 $^{286,288}114(\text{SF})$ ; measured  $T_{1/2}$ . Comparison with model predictions.  
Comparison with other data. JOUR NUPAB 787 343c

**A=284**

$^{284}112$     20070G05    RADIOACTIVITY  $^{266,267,268}\text{Db}$ ,  $^{269,271}\text{Sg}$ ,  $^{270,272}\text{Bh}$ ,  $^{275}\text{Hs}$ ,  
 $^{274,275,276}\text{Mt}$ ,  $^{279,281}\text{Ds}$ ,  $^{278,279,280}\text{Rg}$ ,  $^{283,284,285}112$ ,  
 $^{280,281,282,283,284}113$ ,  $^{286,287,288,289}114$ ,  $^{287,288}115$ ,  $^{290,291,292,293}116$ ,  
 $^{294}118(\alpha)$ ; measured  $\text{E}\alpha$ ,  $T_{1/2}$ .  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{282,283,284,285}112$ ,  
 $^{286,288}114(\text{SF})$ ; measured  $T_{1/2}$ . Comparison with model predictions.  
Comparison with other data. JOUR NUPAB 787 343c

**KEYNUMBERS AND KEYWORDS**

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**A=284 (*continued*)**

<sup>284</sup> 113	20070G05	RADIOACTIVITY <sup>266,267,268</sup> Db, <sup>269,271</sup> Sg, <sup>270,272</sup> Bh, <sup>275</sup> Hs, <sup>274,275,276</sup> Mt, <sup>279,281</sup> Ds, <sup>278,279,280</sup> Rg, <sup>283,284,285</sup> 112, <sup>280,281,282,283,284</sup> 113, <sup>286,287,288,289</sup> 114, <sup>287,288</sup> 115, <sup>290,291,292,293</sup> 116, <sup>294</sup> 118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . <sup>267</sup> Rf, <sup>271</sup> Sg, <sup>279,281</sup> Ds, <sup>282,283,284,285</sup> 112, <sup>286,288</sup> 114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
	2007ST18	RADIOACTIVITY <sup>268</sup> Db(SF); <sup>272</sup> Bh, <sup>276</sup> Mt, <sup>280</sup> Rg, <sup>284</sup> 113, <sup>288</sup> 115( $\alpha$ ); measured E $\alpha$ , E(fragment), T <sub>1/2</sub> . JOUR NUPAB 787 388c

**A=285**

<sup>285</sup> 112	20070G05	RADIOACTIVITY <sup>266,267,268</sup> Db, <sup>269,271</sup> Sg, <sup>270,272</sup> Bh, <sup>275</sup> Hs, <sup>274,275,276</sup> Mt, <sup>279,281</sup> Ds, <sup>278,279,280</sup> Rg, <sup>283,284,285</sup> 112, <sup>280,281,282,283,284</sup> 113, <sup>286,287,288,289</sup> 114, <sup>287,288</sup> 115, <sup>290,291,292,293</sup> 116, <sup>294</sup> 118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . <sup>267</sup> Rf, <sup>271</sup> Sg, <sup>279,281</sup> Ds, <sup>282,283,284,285</sup> 112, <sup>286,288</sup> 114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c
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**A=286**

<sup>286</sup> 112	2007H018	NUCLEAR REACTIONS <sup>238</sup> U( <sup>48</sup> Ca, X), E=233.3-239.3 MeV; measured $\sigma$ , E $\alpha$ , ( $\text{recoil}$ ) $\alpha$ -coin following residual nucleus decay; deduced evidence for <sup>286</sup> 112. JOUR ZAANE 32 251
<sup>286</sup> 114	20070G05	RADIOACTIVITY <sup>266,267,268</sup> Db, <sup>269,271</sup> Sg, <sup>270,272</sup> Bh, <sup>275</sup> Hs, <sup>274,275,276</sup> Mt, <sup>279,281</sup> Ds, <sup>278,279,280</sup> Rg, <sup>283,284,285</sup> 112, <sup>280,281,282,283,284</sup> 113, <sup>286,287,288,289</sup> 114, <sup>287,288</sup> 115, <sup>290,291,292,293</sup> 116, <sup>294</sup> 118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . <sup>267</sup> Rf, <sup>271</sup> Sg, <sup>279,281</sup> Ds, <sup>282,283,284,285</sup> 112, <sup>286,288</sup> 114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

**A=287**

<sup>287</sup> 114	2007EI02	NUCLEAR REACTIONS <sup>238</sup> U( <sup>48</sup> Ca, 3n), <sup>242</sup> Pu( <sup>48</sup> Ca, 3n), E=237 MeV; measured super heavy element yield, E $\alpha$ , I $\alpha$ ; analyzed production $\sigma$ . JOUR NUPAB 787 373c
	2007EI02	RADIOACTIVITY <sup>283</sup> 112( $\alpha$ ); <sup>287</sup> 114( $\alpha$ ), (SF); measured E $\alpha$ , E(fragment), T <sub>1/2</sub> . JOUR NUPAB 787 373c
	20070G05	RADIOACTIVITY <sup>266,267,268</sup> Db, <sup>269,271</sup> Sg, <sup>270,272</sup> Bh, <sup>275</sup> Hs, <sup>274,275,276</sup> Mt, <sup>279,281</sup> Ds, <sup>278,279,280</sup> Rg, <sup>283,284,285</sup> 112, <sup>280,281,282,283,284</sup> 113, <sup>286,287,288,289</sup> 114, <sup>287,288</sup> 115, <sup>290,291,292,293</sup> 116, <sup>294</sup> 118( $\alpha$ ); measured E $\alpha$ , T <sub>1/2</sub> . <sup>267</sup> Rf, <sup>271</sup> Sg, <sup>279,281</sup> Ds, <sup>282,283,284,285</sup> 112, <sup>286,288</sup> 114(SF); measured T <sub>1/2</sub> . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

## KEYNUMBERS AND KEYWORDS

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### A=287 (*continued*)

<sup>287</sup>115      20070G05      RADIOACTIVITY <sup>266,267,268</sup>Db, <sup>269,271</sup>Sg, <sup>270,272</sup>Bh, <sup>275</sup>Hs, <sup>274,275,276</sup>Mt, <sup>279,281</sup>Ds, <sup>278,279,280</sup>Rg, <sup>283,284,285</sup>112, <sup>280,281,282,283,284</sup>113, <sup>286,287,288,289</sup>114, <sup>287,288</sup>115, <sup>290,291,292,293</sup>116, <sup>294</sup>118( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>. <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>282,283,284,285</sup>112, <sup>286,288</sup>114(SF); measured T<sub>1/2</sub>. Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

### A=288

<sup>288</sup>114      20070G05      NUCLEAR REACTIONS <sup>208</sup>Pb, <sup>209</sup>Bi(<sup>48</sup>Ca, n), (<sup>50</sup>Ti, n), (<sup>54</sup>Cr, n), (<sup>58</sup>Fe, n), (<sup>62</sup>Ni, n), (<sup>64</sup>Ni, n), (<sup>70</sup>Zn, n), E not given; analyzed  $\sigma$ . <sup>233</sup>U, <sup>237</sup>Np, <sup>244</sup>Pu, <sup>248</sup>Cm, <sup>249</sup>Cf(<sup>22</sup>Ne, 4n), (<sup>26</sup>Mg, 4n), (<sup>36</sup>S, 5n), (<sup>48</sup>Ca, 4n), E not given; measured E $\alpha$ ,  $\alpha\alpha$ -coin following residual nucleus decay; analyzed  $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c  
20070G05      RADIOACTIVITY <sup>266,267,268</sup>Db, <sup>269,271</sup>Sg, <sup>270,272</sup>Bh, <sup>275</sup>Hs, <sup>274,275,276</sup>Mt, <sup>279,281</sup>Ds, <sup>278,279,280</sup>Rg, <sup>283,284,285</sup>112, <sup>280,281,282,283,284</sup>113, <sup>286,287,288,289</sup>114, <sup>287,288</sup>115, <sup>290,291,292,293</sup>116, <sup>294</sup>118( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>. <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>282,283,284,285</sup>112, <sup>286,288</sup>114(SF); measured T<sub>1/2</sub>. Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c  
<sup>288</sup>115      20070G05      RADIOACTIVITY <sup>266,267,268</sup>Db, <sup>269,271</sup>Sg, <sup>270,272</sup>Bh, <sup>275</sup>Hs, <sup>274,275,276</sup>Mt, <sup>279,281</sup>Ds, <sup>278,279,280</sup>Rg, <sup>283,284,285</sup>112, <sup>280,281,282,283,284</sup>113, <sup>286,287,288,289</sup>114, <sup>287,288</sup>115, <sup>290,291,292,293</sup>116, <sup>294</sup>118( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>. <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>282,283,284,285</sup>112, <sup>286,288</sup>114(SF); measured T<sub>1/2</sub>. Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c  
2007ST18      RADIOACTIVITY <sup>268</sup>Db(SF); <sup>272</sup>Bh, <sup>276</sup>Mt, <sup>280</sup>Rg, <sup>284</sup>113, <sup>288</sup>115( $\alpha$ ); measured E $\alpha$ , E(fragment), T<sub>1/2</sub>. JOUR NUPAB 787 388c

### A=289

<sup>289</sup>114      20070G05      RADIOACTIVITY <sup>266,267,268</sup>Db, <sup>269,271</sup>Sg, <sup>270,272</sup>Bh, <sup>275</sup>Hs, <sup>274,275,276</sup>Mt, <sup>279,281</sup>Ds, <sup>278,279,280</sup>Rg, <sup>283,284,285</sup>112, <sup>280,281,282,283,284</sup>113, <sup>286,287,288,289</sup>114, <sup>287,288</sup>115, <sup>290,291,292,293</sup>116, <sup>294</sup>118( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>. <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>282,283,284,285</sup>112, <sup>286,288</sup>114(SF); measured T<sub>1/2</sub>. Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

## KEYNUMBERS AND KEYWORDS

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### A=290

<sup>290</sup>116      20070G05      RADIOACTIVITY  $^{266,267,268}\text{Db}$ ,  $^{269,271}\text{Sg}$ ,  $^{270,272}\text{Bh}$ ,  $^{275}\text{Hs}$ ,  $^{274,275,276}\text{Mt}$ ,  $^{279,281}\text{Ds}$ ,  $^{278,279,280}\text{Rg}$ ,  $^{283,284,285}112$ ,  $^{280,281,282,283,284}113$ ,  $^{286,287,288,289}114$ ,  $^{287,288}115$ ,  $^{290,291,292,293}116$ ,  $^{294}118(\alpha)$ ; measured  $\text{E}\alpha$ ,  $T_{1/2}$ .  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{282,283,284,285}112$ ,  $^{286,288}114(\text{SF})$ ; measured  $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

### A=291

<sup>291</sup>116      20070G05      RADIOACTIVITY  $^{266,267,268}\text{Db}$ ,  $^{269,271}\text{Sg}$ ,  $^{270,272}\text{Bh}$ ,  $^{275}\text{Hs}$ ,  $^{274,275,276}\text{Mt}$ ,  $^{279,281}\text{Ds}$ ,  $^{278,279,280}\text{Rg}$ ,  $^{283,284,285}112$ ,  $^{280,281,282,283,284}113$ ,  $^{286,287,288,289}114$ ,  $^{287,288}115$ ,  $^{290,291,292,293}116$ ,  $^{294}118(\alpha)$ ; measured  $\text{E}\alpha$ ,  $T_{1/2}$ .  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{282,283,284,285}112$ ,  $^{286,288}114(\text{SF})$ ; measured  $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

### A=292

<sup>292</sup>116      20070G05      NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed  $\sigma$ .  $^{233}\text{U}$ ,  $^{237}\text{Np}$ ,  $^{244}\text{Pu}$ ,  $^{248}\text{Cm}$ ,  $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured  $\text{E}\alpha$ ,  $\alpha\alpha$ -coin following residual nucleus decay; analyzed  $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c  
20070G05      RADIOACTIVITY  $^{266,267,268}\text{Db}$ ,  $^{269,271}\text{Sg}$ ,  $^{270,272}\text{Bh}$ ,  $^{275}\text{Hs}$ ,  $^{274,275,276}\text{Mt}$ ,  $^{279,281}\text{Ds}$ ,  $^{278,279,280}\text{Rg}$ ,  $^{283,284,285}112$ ,  $^{280,281,282,283,284}113$ ,  $^{286,287,288,289}114$ ,  $^{287,288}115$ ,  $^{290,291,292,293}116$ ,  $^{294}118(\alpha)$ ; measured  $\text{E}\alpha$ ,  $T_{1/2}$ .  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{282,283,284,285}112$ ,  $^{286,288}114(\text{SF})$ ; measured  $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c

### A=293

<sup>293</sup>116      20070G05      RADIOACTIVITY  $^{266,267,268}\text{Db}$ ,  $^{269,271}\text{Sg}$ ,  $^{270,272}\text{Bh}$ ,  $^{275}\text{Hs}$ ,  $^{274,275,276}\text{Mt}$ ,  $^{279,281}\text{Ds}$ ,  $^{278,279,280}\text{Rg}$ ,  $^{283,284,285}112$ ,  $^{280,281,282,283,284}113$ ,  $^{286,287,288,289}114$ ,  $^{287,288}115$ ,  $^{290,291,292,293}116$ ,  $^{294}118(\alpha)$ ; measured  $\text{E}\alpha$ ,  $T_{1/2}$ .  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{282,283,284,285}112$ ,  $^{286,288}114(\text{SF})$ ; measured  $T_{1/2}$ . Comparison with model predictions. Comparison with other data. JOUR NUPAB 787 343c  
<sup>293</sup>118      20070G05      NUCLEAR REACTIONS  $^{208}\text{Pb}$ ,  $^{209}\text{Bi}$ ( $^{48}\text{Ca}$ , n), ( $^{50}\text{Ti}$ , n), ( $^{54}\text{Cr}$ , n), ( $^{58}\text{Fe}$ , n), ( $^{62}\text{Ni}$ , n), ( $^{64}\text{Ni}$ , n), ( $^{70}\text{Zn}$ , n), E not given; analyzed  $\sigma$ .  $^{233}\text{U}$ ,  $^{237}\text{Np}$ ,  $^{244}\text{Pu}$ ,  $^{248}\text{Cm}$ ,  $^{249}\text{Cf}$ ( $^{22}\text{Ne}$ , 4n), ( $^{26}\text{Mg}$ , 4n), ( $^{36}\text{S}$ , 5n), ( $^{48}\text{Ca}$ , 4n), E not given; measured  $\text{E}\alpha$ ,  $\alpha\alpha$ -coin following residual nucleus decay; analyzed  $\sigma$ ; deduced reaction mechanism features, hindrance and survivability. Comparison with other data. JOUR NUPAB 787 343c

*KEYNUMBERS AND KEYWORDS*

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**A=294**

<sup>294</sup>118      20070G05      RADIOACTIVITY <sup>266,267,268</sup>Db, <sup>269,271</sup>Sg, <sup>270,272</sup>Bh, <sup>275</sup>Hs,  
<sup>274,275,276</sup>Mt, <sup>279,281</sup>Ds, <sup>278,279,280</sup>Rg, <sup>283,284,285</sup>112,  
<sup>280,281,282,283,284</sup>113, <sup>286,287,288,289</sup>114, <sup>287,288</sup>115, <sup>290,291,292,293</sup>116,  
<sup>294</sup>118( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>. <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>282,283,284,285</sup>112,  
<sup>286,288</sup>114(SF); measured T<sub>1/2</sub>. Comparison with model predictions.  
Comparison with other data. JOUR NUPAB 787 343c

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