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National Nuclear Data Center, Brookhaven National Laboratory

Document generated: October 25, 2006

This document lists experimental references added to Nuclear Science References (NSR) during the period July 1, 2006 to September 30, 2006. The first section lists keynumbers and keywords sorted by mass and nuclide. The second section lists all references, ordered by keynumber.

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## Keynumbers and Keywords

### A=1

|              |          |   |
|--------------|----------|---|
| $^1\text{n}$ | 2006BA52 | RADIOACTIVITY $^1\text{n}(\beta^-)$ ; measured electron polarization following decay of polarized cold neutrons. JOUR NIMAE 565 711   |
|              | 2006BR17 | NUCLEAR REACTIONS $^1\text{H}(\pi^-, \pi^0)$ , E=39-247 MeV; measured total charge exchange $\sigma$ . Transmission technique. Comparison with other results and model calculations. JOUR PYLBB 639 424   |
|              | 2006HU09 | NUCLEAR REACTIONS $^{1,2}\text{H}(\text{polarized } e, e'p)$ , E=1.669 GeV; measured recoil proton polarization vs momentum transfer, missing momentum; deduced form factor ratios. Comparison with model predictions. JOUR PRVCA 73 064004   |
|              | 2006KIZY | NUCLEAR REACTIONS $^1\text{H}(d, 2p)$ , E=130 MeV; measured $\sigma(E, \theta)$ , relative energy spectra; deduced Coulomb contribution. PREPRINT nucl-ex/0607002,7/3/2006  |
|              | 2006LA15 | NUCLEAR REACTIONS $^1\text{H}(\gamma, X)$ , (polarized $\gamma$ , X), E=700-850 MeV; measured $\eta$ -meson production $\sigma(\theta)$ , polarization observables. $^1\text{H}(\gamma, \pi^+\pi^-)$ , ( $\gamma, \pi^+\pi^0$ ), (polarized $\gamma, \pi^+\pi^-$ ), (polarized $\gamma, \pi^+\pi^0$ ), E=300-800 MeV; measured polarized and unpolarized $\sigma$ . JOUR APSVC 56 357 |
|              | 2006LE23 | NUCLEAR REACTIONS $^1\text{H}(\text{polarized } d, 2p)$ , E=19 MeV; measured $\sigma(E, \theta)$ , tensor analyzing powers $A_{yy}$ for four geometries. Comparisons with Faddeev calculations using phenomenological NN potentials with and without three-body forces, effect of Delta and Coulomb interaction, chiral forces. JOUR PRVCA 73 064001                                  |
|              | 2006TRZY | NUCLEAR REACTIONS $^1\text{H}(^{20}\text{Ne}, ^{20}\text{Na})$ , E=22.3 MeV / nucleon; $^2\text{H}(^{20}\text{Ne}, ^{21}\text{Na})$ , E=22.3 MeV / nucleon; $^1\text{H}(^{21}\text{Ne}, ^{21}\text{Na})$ , E=43 MeV / nucleon; measured yields, particle momentum spectra. PREPRINT nucl-ex/0608016,8/8/2006  |
|              | 2006BA45 | NUCLEAR REACTIONS $^1\text{H}(p, p\pi^+\pi^-)$ , ( $p, p2\pi^0$ ), E=0.775-1.45 GeV; $^2\text{H}(p, 2\pi^0)$ , E=0.775-1.45 GeV; measured invariant mass spectra; deduced low-mass enhancement, other reaction mechanism features. JOUR APSVC 56 285  |
| $^1\text{H}$ | 2006BA52 | RADIOACTIVITY $^1\text{n}(\beta^-)$ ; measured electron polarization following decay of polarized cold neutrons. JOUR NIMAE 565 711   |
|              | 2006BE38 | NUCLEAR MOMENTS $^{1,2}\text{H}$ , $^{12}\text{C}$ , $^{14}\text{N}$ ; measured molecular hyperfine structure; deduced nuclear quadrupole coupling constants. JOUR ASJOA 649 L53  |
|              | 2006CA26 | NUCLEAR REACTIONS $^1\text{H}(^{40}\text{Si}, ^{40}\text{Si}')$ , ( $^{42}\text{P}, ^{40}\text{SiX}$ ), $E \approx 80$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{40}\text{Si}$ deduced excited states energies. Comparison with model predictions. JOUR PRLTA 97 112501   |
|              | 2006CAZY | NUCLEAR REACTIONS $^1\text{H}(^{40}\text{Si}, ^{40}\text{Si}')$ , ( $^{42}\text{P}, ^{40}\text{SiX}$ ), $E \approx 80$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{40}\text{Si}$ deduced excited states energies. Comparison with model predictions. PREPRINT nucl-ex/0608029,8/15/2006   |
|              | 2006CH37 | NUCLEAR REACTIONS $^1\text{H}(e, e'\gamma)$ , E=5.7 GeV; measured particle spectra, longitudinal target-spin asymmetry, azimuthal dependence. Polarized target. JOUR PRLTA 97 072002  |

**A=1 (*continued*)**

- 2006CRZZ NUCLEAR REACTIONS  $^1\text{H}$ (polarized e, e'), E not given; measured polarization observables.  $^1\text{H}$  deduced electric to magnetic form factor ratio. Polarized target. PREPRINT nucl-ex/0609007,09/7/2006
- 2006ELZY NUCLEAR REACTIONS  $^2\text{H}$ ( $^{22}\text{O}$ ,  $^{23}\text{O}$ ), E not given; measured excitation energy spectra. REPT RIKEN 2005 Annual,P53,Elekes
- 2006FIZY NUCLEAR REACTIONS  $^1\text{H}$ ( $^3\text{He}$ ,  $^3\text{He}$ ), ( $^3\text{He}$ , p), E=3-12 MeV; measured particle spectra,  $\sigma(\theta)$ .  $^3\text{He}$ (polarized p, p), E=1.6-4 MeV; measured  $A_y(\theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0608024,8/15/2006
- 2006GA30 NUCLEAR REACTIONS  $^2\text{H}$ ( $^{46}\text{Ar}$ ,  $^{47}\text{Ar}$ ), E=10 MeV / nucleon; measured particle spectra,  $\sigma(E, \theta)$ .  $^{47}\text{Ar}$  deduced levels, spectroscopic factors. Astrophysical implications discussed. JOUR ZAANE 27 s01 309
- 2006HAZW NUCLEAR REACTIONS  $^1\text{H}$ ( $^6\text{He}$ , 2n $\alpha$ ), E=70 MeV / nucleon; measured relative energy spectrum; deduced total inelastic  $\sigma$ .  $^6\text{He}$  deduced resonance energy. REPT RIKEN 2005 Annual,P39,Hashimoto
- 2006HEZV NUCLEAR REACTIONS  $^1\text{H}$ ( $^{21}\text{Na}$ ,  $^{21}\text{Na}$ ), E(cm)  $\approx$  0.5-3 MeV; measured  $\sigma(\theta)$ .  $^{22}\text{Mg}$  deduced resonant states features. REPT RIKEN 2005 Annual,P60,He
- 2006HI06 NUCLEAR REACTIONS  $^2\text{H}$ ( $\gamma$ , n), E=30 MeV; measured En. Tagged photons. JOUR NIMAE 564 100
- 2006KAZY NUCLEAR REACTIONS  $^1\text{H}$ ( $^{74}\text{Ni}$ ,  $^{74}\text{Ni}'$ ), E not given; measured  $E_\gamma$ ,  $I_\gamma$ , (particle) $\gamma$ -coin.  $^{74}\text{Ni}$  deduced transition. REPT RIKEN 2005 Annual,P72,Kanno
- 2006KU15 NUCLEAR REACTIONS  $^1\text{H}$ ( $\gamma$ , K $^+K^-$ ), E=1.8-3.8 GeV; measured kaon and proton invariant mass spectra; deduced pentaquark production  $\sigma$  upper limit. JOUR PRLTA 97 102001
- 2006KU17 NUCLEAR REACTIONS  $^4\text{He}$ ( $^{14}\text{O}$ , p), E(cm)  $\approx$  1-3.5 MeV; measured Ep.  $^{18}\text{Ne}$  deduced resonance energies.  $^1\text{H}$ ( $^{23}\text{Mg}$ ,  $^{23}\text{Mg}$ ), E(cm)  $\approx$  0.8-3.3 MeV; measured  $\sigma(E, \theta)$ .  $^{24}\text{Al}$  deduced possible resonance energies. JOUR ZAANE 27 s01 327
- 2006LA15 NUCLEAR REACTIONS  $^1\text{H}$ ( $\gamma$ , X), (polarized  $\gamma$ , X), E=700-850 MeV; measured  $\eta$ -meson production  $\sigma(\theta)$ , polarization observables.  $^1\text{H}$ ( $\gamma$ ,  $\pi^+\pi^-$ ), ( $\gamma$ ,  $\pi^+\pi^0$ ), (polarized  $\gamma$ ,  $\pi^+\pi^-$ ), (polarized  $\gamma$ ,  $\pi^+\pi^0$ ), E=300-800 MeV; measured polarized and unpolarized  $\sigma$ . JOUR APSVC 56 357
- 2006PA28 NUCLEAR REACTIONS  $^1\text{H}$ (p, p3 $\pi^0$ ), E=1360, 1450 MeV; measured missing mass spectra,  $\sigma$ ; deduced  $\eta$ -meson production  $\sigma$ , quadratic slope parameter. JOUR APSVC 56 381
- 2006RE10 NUCLEAR REACTIONS  $^2\text{H}$ ( $\gamma$ , n), E=14-18 MeV; measured  $\sigma(\theta)$ . JOUR NIMAE 565 753
- 2006SAZV NUCLEAR REACTIONS  $^1\text{H}$ ( $^{19}\text{C}$ , n $^{18}\text{C}$ ), E=70 MeV / nucleon; measured invariant mass spectrum.  $^{19}\text{C}$  deduced excited state energy. REPT RIKEN 2005 Annual,P51,Satou
- 2006SAZX NUCLEAR REACTIONS  $^1\text{H}$ ( $^6\text{He}$ ,  $^6\text{He}$ ), E=71 MeV / nucleon;  $^1\text{H}$ ( $\alpha$ ,  $\alpha$ ), E=80 MeV / nucleon; measured  $A_y(\theta)$ . Polarized target. REPT RIKEN 2005 Annual,P38,Sakaguchi

**A=1 (*continued*)**

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|----------|---|
| 2006SHZX | NUCLEAR REACTIONS $^1\text{H}(^{17}\text{B}, ^{17}\text{B}')$ , E=60 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , $\sigma(\theta)$ . $^{17}\text{B}$ deduced excited state energy, J, $\pi$ . REPT RIKEN 2005 Annual, P49, Shinohara |
| 2006TAZY | NUCLEAR REACTIONS $^1\text{H}(^{60}\text{Cr}, ^{60}\text{Cr}')$ , $(^{62}\text{Cr}, ^{62}\text{Cr}')$ , E not given; measured $E\gamma$ , $I\gamma$ . $^{60,62}\text{Cr}$ deduced transitions. REPT RIKEN 2005 Annual, P71, Takeshita   |
| 2006TAZZ | NUCLEAR REACTIONS $^1\text{H}(^{32}\text{Mg}, ^{32}\text{Mg}')$ , E=56 MeV / nucleon; $^1\text{H}(^{34}\text{Si}, ^{34}\text{Si}')$ , E=65 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . REPT RIKEN 2005 Annual, P63, Takeuchi        |

**A=2**

|              |          |   |
|--------------|----------|---|
| $^2\text{n}$ | 2006AM05 | NUCLEAR REACTIONS $^1\text{H}(\bar{\text{p}}, \text{K}^+\text{K}^-\pi^0)$ , E at 900, 1640 MeV / c; measured $\text{K}^+\text{K}^-\pi^0$ production associated invariant mass spectra; deduced resonance masses, widths, yields. Partial wave analysis. JOUR PYLBB 639 165        |
|              | 2006V005 | NUCLEAR REACTIONS $^2\text{H}(\text{n}, \text{p})$ , E=17.4 MeV; measured Ep; deduced neutron-neutron final-state interaction, scattering length. JOUR PRVCA 74 014001  |
| $^2\text{H}$ | 2006BE38 | NUCLEAR MOMENTS $^{1,2}\text{H}$ , $^{12}\text{C}$ , $^{14}\text{N}$ ; measured molecular hyperfine structure; deduced nuclear quadrupole coupling constants. JOUR ASJOA 649 L53  |
|              | 2006DZ01 | NUCLEAR REACTIONS $^1\text{H}(\text{p}, \text{K}^+\text{K}^0)$ , E=2.65, 2.83 GeV; measured invariant mass and angular distributions; deduced total $\sigma$ . JOUR ZAANE 29 245  |
|              | 2006EL05 | NUCLEAR REACTIONS $^2\text{H}(^{22}\text{O}, ^{22}\text{O}')$ , E=34 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, $\sigma(E)$ . $^{22}\text{O}$ deduced excited state energy, neutron and proton deformations. JOUR PRVCA 74 017306                 |
|              | 2006ELZZ | NUCLEAR REACTIONS $^2\text{H}(^{22}\text{O}, ^{22}\text{O}')$ , E=34 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, $\sigma(E)$ . $^{22}\text{O}$ deduced excited state energy, neutron and proton deformations. REPT ATOMKI 2005 Annual, P11, Elekes |
|              | 2006TU08 | NUCLEAR REACTIONS $^7\text{Li}(^3\text{He}, 2\alpha)$ , E=33 MeV; measured $E\alpha$ , $\alpha\alpha$ -coin; deduced quasi-free contribution. $^7\text{Li}(\text{p}, \alpha)$ , $E(\text{cm}) \approx 0\text{-}7$ MeV; deduced $\sigma$ . JOUR ZAANE 27 s01 243                   |

**A=3**

|              |          |   |
|--------------|----------|---|
| $^3\text{H}$ | 2006HU13 | NUCLEAR REACTIONS $^2\text{H}(\text{d}, \text{p})$ , $(\text{d}, \text{n})$ , $E \approx 7\text{-}55$ keV; measured $\sigma(\theta)$ , branching ratios for targets embedded in Ta, Sr, Li. JOUR ZAANE 27 s01 187 |
|              | 2006LA17 | NUCLEAR REACTIONS $^2\text{H}(\text{polarized d}, \text{n})$ , $(\text{polarized d}, \text{p})$ , E=140, 200, 270 MeV; measured tensor analyzing powers. JOUR PANUE 69 1271                                       |

**A=3 (continued)**

|               |   |
|---------------|---|
| 2006MI16      | 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 $\approx$ 3 5 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 PYLBB 638 146 |
| 2006NA25      | NUCLEAR REACTIONS $^2\text{H}(\text{n}, \gamma)$ , E=30.5, 54.2, 531 keV; measured $E_\gamma$ , $I_\gamma$ , $\sigma$ ; deduced astrophysical reaction rates. Comparison with model predictions. JOUR PRVCA 74 025804   |
| 2006RA19      | NUCLEAR REACTIONS $^2\text{H}(\text{d}, \text{p})$ , E $\approx$ 4-23 keV; measured S-factors, electron screening effects for reactions in deuterated metals, temperature dependence. JOUR ZAANE 27 s01 79  |
| 2006R027      | NUCLEAR REACTIONS $^2\text{H}(\text{p}, \pi^+)$ , $(\text{p}, \pi^0)$ , E at 1.56, 1.57, 1.571, 1.59, 1.7 GeV / c; measured particle spectra. $^6\text{Li}(\text{p}, \text{X})^7\text{Be}$ , E=662.5 MeV; measured $\eta$ -meson production associated particle spectra; deduced approximate $\sigma$ . JOUR PRAMC 66 893   |
| 2006R028      | NUCLEAR REACTIONS $^{239}\text{Pu}(\text{n}, \text{F})$ , E < 100 keV; measured fission $\sigma$ . $^6\text{Li}(\text{n}, \alpha)$ , E < 10 keV; measured $\sigma$ . Lead slowing-down spectrometer. JOUR NIMAE 564 400   |
| $^3\text{He}$ | 2006BA45 NUCLEAR REACTIONS $^1\text{H}(\text{p}, \text{p}\pi^+\pi^-)$ , $(\text{p}, \text{p}2\pi^0)$ , E=0.775-1.45 GeV; $^2\text{H}(\text{p}, 2\pi^0)$ , E=0.775-1.45 GeV; measured invariant mass spectra; deduced low-mass enhancement, other reaction mechanism features. JOUR APSVC 56 285   |
|               | 2006BEZW NUCLEAR REACTIONS $^2\text{H}(\text{p}, \text{K}^+\text{K}^-)$ , E at 2570-2620 GeV / c; measured kaon pair spectra, $\sigma(E, \theta)$ ; deduced $\phi$ -meson contribution. PREPRINT nucl-ex/0608047,8/28/2006  |
| 2006FIZY      | NUCLEAR REACTIONS $^1\text{H}(^3\text{He}, ^3\text{He})$ , $(^3\text{He}, \text{p})$ , E=3-12 MeV; measured particle spectra, $\sigma(\theta)$ . $^3\text{He}$ (polarized p, p), E=1.6-4 MeV; measured $Ay(\theta)$ . Comparison with model predictions. PREPRINT nucl-ex/0608024,8/15/2006   |
| 2006HA30      | NUCLEAR REACTIONS $^2\text{H}(\text{d}, \text{n})$ , E=2.45 MeV; measured neutron spectra. Large-area neutron spectrometer. JOUR NIMAE 564 486  |
| 2006HU13      | NUCLEAR REACTIONS $^2\text{H}(\text{d}, \text{p})$ , $(\text{d}, \text{n})$ , E $\approx$ 7-55 keV; measured $\sigma(\theta)$ , branching ratios for targets embedded in Ta, Sr, Li. JOUR ZAANE 27 s01 187  |
| 2006JA15      | NUCLEAR REACTIONS $^2\text{H}(\text{p}, \text{X})^3\text{He}$ , E=892.5 MeV; measured $\eta$ -meson production associated invariant mass spectra; deduced $\eta$ decay features. JOUR APSVC 56 367  |
| 2006LA17      | NUCLEAR REACTIONS $^2\text{H}$ (polarized d, n), (polarized d, p), E=140, 200, 270 MeV; measured tensor analyzing powers. JOUR PANUE 69 1271  |
| 2006MCZY      | NUCLEAR REACTIONS $^4\text{He}(^{16}\text{O}, \alpha)$ , E=15 MeV; measured recoil $E\alpha$ . $^3\text{He}(\text{p}, \text{p})$ , E=1.0, 2.5 MeV; measured backscattered Ep. Helium targets implanted in aluminum. PREPRINT nucl-ex/0608027,8/16/2006  |
| 2006R027      | NUCLEAR REACTIONS $^2\text{H}(\text{p}, \pi^+)$ , $(\text{p}, \pi^0)$ , E at 1.56, 1.57, 1.571, 1.59, 1.7 GeV / c; measured particle spectra. $^6\text{Li}(\text{p}, \text{X})^7\text{Be}$ , E=662.5 MeV; measured $\eta$ -meson production associated particle spectra; deduced approximate $\sigma$ . JOUR PRAMC 66 893   |

**A=3 (continued)**

- 2006SC19 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 APSVC 56 299

**A=4**

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| $^4\text{He}$ | 2006AG11 | NUCLEAR REACTIONS $^2\text{H}, \text{C}(^7\text{Li}, \text{X})^4\text{He} / ^7\text{Li} / ^8\text{Li} / ^7\text{Be} / ^8\text{B} / ^{11}\text{B}$ , E=23 MeV; measured yields. $^4\text{He}(^8\text{Li}, \text{n})$ , E(cm) $\approx$ 1.25 MeV; measured $\sigma$ . JOUR NIMAE 565 406   |
|               | 2006BAZU | NUCLEAR REACTIONS $^4\text{He}(^{14}\text{O}, ^{14}\text{O}')$ , E=60 MeV / nucleon; measured particle spectra following excited nucleus decay. $^{14}\text{O}$ deduced electric monopole and dipole strength distributions. REPT RIKEN 2005 Annual,P47,Baba   |
|               | 2006CHZX | NUCLEAR REACTIONS $^2\text{H}(^{11}\text{B}, \text{n}\alpha)$ , E=27 MeV; measured $E\alpha$ , $\alpha\alpha$ -coin. $^6\text{Li}(^3\text{He}, \text{pa})$ , E=5-6 MeV; measured Ep, $E\alpha$ . $^2\text{H}(^{15}\text{N}, \text{n}\alpha)$ , E=60 MeV; measured $E\alpha$ , (carbon) $\alpha$ -coin. $^{11}\text{B}(\text{p}, \alpha)$ , E(cm) $\approx$ 0-1 MeV; $^3\text{He}(\text{d}, \text{p})$ , E(cm) $\approx$ 1-700 keV; $^{15}\text{N}(\text{p}, \alpha)$ , E(cm) $\approx$ 1-700 keV; deduced astrophysical S-factors. CONF Tokyo(OMEG05),P263,Cherubini |
|               | 2006FUZY | NUCLEAR REACTIONS $^4\text{He}(^{32}\text{Mg}, ^{32}\text{Mg}')$ , E=42 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{32}\text{Mg}$ deduced transition. REPT RIKEN 2005 Annual,P62,Fukui  |
|               | 2006MI16 | 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 $\approx$ 3 5 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 PYLBB 638 146              |
|               | 2006SAZW | NUCLEAR REACTIONS $^4\text{He}(^{12}\text{Be}, ^{12}\text{Be}')$ , $(^{12}\text{Be}, ^2\text{He})$ , E=60 MeV / nucleon; measured $\sigma(E, \theta)$ . $^{12}\text{Be}$ deduced cluster states. REPT RIKEN 2005 Annual,P42,Saito  |
|               | 2006TU08 | NUCLEAR REACTIONS $^7\text{Li}(^3\text{He}, 2\alpha)$ , E=33 MeV; measured $E\alpha$ , $\alpha\alpha$ -coin; deduced quasi-free contribution. $^7\text{Li}(\text{p}, \alpha)$ , E(cm) $\approx$ 0-7 MeV; deduced $\sigma$ . JOUR ZAANE 27 s01 243  |
|               | 2006YA06 | NUCLEAR REACTIONS $^4\text{He}(\text{p}, \text{p}')$ , E=300 MeV; measured Ep, $\sigma(E, \theta)$ . $^{6,7}\text{Li}(\text{p}, \text{p}')$ , E=300 MeV; analyzed Ep, $\sigma(E, \theta)$ . $^4\text{He}, ^{6,7}\text{Li}$ deduced dipole resonance energies, widths. JOUR PRVCA 74 014309   |
|               | 2006YAZW | NUCLEAR REACTIONS $^6\text{Li}(\text{d}, \text{p})$ , $(\text{d}, \alpha)$ , E=90 keV; measured $\sigma(\theta)$ , yield ratios; deduced negligible p-wave admixture. REPT RIKEN 2005 Annual,P40,Yamaguchi   |
|               | 2006YAZX | NUCLEAR REACTIONS $^6\text{Li}(\text{polarized d}, \text{p})$ , $(\text{polarized d}, \alpha)$ , E=90 keV; measured vector and tensor analyzing powers. Comparison with model predictions. CONF Tokyo(OMEG05),P494,Yamaguchi   |
|               | 2006YAZZ | NUCLEAR REACTIONS $^6\text{Li}(\text{polarized d}, \alpha)$ , $(\text{polarized d}, \text{p})$ , E=90 keV; measured vector and tensor analyzing powers. REPT RIKEN-AF-NP-471,Yamaguchi   |
|               | 2006ZH27 | NUCLEAR REACTIONS $^6\text{Li}(\text{n}, \text{t})$ , E=1.05-4.42 MeV; measured $\sigma(\theta)$ ; deduced angle-integrated $\sigma$ . Comparison with previous results. JOUR NIMAE 566 615  |

**KEYNUMBERS AND KEYWORDS**

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**A=5**

<sup>5</sup>He      2006MI16      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 PYLBB 638 146

**A=6**

<sup>6</sup>He      2006HAZW      NUCLEAR REACTIONS <sup>1</sup>H(<sup>6</sup>He, 2n $\alpha$ ), E=70 MeV / nucleon; measured relative energy spectrum; deduced total inelastic  $\sigma$ . <sup>6</sup>He deduced resonance energy. REPT RIKEN 2005 Annual, P39, Hashimoto

<sup>6</sup>Li      2006MI16      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 PYLBB 638 146

2006MO24      NUCLEAR REACTIONS <sup>6,7</sup>Li(polarized <sup>7</sup>Li, <sup>7</sup>Li), E=42 MeV; <sup>12</sup>C(polarized <sup>7</sup>Li, <sup>7</sup>Li), E=34 MeV; measured  $\sigma(\theta)$ , analyzing powers; deduced optical model parameters. Optical model and coupled reactions channels model analysis. JOUR PYLBB 640 13

2006MOZY      NUCLEAR REACTIONS <sup>6,7</sup>Li(polarized <sup>7</sup>Li, <sup>7</sup>Li), E=42 MeV; measured  $\sigma(\theta)$ , analyzing powers; <sup>12</sup>C(polarized <sup>7</sup>Li, <sup>7</sup>Li), E=34 MeV; analyzed  $\sigma(\theta)$ , analyzing powers; deduced target structure independence at low momentum transfer. Coupled channels calculations. PREPRINT nucl-ex/0608018, 8/8/2006

2006R033      NUCLEAR REACTIONS <sup>2</sup>H(<sup>9</sup>Be, nc), E=22 MeV; measured particle spectra,  $\sigma(\theta)$ . <sup>9</sup>Be(p,  $\alpha$ ), E(cm)  $\approx$  0-1 MeV; deduced excitation function. Comparison with direct data. JOUR ZAANE 27 s01 221

2006WA18      NUCLEAR REACTIONS Si(<sup>6</sup>Li, X), (<sup>7</sup>Be, X), (<sup>10</sup>B, X), (<sup>9</sup>C, X), (<sup>10</sup>C, X), (<sup>11</sup>C, X), (<sup>12</sup>N, X), (<sup>13</sup>O, X), (<sup>15</sup>O, X), (<sup>17</sup>Ne, X), E=15-53 MeV / nucleon; measured reaction and proton-removal  $\sigma$ . <sup>6</sup>Li, <sup>7</sup>Be, <sup>10</sup>B, <sup>9,10,11</sup>C, <sup>12</sup>N, <sup>13,15</sup>O, <sup>17</sup>Ne deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605

2006YA06      NUCLEAR REACTIONS <sup>4</sup>He(p, p'), E=300 MeV; measured Ep,  $\sigma(E, \theta)$ . <sup>6,7</sup>Li(p, p'), E=300 MeV; analyzed Ep,  $\sigma(E, \theta)$ . <sup>4</sup>He, <sup>6,7</sup>Li deduced dipole resonance energies, widths. JOUR PRVCA 74 014309

**A=7**

<sup>7</sup>He      2006N011      NUCLEAR REACTIONS <sup>11</sup>B, <sup>15</sup>N, <sup>19</sup>F(<sup>7</sup>Li, <sup>7</sup>Be), E  $\approx$  8 MeV / nucleon; measured excitation energy spectra. <sup>7</sup>He, <sup>11</sup>Be, <sup>15</sup>C, <sup>19</sup>O deduced excited states features. JOUR ZAANE 27 s01 283

<sup>7</sup>Li      2006AG11      NUCLEAR REACTIONS <sup>2</sup>H, C(<sup>7</sup>Li, X)<sup>4</sup>He / <sup>7</sup>Li / <sup>8</sup>Li / <sup>7</sup>Be / <sup>8</sup>B / <sup>11</sup>B, E=23 MeV; measured yields. <sup>4</sup>He(<sup>8</sup>Li, n), E(cm)  $\approx$  1.25 MeV; measured  $\sigma$ . JOUR NIMAE 565 406

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

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|---------------|--|
| 2006CA20      | NUCLEAR REACTIONS $^{19}\text{F}(\text{p}, \text{p}')$ , $(\text{p}, \alpha)$ , $^7\text{Li}(\text{p}, \text{p}')$ , $(\text{p}, \text{n})$ , $E=3.0\text{-}5.7 \text{ MeV}$ ; measured $E\gamma$ , $\gamma$ -ray yields, $\sigma(\theta=135^\circ)$ . JOUR NIMBE 249 98   |
| 2006LI46      | RADIOACTIVITY $^7\text{Be}(\text{EC})$ ; measured $T_{1/2}$ for source embedded in several materials; deduced no environmental effect. JOUR ZAANE 27 s01 193   |
| 2006M024      | NUCLEAR REACTIONS $^{6,7}\text{Li}(\text{polarized } ^7\text{Li}, ^7\text{Li})$ , $E=42 \text{ MeV}$ ; $^{12}\text{C}(\text{polarized } ^7\text{Li}, ^7\text{Li})$ , $E=34 \text{ MeV}$ ; measured $\sigma(\theta)$ , analyzing powers; deduced optical model parameters. Optical model and coupled reactions channels model analysis. JOUR PYLBB 640 13   |
| 2006MOZY      | NUCLEAR REACTIONS $^{6,7}\text{Li}(\text{polarized } ^7\text{Li}, ^7\text{Li})$ , $E=42 \text{ MeV}$ ; measured $\sigma(\theta)$ , analyzing powers; $^{12}\text{C}(\text{polarized } ^7\text{Li}, ^7\text{Li})$ , $E=34 \text{ MeV}$ ; analyzed $\sigma(\theta)$ , analyzing powers; deduced target structure independence at low momentum transfer. Coupled channels calculations. PREPRINT nucl-ex/0608018,8/8/2006 |
| 2006WA21      | RADIOACTIVITY $^7\text{Be}(\text{EC})$ [ $^7\text{Li}(\text{p}, \text{n})$ ]; measured $T_{1/2}$ for source implanted in Pd, In metals and $\text{Li}_2\text{O}$ insulator; deduced longer $T_{1/2}$ due to environmental effects in the metals, no change in the insulator. JOUR ZAANE 28 375   |
| 2006YA06      | NUCLEAR REACTIONS $^4\text{He}(\text{p}, \text{p}')$ , $E=300 \text{ MeV}$ ; measured $E\text{p}$ , $\sigma(E, \theta)$ . $^{6,7}\text{Li}(\text{p}, \text{p}')$ , $E=300 \text{ MeV}$ ; analyzed $E\text{p}$ , $\sigma(E, \theta)$ . $^4\text{He}$ , $^{6,7}\text{Li}$ deduced dipole resonance energies, widths. JOUR PRVCA 74 014309  |
| 2006YAZW      | NUCLEAR REACTIONS $^6\text{Li}(\text{d}, \text{p})$ , $(\text{d}, \alpha)$ , $E=90 \text{ keV}$ ; measured $\sigma(\theta)$ , yield ratios; deduced negligible p-wave admixture. REPT RIKEN 2005 Annual,P40,Yamaguchi  |
| 2006YAZX      | NUCLEAR REACTIONS $^6\text{Li}(\text{polarized d}, \text{p})$ , $(\text{polarized d}, \alpha)$ , $E=90 \text{ keV}$ ; measured vector and tensor analyzing powers. Comparison with model predictions. CONF Tokyo(OMEG05),P494,Yamaguchi  |
| 2006YAZZ      | NUCLEAR REACTIONS $^6\text{Li}(\text{polarized d}, \alpha)$ , $(\text{polarized d}, \text{p})$ , $E=90 \text{ keV}$ ; measured vector and tensor analyzing powers. REPT RIKEN-AF-NP-471,Yamaguchi  |
| $^7\text{Be}$ | 2006AG11 NUCLEAR REACTIONS $^2\text{H}$ , $\text{C}(^7\text{Li}, \text{X})^4\text{He}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^7\text{Be}$ / $^8\text{B}$ / $^{11}\text{B}$ , $E=23 \text{ MeV}$ ; measured yields. $^4\text{He}(^8\text{Li}, \text{n})$ , $E(\text{cm}) \approx 1.25 \text{ MeV}$ ; measured $\sigma$ . JOUR NIMAE 565 406  |
|               | 2006AMZY NUCLEAR REACTIONS $^1\text{H}(^7\text{Be}, \text{p})$ , $E=7.69 \text{ MeV}$ / nucleon; measured $E\text{p}$ , $E\gamma$ , $p\gamma$ -coin. Thick target. CONF Tokyo(OMEG05),P362,Amadio  |
|               | 2006BE41 NUCLEAR REACTIONS $^3\text{He}(\alpha, \gamma)$ , $E=300, 350, 400 \text{ keV}$ ; measured $\sigma$ ; deduced astrophysical S-factors. Activation technique. JOUR PRLTA 97 122502   |
|               | 2006BEZV NUCLEAR REACTIONS $^3\text{He}(\alpha, \gamma)$ , $E=300, 350, 400 \text{ keV}$ ; measured $\sigma$ ; deduced astrophysical S-factors. Activation technique. PREPRINT nucl-ex/0609013,9/11/2006   |
|               | 2006CA20 NUCLEAR REACTIONS $^{19}\text{F}(\text{p}, \text{p}')$ , $(\text{p}, \alpha)$ , $^7\text{Li}(\text{p}, \text{p}')$ , $(\text{p}, \text{n})$ , $E=3.0\text{-}5.7 \text{ MeV}$ ; measured $E\gamma$ , $\gamma$ -ray yields, $\sigma(\theta=135^\circ)$ . JOUR NIMBE 249 98  |
|               | 2006LI46 RADIOACTIVITY $^7\text{Be}(\text{EC})$ ; measured $T_{1/2}$ for source embedded in several materials; deduced no environmental effect. JOUR ZAANE 27 s01 193  |

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

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| 2006R027 | NUCLEAR REACTIONS $^2\text{H}(\text{p}, \pi^+)$ , $(\text{p}, \pi^0)$ , E at 1.56, 1.57, 1.571, 1.59, 1.7 GeV / c; measured particle spectra. $^6\text{Li}(\text{p}, \text{X})^7\text{Be}$ , E=662.5 MeV; measured $\eta$ -meson production associated particle spectra; deduced approximate $\sigma$ . JOUR PRAMC 66 893   |
| 2006WA18 | NUCLEAR REACTIONS $\text{Si}(^6\text{Li}, \text{X})$ , $(^7\text{Be}, \text{X})$ , $(^{10}\text{B}, \text{X})$ , $(^9\text{C}, \text{X})$ , $(^{10}\text{C}, \text{X})$ , $(^{11}\text{C}, \text{X})$ , $(^{12}\text{N}, \text{X})$ , $(^{13}\text{O}, \text{X})$ , $(^{15}\text{O}, \text{X})$ , $(^{17}\text{Ne}, \text{X})$ , E=15-53 MeV / nucleon; measured reaction and proton-removal $\sigma$ . $^6\text{Li}$ , $^7\text{Be}$ , $^{10}\text{B}$ , $^{9,10,11}\text{C}$ , $^{12}\text{N}$ , $^{13,15}\text{O}$ , $^{17}\text{Ne}$ deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |
| 2006WA21 | RADIOACTIVITY $^7\text{Be}(\text{EC})$ [ $^7\text{Li}(\text{p}, \text{n})$ ]; measured $T_{1/2}$ for source implanted in Pd, In metals and $\text{Li}_2\text{O}$ insulator; deduced longer $T_{1/2}$ due to environmental effects in the metals, no change in the insulator. JOUR ZAANE 28 375  |
| 2006YAZY | NUCLEAR REACTIONS $^1\text{H}(^7\text{Be}, \text{p})$ , E(cm) < 6.7 MeV; measured Ep. CONF Tokyo(OMEG05),P275,Yamaguchi   |

**A=8**

|               |          |   |
|---------------|----------|---|
| $^8\text{Li}$ | 2006AG11 | NUCLEAR REACTIONS $^2\text{H}$ , $\text{C}(^7\text{Li}, \text{X})^4\text{He}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^7\text{Be}$ / $^8\text{B}$ / $^{11}\text{B}$ , E=23 MeV; measured yields. $^4\text{He}(^8\text{Li}, \text{n})$ , E(cm) $\approx$ 1.25 MeV; measured $\sigma$ . JOUR NIMAE 565 406   |
|               | 2006MI19 | NUCLEAR REACTIONS $^{6,7}\text{Li}$ , $^{12}\text{C}(^6\text{He}, ^6\text{He})$ , E=18 MeV; measured elastic $\sigma(\theta)$ . $^{6,7}\text{Li}(^6\text{He}, \alpha)$ , E=18 MeV; measured $\sigma(E, \theta)$ , excitation energy spectra. Sequential decay and quasi-free reactions also discussed. JOUR PANUE 69 1360   |
| $^8\text{Be}$ | 2006CHZX | NUCLEAR REACTIONS $^2\text{H}(^{11}\text{B}, \text{n}\alpha)$ , E=27 MeV; measured $E\alpha$ , $\alpha\alpha$ -coin. $^6\text{Li}(^3\text{He}, \text{p}\alpha)$ , E=5-6 MeV; measured Ep, $E\alpha$ . $^2\text{H}(^{15}\text{N}, \text{n}\alpha)$ , E=60 MeV; measured $E\alpha$ , (carbon) $\alpha$ -coin. $^{11}\text{B}(\text{p}, \alpha)$ , E(cm) $\approx$ 0-1 MeV; $^3\text{He}(\text{d}, \text{p})$ , E(cm) $\approx$ 1-700 keV; $^{15}\text{N}(\text{p}, \alpha)$ , E(cm) $\approx$ 1-700 keV; deduced astrophysical S-factors. CONF Tokyo(OMEG05),P263,Cherubini |
|               | 2006SU13 | RADIOACTIVITY $^8\text{B}(\beta^+)$ , (EC) [from $^6\text{Li}(^3\text{He}, \text{n})$ ]; measured $\beta$ -NQR spectrum from oriented source. $^8\text{B}$ deduced electric quadrupole moment. JOUR PRVCA 74 024327   |
| $^8\text{B}$  | 2006AG11 | NUCLEAR REACTIONS $^2\text{H}$ , $\text{C}(^7\text{Li}, \text{X})^4\text{He}$ / $^7\text{Li}$ / $^8\text{Li}$ / $^7\text{Be}$ / $^8\text{B}$ / $^{11}\text{B}$ , E=23 MeV; measured yields. $^4\text{He}(^8\text{Li}, \text{n})$ , E(cm) $\approx$ 1.25 MeV; measured $\sigma$ . JOUR NIMAE 565 406   |
|               | 2006SU13 | RADIOACTIVITY $^8\text{B}(\beta^+)$ , (EC) [from $^6\text{Li}(^3\text{He}, \text{n})$ ]; measured $\beta$ -NQR spectrum from oriented source. $^8\text{B}$ deduced electric quadrupole moment. JOUR PRVCA 74 024327   |
|               | 2006SU13 | NUCLEAR MOMENTS $^8\text{B}$ ; measured $\beta$ -NQR spectrum from oriented source; deduced electric quadrupole moment. JOUR PRVCA 74 024327  |
|               | 2006SU14 | NUCLEAR REACTIONS $\text{Pb}(^8\text{B}, \text{p}^7\text{Be})$ , E=254 MeV / nucleon; measured particle spectra, angular distributions. $^7\text{Be}(\text{p}, \gamma)$ , E=low; deduced astrophysical S-factor. JOUR ZAANE 27 s01 227  |

**KEYNUMBERS AND KEYWORDS**

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**A=9**

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| <sup>9</sup> He | 2006GOZY | NUCLEAR REACTIONS $^2\text{H}(^8\text{He}, \text{p})$ , E=25 MeV / nucleon; measured particle spectra. <sup>9</sup> He deduced excited states energies, widths.<br>PREPRINT nucl-ex/0608035,8/17/2006  |
| <sup>9</sup> Li | 2006IOZZ | NUCLEAR REACTIONS <sup>9</sup> Be, <sup>12</sup> C, <sup>16</sup> O(e, e'K <sup>+</sup> X), E=3.77 GeV; measured hypernucleus production associated particle spectra. <sup>9</sup> Li, <sup>12</sup> B, <sup>16</sup> N deduced hypernucleus bound state energies. CONF Bormio (XLIV Winter Meeting) Proc,P163   |
|                 | 2006MI19 | NUCLEAR REACTIONS <sup>6,7</sup> Li, <sup>12</sup> C( <sup>6</sup> He, <sup>6</sup> He), E=18 MeV; measured elastic $\sigma(\theta)$ . <sup>6,7</sup> Li( <sup>6</sup> He, $\alpha$ ), E=18 MeV; measured $\sigma(E, \theta)$ , excitation energy spectra. Sequential decay and quasi-free reactions also discussed. JOUR PANUE 69 1360  |
| <sup>9</sup> Be | 2006FR11 | NUCLEAR MOMENTS <sup>9,10</sup> Be; measured hfs in muonic atoms and ions. JOUR PLRAA 74 022508  |
| <sup>9</sup> C  | 2006WA18 | NUCLEAR REACTIONS Si( <sup>6</sup> Li, X), ( <sup>7</sup> Be, X), ( <sup>10</sup> B, X), ( <sup>9</sup> C, X), ( <sup>10</sup> C, X), ( <sup>11</sup> C, X), ( <sup>12</sup> N, X), ( <sup>13</sup> O, X), ( <sup>15</sup> O, X), ( <sup>17</sup> Ne, X), E=15-53 MeV / nucleon; measured reaction and proton-removal $\sigma$ . <sup>6</sup> Li, <sup>7</sup> Be, <sup>10</sup> B, <sup>9,10,11</sup> C, <sup>12</sup> N, <sup>13,15</sup> O, <sup>17</sup> Ne deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |

**A=10**

|                  |          |  |
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| <sup>10</sup> Be | 2006FR11 | NUCLEAR MOMENTS <sup>9,10</sup> Be; measured hfs in muonic atoms and ions. JOUR PLRAA 74 022508  |
|                  | 2006NAZY | NUCLEAR MOMENTS <sup>10</sup> Be; measured isotope shifts. Laser spectroscopy, on-line ion trap. REPT RIKEN 2005 Annual,P41,Nakamura   |
| <sup>10</sup> B  | 2006WA18 | NUCLEAR REACTIONS Si( <sup>6</sup> Li, X), ( <sup>7</sup> Be, X), ( <sup>10</sup> B, X), ( <sup>9</sup> C, X), ( <sup>10</sup> C, X), ( <sup>11</sup> C, X), ( <sup>12</sup> N, X), ( <sup>13</sup> O, X), ( <sup>15</sup> O, X), ( <sup>17</sup> Ne, X), E=15-53 MeV / nucleon; measured reaction and proton-removal $\sigma$ . <sup>6</sup> Li, <sup>7</sup> Be, <sup>10</sup> B, <sup>9,10,11</sup> C, <sup>12</sup> N, <sup>13,15</sup> O, <sup>17</sup> Ne deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |
| <sup>10</sup> C  | 2006WA18 | NUCLEAR REACTIONS Si( <sup>6</sup> Li, X), ( <sup>7</sup> Be, X), ( <sup>10</sup> B, X), ( <sup>9</sup> C, X), ( <sup>10</sup> C, X), ( <sup>11</sup> C, X), ( <sup>12</sup> N, X), ( <sup>13</sup> O, X), ( <sup>15</sup> O, X), ( <sup>17</sup> Ne, X), E=15-53 MeV / nucleon; measured reaction and proton-removal $\sigma$ . <sup>6</sup> Li, <sup>7</sup> Be, <sup>10</sup> B, <sup>9,10,11</sup> C, <sup>12</sup> N, <sup>13,15</sup> O, <sup>17</sup> Ne deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |

**A=11**

|                  |          |   |
|------------------|----------|---|
| <sup>11</sup> Li | 2006NA21 | NUCLEAR REACTIONS Pb( <sup>11</sup> Li, 2n <sup>9</sup> Li), E=70 MeV / nucleon; measured relative energy spectra. <sup>11</sup> Li deduced B(E1) distribution. JOUR PRLTA 96 252502  |
| <sup>11</sup> Be | 2006NO11 | NUCLEAR REACTIONS <sup>11</sup> B, <sup>15</sup> N, <sup>19</sup> F( <sup>7</sup> Li, <sup>7</sup> Be), E ≈ 8 MeV / nucleon; measured excitation energy spectra. <sup>7</sup> He, <sup>11</sup> Be, <sup>15</sup> C, <sup>19</sup> O deduced excited states features. JOUR ZAANE 27 s01 283 |

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

|                 |          |  |
|-----------------|----------|--|
| <sup>11</sup> B | 2006AG11 | NUCLEAR REACTIONS <sup>2</sup> H, C( <sup>7</sup> Li, X) <sup>4</sup> He / <sup>7</sup> Li / <sup>8</sup> Li / <sup>7</sup> Be / <sup>8</sup> B / <sup>11</sup> B, E=23 MeV; measured yields. <sup>4</sup> He( <sup>8</sup> Li, n), E(cm) ≈ 1.25 MeV; measured $\sigma$ . JOUR NIMAE 565 406   |
|                 | 2006DAZY | NUCLEAR REACTIONS <sup>4</sup> He( <sup>8</sup> Li, n), E(cm)=0.45-1.75 MeV; measured $\sigma$ . Comparison with previous results. CONF Tokyo(OMEG05),P374,Das   |
|                 | 2006IS04 | NUCLEAR REACTIONS <sup>4</sup> He( <sup>8</sup> Li, n), E(cm)=0.7-2.6 MeV; measured $\sigma(E)$ , particle spectra. Comparison with other results. JOUR PYLBB 640 82   |
|                 | 2006ISZZ | NUCLEAR REACTIONS <sup>4</sup> He( <sup>8</sup> Li, n), E(cm)=0.4-2.6 MeV; <sup>4</sup> He( <sup>12</sup> B, n), E(cm)=1.1-3.7 MeV; measured excitation functions; deduced resonance features. CONF Tokyo(OMEG05),P249,Ishiyama  |
|                 | 2006NIZX | NUCLEAR REACTIONS <sup>4</sup> He( <sup>8</sup> Li, n), E(cm) ≈ 0.5 MeV; measured particle spectra. REPT RIKEN 2005 Annual,P43,Nishimura   |
| <sup>11</sup> C | 2006PE21 | NUCLEAR REACTIONS <sup>1</sup> H( <sup>11</sup> C, p), E(cm)=2.2-11.0 MeV; measured recoil proton spectra, $\sigma(\theta)$ , excitation functions. <sup>12</sup> N deduced levels, J, $\pi$ , widths. R-matrix analysis. JOUR PRVCA 74 024306   |
|                 | 2006TR08 | NUCLEAR REACTIONS <sup>14</sup> N(p, $\alpha$ ), (p, n), E=13 MeV; measured yields. Application to radioactive beam production discussed. JOUR CJPNA 84 325  |
|                 | 2006WA18 | NUCLEAR REACTIONS Si( <sup>6</sup> Li, X), ( <sup>7</sup> Be, X), ( <sup>10</sup> B, X), ( <sup>9</sup> C, X), ( <sup>10</sup> C, X), ( <sup>11</sup> C, X), ( <sup>12</sup> N, X), ( <sup>13</sup> O, X), ( <sup>15</sup> O, X), ( <sup>17</sup> Ne, X), E=15-53 MeV / nucleon; measured reaction and proton-removal $\sigma$ . <sup>6</sup> Li, <sup>7</sup> Be, <sup>10</sup> B, <sup>9,10,11</sup> C, <sup>12</sup> N, <sup>13,15</sup> O, <sup>17</sup> Ne deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |

**A=12**

|                  |          |  |
|------------------|----------|--|
| <sup>12</sup> Be | 2006SAZW | NUCLEAR REACTIONS <sup>4</sup> He( <sup>12</sup> Be, <sup>12</sup> Be'), ( <sup>12</sup> Be, <sup>2</sup> <sup>6</sup> He), E=60 MeV / nucleon; measured $\sigma(E, \theta)$ . <sup>12</sup> Be deduced cluster states. REPT RIKEN 2005 Annual,P42,Saito   |
| <sup>12</sup> B  | 2006IOZZ | NUCLEAR REACTIONS <sup>9</sup> Be, <sup>12</sup> C, <sup>16</sup> O(e, e'K <sup>+</sup> X), E=3.77 GeV; measured hypernucleus production associated particle spectra. <sup>9</sup> Li, <sup>12</sup> B, <sup>16</sup> N deduced hypernucleus bound state energies. CONF Bormio (XLIV Winter Meeting) Proc,P163   |
|                  | 2006SA28 | NUCLEAR REACTIONS <sup>12</sup> C( <sup>7</sup> Li, <sup>7</sup> Be), E=82 MeV; measured $\sigma(\theta)$ , energy spectra; deduced one- and two-step reaction mechanisms. DWBA and coupled reaction channels analysis. JOUR NUPAB 773 187   |
| <sup>12</sup> C  | 2006BE38 | NUCLEAR MOMENTS <sup>1,2</sup> H, <sup>12</sup> C, <sup>14</sup> N; measured molecular hyperfine structure; deduced nuclear quadrupole coupling constants. JOUR ASJOA 649 L53  |
|                  | 2006CHZX | NUCLEAR REACTIONS <sup>2</sup> H( <sup>11</sup> B, n $\alpha$ ), E=27 MeV; measured E $\alpha$ , $\alpha\alpha$ -coin. <sup>6</sup> Li( <sup>3</sup> He, p $\alpha$ ), E=5-6 MeV; measured Ep, E $\alpha$ . <sup>2</sup> H( <sup>15</sup> N, n $\alpha$ ), E=60 MeV; measured E $\alpha$ , (carbon) $\alpha$ -coin. <sup>11</sup> B(p, $\alpha$ ), E(cm) ≈ 0-1 MeV; <sup>3</sup> He(d, p), E(cm) ≈ 1-700 keV; <sup>15</sup> N(p, $\alpha$ ), E(cm) ≈ 1-700 keV; deduced astrophysical S-factors. CONF Tokyo(OMEG05),P263,Cherubini |

**A=12 (continued)**

|                 |  |  |
|-----------------|--|--|
| 2006LA18        | NUCLEAR REACTIONS $^2\text{H}(^{15}\text{N}, \text{n}\alpha)$ , E=60 MeV; measured particle spectra, correlations; deduced quasi-free contribution. $^{15}\text{N}(\text{p}, \alpha)$ , E(cm) $\approx$ 0-600 keV; deduced astrophysical S-factor. JOUR ZAANE 27 s01 249   |  |
| 2006LE31        | NUCLEAR REACTIONS $^{12}\text{C}(^{66}\text{Zn}, 2\alpha)$ , ( $^{66}\text{Zn}$ , $^{66}\text{Zn}'$ ), E=180 MeV; measured $E\gamma$ , $I\gamma(\theta, \text{H}, t)$ , $\alpha\gamma$ -coin, DSA. $^{70}\text{Ge}$ deduced levels, J, $\pi$ , $T_{1/2}$ , B(E2), g factor. Comparison with previous results, model predictions. JOUR PRVCA 74 024315  |  |
| 2006MI19        | NUCLEAR REACTIONS $^{6,7}\text{Li}$ , $^{12}\text{C}(^6\text{He}, ^6\text{He})$ , E=18 MeV; measured elastic $\sigma(\theta)$ . $^{6,7}\text{Li}(^6\text{He}, \alpha)$ , E=18 MeV; measured $\sigma(E, \theta)$ , excitation energy spectra. Sequential decay and quasi-free reactions also discussed. JOUR PANUE 69 1360  |  |
| 2006MO24        | NUCLEAR REACTIONS $^{6,7}\text{Li}$ (polarized $^7\text{Li}$ , $^7\text{Li}$ ), E=42 MeV; $^{12}\text{C}$ (polarized $^7\text{Li}$ , $^7\text{Li}$ ), E=34 MeV; measured $\sigma(\theta)$ , analyzing powers; deduced optical model parameters. Optical model and coupled reactions channels model analysis. JOUR PYLBB 640 13   |  |
| 2006MOZY        | NUCLEAR REACTIONS $^{6,7}\text{Li}$ (polarized $^7\text{Li}$ , $^7\text{Li}$ ), E=42 MeV; measured $\sigma(\theta)$ , analyzing powers; $^{12}\text{C}$ (polarized $^7\text{Li}$ , $^7\text{Li}$ ), E=34 MeV; analyzed $\sigma(\theta)$ , analyzing powers; deduced target structure independence at low momentum transfer. Coupled channels calculations. PREPRINT nucl-ex/0608018,8/8/2006 |  |
| 2006PA27        | NUCLEAR REACTIONS $^{11}\text{B}(\text{d}, \text{n})$ , E=120-160 keV; measured En, yields, angular distributions; deduced astrophysical S-factors. JOUR PRVCA 74 015804   |  |
| $^{12}\text{N}$ | 2006PE21   | NUCLEAR REACTIONS $^1\text{H}(^{11}\text{C}, \text{p})$ , E(cm)=2.2-11.0 MeV; measured recoil proton spectra, $\sigma(\theta)$ , excitation functions. $^{12}\text{N}$ deduced levels, J, $\pi$ , widths. R-matrix analysis. JOUR PRVCA 74 024306  |
|                 | 2006WA18   | NUCLEAR REACTIONS Si( $^6\text{Li}$ , X), ( $^7\text{Be}$ , X), ( $^{10}\text{B}$ , X), ( $^9\text{C}$ , X), ( $^{10}\text{C}$ , X), ( $^{11}\text{C}$ , X), ( $^{12}\text{N}$ , X), ( $^{13}\text{O}$ , X), ( $^{15}\text{O}$ , X), ( $^{17}\text{Ne}$ , X), E=15-53 MeV / nucleon; measured reaction and proton-removal $\sigma$ . $^6\text{Li}$ , $^7\text{Be}$ , $^{10}\text{B}$ , $^{9,10,11}\text{C}$ , $^{12}\text{N}$ , $^{13,15}\text{O}$ , $^{17}\text{Ne}$ deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |

**A=13**

|                 |          |  |
|-----------------|----------|--|
| $^{13}\text{C}$ | 2006K023 | NUCLEAR REACTIONS $^{12}\text{C}(\text{d}, \text{p})$ , E=900-2000 keV; measured $\sigma(\theta)$ . Comparison with previous results. JOUR NIMBE 249 77  |
| $^{13}\text{O}$ | 2006WA18 | NUCLEAR REACTIONS Si( $^6\text{Li}$ , X), ( $^7\text{Be}$ , X), ( $^{10}\text{B}$ , X), ( $^9\text{C}$ , X), ( $^{10}\text{C}$ , X), ( $^{11}\text{C}$ , X), ( $^{12}\text{N}$ , X), ( $^{13}\text{O}$ , X), ( $^{15}\text{O}$ , X), ( $^{17}\text{Ne}$ , X), E=15-53 MeV / nucleon; measured reaction and proton-removal $\sigma$ . $^6\text{Li}$ , $^7\text{Be}$ , $^{10}\text{B}$ , $^{9,10,11}\text{C}$ , $^{12}\text{N}$ , $^{13,15}\text{O}$ , $^{17}\text{Ne}$ deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |

**A=14**

|                  |          |  |
|------------------|----------|--|
| <sup>14</sup> Be | 2006SUZY | NUCLEAR REACTIONS C( <sup>14</sup> Be, 2n <sup>12</sup> Be), E not given; measured decay-energy spectrum, $\sigma(\theta)$ . <sup>14</sup> Be deduced excited state energy. REPT RIKEN 2005 Annual,P46,Sugimoto  |
| <sup>14</sup> C  | 2006NE06 | NUCLEAR REACTIONS <sup>14</sup> N(d, 2p), E=175 MeV; <sup>14</sup> N( <sup>3</sup> He, t), E=420 MeV; measured excitation energy spectra, $\sigma(E, \theta)$ ; deduced Gamow-Teller strength distributions. Comparison with no-core shell model predictions. JOUR PRLTA 97 062502   |
| <sup>14</sup> N  | 2006BE38 | NUCLEAR MOMENTS <sup>1,2</sup> H, <sup>12</sup> C, <sup>14</sup> N; measured molecular hyperfine structure; deduced nuclear quadrupole coupling constants. JOUR ASJOA 649 L53  |
|                  | 2006BU12 | RADIOACTIVITY <sup>14</sup> O( $\beta^+$ ) [from <sup>12</sup> C( <sup>3</sup> He, n)]; measured E $\gamma$ , E $\beta$ , T <sub>1/2</sub> ; deduced log ft. Comparison with previous results. JOUR PRVCA 74 025501  |
|                  | 2006JE05 | NUCLEAR MOMENTS <sup>14,15</sup> N; measured hfs, isotope shifts. JOUR ZDDNE 40 81   |
| <sup>14</sup> O  | 2006BAZU | NUCLEAR REACTIONS <sup>4</sup> He( <sup>14</sup> O, <sup>14</sup> O'), E=60 MeV / nucleon; measured particle spectra following excited nucleus decay. <sup>14</sup> O deduced electric monopole and dipole strength distributions. REPT RIKEN 2005 Annual,P47,Baba   |
|                  | 2006BU12 | RADIOACTIVITY <sup>14</sup> O( $\beta^+$ ) [from <sup>12</sup> C( <sup>3</sup> He, n)]; measured E $\gamma$ , E $\beta$ , T <sub>1/2</sub> ; deduced log ft. Comparison with previous results. JOUR PRVCA 74 025501  |
|                  | 2006MU15 | NUCLEAR REACTIONS <sup>14</sup> N( <sup>3</sup> He, d), E=26.3 MeV; measured $\sigma(\theta)$ . <sup>14</sup> N(p, $\gamma$ ), E ≈ 100-600 keV; deduced astrophysical S-factor. <sup>11</sup> C, <sup>13</sup> N(p, $\gamma$ ), E not given; analyzed resonant and nonresonant amplitudes. Asymptotic normalization coefficient and Trojan horse techniques discussed. JOUR ZAANE 27 s01 205 |
|                  | 2006NE06 | NUCLEAR REACTIONS <sup>14</sup> N(d, 2p), E=175 MeV; <sup>14</sup> N( <sup>3</sup> He, t), E=420 MeV; measured excitation energy spectra, $\sigma(E, \theta)$ ; deduced Gamow-Teller strength distributions. Comparison with no-core shell model predictions. JOUR PRLTA 97 062502   |
|                  | 2006TR08 | NUCLEAR REACTIONS <sup>14</sup> N(p, $\alpha$ ), (p, n), E=13 MeV; measured yields. Application to radioactive beam production discussed. JOUR CJPNA 84 325  |

**A=15**

|                 |          |   |
|-----------------|----------|---|
| <sup>15</sup> C | 2006N011 | NUCLEAR REACTIONS <sup>11</sup> B, <sup>15</sup> N, <sup>19</sup> F( <sup>7</sup> Li, <sup>7</sup> Be), E ≈ 8 MeV / nucleon; measured excitation energy spectra. <sup>7</sup> He, <sup>11</sup> Be, <sup>15</sup> C, <sup>19</sup> O deduced excited states features. JOUR ZAANE 27 s01 283 |
| <sup>15</sup> N | 2006BE33 | NUCLEAR REACTIONS <sup>14</sup> N(n, $\gamma$ ), E=thermal; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. Application to detector calibration discussed. JOUR PRVCA 74 024603  |
|                 | 2006ISZZ | NUCLEAR REACTIONS <sup>4</sup> He( <sup>8</sup> Li, n), E(cm)=0.4-2.6 MeV; <sup>4</sup> He( <sup>12</sup> B, n), E(cm)=1.1-3.7 MeV; measured excitation functions; deduced resonance features. CONF Tokyo(OMEG05),P249,Ishiyama   |
|                 | 2006JE05 | NUCLEAR MOMENTS <sup>14,15</sup> N; measured hfs, isotope shifts. JOUR ZDDNE 40 81  |

**KEYNUMBERS AND KEYWORDS**

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**A=15 (*continued*)**

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| <sup>15</sup> O | 2006CH30 | NUCLEAR REACTIONS $^1\text{H}(^{18}\text{F}, \alpha)$ , $E(\text{cm}) \approx 663\text{-}877 \text{ keV}$ ; measured particle spectra, excitation functions; deduced resonance interference effects. $^{19}\text{Ne}$ deduced upper limits on resonance widths. R-matrix calculations. JOUR PRVCA 74 012801  |
|                 | 2006MU15 | NUCLEAR REACTIONS $^{14}\text{N}(^3\text{He}, \text{d})$ , $E=26.3 \text{ MeV}$ ; measured $\sigma(\theta)$ . $^{14}\text{N}(\text{p}, \gamma)$ , $E \approx 100\text{-}600 \text{ keV}$ ; deduced astrophysical S-factor. $^{11}\text{C}$ , $^{13}\text{N}(\text{p}, \gamma)$ , $E$ not given; analyzed resonant and nonresonant amplitudes. Asymptotic normalization coefficient and Trojan horse techniques discussed. JOUR ZAANE 27 s01 205  |
|                 | 2006WA18 | NUCLEAR REACTIONS $\text{Si}(^6\text{Li}, \text{X})$ , $(^7\text{Be}, \text{X})$ , $(^{10}\text{B}, \text{X})$ , $(^9\text{C}, \text{X})$ , $(^{10}\text{C}, \text{X})$ , $(^{11}\text{C}, \text{X})$ , $(^{12}\text{N}, \text{X})$ , $(^{13}\text{O}, \text{X})$ , $(^{15}\text{O}, \text{X})$ , $(^{17}\text{Ne}, \text{X})$ , $E=15\text{-}53 \text{ MeV}$ / nucleon; measured reaction and proton-removal $\sigma$ . $^6\text{Li}$ , $^7\text{Be}$ , $^{10}\text{B}$ , $^{9,10,11}\text{C}$ , $^{12}\text{N}$ , $^{13,15}\text{O}$ , $^{17}\text{Ne}$ deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |

**A=16**

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| <sup>16</sup> N | 2006IOZZ | NUCLEAR REACTIONS $^9\text{Be}$ , $^{12}\text{C}$ , $^{16}\text{O}(\text{e}, \text{e}'\text{K}^+\text{X})$ , $E=3.77 \text{ GeV}$ ; measured hypernucleus production associated particle spectra. $^9\text{Li}$ , $^{12}\text{B}$ , $^{16}\text{N}$ deduced hypernucleus bound state energies. CONF Bormio (XLIV Winter Meeting) Proc,P163 |
| <sup>16</sup> O | 2006CA20 | NUCLEAR REACTIONS $^{19}\text{F}(\text{p}, \text{p}')$ , $(\text{p}, \alpha)$ , $^7\text{Li}(\text{p}, \text{p}')$ , $(\text{p}, \text{n})$ , $E=3.0\text{-}5.7 \text{ MeV}$ ; measured $E\gamma$ , $\gamma$ -ray yields, $\sigma(\theta=135^\circ)$ . JOUR NIMBE 249 98   |
|                 | 2006KRZW | NUCLEAR REACTIONS $^{19}\text{F}(\text{p}, \alpha)$ , $E=5.8 \text{ MeV}$ ; measured $E\gamma$ , $I\gamma$ , electron-poangular correlation; deduced possible neutral boson mass, $J$ , $\pi$ . REPT ATOMKI 2005 Annual,P7,Krasznahorkay   |
|                 | 2006MCZY | NUCLEAR REACTIONS $^4\text{He}(^{16}\text{O}, \alpha)$ , $E=15 \text{ MeV}$ ; measured recoil $E\alpha$ . $^3\text{He}(\text{p}, \text{p})$ , $E=1.0$ , $2.5 \text{ MeV}$ ; measured backscattered $E\text{p}$ . Helium targets implanted in aluminum. PREPRINT nucl-ex/0608027,8/16/2006  |

**A=17**

|                  |          |  |
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| <sup>17</sup> B  | 2006SHZX | NUCLEAR REACTIONS $^1\text{H}(^{17}\text{B}, ^{17}\text{B}')$ , $E=60 \text{ MeV}$ / nucleon; measured $E\gamma$ , $I\gamma$ , $\sigma(\theta)$ . $^{17}\text{B}$ deduced excited state energy, $J$ , $\pi$ . REPT RIKEN 2005 Annual,P49,Shinohara   |
| <sup>17</sup> F  | 2006KU17 | NUCLEAR REACTIONS $^4\text{He}(^{14}\text{O}, \text{p})$ , $E(\text{cm}) \approx 1\text{-}3.5 \text{ MeV}$ ; measured $E\text{p}$ . $^{18}\text{Ne}$ deduced resonance energies. $^1\text{H}(^{23}\text{Mg}, ^{23}\text{Mg})$ , $E(\text{cm}) \approx 0.8\text{-}3.3 \text{ MeV}$ ; measured $\sigma(E, \theta)$ . $^{24}\text{Al}$ deduced possible resonance energies. JOUR ZAANE 27 s01 327   |
| <sup>17</sup> Ne | 2006WA18 | NUCLEAR REACTIONS $\text{Si}(^6\text{Li}, \text{X})$ , $(^7\text{Be}, \text{X})$ , $(^{10}\text{B}, \text{X})$ , $(^9\text{C}, \text{X})$ , $(^{10}\text{C}, \text{X})$ , $(^{11}\text{C}, \text{X})$ , $(^{12}\text{N}, \text{X})$ , $(^{13}\text{O}, \text{X})$ , $(^{15}\text{O}, \text{X})$ , $(^{17}\text{Ne}, \text{X})$ , $E=15\text{-}53 \text{ MeV}$ / nucleon; measured reaction and proton-removal $\sigma$ . $^6\text{Li}$ , $^7\text{Be}$ , $^{10}\text{B}$ , $^{9,10,11}\text{C}$ , $^{12}\text{N}$ , $^{13,15}\text{O}$ , $^{17}\text{Ne}$ deduced radii. Comparison with Glauber model predictions. JOUR PRVCA 74 014605 |

**A=18**

|                  |          |   |
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| <sup>18</sup> O  | 2006D017 | NUCLEAR REACTIONS <sup>1</sup> H( <sup>18</sup> O, p), E(cm) ≈ 900-6000 keV; measured excitation function. Solid targets. JOUR NIMAE 564 32   |
|                  | 2006SU12 | RADIOACTIVITY <sup>19,20</sup> N(β⁻), (β⁻n) [from Be( <sup>22</sup> Ne, X)]; measured β-delayed En, Eγ, βγ-, nγ-, nβ-coin, T <sub>1/2</sub> ; deduced β-emission and γ-emission probabilities, B(GT). <sup>18,19,20</sup> O deduced levels, β-feeding intensities. Shell model analysis. JOUR PRVCA 74 024322 |
| <sup>18</sup> Ne | 2006KU17 | NUCLEAR REACTIONS <sup>4</sup> He( <sup>14</sup> O, p), E(cm) ≈ 1-3.5 MeV; measured Ep. <sup>18</sup> Ne deduced resonance energies. <sup>1</sup> H( <sup>23</sup> Mg, <sup>23</sup> Mg), E(cm) ≈ 0.8-3.3 MeV; measured σ(E, θ). <sup>24</sup> Al deduced possible resonance energies. JOUR ZAANE 27 s01 327  |
|                  | 2006YAZV | NUCLEAR REACTIONS Pb( <sup>18</sup> Ne, <sup>18</sup> Ne'), E=50 MeV / nucleon; measured Eγ, Iγ, (particle)γ-coin following projectile Coulomb excitation. <sup>18</sup> Ne deduced transition B(E2). REPT RIKEN 2005 Annual,P55,Yamada   |

**A=19**

|                  |          |   |
|------------------|----------|---|
| <sup>19</sup> C  | 2006SAZV | NUCLEAR REACTIONS <sup>1</sup> H( <sup>19</sup> C, n <sup>18</sup> C), E=70 MeV / nucleon; measured invariant mass spectrum. <sup>19</sup> C deduced excited state energy. REPT RIKEN 2005 Annual,P51,Satou   |
| <sup>19</sup> N  | 2006OKZZ | NUCLEAR REACTIONS <sup>1</sup> H( <sup>21</sup> N, X) <sup>19</sup> N / <sup>20</sup> N, E=72 MeV / nucleon; measured Eγ, Iγ, (particle)γ-coin. <sup>19,20</sup> N deduced transitions. REPT RIKEN 2005 Annual,P52,Okumura  |
|                  | 2006SU12 | RADIOACTIVITY <sup>19,20</sup> N(β⁻), (β⁻n) [from Be( <sup>22</sup> Ne, X)]; measured β-delayed En, Eγ, βγ-, nγ-, nβ-coin, T <sub>1/2</sub> ; deduced β-emission and γ-emission probabilities, B(GT). <sup>18,19,20</sup> O deduced levels, β-feeding intensities. Shell model analysis. JOUR PRVCA 74 024322 |
| <sup>19</sup> O  | 2006N011 | NUCLEAR REACTIONS <sup>11</sup> B, <sup>15</sup> N, <sup>19</sup> F( <sup>7</sup> Li, <sup>7</sup> Be), E ≈ 8 MeV / nucleon; measured excitation energy spectra. <sup>7</sup> He, <sup>11</sup> Be, <sup>15</sup> C, <sup>19</sup> O deduced excited states features. JOUR ZAANE 27 s01 283                   |
|                  | 2006SU12 | RADIOACTIVITY <sup>19,20</sup> N(β⁻), (β⁻n) [from Be( <sup>22</sup> Ne, X)]; measured β-delayed En, Eγ, βγ-, nγ-, nβ-coin, T <sub>1/2</sub> ; deduced β-emission and γ-emission probabilities, B(GT). <sup>18,19,20</sup> O deduced levels, β-feeding intensities. Shell model analysis. JOUR PRVCA 74 024322 |
| <sup>19</sup> F  | 2006CA19 | NUCLEAR REACTIONS <sup>7</sup> Li, <sup>12</sup> C, <sup>19</sup> F(p, p), E=3-7 MeV; measured σ(θ=150°). JOUR NIMBE 249 95   |
|                  | 2006CA20 | NUCLEAR REACTIONS <sup>19</sup> F(p, p'), (p, α), <sup>7</sup> Li(p, p'), (p, n), E=3.0-5.7 MeV; measured Eγ, γ-ray yields, σ(θ=135°). JOUR NIMBE 249 98  |
|                  | 2006GUZX | NUCLEAR REACTIONS <sup>19</sup> F(n, n'), E=0-3 MeV; measured σ(E). <sup>103</sup> Rh(n, X), E ≈ 0-5 MeV; measured transmission σ. <sup>55</sup> Mn(n, γ), E ≈ 1-10 keV; <sup>41</sup> K(n, γ), E ≈ 10-30 keV; measured capture σ. CONF Vancouver(PHYSOR-2006),C033,Guber                                     |
| <sup>19</sup> Ne | 2006CH30 | NUCLEAR REACTIONS <sup>1</sup> H( <sup>18</sup> F, α), E(cm) ≈ 663-877 keV; measured particle spectra, excitation functions; deduced resonance interference effects. <sup>19</sup> Ne deduced upper limits on resonance widths. R-matrix calculations. JOUR PRVCA 74 012801                                   |

**KEYNUMBERS AND KEYWORDS**

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**A=20**

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| $^{20}\text{N}$  | 2006OKZZ | NUCLEAR REACTIONS $^1\text{H}(^{21}\text{N}, \text{X})^{19}\text{N} / ^{20}\text{N}$ , E=72 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{19,20}\text{N}$ deduced transitions. REPT RIKEN 2005 Annual, P52, Okumura  |
|                  | 2006SU12 | RADIOACTIVITY $^{19,20}\text{N}(\beta^-)$ , $(\beta^-n)$ [from $\text{Be}^{(22)}\text{Ne}$ , X]; measured $\beta$ -delayed En, $E\gamma$ , $\beta\gamma$ -, $n\gamma$ -, $n\beta$ -coin, $T_{1/2}$ ; deduced $\beta$ -emission and $\gamma$ -emission probabilities, B(GT). $^{18,19,20}\text{O}$ deduced levels, $\beta$ -feeding intensities. Shell model analysis. JOUR PRVCA 74 024322   |
| $^{20}\text{O}$  | 2006SU12 | RADIOACTIVITY $^{19,20}\text{N}(\beta^-)$ , $(\beta^-n)$ [from $\text{Be}^{(22)}\text{Ne}$ , X]; measured $\beta$ -delayed En, $E\gamma$ , $\beta\gamma$ -, $n\gamma$ -, $n\beta$ -coin, $T_{1/2}$ ; deduced $\beta$ -emission and $\gamma$ -emission probabilities, B(GT). $^{18,19,20}\text{O}$ deduced levels, $\beta$ -feeding intensities. Shell model analysis. JOUR PRVCA 74 024322   |
| $^{20}\text{F}$  | 2006SZ05 | NUCLEAR REACTIONS $\text{F}(\text{n}, \text{X})^{20}\text{F}$ , E=cold; $\text{Na}(\text{n}, \text{X})^{24}\text{Na}$ , E=cold; $\text{Mn}, \text{Cl}(\text{n}, \text{X})^{38m}\text{Cl} / ^{38}\text{Cl} / ^{56}\text{Mn}$ , E=cold; $\text{Sc}(\text{n}, \text{X})^{46}\text{Sc}$ , E=cold; $\text{Br}(\text{n}, \text{X})^{80}\text{Br} / ^{82}\text{Br}$ , E=cold; $\text{I}(\text{n}, \text{X})^{127}\text{I}$ , E=cold; $\text{Hf}(\text{n}, \text{X})^{179m}\text{Hf}$ , E=cold; $\text{W}(\text{n}, \text{X})^{187}\text{W}$ , E=cold; $\text{Rb}(\text{n}, \text{X})^{86m}\text{Rb} / ^{88}\text{Rb}$ , E=cold; $\text{Ag}(\text{n}, \text{X})^{108}\text{Ag} / ^{110}\text{Ag}$ , E=cold; measured partial $\gamma$ -ray production $\sigma$ , $k_0$ factors. Chopped beam. JOUR NIMAE 564 655 |
| $^{20}\text{Ne}$ | 2006AG08 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, \text{n})$ , $(^{12}\text{C}, \text{p})$ , $(^{12}\text{C}, \alpha)$ , $E(\text{cm})=4.42-6.48$ MeV; measured $E\gamma$ , $I\gamma$ ; deduced fusion excitation functions. Comparison with previous results, barrier penetration model predictions. JOUR PRVCA 73 064601   |
|                  | 2006JE06 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, \text{p})$ , $(^{12}\text{C}, \text{n})$ , $(^{12}\text{C}, \alpha)$ , E=22 MeV; $^{12}\text{C}(^{20}\text{Ne}, \text{n})$ , $(^{20}\text{Ne}, \text{p})$ , E=32 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{23}\text{Mg}$ levels deduced J, $\pi$ . $^{31}\text{P}$ , $^{31}\text{S}$ deduced transitions. $^{22}\text{Na}(\text{p}, \gamma)$ , E=low; calculated astrophysical reaction rate, resonance contributions. Gammasphere array. JOUR ZAANE 27 s01 117   |
| $^{20}\text{Mg}$ | 2006IWZZ | NUCLEAR REACTIONS $\text{Pb}(^{20}\text{Mg}, ^{20}\text{Mg}')$ , E=58 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , $\sigma(E, \theta)$ following projectile Coulomb excitation. $^{20}\text{Mg}$ deduced transition B(E2). REPT RIKEN 2005 Annual, P59, Iwasa   |

**A=21**

|                  |          |  |
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| $^{21}\text{Ne}$ | 2006IA02 | RADIOACTIVITY $^{21}\text{Na}(\beta^+)$ [from $^1\text{H}(^{22}\text{Ne}, 2\text{n})$ ]; measured $E\gamma$ , $E\gamma$ , $\beta\gamma$ -coin; deduced branching ratios. Implication for standard model test discussed. JOUR PRVCA 74 015501 |
| $^{21}\text{Na}$ | 2006IA02 | RADIOACTIVITY $^{21}\text{Na}(\beta^+)$ [from $^1\text{H}(^{22}\text{Ne}, 2\text{n})$ ]; measured $E\gamma$ , $E\gamma$ , $\beta\gamma$ -coin; deduced branching ratios. Implication for standard model test discussed. JOUR PRVCA 74 015501 |

**A=22**

|                 |          |   |
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| $^{22}\text{O}$ | 2006EL05 | NUCLEAR REACTIONS $^2\text{H}(^{22}\text{O}, ^{22}\text{O}')$ , E=34 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, $\sigma(E)$ . $^{22}\text{O}$ deduced excited state energy, neutron and proton deformations. JOUR PRVCA 74 017306 |
|                 | 2006EL06 | NUCLEAR REACTIONS $^2\text{H}, \text{C}(^{22}\text{O}, ^{22}\text{O}')$ , E=34 MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{22}\text{O}$ deduced transition. JOUR ZAANE 27 s01 321  |

**A=22 (continued)**

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|                  | 2006ELZZ | NUCLEAR REACTIONS $^2\text{H}(^{22}\text{O}, ^{22}\text{O}')$ , E=34 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, $\sigma(E)$ . $^{22}\text{O}$ deduced excited state energy, neutron and proton deformations. REPT ATOMKI 2005 Annual,P11,Elekes |
| $^{22}\text{Ne}$ | 2006LI34 | RADIOACTIVITY $^{22}\text{Na}(\beta^+)$ [from $^{19}\text{F}(\alpha, n)$ ]; measured $T_{1/2}$ for source implanted in Pd metal; deduced shorter $T_{1/2}$ due to environmental effects. JOUR ZAANE 28 251  |
| $^{22}\text{Na}$ | 2006LI34 | RADIOACTIVITY $^{22}\text{Na}(\beta^+)$ [from $^{19}\text{F}(\alpha, n)$ ]; measured $T_{1/2}$ for source implanted in Pd metal; deduced shorter $T_{1/2}$ due to environmental effects. JOUR ZAANE 28 251  |
| $^{22}\text{Mg}$ | 2006HEZU | NUCLEAR REACTIONS $^1\text{H}(^{22}\text{Mg}, \text{p})$ , E not given; measured proton spectra. $^{23}\text{Al}$ deduced resonant states energies, $J, \pi$ , widths. REPT RIKEN 2005 Annual,P64,He  |
|                  | 2006HEZV | NUCLEAR REACTIONS $^1\text{H}(^{21}\text{Na}, ^{21}\text{Na})$ , $E(\text{cm}) \approx 0.5\text{-}3$ MeV; measured $\sigma(\theta)$ . $^{22}\text{Mg}$ deduced resonant states features. REPT RIKEN 2005 Annual,P60,He  |
|                  | 2006HEZW | NUCLEAR REACTIONS $^1\text{H}(^{22}\text{Mg}, \text{p})$ , $E < 4.38$ MeV / nucleon; measured $\sigma(E, \theta)$ . $^{23}\text{Al}$ deduced resonance energy, $J, \pi$ , width. CONF Tokyo(OMEG05),P395,He   |

**A=23**

|                  |          |   |
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| $^{23}\text{F}$  | 2006MI16 | NUCLEAR REACTIONS $^4\text{He}(^{22}\text{O}, ^{23}\text{F}\gamma)$ , $(^{23}\text{F}, ^{23}\text{F}\gamma)$ , $(^{24}\text{F}, ^{23}\text{F}\gamma)$ , $(^{25}\text{Ne}, ^{23}\text{F}\gamma)$ , $E \approx 3$ 5 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 PYLBB 638 146 |
| $^{23}\text{Na}$ | 2006AG08 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, \text{n})$ , $(^{12}\text{C}, \text{p})$ , $(^{12}\text{C}, \alpha)$ , $E(\text{cm})=4.42\text{-}6.48$ MeV; measured $E\gamma$ , $I\gamma$ ; deduced fusion excitation functions. Comparison with previous results, barrier penetration model predictions. JOUR PRVCA 73 064601   |
|                  | 2006DA14 | NUCLEAR MOMENTS $^{23}\text{Na}$ ; measured hfs; deduced hyperfine-coupling constants. Coherent-control spectroscopy. JOUR JPAMA 39 3111  |
|                  | 2006JE06 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, \text{p})$ , $(^{12}\text{C}, \text{n})$ , $(^{12}\text{C}, \alpha)$ , $E=22$ MeV; $^{12}\text{C}(^{20}\text{Ne}, \text{n})$ , $(^{20}\text{Ne}, \text{p})$ , $E=32$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{23}\text{Mg}$ levels deduced $J, \pi$ . $^{31}\text{P}$ , $^{31}\text{S}$ deduced transitions. $^{22}\text{Na}(\text{p}, \gamma)$ , $E=\text{low}$ ; calculated astrophysical reaction rate, resonance contributions. Gammasphere array. JOUR ZAANE 27 s01 117        |
| $^{23}\text{Mg}$ | 2006AG08 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, \text{n})$ , $(^{12}\text{C}, \text{p})$ , $(^{12}\text{C}, \alpha)$ , $E(\text{cm})=4.42\text{-}6.48$ MeV; measured $E\gamma$ , $I\gamma$ ; deduced fusion excitation functions. Comparison with previous results, barrier penetration model predictions. JOUR PRVCA 73 064601   |
|                  | 2006JE06 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, \text{p})$ , $(^{12}\text{C}, \text{n})$ , $(^{12}\text{C}, \alpha)$ , $E=22$ MeV; $^{12}\text{C}(^{20}\text{Ne}, \text{n})$ , $(^{20}\text{Ne}, \text{p})$ , $E=32$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{23}\text{Mg}$ levels deduced $J, \pi$ . $^{31}\text{P}$ , $^{31}\text{S}$ deduced transitions. $^{22}\text{Na}(\text{p}, \gamma)$ , $E=\text{low}$ ; calculated astrophysical reaction rate, resonance contributions. Gammasphere array. JOUR ZAANE 27 s01 117        |

**A=23 (continued)**

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| <sup>23</sup> Al | 20060Z04<br>2006HEZU<br>2006HEZW<br>20060Z04 | RADIOACTIVITY <sup>23</sup> Al( $\beta^+$ ), (EC) [from <sup>9</sup> Be( <sup>28</sup> Si, X)]; measured $\beta$ -asymmetry, $\beta$ -NMR spectrum from polarized source. <sup>23</sup> Al deduced ground-state $\mu$ , J, $\pi$ . JOUR PRVCA 74 021301<br>NUCLEAR REACTIONS <sup>1</sup> H( <sup>22</sup> Mg, p), E not given; measured proton spectra. <sup>23</sup> Al deduced resonant states energies, J, $\pi$ , widths. REPT RIKEN 2005 Annual,P64,He<br>NUCLEAR REACTIONS <sup>1</sup> H( <sup>22</sup> Mg, p), E < 4.38 MeV / nucleon; measured $\sigma(E, \theta)$ . <sup>23</sup> Al deduced resonance energy, J, $\pi$ , width. CONF Tokyo(OMEG05),P395,He<br>RADIOACTIVITY <sup>23</sup> Al( $\beta^+$ ), (EC) [from <sup>9</sup> Be( <sup>28</sup> Si, X)]; measured $\beta$ -asymmetry, $\beta$ -NMR spectrum from polarized source. <sup>23</sup> Al deduced ground-state $\mu$ , J, $\pi$ . JOUR PRVCA 74 021301 |
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**A=24**

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| <sup>24</sup> Na | 2006DE32             | NUCLEAR REACTIONS <sup>25</sup> Mg( <sup>11</sup> B, <sup>12</sup> C), ( <sup>11</sup> B, <sup>11</sup> B), ( <sup>11</sup> B, <sup>10</sup> Be), E=35 MeV; measured $\sigma(E, \theta)$ ; deduced spectroscopic factors. DWBA analysis. JOUR PRVCA 74 024604   |
|                  | 2006HI08             | NUCLEAR REACTIONS Be( <sup>18</sup> O, tX), E=120 MeV / nucleon; Be( <sup>16</sup> O, tX), E=150 MeV / nucleon; measured triton yields vs energy, target thickness. <sup>24</sup> Mg(t, <sup>3</sup> He), E=115 MeV / nucleon; measured excitation energy spectra. JOUR NIMAE 566 264   |
|                  | 2006SZ05             | NUCLEAR REACTIONS F(n, X) <sup>20</sup> F, E=cold; Na(n, X) <sup>24</sup> Na, E=cold; Mn, Cl(n, X) <sup>38m</sup> Cl / <sup>38</sup> Cl / <sup>56</sup> Mn, E=cold; Sc(n, X) <sup>46</sup> Sc, E=cold; Br(n, X) <sup>80</sup> Br / <sup>82</sup> Br, E=cold; I(n, X) <sup>127</sup> I, E=cold; Hf(n, X) <sup>179m</sup> Hf, E=cold; W(n, X) <sup>187</sup> W, E=cold; Rb(n, X) <sup>86m</sup> Rb / <sup>88</sup> Rb, E=cold; Ag(n, X) <sup>108</sup> Ag / <sup>110</sup> Ag, E=cold; measured partial $\gamma$ -ray production $\sigma$ , k <sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655  |
|                  | 2006UD01             | NUCLEAR REACTIONS Ag(d, X) <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>110m</sup> Ag / <sup>107</sup> Cd / <sup>109</sup> Cd, E ≈ 0.4-40 MeV; <sup>27</sup> Al(d, X) <sup>24</sup> Na, E ≈ 14-40 MeV; measured excitation functions; deduced thick target integral yields. Stacked-foil activation technique. JOUR ARISE 64 1013  |
| <sup>24</sup> Mg | 2006VAZZ             | NUCLEAR REACTIONS <sup>28</sup> Si(p, p'X) <sup>24</sup> Mg, E=1 GeV; measured E $\gamma$ , Ep, p $\gamma$ -coin; deduced $\sigma$ , reaction mechanism features. PREPRINT nucl-ex/0609001,09/1/2006  |
| <sup>24</sup> Al | 2006KU17             | NUCLEAR REACTIONS <sup>4</sup> He( <sup>14</sup> O, p), E(cm) ≈ 1-3.5 MeV; measured Ep. <sup>18</sup> Ne deduced resonance energies. <sup>1</sup> H( <sup>23</sup> Mg, <sup>23</sup> Mg), E(cm) ≈ 0.8-3.3 MeV; measured $\sigma(E, \theta)$ . <sup>24</sup> Al deduced possible resonance energies. JOUR ZAANE 27 s01 327   |
| <sup>24</sup> Si | 2006Y005<br>2006Y0ZZ | NUCLEAR REACTIONS <sup>9</sup> Be( <sup>34</sup> Ar, <sup>32</sup> ArX), ( <sup>30</sup> S, <sup>28</sup> SX), ( <sup>26</sup> Si, <sup>24</sup> SiX), E ≈ 110 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, parallel momentum distributions, yields following two-neutron knockout; deduced inclusive $\sigma$ , reaction mechanism features. <sup>24</sup> Si, <sup>28</sup> S, <sup>32</sup> Ar deduced levels, J, $\pi$ . JOUR PRVCA 74 021303<br>NUCLEAR REACTIONS <sup>9</sup> Be( <sup>34</sup> Ar, <sup>32</sup> ArX), ( <sup>30</sup> S, <sup>28</sup> SX), ( <sup>26</sup> Si, <sup>24</sup> SiX), E ≈ 110 MeV / nucleon; measured (particle) $\gamma$ -coin, two-neutron knockout $\sigma$ , $\sigma(E)$ . <sup>24</sup> Si, <sup>28</sup> S, <sup>32</sup> Ar deduced levels. PREPRINT nucl-ex/0607017,7/15/2006 |

**KEYNUMBERS AND KEYWORDS**

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**A=25**

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| $^{25}\text{Ne}$ | 2006TE04 | NUCLEAR REACTIONS $^9\text{Be}(^{26}\text{Ne}, \text{X})^{25}\text{Ne}$ , E=83 MeV / nucleon; $^9\text{Be}(^{28}\text{Ne}, \text{X})^{27}\text{Ne}$ , E=80 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (recoil) $\gamma$ -coin, longitudinal momentum distributions. $^{25,27}\text{Ne}$ deduced levels, J, $\pi$ . Comparison with shell model calculations. JOUR PYLBB 640 86 |
| $^{25}\text{Mg}$ | 2006DE32 | NUCLEAR REACTIONS $^{25}\text{Mg}(^{11}\text{B}, ^{12}\text{C})$ , $(^{11}\text{B}, ^{11}\text{B})$ , $(^{11}\text{B}, ^{10}\text{Be})$ , E=35 MeV; measured $\sigma(E, \theta)$ ; deduced spectroscopic factors. DWBA analysis. JOUR PRVCA 74 024604   |
| $^{25}\text{Al}$ | 2006CHZW | NUCLEAR REACTIONS $^1\text{H}(^{26}\text{Al}, \gamma)$ , E=201 keV / nucleon; measured $E\gamma$ , (recoil) $\gamma$ -coin. $^1\text{H}(^{25}\text{Al}, p)$ , E=3.4 MeV / nucleon; measured Ep. CONF Tokyo(OMEG05),P298,Chen  |

**A=26**

|                  |          |   |
|------------------|----------|---|
| $^{26}\text{Ne}$ | 2006GIZY | NUCLEAR REACTIONS $\text{Pb}(^{26}\text{Ne}, ^{26}\text{Ne}')$ , E=58 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , $\sigma(E, \theta)$ following projectile Coulomb excitation. $^{26}\text{Ne}$ deduced transition B(E2). REPT RIKEN 2005 Annual,P57,Gibelin    |
|                  | 2006GIZZ | NUCLEAR REACTIONS $\text{Pb}(^{26}\text{Ne}, ^{26}\text{Ne}')$ , E=58 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , $\sigma(E, \theta)$ following projectile Coulomb excitation. $^{26}\text{Ne}$ deduced transition B(E1). REPT RIKEN 2005 Annual,P56,Gibelin    |
| $^{26}\text{Na}$ | 2006ZE01 | NUCLEAR REACTIONS $^{26}\text{Mg}(t, ^3\text{He})$ , E=115 MeV / nucleon; $^{26}\text{Mg}(^3\text{He}, t)$ , E=140 MeV / nucleon; measured $\sigma(E, \theta)$ ; deduced Gamow-Teller transition strengths. Comparison with model predictions. JOUR PRVCA 74 024309 |
| $^{26}\text{Al}$ | 2006AR12 | NUCLEAR REACTIONS $^{25}\text{Mg}(p, \gamma)$ , E(cm)=189, 304, 374, 418 keV; measured yields; deduced resonance strengths. Accelerator mass spectrometry. Astrophysical implications discussed. JOUR PRVCA 74 025802   |
|                  | 2006DE32 | NUCLEAR REACTIONS $^{25}\text{Mg}(^{11}\text{B}, ^{12}\text{C})$ , $(^{11}\text{B}, ^{11}\text{B})$ , $(^{11}\text{B}, ^{10}\text{Be})$ , E=35 MeV; measured $\sigma(E, \theta)$ ; deduced spectroscopic factors. DWBA analysis. JOUR PRVCA 74 024604               |
|                  | 2006ERZZ | ATOMIC MASSES $^{26m}\text{Al}$ , $^{42}\text{Sc}$ , $^{46}\text{V}$ ; measured masses; deduced Q(EC). Comparison with previous results, implications for CKM matrix element discussed. PREPRINT nucl-ex/0606035,6/27/2006  |
|                  | 2006ZE01 | NUCLEAR REACTIONS $^{26}\text{Mg}(t, ^3\text{He})$ , E=115 MeV / nucleon; $^{26}\text{Mg}(^3\text{He}, t)$ , E=140 MeV / nucleon; measured $\sigma(E, \theta)$ ; deduced Gamow-Teller transition strengths. Comparison with model predictions. JOUR PRVCA 74 024309 |

**A=27**

|                  |          |   |
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| $^{27}\text{Ne}$ | 2006TE04 | NUCLEAR REACTIONS $^9\text{Be}(^{26}\text{Ne}, \text{X})^{25}\text{Ne}$ , E=83 MeV / nucleon; $^9\text{Be}(^{28}\text{Ne}, \text{X})^{27}\text{Ne}$ , E=80 MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (recoil) $\gamma$ -coin, longitudinal momentum distributions. $^{25,27}\text{Ne}$ deduced levels, J, $\pi$ . Comparison with shell model calculations. JOUR PYLBB 640 86 |
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**KEYNUMBERS AND KEYWORDS**

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**A=27 (*continued*)**

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| <sup>27</sup> Al | 2006WI15 | NUCLEAR REACTIONS <sup>27</sup> Al( <sup>98</sup> Ru, <sup>98</sup> Ru'), E=289 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin following projectile Coulomb excitation. <sup>98</sup> Ru deduced transitions B(E2). <sup>122</sup> Sn( <sup>62</sup> Ni, 4n), E=265 MeV; measured Doppler-shifted E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>180</sup> Pt deduced transitions T <sub>1/2</sub> , B(E2). Comparison with previous results, model predictions. JOUR PRVCA 74 024302 |
| <sup>27</sup> Si | 2006CHZW | NUCLEAR REACTIONS <sup>1</sup> H( <sup>26</sup> Al, $\gamma$ ), E=201 keV / nucleon; measured E $\gamma$ , (recoil) $\gamma$ -coin. <sup>1</sup> H( <sup>25</sup> Al, p), E=3.4 MeV / nucleon; measured Ep. CONF Tokyo(OMEG05),P298,Chen  |
|                  | 2006RU09 | NUCLEAR REACTIONS <sup>1</sup> H( <sup>26</sup> Al, $\gamma$ ), E=5.122, 5.226, 5.850 MeV; measured E $\gamma$ , (recoil) $\gamma$ -coin. <sup>26</sup> Al(p, $\gamma$ ), E(cm) $\approx$ 184 keV; deduced resonance strength. Astrophysical implications discussed. JOUR PRLTA 96 252501   |
| <sup>27</sup> P  | 2006T009 | NUCLEAR REACTIONS Pb( <sup>27</sup> P, p <sup>26</sup> Si), E=57 MeV / nucleon; measured relative energy spectra. <sup>27</sup> P deduced excited state width, mixing ratio. <sup>26</sup> Si(p, $\gamma$ ), E=low; deduced astrophysical reaction rate. JOUR ZAANE 27 s01 233  |

**A=28**

|                 |          |   |
|-----------------|----------|---|
| <sup>28</sup> S | 2006Y005 | NUCLEAR REACTIONS <sup>9</sup> Be( <sup>34</sup> Ar, <sup>32</sup> ArX), ( <sup>30</sup> S, <sup>28</sup> SX), ( <sup>26</sup> Si, <sup>24</sup> SiX), E $\approx$ 110 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, parallel momentum distributions, yields following two-neutron knockout; deduced inclusive $\sigma$ , reaction mechanism features. <sup>24</sup> Si, <sup>28</sup> S, <sup>32</sup> Ar deduced levels, J, $\pi$ . JOUR PRVCA 74 021303 |
|                 | 2006Y02Z | NUCLEAR REACTIONS <sup>9</sup> Be( <sup>34</sup> Ar, <sup>32</sup> ArX), ( <sup>30</sup> S, <sup>28</sup> SX), ( <sup>26</sup> Si, <sup>24</sup> SiX), E $\approx$ 110 MeV / nucleon; measured (particle) $\gamma$ -coin, two-neutron knockout $\sigma$ , $\sigma$ (E). <sup>24</sup> Si, <sup>28</sup> S, <sup>32</sup> Ar deduced levels. PREPRINT nucl-ex/0607017,7/15/2006  |

**A=29**

|                  |          |   |
|------------------|----------|---|
| <sup>29</sup> Mg | 2006LU09 | ATOMIC MASSES <sup>29,30,31,32,33</sup> Mg; measured mass. Comparison with other measurements and theory. Transmission mass spectrometer. JOUR ZAANE 28 129 |
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**A=30**

|                  |          |   |
|------------------|----------|---|
| <sup>30</sup> Mg | 2006LU09 | ATOMIC MASSES <sup>29,30,31,32,33</sup> Mg; measured mass. Comparison with other measurements and theory. Transmission mass spectrometer. JOUR ZAANE 28 129 |
|------------------|----------|---|

**A=31**

|                  |          |   |
|------------------|----------|---|
| $^{31}\text{Mg}$ | 2006LU09 | ATOMIC MASSES $^{29,30,31,32,33}\text{Mg}$ ; measured mass. Comparison with other measurements and theory. Transmission mass spectrometer.<br>JOUR ZAANE 28 129   |
| $^{31}\text{Al}$ | 2006KIZX | RADIOACTIVITY $^{31,32}\text{Al}(\beta^-)$ [from Nb( $^{40}\text{Ar}$ , X)]; measured $\beta$ -NMR spectra from polarized sources; deduce $\mu$ . REPT RIKEN 2005 Annual,P69,Kijima   |
|                  | 2006KIZX | NUCLEAR MOMENTS $^{31,32}\text{Al}$ ; measured $\beta$ -NMR spectra from polarized sources; deduced $\mu$ . REPT RIKEN 2005 Annual,P69,Kijima   |
| $^{31}\text{Si}$ | 2006KIZX | RADIOACTIVITY $^{31,32}\text{Al}(\beta^-)$ [from Nb( $^{40}\text{Ar}$ , X)]; measured $\beta$ -NMR spectra from polarized sources; deduce $\mu$ . REPT RIKEN 2005 Annual,P69,Kijima   |
| $^{31}\text{P}$  | 2006JE03 | NUCLEAR REACTIONS $^{12}\text{C}(^{20}\text{Ne}, \text{p})$ , $(^{20}\text{Ne}, \text{n})$ , $E=32$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{31}\text{S}$ , $^{31}\text{P}$ deduced high-spin levels, $J$ , $\pi$ . $^{31}\text{P}(\text{p}, \gamma)$ , $E=\text{low}$ ; deduced proton widths and resonance strengths, astrophysical reaction rates. Gammasphere array, fragment mass analyzer. JOUR PRVCA 73 065802  |
|                  | 2006JE06 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, \text{p})$ , $(^{12}\text{C}, \text{n})$ , $(^{12}\text{C}, \alpha)$ , $E=22$ MeV; $^{12}\text{C}(^{20}\text{Ne}, \text{n})$ , $(^{20}\text{Ne}, \text{p})$ , $E=32$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{23}\text{Mg}$ levels deduced $J$ , $\pi$ . $^{31}\text{P}$ , $^{31}\text{S}$ deduced transitions. $^{22}\text{Na}(\text{p}, \gamma)$ , $E=\text{low}$ ; calculated astrophysical reaction rate, resonance contributions. Gammasphere array. JOUR ZAANE 27 s01 117 |
| $^{31}\text{S}$  | 2006JE03 | NUCLEAR REACTIONS $^{12}\text{C}(^{20}\text{Ne}, \text{p})$ , $(^{20}\text{Ne}, \text{n})$ , $E=32$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{31}\text{S}$ , $^{31}\text{P}$ deduced high-spin levels, $J$ , $\pi$ . $^{31}\text{P}(\text{p}, \gamma)$ , $E=\text{low}$ ; deduced proton widths and resonance strengths, astrophysical reaction rates. Gammasphere array, fragment mass analyzer. JOUR PRVCA 73 065802  |
|                  | 2006JE06 | NUCLEAR REACTIONS $^{12}\text{C}(^{12}\text{C}, \text{p})$ , $(^{12}\text{C}, \text{n})$ , $(^{12}\text{C}, \alpha)$ , $E=22$ MeV; $^{12}\text{C}(^{20}\text{Ne}, \text{n})$ , $(^{20}\text{Ne}, \text{p})$ , $E=32$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{23}\text{Mg}$ levels deduced $J$ , $\pi$ . $^{31}\text{P}$ , $^{31}\text{S}$ deduced transitions. $^{22}\text{Na}(\text{p}, \gamma)$ , $E=\text{low}$ ; calculated astrophysical reaction rate, resonance contributions. Gammasphere array. JOUR ZAANE 27 s01 117 |

**A=32**

|                  |          |   |
|------------------|----------|---|
| $^{32}\text{Mg}$ | 2006FUZY | NUCLEAR REACTIONS $^4\text{He}(^{32}\text{Mg}, ^{32}\text{Mg}')$ , $E=42$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ . $^{32}\text{Mg}$ deduced transition. REPT RIKEN 2005 Annual,P62,Fukui |
|                  | 2006LU09 | ATOMIC MASSES $^{29,30,31,32,33}\text{Mg}$ ; measured mass. Comparison with other measurements and theory. Transmission mass spectrometer.<br>JOUR ZAANE 28 129                                 |
| $^{32}\text{Al}$ | 2006KIZX | RADIOACTIVITY $^{31,32}\text{Al}(\beta^-)$ [from Nb( $^{40}\text{Ar}$ , X)]; measured $\beta$ -NMR spectra from polarized sources; deduce $\mu$ . REPT RIKEN 2005 Annual,P69,Kijima             |
|                  | 2006KIZX | NUCLEAR MOMENTS $^{31,32}\text{Al}$ ; measured $\beta$ -NMR spectra from polarized sources; deduced $\mu$ . REPT RIKEN 2005 Annual,P69,Kijima   |
| $^{32}\text{Si}$ | 2006KIZX | RADIOACTIVITY $^{31,32}\text{Al}(\beta^-)$ [from Nb( $^{40}\text{Ar}$ , X)]; measured $\beta$ -NMR spectra from polarized sources; deduce $\mu$ . REPT RIKEN 2005 Annual,P69,Kijima             |

## KEYNUMBERS AND KEYWORDS

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### A=32 (*continued*)

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| <sup>32</sup> S  | 2006DEZY | NUCLEAR REACTIONS $^{12}\text{C}(^{20}\text{Ne}, \text{p}X)$ , $(^{20}\text{Ne}, \alpha\text{X})$ , E=145, 158, 170, 180, 200 MeV; measured Ep, E $\alpha$ , $\sigma(E, \theta)$ . $^{32}\text{S}$ deduced compound nucleus deformation. PREPRINT nucl-ex/0608037,8/18/2006   |
|                  | 2006JE03 | NUCLEAR REACTIONS $^{12}\text{C}(^{20}\text{Ne}, \text{p})$ , $(^{20}\text{Ne}, \text{n})$ , E=32 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{31}\text{S}$ , $^{31}\text{P}$ deduced high-spin levels, J, $\pi$ . $^{31}\text{P}(\text{p}, \gamma)$ , E=low; deduced proton widths and resonance strengths, astrophysical reaction rates. Gammasphere array, fragment mass analyzer. JOUR PRVCA 73 065802                               |
| <sup>32</sup> Ar | 2006Y005 | NUCLEAR REACTIONS $^9\text{Be}(^{34}\text{Ar}, ^{32}\text{Ar}X)$ , $(^{30}\text{S}, ^{28}\text{SX})$ , $(^{26}\text{Si}, ^{24}\text{Si}X)$ , E $\approx$ 110 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, parallel momentum distributions, yields following two-neutron knockout; deduced inclusive $\sigma$ , reaction mechanism features. $^{24}\text{Si}$ , $^{28}\text{S}$ , $^{32}\text{Ar}$ deduced levels, J, $\pi$ . JOUR PRVCA 74 021303 |
|                  | 2006YOZZ | NUCLEAR REACTIONS $^9\text{Be}(^{34}\text{Ar}, ^{32}\text{Ar}X)$ , $(^{30}\text{S}, ^{28}\text{SX})$ , $(^{26}\text{Si}, ^{24}\text{Si}X)$ , E $\approx$ 110 MeV / nucleon; measured (particle) $\gamma$ -coin, two-neutron knockout $\sigma$ , $\sigma(E)$ . $^{24}\text{Si}$ , $^{28}\text{S}$ , $^{32}\text{Ar}$ deduced levels. PREPRINT nucl-ex/0607017,7/15/2006  |

### A=33

|                  |          |  |
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| <sup>33</sup> Mg | 2006LU09 | ATOMIC MASSES $^{29,30,31,32,33}\text{Mg}$ ; measured mass. Comparison with other measurements and theory. Transmission mass spectrometer. JOUR ZAANE 28 129 |
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### A=34

|                 |          |   |
|-----------------|----------|---|
| <sup>34</sup> P | 2006KR07 | NUCLEAR REACTIONS $^{115}\text{In}(^{34}\text{S}, X)^{34}\text{P}$ / $^{36}\text{S}$ / $^{146}\text{Tb}$ / $^{145}\text{Gd}$ / $^{146}\text{Gd}$ , E=140 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, $\gamma$ -ray polarization. $^{34}\text{P}$ , $^{36}\text{S}$ deduced levels, J, $\pi$ , configurations. JOUR ZAANE 29 151 |
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### A=35

No references found

### A=36

|                  |          |   |
|------------------|----------|---|
| <sup>36</sup> Si | 2006LI32 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{36}\text{S}, X)$ , E=215 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (particle) $\gamma$ -coin, yields. $^{36}\text{Si}$ deduced levels, J, $\pi$ , B(E2). Comparison with shell model predictions, level systematics in neighboring nuclides discussed. JOUR PRVCA 74 014311                  |
| <sup>36</sup> S  | 2006KR07 | NUCLEAR REACTIONS $^{115}\text{In}(^{34}\text{S}, X)^{34}\text{P}$ / $^{36}\text{S}$ / $^{146}\text{Tb}$ / $^{145}\text{Gd}$ / $^{146}\text{Gd}$ , E=140 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin, $\gamma$ -ray polarization. $^{34}\text{P}$ , $^{36}\text{S}$ deduced levels, J, $\pi$ , configurations. JOUR ZAANE 29 151 |
| <sup>36</sup> Cl | 2006AZZZ | NUCLEAR REACTIONS Cl, K, Ca(n, X) $^{36}\text{Cl}$ , E=spectrum; measured production rates. REPT KEK Preprint 2005-99,Aze   |

**KEYNUMBERS AND KEYWORDS**

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

<sup>36</sup>Ca      2006BUZX      NUCLEAR REACTIONS <sup>9</sup>Be(<sup>37</sup>Ca, X)<sup>36</sup>Ca, E ≈ 61 MeV / nucleon; measured E $\gamma$ , I $\gamma$ . <sup>36</sup>Ca deduced excited state energy. REPT ATOMKI 2005 Annual, P12, Burger

**A=37**

No references found

**A=38**

<sup>38</sup>S      2006STZY      NUCLEAR REACTIONS <sup>197</sup>Au(<sup>38</sup>S, <sup>38</sup>S'), (<sup>40</sup>S, <sup>40</sup>S'), E ≈ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ ( $\theta$ , H, t), (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>38,40</sup>S levels deduced excitation B(E2), g factors. Transient field technique. PREPRINT nucl-ex/0609033, 9/21/2006

<sup>38</sup>Cl      2006SZ05      NUCLEAR REACTIONS F(n, X)<sup>20</sup>F, E=cold; Na(n, X)<sup>24</sup>Na, E=cold; Mn, Cl(n, X)<sup>38m</sup>Cl / <sup>38</sup>Cl / <sup>56</sup>Mn, E=cold; Sc(n, X)<sup>46</sup>Sc, E=cold; Br(n, X)<sup>80</sup>Br / <sup>82</sup>Br, E=cold; I(n, X)<sup>127</sup>I, E=cold; Hf(n, X)<sup>179m</sup>Hf, E=cold; W(n, X)<sup>187</sup>W, E=cold; Rb(n, X)<sup>86m</sup>Rb / <sup>88</sup>Rb, E=cold; Ag(n, X)<sup>108</sup>Ag / <sup>110</sup>Ag, E=cold; measured partial  $\gamma$ -ray production  $\sigma$ , k<sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655

**A=39**

No references found

**A=40**

<sup>40</sup>Si      2006CA26      NUCLEAR REACTIONS <sup>1</sup>H(<sup>40</sup>Si, <sup>40</sup>Si'), (<sup>42</sup>P, <sup>40</sup>SiX), E ≈ 80 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>40</sup>Si deduced excited states energies. Comparison with model predictions. JOUR PRLTA 97 112501

2006CAZY      NUCLEAR REACTIONS <sup>1</sup>H(<sup>40</sup>Si, <sup>40</sup>Si'), (<sup>42</sup>P, <sup>40</sup>SiX), E ≈ 80 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>40</sup>Si deduced excited states energies. Comparison with model predictions. PREPRINT nucl-ex/0608029, 8/15/2006

<sup>40</sup>S      2006STZY      NUCLEAR REACTIONS <sup>197</sup>Au(<sup>38</sup>S, <sup>38</sup>S'), (<sup>40</sup>S, <sup>40</sup>S'), E ≈ 40 MeV / nucleon; measured E $\gamma$ , I $\gamma$ ( $\theta$ , H, t), (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>38,40</sup>S levels deduced excitation B(E2), g factors. Transient field technique. PREPRINT nucl-ex/0609033, 9/21/2006

<sup>40</sup>Ca      2006DE33      NUCLEAR REACTIONS <sup>40</sup>Ca(<sup>16</sup>O, <sup>16</sup>O), E=214 MeV; measured  $\sigma(\theta)$ ; deduced Airy minimum, rainbow scattering. JOUR PANUE 69 1383

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**KEYNUMBERS AND KEYWORDS**

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**A=41**

No references found

**A=42**

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| $^{42}\text{Si}$ | 2006FRZZ | NUCLEAR REACTIONS $^9\text{Be}(^{44}\text{S}, \text{X})^{42}\text{Si} / ^{43}\text{P}$ , E=98.6 MeV / nucleon; $^9\text{Be}(^{46}\text{Ar}, \text{X})^{44}\text{S}$ , E=98.1 MeV / nucleon; measured $\text{E}\gamma$ , $\text{I}\gamma$ , particle spectra, (particle) $\gamma$ -coin; deduced one- and two-proton knockout $\sigma$ . PREPRINT nucl-ex/0608023,8/14/2006        |
|                  | 2006GRZZ | NUCLEAR REACTIONS $^9\text{Be}(^{44}\text{S}, \text{X})^{42}\text{Si}$ , E not given; measured $\text{E}\gamma$ , $\text{I}\gamma$ , (particle) $\gamma$ -coin; deduced $\sigma$ . $^{42}\text{Si}$ deduced excited state energy. REPT ATOMKI 2005 Annual,P13,Grevy   |
| $^{42}\text{K}$  | 2006GUZX | NUCLEAR REACTIONS $^{19}\text{F}(\text{n}, \text{n}')$ , E=0-3 MeV; measured $\sigma(E)$ . $^{103}\text{Rh}(\text{n}, \text{X})$ , E $\approx$ 0-5 MeV; measured transmission $\sigma$ . $^{55}\text{Mn}(\text{n}, \gamma)$ , E $\approx$ 1-10 keV; $^{41}\text{K}(\text{n}, \gamma)$ , E $\approx$ 10-30 keV; measured capture $\sigma$ . CONF Vancouver(PHYSOR-2006),C033,Guber |
| $^{42}\text{Sc}$ | 2006ERZZ | ATOMIC MASSES $^{26m}\text{Al}$ , $^{42}\text{Sc}$ , $^{46}\text{V}$ ; measured masses; deduced Q(EC). Comparison with previous results, implications for CKM matrix element discussed. PREPRINT nucl-ex/0606035,6/27/2006  |

**A=43**

|                  |          |  |
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| $^{43}\text{P}$  | 2006FRZZ | NUCLEAR REACTIONS $^9\text{Be}(^{44}\text{S}, \text{X})^{42}\text{Si} / ^{43}\text{P}$ , E=98.6 MeV / nucleon; $^9\text{Be}(^{46}\text{Ar}, \text{X})^{44}\text{S}$ , E=98.1 MeV / nucleon; measured $\text{E}\gamma$ , $\text{I}\gamma$ , particle spectra, (particle) $\gamma$ -coin; deduced one- and two-proton knockout $\sigma$ . PREPRINT nucl-ex/0608023,8/14/2006 |
| $^{43}\text{Cl}$ | 2006GAZX | NUCLEAR REACTIONS H, C( $^{46}\text{Ar}, \text{X}$ ) $^{43}\text{Cl} / ^{45}\text{Cl}$ , E=76.4 MeV; measured $\text{E}\gamma$ , $\text{I}\gamma$ , (particle) $\gamma$ -coin. $^{43,45}\text{Cl}$ deduced excited states energies. Level systematics in neighboring nuclides discussed. PREPRINT nucl-ex/0608014,8/8/2006   |

**A=44**

|                  |          |   |
|------------------|----------|---|
| $^{44}\text{S}$  | 2006FRZZ | NUCLEAR REACTIONS $^9\text{Be}(^{44}\text{S}, \text{X})^{42}\text{Si} / ^{43}\text{P}$ , E=98.6 MeV / nucleon; $^9\text{Be}(^{46}\text{Ar}, \text{X})^{44}\text{S}$ , E=98.1 MeV / nucleon; measured $\text{E}\gamma$ , $\text{I}\gamma$ , particle spectra, (particle) $\gamma$ -coin; deduced one- and two-proton knockout $\sigma$ . PREPRINT nucl-ex/0608023,8/14/2006  |
| $^{44}\text{Sc}$ | 2006S007 | NUCLEAR REACTIONS $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E $\approx$ 60-95 MeV; $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E $\approx$ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features. JOUR PRAMC 66 985 |

**KEYNUMBERS AND KEYWORDS**

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**A=45**

<sup>45</sup>Cl      2006GAZX      NUCLEAR REACTIONS H, C(<sup>46</sup>Ar, X)<sup>43</sup>Cl / <sup>45</sup>Cl, E=76.4 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>43,45</sup>Cl deduced excited states energies. Level systematics in neighboring nuclides discussed.  
PREPRINT nucl-ex/0608014,8/8/2006

**A=46**

<sup>46</sup>Sc      2006SI27      NUCLEAR REACTIONS Fe(p, X)<sup>46</sup>Sc / <sup>48</sup>V / <sup>51</sup>Cr / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>56</sup>Co, E=140-500 MeV; Ni(p, X)<sup>46</sup>Sc / <sup>48</sup>V / <sup>51</sup>Cr / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>56</sup>Ni / <sup>57</sup>Ni / <sup>59</sup>Fe, E=140-500 MeV; measured  $\sigma$ . Thin-target activation, comparison with previous results.  
JOUR NIMBE 251 1

2006SZ05      NUCLEAR REACTIONS F(n, X)<sup>20</sup>F, E=cold; Na(n, X)<sup>24</sup>Na, E=cold; Mn, Cl(n, X)<sup>38m</sup>Cl / <sup>38</sup>Cl / <sup>56</sup>Mn, E=cold; Sc(n, X)<sup>46</sup>Sc, E=cold; Br(n, X)<sup>80</sup>Br / <sup>82</sup>Br, E=cold; I(n, X)<sup>127</sup>I, E=cold; Hf(n, X)<sup>179m</sup>Hf, E=cold; W(n, X)<sup>187</sup>W, E=cold; Rb(n, X)<sup>86m</sup>Rb / <sup>88</sup>Rb, E=cold; Ag(n, X)<sup>108</sup>Ag / <sup>110</sup>Ag, E=cold; measured partial  $\gamma$ -ray production  $\sigma$ , k<sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655

<sup>46</sup>Ti      2006BRZY      NUCLEAR REACTIONS <sup>19</sup>F(<sup>27</sup>Al,  $\alpha$ X), E=144 MeV; measured E $\gamma$ , E $\alpha$ , (lig charged particle)(evaporation residue)-coin. <sup>46</sup>Ti deduced deformation, GDR decay features. PREPRINT nucl-ex/0608011,8/4/2006

2006JE04      NUCLEAR REACTIONS <sup>24</sup>Mg(<sup>28</sup>Si, np $\alpha$ ), (<sup>28</sup>Si, 2p $\alpha$ ), E=110 MeV; measured Doppler-shifted E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>46</sup>V, <sup>46</sup>Ti levels deduced T<sub>1/2</sub>, B(E1), B(E2). Euroball IV array, recoil-distance technique, differential decay curve method. JOUR PRVCA 74 021304

<sup>46</sup>V      2006ERZZ      ATOMIC MASSES <sup>26m</sup>Al, <sup>42</sup>Sc, <sup>46</sup>V; measured masses; deduced Q(EC). Comparison with previous results, implications for CKM matrix element discussed. PREPRINT nucl-ex/0606035,6/27/2006

2006JE04      NUCLEAR REACTIONS <sup>24</sup>Mg(<sup>28</sup>Si, np $\alpha$ ), (<sup>28</sup>Si, 2p $\alpha$ ), E=110 MeV; measured Doppler-shifted E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>46</sup>V, <sup>46</sup>Ti levels deduced T<sub>1/2</sub>, B(E1), B(E2). Euroball IV array, recoil-distance technique, differential decay curve method. JOUR PRVCA 74 021304

**A=47**

<sup>47</sup>Ar      2006GA28      NUCLEAR REACTIONS <sup>2</sup>H(<sup>46</sup>Ar, p), E=10.7 MeV / nucleon; measured Ep,  $\sigma$ (E,  $\theta$ ), (Argon)p-coin, excitation energy spectra. <sup>47</sup>Ar deduced single-neutron level energies, spectroscopic factors, shell gap reduction, spin-orbit interaction features. JOUR PRLTA 97 092501

2006GA30      NUCLEAR REACTIONS <sup>2</sup>H(<sup>46</sup>Ar, <sup>47</sup>Ar), E=10 MeV / nucleon; measured particle spectra,  $\sigma$ (E,  $\theta$ ). <sup>47</sup>Ar deduced levels, spectroscopic factors. Astrophysical implications discussed. JOUR ZAANE 27 s01 309

**KEYNUMBERS AND KEYWORDS**

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**A=47 (continued)**

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|------------------|----------|--|
| <sup>47</sup> Sc | 2005KHZV | NUCLEAR REACTIONS <sup>100</sup> Mo( $\gamma$ , n), E=22 MeV bremsstrahlung; <sup>48,49</sup> Ti( $\gamma$ , p), E=22 MeV bremsstrahlung; measured $\sigma$ . Activation technique, comparison with model predictions. CONF Ulaanbaatar (ISCP-III) Proc,P97,Khuukhenkhuu   |
|                  | 2006S007 | NUCLEAR REACTIONS <sup>66</sup> Zn( <sup>16</sup> O, xnyp) <sup>78</sup> Rb / <sup>79</sup> Rb / <sup>75</sup> Br / <sup>76</sup> Br / <sup>77</sup> Br / <sup>76</sup> Kr / <sup>77</sup> Kr / <sup>73</sup> Se / <sup>67</sup> Ge / <sup>69</sup> Ge / <sup>66</sup> Ga / <sup>67</sup> Ga, E ≈ 60-95 MeV; <sup>45</sup> Sc( <sup>37</sup> Cl, xnyp) <sup>78</sup> Rb / <sup>79</sup> Rb / <sup>75</sup> Br / <sup>76</sup> Br / <sup>77</sup> Br / <sup>76</sup> Kr / <sup>48</sup> V / <sup>44</sup> Sc / <sup>47</sup> Sc, E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features. JOUR PRAMC 66 985 |

**A=48**

|                  |          |  |
|------------------|----------|--|
| <sup>48</sup> Sc | 2005KHZV | NUCLEAR REACTIONS <sup>100</sup> Mo( $\gamma$ , n), E=22 MeV bremsstrahlung; <sup>48,49</sup> Ti( $\gamma$ , p), E=22 MeV bremsstrahlung; measured $\sigma$ . Activation technique, comparison with model predictions. CONF Ulaanbaatar (ISCP-III) Proc,P97,Khuukhenkhuu   |
| <sup>48</sup> V  | 2006SI27 | NUCLEAR REACTIONS Fe(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co, E=140-500 MeV; Ni(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>59</sup> Fe, E=140-500 MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1   |
|                  | 2006S007 | NUCLEAR REACTIONS <sup>66</sup> Zn( <sup>16</sup> O, xnyp) <sup>78</sup> Rb / <sup>79</sup> Rb / <sup>75</sup> Br / <sup>76</sup> Br / <sup>77</sup> Br / <sup>76</sup> Kr / <sup>77</sup> Kr / <sup>73</sup> Se / <sup>67</sup> Ge / <sup>69</sup> Ge / <sup>66</sup> Ga / <sup>67</sup> Ga, E ≈ 60-95 MeV; <sup>45</sup> Sc( <sup>37</sup> Cl, xnyp) <sup>78</sup> Rb / <sup>79</sup> Rb / <sup>75</sup> Br / <sup>76</sup> Br / <sup>77</sup> Br / <sup>76</sup> Kr / <sup>48</sup> V / <sup>44</sup> Sc / <sup>47</sup> Sc, E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features. JOUR PRAMC 66 985 |

**A=49**

No references found

**A=50**

|                  |          |   |
|------------------|----------|---|
| <sup>50</sup> Ca | 2006PE16 | RADIOACTIVITY <sup>51,52,53</sup> K( $\beta^-$ ), ( $\beta^-$ n) [from U(p, X)]; measured $\beta$ -delayed E $\gamma$ , En, $\gamma\gamma$ -, n $\gamma$ -coin, T <sub>1/2</sub> ; deduced one- and two-neutron emission probabilities. <sup>50,51,52,53</sup> Ca deduced transitions, levels. JOUR PRVCA 74 014313 |
| <sup>50</sup> V  | 2006LA12 | NUCLEAR REACTIONS <sup>51</sup> V( <sup>3</sup> He, <sup>3</sup> He'), ( <sup>3</sup> He, $\alpha$ ), E=30 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. <sup>50,51</sup> V deduced level densities, radiative strength functions. JOUR PRVCA 73 064301  |
| <sup>50</sup> Cr | 2006BA33 | RADIOACTIVITY <sup>50</sup> Mn( $\beta^+$ ) [from <sup>50</sup> Cr(p, n)]; measured E $\beta$ , T <sub>1/2</sub> . Comparison with previous results. JOUR PRVCA 73 064306   |
| <sup>50</sup> Mn | 2006BA33 | NUCLEAR REACTIONS <sup>50</sup> Cr(p, n), E=8.58-8.82 MeV; measured relative yields. JOUR PRVCA 73 064306   |

**KEYNUMBERS AND KEYWORDS**

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

2006BA33      RADIOACTIVITY  $^{50}\text{Mn}(\beta^+)$  [from  $^{50}\text{Cr}(p, n)$ ]; measured  $E\beta$ ,  $T_{1/2}$ . Comparison with previous results. JOUR PRVCA 73 064306

**A=51**

|                  |          |  |
|------------------|----------|--|
| $^{51}\text{K}$  | 2006PE16 | RADIOACTIVITY $^{51,52,53}\text{K}(\beta^-)$ , $(\beta^-n)$ [from $U(p, X)$ ]; measured $\beta$ -delayed $E\gamma$ , $En$ , $\gamma\gamma$ -, $n\gamma$ -coin, $T_{1/2}$ ; deduced one- and two-neutron emission probabilities. $^{50,51,52,53}\text{Ca}$ deduced transitions, levels. JOUR PRVCA 74 014313  |
| $^{51}\text{Ca}$ | 2006PE16 | RADIOACTIVITY $^{51,52,53}\text{K}(\beta^-)$ , $(\beta^-n)$ [from $U(p, X)$ ]; measured $\beta$ -delayed $E\gamma$ , $En$ , $\gamma\gamma$ -, $n\gamma$ -coin, $T_{1/2}$ ; deduced one- and two-neutron emission probabilities. $^{50,51,52,53}\text{Ca}$ deduced transitions, levels. JOUR PRVCA 74 014313  |
| $^{51}\text{V}$  | 2006LA12 | NUCLEAR REACTIONS $^{51}\text{V}(^3\text{He}, ^3\text{He}')$ , $(^3\text{He}, \alpha)$ , $E=30$ MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{50,51}\text{V}$ deduced level densities, radiative strength functions. JOUR PRVCA 73 064301  |
| $^{51}\text{Cr}$ | 2006SI27 | NUCLEAR REACTIONS $Fe(p, X)^{46}\text{Sc} / ^{48}\text{V} / ^{51}\text{Cr} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{56}\text{Co}$ , $E=140-500$ MeV; $Ni(p, X)^{46}\text{Sc} / ^{48}\text{V} / ^{51}\text{Cr} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{56}\text{Co} / ^{57}\text{Co} / ^{58}\text{Co} / ^{60}\text{Co} / ^{56}\text{Ni} / ^{57}\text{Ni} / ^{59}\text{Fe}$ , $E=140-500$ MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1 |

**A=52**

|                  |          |  |
|------------------|----------|--|
| $^{52}\text{K}$  | 2006PE16 | RADIOACTIVITY $^{51,52,53}\text{K}(\beta^-)$ , $(\beta^-n)$ [from $U(p, X)$ ]; measured $\beta$ -delayed $E\gamma$ , $En$ , $\gamma\gamma$ -, $n\gamma$ -coin, $T_{1/2}$ ; deduced one- and two-neutron emission probabilities. $^{50,51,52,53}\text{Ca}$ deduced transitions, levels. JOUR PRVCA 74 014313  |
| $^{52}\text{Ca}$ | 2006GA24 | NUCLEAR REACTIONS $^9\text{Be}(^{54}\text{Ti}, ^{52}\text{Ca}X)$ , $E=72$ MeV / nucleon; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin, longitudinal momentum distribution, yields following two-proton knockout; deduced inclusive $\sigma$ . $^{52}\text{Ca}$ deduced levels, $J$ , $\pi$ , configurations. JOUR PRVCA 74 021302  |
|                  | 2006PE16 | RADIOACTIVITY $^{51,52,53}\text{K}(\beta^-)$ , $(\beta^-n)$ [from $U(p, X)$ ]; measured $\beta$ -delayed $E\gamma$ , $En$ , $\gamma\gamma$ -, $n\gamma$ -coin, $T_{1/2}$ ; deduced one- and two-neutron emission probabilities. $^{50,51,52,53}\text{Ca}$ deduced transitions, levels. JOUR PRVCA 74 014313  |
| $^{52}\text{Mn}$ | 2006SI27 | NUCLEAR REACTIONS $Fe(p, X)^{46}\text{Sc} / ^{48}\text{V} / ^{51}\text{Cr} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{56}\text{Co}$ , $E=140-500$ MeV; $Ni(p, X)^{46}\text{Sc} / ^{48}\text{V} / ^{51}\text{Cr} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{56}\text{Co} / ^{57}\text{Co} / ^{58}\text{Co} / ^{60}\text{Co} / ^{56}\text{Ni} / ^{57}\text{Ni} / ^{59}\text{Fe}$ , $E=140-500$ MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1 |

**KEYNUMBERS AND KEYWORDS**

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**A=53**

|                  |          |   |
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| <sup>53</sup> K  | 2006PE16 | RADIOACTIVITY <sup>51,52,53</sup> K( $\beta^-$ ), ( $\beta^-$ n) [from U(p, X)]; measured $\beta$ -delayed E $\gamma$ , En, $\gamma\gamma$ -, n $\gamma$ -coin, T <sub>1/2</sub> ; deduced one- and two-neutron emission probabilities. <sup>50,51,52,53</sup> Ca deduced transitions, levels. JOUR PRVCA 74 014313 |
| <sup>53</sup> Ca | 2006PE16 | RADIOACTIVITY <sup>51,52,53</sup> K( $\beta^-$ ), ( $\beta^-$ n) [from U(p, X)]; measured $\beta$ -delayed E $\gamma$ , En, $\gamma\gamma$ -, n $\gamma$ -coin, T <sub>1/2</sub> ; deduced one- and two-neutron emission probabilities. <sup>50,51,52,53</sup> Ca deduced transitions, levels. JOUR PRVCA 74 014313 |

**A=54**

|                  |          |  |
|------------------|----------|--|
| <sup>54</sup> Mn | 2006DA20 | RADIOACTIVITY <sup>54</sup> Mn, <sup>125</sup> I, <sup>203</sup> Hg; measured E $\gamma$ , I $\gamma$ ; deduced photon emission probabilities. JOUR ARISE 64 1440  |
|                  | 2006SI27 | NUCLEAR REACTIONS Fe(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co, E=140-500 MeV; Ni(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>59</sup> Fe, E=140-500 MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1 |

**A=55**

|                  |          |   |
|------------------|----------|---|
| <sup>55</sup> Mn | 2006VA13 | RADIOACTIVITY <sup>55</sup> Fe(EC), ( $\beta^+$ ); measured T <sub>1/2</sub> . JOUR ARISE 64 1412 |
| <sup>55</sup> Fe | 2006VA13 | RADIOACTIVITY <sup>55</sup> Fe(EC), ( $\beta^+$ ); measured T <sub>1/2</sub> . JOUR ARISE 64 1412 |

**A=56**

|                  |          |  |
|------------------|----------|--|
| <sup>56</sup> Cr | 2006GAZW | NUCLEAR REACTIONS <sup>9</sup> Be( <sup>57</sup> Cr, <sup>56</sup> CrX), E=77 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , fragment parallel momentum distribution, inclusive $\sigma$ for one-neutron knockout. <sup>56</sup> Cr deduced levels, spectroscopic factors. PREPRINT nucl-ex/0608053,08/30/2006  |
| <sup>56</sup> Mn | 2006GUZX | NUCLEAR REACTIONS <sup>19</sup> F(n, n'), E=0-3 MeV; measured $\sigma$ (E). <sup>103</sup> Rh(n, X), E ≈ 0-5 MeV; measured transmission $\sigma$ . <sup>55</sup> Mn(n, $\gamma$ ), E ≈ 1-10 keV; <sup>41</sup> K(n, $\gamma$ ), E ≈ 10-30 keV; measured capture $\sigma$ . CONF Vancouver(PHYSOR-2006),C033,Guber  |
|                  | 2006SZ05 | NUCLEAR REACTIONS F(n, X) <sup>20</sup> F, E=cold; Na(n, X) <sup>24</sup> Na, E=cold; Mn, Cl(n, X) <sup>38m</sup> Cl / <sup>38</sup> Cl / <sup>56</sup> Mn, E=cold; Sc(n, X) <sup>46</sup> Sc, E=cold; Br(n, X) <sup>80</sup> Br / <sup>82</sup> Br, E=cold; I(n, X) <sup>127</sup> I, E=cold; Hf(n, X) <sup>179m</sup> Hf, E=cold; W(n, X) <sup>187</sup> W, E=cold; Rb(n, X) <sup>86m</sup> Rb / <sup>88</sup> Rb, E=cold; Ag(n, X) <sup>108</sup> Ag / <sup>110</sup> Ag, E=cold; measured partial $\gamma$ -ray production $\sigma$ , k <sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655 |
| <sup>56</sup> Fe | 2006V006 | NUCLEAR REACTIONS <sup>55</sup> Mn(d, n), E=7 MeV; measured En, $\sigma$ (E, $\theta$ ). <sup>56</sup> Fe deduced level density, $\gamma$ -strength function. JOUR PRVCA 74 014314   |

**KEYNUMBERS AND KEYWORDS**

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

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|------------------|----------|--|
| <sup>56</sup> Co | 2006SI27 | NUCLEAR REACTIONS Fe(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co, E=140-500 MeV; Ni(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>59</sup> Fe, E=140-500 MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1 |
| <sup>56</sup> Ni | 2006SI27 | NUCLEAR REACTIONS Fe(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co, E=140-500 MeV; Ni(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>59</sup> Fe, E=140-500 MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1 |
|                  | 2006YU09 | NUCLEAR REACTIONS <sup>9</sup> Be( <sup>57</sup> Ni, <sup>56</sup> NiX), E=73 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, parallel momentum distributions following one-neutron knockout; deduced inclusive $\sigma$ . <sup>56</sup> Ni levels deduced spectroscopic factors. <sup>57</sup> Ni levels deduced L. <sup>9</sup> Be( <sup>58</sup> Ni, X), E=105 MeV / nucleon; measured fragments isotopic yields. JOUR PRVCA 74 024304   |

**A=57**

|                  |          |  |
|------------------|----------|--|
| <sup>57</sup> Fe | 2006M026 | RADIOACTIVITY <sup>57</sup> Co(EC); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>57</sup> Fe levels deduced T <sub>1/2</sub> . Autocorrelation single-crystal time spectrometer. JOUR NIMAE 566 448   |
| <sup>57</sup> Co | 2006M026 | RADIOACTIVITY <sup>57</sup> Co(EC); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>57</sup> Fe levels deduced T <sub>1/2</sub> . Autocorrelation single-crystal time spectrometer. JOUR NIMAE 566 448   |
|                  | 2006SA26 | NUCLEAR REACTIONS <sup>58</sup> Ni( $\alpha$ , $\alpha'$ ), ( $\alpha$ , n $\alpha$ ), ( $\alpha$ , p $\alpha$ ), E=136 MeV; measured E $\gamma$ , E $\alpha$ , $\gamma\gamma$ -, $\alpha\gamma$ -coin. <sup>57</sup> Co, <sup>57,58</sup> Ni deduced transitions. JOUR NIMAE 564 267  |
|                  | 2006SI27 | NUCLEAR REACTIONS Fe(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co, E=140-500 MeV; Ni(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>59</sup> Fe, E=140-500 MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1 |
|                  | 2006TA21 | NUCLEAR REACTIONS Cu(d, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>65</sup> Ni / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>59</sup> Fe, E ≈ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56   |
| <sup>57</sup> Ni | 2006SA26 | NUCLEAR REACTIONS <sup>58</sup> Ni( $\alpha$ , $\alpha'$ ), ( $\alpha$ , n $\alpha$ ), ( $\alpha$ , p $\alpha$ ), E=136 MeV; measured E $\gamma$ , E $\alpha$ , $\gamma\gamma$ -, $\alpha\gamma$ -coin. <sup>57</sup> Co, <sup>57,58</sup> Ni deduced transitions. JOUR NIMAE 564 267  |
|                  | 2006SI27 | NUCLEAR REACTIONS Fe(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co, E=140-500 MeV; Ni(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>59</sup> Fe, E=140-500 MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1 |

**A=57 (continued)**

- 2006TA21 NUCLEAR REACTIONS Cu(d, X)<sup>62</sup>Zn / <sup>63</sup>Zn / <sup>65</sup>Zn / <sup>64</sup>Cu / <sup>57</sup>Ni / <sup>65</sup>Ni / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>59</sup>Fe, E ≈ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56
- 2006YU09 NUCLEAR REACTIONS <sup>9</sup>Be(<sup>57</sup>Ni, <sup>56</sup>NiX), E=73 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, parallel momentum distributions following one-neutron knockout; deduced inclusive  $\sigma$ . <sup>56</sup>Ni levels deduced spectroscopic factors. <sup>57</sup>Ni levels deduced L. <sup>9</sup>Be(<sup>58</sup>Ni, X), E=105 MeV / nucleon; measured fragments isotopic yields. JOUR PRVCA 74 024304

**A=58**

- <sup>58</sup>Co 2006SI27 NUCLEAR REACTIONS Fe(p, X)<sup>46</sup>Sc / <sup>48</sup>V / <sup>51</sup>Cr / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>56</sup>Co, E=140-500 MeV; Ni(p, X)<sup>46</sup>Sc / <sup>48</sup>V / <sup>51</sup>Cr / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>56</sup>Ni / <sup>57</sup>Ni / <sup>59</sup>Fe, E=140-500 MeV; measured  $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1
- 2006TA21 NUCLEAR REACTIONS Cu(d, X)<sup>62</sup>Zn / <sup>63</sup>Zn / <sup>65</sup>Zn / <sup>64</sup>Cu / <sup>57</sup>Ni / <sup>65</sup>Ni / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>59</sup>Fe, E ≈ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56
- <sup>58</sup>Ni 2006SA26 NUCLEAR REACTIONS <sup>58</sup>Ni( $\alpha$ ,  $\alpha'$ ), ( $\alpha$ , n $\alpha$ ), ( $\alpha$ , p $\alpha$ ), E=136 MeV; measured E $\gamma$ , E $\alpha$ ,  $\gamma\gamma$ -,  $\alpha\gamma$ -coin. <sup>57</sup>Co, <sup>57,58</sup>Ni deduced transitions. JOUR NIMAE 564 267

**A=59**

- <sup>59</sup>Fe 2006SI27 NUCLEAR REACTIONS Fe(p, X)<sup>46</sup>Sc / <sup>48</sup>V / <sup>51</sup>Cr / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>56</sup>Co, E=140-500 MeV; Ni(p, X)<sup>46</sup>Sc / <sup>48</sup>V / <sup>51</sup>Cr / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>56</sup>Ni / <sup>57</sup>Ni / <sup>59</sup>Fe, E=140-500 MeV; measured  $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1
- 2006TA21 NUCLEAR REACTIONS Cu(d, X)<sup>62</sup>Zn / <sup>63</sup>Zn / <sup>65</sup>Zn / <sup>64</sup>Cu / <sup>57</sup>Ni / <sup>65</sup>Ni / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>59</sup>Fe, E ≈ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56

**A=60**

- <sup>60</sup>Cr 2006TAZY NUCLEAR REACTIONS <sup>1</sup>H(<sup>60</sup>Cr, <sup>60</sup>Cr'), (<sup>62</sup>Cr, <sup>62</sup>Cr'), E not given; measured E $\gamma$ , I $\gamma$ . <sup>60,62</sup>Cr deduced transitions. REPT RIKEN 2005 Annual, P71, Takeshita

**KEYNUMBERS AND KEYWORDS**

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

|                  |          |  |
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| <sup>60</sup> Co | 2006SI27 | NUCLEAR REACTIONS Fe(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co, E=140-500 MeV; Ni(p, X) <sup>46</sup> Sc / <sup>48</sup> V / <sup>51</sup> Cr / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>56</sup> Ni / <sup>57</sup> Ni / <sup>59</sup> Fe, E=140-500 MeV; measured $\sigma$ . Thin-target activation, comparison with previous results. JOUR NIMBE 251 1 |
|                  | 2006TA21 | NUCLEAR REACTIONS Cu(d, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>65</sup> Ni / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>59</sup> Fe, E $\approx$ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56   |

**A=61**

|                  |          |   |
|------------------|----------|---|
| <sup>61</sup> Cu | 2006AB30 | NUCLEAR REACTIONS <sup>64,66,67</sup> Zn(d, X) <sup>64</sup> Cu / <sup>61</sup> Cu / <sup>65</sup> Zn / <sup>69m</sup> Zn / <sup>66</sup> Ga / <sup>67</sup> Ga, E=19.5; measured thick target yields. Zn(d, X) <sup>64</sup> Cu / <sup>61</sup> Cu / <sup>67</sup> Ga / <sup>65</sup> Zn / <sup>69m</sup> Zn / <sup>67</sup> Ga, E=10-19.5 MeV; calculated thick target yields. JOUR ARISE 64 1001 |
|                  | 2006AB30 | RADIOACTIVITY <sup>61,64</sup> Cu, <sup>66</sup> Ga, <sup>69m</sup> Zn [from Zn(d, X)]; measured T <sub>1/2</sub> . JOUR ARISE 64 1001  |

**A=62**

|                  |          |  |
|------------------|----------|--|
| <sup>62</sup> Cr | 2006TAZY | NUCLEAR REACTIONS <sup>1</sup> H( <sup>60</sup> Cr, <sup>60</sup> Cr'), ( <sup>62</sup> Cr, <sup>62</sup> Cr'), E not given; measured E $\gamma$ , I $\gamma$ . <sup>60,62</sup> Cr deduced transitions. REPT RIKEN 2005 Annual, P71, Takeshita  |
| <sup>62</sup> Zn | 2006HY02 | RADIOACTIVITY <sup>62</sup> Ga( $\beta^+$ ) [from Zr(p, X)]; measured E $\gamma$ , I $\gamma$ , $\beta\gamma$ -coin; deduced superallowed Fermi branching ratio, ft. <sup>62</sup> Zn deduced levels, J, $\pi$ . Comparison with model predictions. JOUR PRLTA 97 102501   |
|                  | 2006TA21 | NUCLEAR REACTIONS Cu(d, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>65</sup> Ni / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>59</sup> Fe, E $\approx$ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56 |
| <sup>62</sup> Ga | 2006HY02 | RADIOACTIVITY <sup>62</sup> Ga( $\beta^+$ ) [from Zr(p, X)]; measured E $\gamma$ , I $\gamma$ , $\beta\gamma$ -coin; deduced superallowed Fermi branching ratio, ft. <sup>62</sup> Zn deduced levels, J, $\pi$ . Comparison with model predictions. JOUR PRLTA 97 102501   |

**A=63**

|                  |          |  |
|------------------|----------|--|
| <sup>63</sup> Zn | 2006TA21 | NUCLEAR REACTIONS Cu(d, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>65</sup> Ni / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>59</sup> Fe, E $\approx$ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56 |
|------------------|----------|--|

**A=64**

|                  |          |   |
|------------------|----------|---|
| <sup>64</sup> Co | 2006POZY | NUCLEAR REACTIONS <sup>64</sup> Ni(d, 2p), E=171 MeV; measured particle spectra; $\sigma(E, \theta)$ . <sup>64</sup> Co deduced levels, B(GT). Comparison with previous results, model predictions. PREPRINT Popescu,8/17/2006  |
| <sup>64</sup> Ni | 2006WI12 | RADIOACTIVITY <sup>116</sup> Cd, <sup>130</sup> Te( $2\beta^-$ ); <sup>64</sup> Zn, <sup>120</sup> Te( $\beta^+$ EC), (2EC); measured $0\nu2\beta\beta$ -decay $T_{1/2}$ lower limits. CdZnTe semiconductor detectors. JOUR CZYPA 56 543  |
| <sup>64</sup> Cu | 2006AB30 | NUCLEAR REACTIONS <sup>64,66,67</sup> Zn(d, X) <sup>64</sup> Cu / <sup>61</sup> Cu / <sup>65</sup> Zn / <sup>69m</sup> Zn / <sup>66</sup> Ga / <sup>67</sup> Ga, E=19.5; measured thick target yields. Zn(d, X) <sup>64</sup> Cu / <sup>61</sup> Cu / <sup>67</sup> Cu / <sup>65</sup> Zn / <sup>69m</sup> Zn / <sup>67</sup> Ga, E=10-19.5 MeV; calculated thick target yields. JOUR ARISE 64 1001 |
|                  | 2006AB30 | RADIOACTIVITY <sup>61,64</sup> Cu, <sup>66</sup> Ga, <sup>69m</sup> Zn [from Zn(d, X)]; measured $T_{1/2}$ . JOUR ARISE 64 1001   |
|                  | 2006TA21 | NUCLEAR REACTIONS Cu(d, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>65</sup> Ni / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>59</sup> Fe, E $\approx$ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56                                      |
| <sup>64</sup> Zn | 2006WI12 | RADIOACTIVITY <sup>116</sup> Cd, <sup>130</sup> Te( $2\beta^-$ ); <sup>64</sup> Zn, <sup>120</sup> Te( $\beta^+$ EC), (2EC); measured $0\nu2\beta\beta$ -decay $T_{1/2}$ lower limits. CdZnTe semiconductor detectors. JOUR CZYPA 56 543  |

**A=65**

|                  |          |   |
|------------------|----------|---|
| <sup>65</sup> Ni | 2006TA21 | NUCLEAR REACTIONS Cu(d, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>65</sup> Ni / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>59</sup> Fe, E $\approx$ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56                                      |
| <sup>65</sup> Cu | 2006K031 | RADIOACTIVITY <sup>65</sup> Zn(EC), ( $\beta^+$ ); measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin, $T_{1/2}$ ; deduced photon emission probabilities. JOUR ARISE 64 1420  |
| <sup>65</sup> Zn | 2006AB30 | NUCLEAR REACTIONS <sup>64,66,67</sup> Zn(d, X) <sup>64</sup> Cu / <sup>61</sup> Cu / <sup>65</sup> Zn / <sup>69m</sup> Zn / <sup>66</sup> Ga / <sup>67</sup> Ga, E=19.5; measured thick target yields. Zn(d, X) <sup>64</sup> Cu / <sup>61</sup> Cu / <sup>67</sup> Cu / <sup>65</sup> Zn / <sup>69m</sup> Zn / <sup>67</sup> Ga, E=10-19.5 MeV; calculated thick target yields. JOUR ARISE 64 1001 |
|                  | 2006K031 | RADIOACTIVITY <sup>65</sup> Zn(EC), ( $\beta^+$ ); measured $E\gamma$ , $I\gamma$ , $\beta\gamma$ -coin, $T_{1/2}$ ; deduced photon emission probabilities. JOUR ARISE 64 1420  |
|                  | 2006TA21 | NUCLEAR REACTIONS Cu(d, X) <sup>62</sup> Zn / <sup>63</sup> Zn / <sup>65</sup> Zn / <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>65</sup> Ni / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>59</sup> Fe, E $\approx$ 3-50 MeV; measured excitation functions; deduced thick-target yields. Stacked-foil activation technique. JOUR NIMBE 251 56                                      |

**A=66**

|                  |          |   |
|------------------|----------|---|
| <sup>66</sup> Zn | 2006LE24 | NUCLEAR REACTIONS C( <sup>66</sup> Zn, <sup>66</sup> Zn'), E=180 MeV; measured $E\gamma$ , $I\gamma(\theta, H, t)$ , DSA, (recoil) $\gamma$ -coin following projectile Coulomb excitation. <sup>66</sup> Zn levels deduced $T_{1/2}$ , B(E2), g factors. Comparison with neighboring isotopes, shell-model calculations. JOUR PRVCA 73 064305 |
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**KEYNUMBERS AND KEYWORDS**

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**A=66 (*continued*)**

|                  |          |  |
|------------------|----------|--|
| <sup>66</sup> Ga | 2006AB30 | NUCLEAR REACTIONS $^{64,66,67}\text{Zn}(\text{d}, \text{X})^{64}\text{Cu} / ^{61}\text{Cu} / ^{65}\text{Zn} / ^{69m}\text{Zn}$ / $^{66}\text{Ga} / ^{67}\text{Ga}$ , E=19.5; measured thick target yields. $\text{Zn}(\text{d}, \text{X})^{64}\text{Cu} / ^{61}\text{Cu} / ^{67}\text{Cu} / ^{65}\text{Zn} / ^{69m}\text{Zn} / ^{67}\text{Ga}$ , E=10-19.5 MeV; calculated thick target yields. JOUR ARISE 64 1001   |
|                  | 2006AB30 | RADIOACTIVITY $^{61,64}\text{Cu}$ , $^{66}\text{Ga}$ , $^{69m}\text{Zn}$ [from $\text{Zn}(\text{d}, \text{X})$ ]; measured $T_{1/2}$ . JOUR ARISE 64 1001  |
|                  | 2006S007 | NUCLEAR REACTIONS $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E ≈ 60-95 MeV; $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features. JOUR PRAMC 66 985 |

**A=67**

|                  |          |   |
|------------------|----------|---|
| <sup>67</sup> Cu | 2006AB30 | NUCLEAR REACTIONS $^{64,66,67}\text{Zn}(\text{d}, \text{X})^{64}\text{Cu} / ^{61}\text{Cu} / ^{65}\text{Zn} / ^{69m}\text{Zn}$ / $^{66}\text{Ga} / ^{67}\text{Ga}$ , E=19.5; measured thick target yields. $\text{Zn}(\text{d}, \text{X})^{64}\text{Cu} / ^{61}\text{Cu} / ^{67}\text{Cu} / ^{65}\text{Zn} / ^{69m}\text{Zn} / ^{67}\text{Ga}$ , E=10-19.5 MeV; calculated thick target yields. JOUR ARISE 64 1001  |
| <sup>67</sup> Ga | 2006AB30 | NUCLEAR REACTIONS $^{64,66,67}\text{Zn}(\text{d}, \text{X})^{64}\text{Cu} / ^{61}\text{Cu} / ^{65}\text{Zn} / ^{69m}\text{Zn}$ / $^{66}\text{Ga} / ^{67}\text{Ga}$ , E=19.5; measured thick target yields. $\text{Zn}(\text{d}, \text{X})^{64}\text{Cu} / ^{61}\text{Cu} / ^{67}\text{Cu} / ^{65}\text{Zn} / ^{69m}\text{Zn} / ^{67}\text{Ga}$ , E=10-19.5 MeV; calculated thick target yields. JOUR ARISE 64 1001  |
|                  | 2006S007 | NUCLEAR REACTIONS $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E ≈ 60-95 MeV; $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features. JOUR PRAMC 66 985 |
| <sup>67</sup> Ge | 2006S007 | NUCLEAR REACTIONS $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E ≈ 60-95 MeV; $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features. JOUR PRAMC 66 985 |

**A=68**

No references found

**A=69**

|                  |          |  |
|------------------|----------|--|
| <sup>69</sup> Zn | 2006AB30 | NUCLEAR REACTIONS $^{64,66,67}\text{Zn}(\text{d}, \text{X})^{64}\text{Cu} / ^{61}\text{Cu} / ^{65}\text{Zn} / ^{69m}\text{Zn}$ / $^{66}\text{Ga} / ^{67}\text{Ga}$ , E=19.5; measured thick target yields. $\text{Zn}(\text{d}, \text{X})^{64}\text{Cu} / ^{61}\text{Cu} / ^{67}\text{Cu} / ^{65}\text{Zn} / ^{69m}\text{Zn} / ^{67}\text{Ga}$ , E=10-19.5 MeV; calculated thick target yields. JOUR ARISE 64 1001 |
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## KEYNUMBERS AND KEYWORDS

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### A=69 (*continued*)

|                  |          |   |
|------------------|----------|---|
|                  | 2006AB30 | RADIOACTIVITY $^{61,64}\text{Cu}$ , $^{66}\text{Ga}$ , $^{69m}\text{Zn}$ [from Zn(d, X)]; measured T <sub>1/2</sub> . JOUR ARISE 64 1001  |
| $^{69}\text{Ge}$ | 2006S007 | NUCLEAR REACTIONS $^{66}\text{Zn}({}^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / {}^{79}\text{Rb} / {}^{75}\text{Br} / {}^{76}\text{Br} / {}^{77}\text{Br} / {}^{76}\text{Kr} / {}^{77}\text{Kr} / {}^{73}\text{Se} / {}^{67}\text{Ge} / {}^{69}\text{Ge} / {}^{66}\text{Ga} / {}^{67}\text{Ga}$ , E ≈ 60-95 MeV; $^{45}\text{Sc}({}^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / {}^{79}\text{Rb} / {}^{75}\text{Br} / {}^{76}\text{Br} / {}^{77}\text{Br} / {}^{76}\text{Kr} / {}^{77}\text{Kr} / {}^{48}\text{V} / {}^{44}\text{Sc} / {}^{47}\text{Sc}$ , E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features. JOUR PRAMC 66 985 |

### A=70

|                  |          |  |
|------------------|----------|--|
| $^{70}\text{Ge}$ | 2006LE31 | NUCLEAR REACTIONS $^{12}\text{C}({}^{66}\text{Zn}, 2\alpha)$ , $({}^{66}\text{Zn}, {}^{66}\text{Zn}')$ , E=180 MeV; measured E $\gamma$ , I $\gamma$ (θ, H, t), $\alpha\gamma$ -coin, DSA. $^{70}\text{Ge}$ deduced levels, J, $\pi$ , T <sub>1/2</sub> , B(E2), g factor. Comparison with previous results, model predictions. JOUR PRVCA 74 024315 |
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### A=71

No references found

### A=72

No references found

### A=73

|                  |          |   |
|------------------|----------|---|
| $^{73}\text{Se}$ | 2006S007 | NUCLEAR REACTIONS $^{66}\text{Zn}({}^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / {}^{79}\text{Rb} / {}^{75}\text{Br} / {}^{76}\text{Br} / {}^{77}\text{Br} / {}^{76}\text{Kr} / {}^{77}\text{Kr} / {}^{73}\text{Se} / {}^{67}\text{Ge} / {}^{69}\text{Ge} / {}^{66}\text{Ga} / {}^{67}\text{Ga}$ , E ≈ 60-95 MeV; $^{45}\text{Sc}({}^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / {}^{79}\text{Rb} / {}^{75}\text{Br} / {}^{76}\text{Br} / {}^{77}\text{Br} / {}^{76}\text{Kr} / {}^{77}\text{Kr} / {}^{48}\text{V} / {}^{44}\text{Sc} / {}^{47}\text{Sc}$ , E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features. JOUR PRAMC 66 985 |
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### A=74

|                  |          |  |
|------------------|----------|--|
| $^{74}\text{Ni}$ | 2006KAZY | NUCLEAR REACTIONS $^1\text{H}({}^{74}\text{Ni}, {}^{74}\text{Ni}')$ , E not given; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. $^{74}\text{Ni}$ deduced transition. REPT RIKEN 2005 Annual, P72, Kanno                                 |
| $^{74}\text{Kr}$ | 2006ST14 | RADIOACTIVITY $^{74}\text{Rb}(\beta^+)$ [from $^{40}\text{Ca}({}^{36}\text{Ar}, \text{np})$ ]; measured E $\beta$ . JOUR NIMAE 565 630   |
| $^{74}\text{Rb}$ | 2006ST14 | NUCLEAR REACTIONS $^{40}\text{Ca}({}^{36}\text{Ar}, \text{np})$ , E=103 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{74}\text{Rb}$ deduced transitions. Recoil-beta tagging, mass separator. JOUR NIMAE 565 630 |

**KEYNUMBERS AND KEYWORDS**

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**A=74 (*continued*)**

2006ST14      RADIOACTIVITY  $^{74}\text{Rb}(\beta^+)$  [from  $^{40}\text{Ca}(^{36}\text{Ar}, \text{np})$ ]; measured E $\beta$ .  
JOUR NIMAE 565 630

**A=75**

$^{75}\text{Br}$       2006S007      NUCLEAR REACTIONS  $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E  $\approx$  60-95 MeV;  $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E  $\approx$  100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features.  
JOUR PRAMC 66 985

**A=76**

$^{76}\text{As}$       2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions.  
JOUR PRVCA 74 014610

$^{76}\text{Br}$       2006S007      NUCLEAR REACTIONS  $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E  $\approx$  60-95 MeV;  $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E  $\approx$  100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features.  
JOUR PRAMC 66 985

$^{76}\text{Kr}$       2006S007      NUCLEAR REACTIONS  $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E  $\approx$  60-95 MeV;  $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E  $\approx$  100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features.  
JOUR PRAMC 66 985

**A=77**

$^{77}\text{Br}$       2006S007      NUCLEAR REACTIONS  $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E  $\approx$  60-95 MeV;  $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E  $\approx$  100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features.  
JOUR PRAMC 66 985

**KEYNUMBERS AND KEYWORDS**

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**A=77 (continued)**

<sup>77</sup>Kr      2006S007      NUCLEAR REACTIONS  $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E ≈ 60-95 MeV;  $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features.  
JOUR PRAMC 66 985

**A=78**

<sup>78</sup>Rb      2006S007      NUCLEAR REACTIONS  $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E ≈ 60-95 MeV;  $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features.  
JOUR PRAMC 66 985

**A=79**

<sup>79</sup>Rb      2006SI26      NUCLEAR REACTIONS  $^{63}\text{Cu}(^{19}\text{F}, 2\text{np})$ , E=60 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, DSA.  $^{79}\text{Rb}$  deduced high-spin levels, T<sub>1/2</sub>, transition quadrupole moments. Comparison with Total Routhian Surface calculations. INGA array. JOUR ZAANE 28 277  
2006S007      NUCLEAR REACTIONS  $^{66}\text{Zn}(^{16}\text{O}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{73}\text{Se} / ^{67}\text{Ge} / ^{69}\text{Ge} / ^{66}\text{Ga} / ^{67}\text{Ga}$ , E ≈ 60-95 MeV;  $^{45}\text{Sc}(^{37}\text{Cl}, \text{xnyp})^{78}\text{Rb} / ^{79}\text{Rb} / ^{75}\text{Br} / ^{76}\text{Br} / ^{77}\text{Br} / ^{76}\text{Kr} / ^{77}\text{Kr} / ^{48}\text{V} / ^{44}\text{Sc} / ^{47}\text{Sc}$ , E ≈ 100-125 MeV; measured excitation functions; deduced entrance channel effects, other reaction mechanism features.  
JOUR PRAMC 66 985

**A=80**

<sup>80</sup>Br      2006SZ05      NUCLEAR REACTIONS F(n, X)<sup>20</sup>F, E=cold; Na(n, X)<sup>24</sup>Na, E=cold; Mn, Cl(n, X)<sup>38m</sup>Cl / <sup>38</sup>Cl / <sup>56</sup>Mn, E=cold; Sc(n, X)<sup>46</sup>Sc, E=cold; Br(n, X)<sup>80</sup>Br / <sup>82</sup>Br, E=cold; I(n, X)<sup>127</sup>I, E=cold; Hf(n, X)<sup>179m</sup>Hf, E=cold; W(n, X)<sup>187</sup>W, E=cold; Rb(n, X)<sup>86m</sup>Rb / <sup>88</sup>Rb, E=cold; Ag(n, X)<sup>108</sup>Ag / <sup>110</sup>Ag, E=cold; measured partial  $\gamma$ -ray production  $\sigma$ , k<sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655

**A=81**

No references found

**KEYNUMBERS AND KEYWORDS**

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**A=82**

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| <sup>82</sup> Br | 2006SZ05 | NUCLEAR REACTIONS F(n, X) <sup>20</sup> F, E=cold; Na(n, X) <sup>24</sup> Na, E=cold; Mn, Cl(n, X) <sup>38m</sup> Cl / <sup>38</sup> Cl / <sup>56</sup> Mn, E=cold; Sc(n, X) <sup>46</sup> Sc, E=cold; Br(n, X) <sup>80</sup> Br / <sup>82</sup> Br, E=cold; I(n, X) <sup>127</sup> I, E=cold; Hf(n, X) <sup>179m</sup> Hf, E=cold; W(n, X) <sup>187</sup> W, E=cold; Rb(n, X) <sup>86m</sup> Rb / <sup>88</sup> Rb, E=cold; Ag(n, X) <sup>108</sup> Ag / <sup>110</sup> Ag, E=cold; measured partial $\gamma$ -ray production $\sigma$ , $k_0$ factors. Chopped beam. JOUR NIMAE 564 655  |
|                  | 2006TR05 | NUCLEAR REACTIONS <sup>181</sup> Ta( <sup>20</sup> Ne, F) <sup>82</sup> Br / <sup>87</sup> Y / <sup>90m</sup> Y / <sup>91m</sup> Y / <sup>96</sup> Nb / <sup>99</sup> Mo / <sup>103</sup> Ru / <sup>105</sup> Ru / <sup>105</sup> Rh / <sup>117m</sup> Sn / <sup>120</sup> Sb, E=150 MeV; <sup>181</sup> Ta( <sup>20</sup> Ne, F) <sup>76</sup> As / <sup>82</sup> Br / <sup>87</sup> Y / <sup>90m</sup> Y / <sup>91m</sup> Y / <sup>89</sup> Zr / <sup>96</sup> Nb / <sup>99</sup> Mo / <sup>103</sup> Ru / <sup>105</sup> Rh / <sup>111</sup> In / <sup>117m</sup> Sn / <sup>118</sup> Sb, E=180 MeV; measured fission fragment yields, angular distributions. <sup>181</sup> Ta( <sup>20</sup> Ne, X) <sup>180</sup> Os / <sup>182</sup> Os / <sup>185</sup> Os / <sup>181</sup> Re / <sup>182</sup> Re / <sup>183</sup> Re / <sup>184</sup> Ir / <sup>186</sup> Ir / <sup>188</sup> Pt / <sup>189</sup> Pt / <sup>190</sup> Hg / <sup>191m</sup> Hg / <sup>192</sup> Hg / <sup>193m</sup> Hg / <sup>194m</sup> Tl, E=150, 180 MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |

**A=83**

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| <sup>83</sup> Ga | 2006PE20 | RADIOACTIVITY <sup>83</sup> Ga( $\beta^-$ ); <sup>84</sup> Ga( $\beta^-$ n) [from <sup>238</sup> U(n, F), E=fast]; measured E $\gamma$ , I $\gamma$ , E $\beta$ , I $\beta$ , $\gamma\gamma$ -coin, $\beta\gamma$ -coin. <sup>83</sup> Ge deduced levels, J, $\pi$ , transitions. Isotope separator. JOUR ZAANE 28 307 |
| <sup>83</sup> Ge | 2006PE20 | RADIOACTIVITY <sup>83</sup> Ga( $\beta^-$ ); <sup>84</sup> Ga( $\beta^-$ n) [from <sup>238</sup> U(n, F), E=fast]; measured E $\gamma$ , I $\gamma$ , E $\beta$ , I $\beta$ , $\gamma\gamma$ -coin, $\beta\gamma$ -coin. <sup>83</sup> Ge deduced levels, J, $\pi$ , transitions. Isotope separator. JOUR ZAANE 28 307 |

**A=84**

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| <sup>84</sup> Ga | 2006PE20 | RADIOACTIVITY <sup>83</sup> Ga( $\beta^-$ ); <sup>84</sup> Ga( $\beta^-$ n) [from <sup>238</sup> U(n, F), E=fast]; measured E $\gamma$ , I $\gamma$ , E $\beta$ , I $\beta$ , $\gamma\gamma$ -coin, $\beta\gamma$ -coin. <sup>83</sup> Ge deduced levels, J, $\pi$ , transitions. Isotope separator. JOUR ZAANE 28 307 |
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**A=85**

No references found

**A=86**

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| <sup>86</sup> Rb | 2006SZ05 | NUCLEAR REACTIONS F(n, X) <sup>20</sup> F, E=cold; Na(n, X) <sup>24</sup> Na, E=cold; Mn, Cl(n, X) <sup>38m</sup> Cl / <sup>38</sup> Cl / <sup>56</sup> Mn, E=cold; Sc(n, X) <sup>46</sup> Sc, E=cold; Br(n, X) <sup>80</sup> Br / <sup>82</sup> Br, E=cold; I(n, X) <sup>127</sup> I, E=cold; Hf(n, X) <sup>179m</sup> Hf, E=cold; W(n, X) <sup>187</sup> W, E=cold; Rb(n, X) <sup>86m</sup> Rb / <sup>88</sup> Rb, E=cold; Ag(n, X) <sup>108</sup> Ag / <sup>110</sup> Ag, E=cold; measured partial $\gamma$ -ray production $\sigma$ , $k_0$ factors. Chopped beam. JOUR NIMAE 564 655 |
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**A=87**

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| <sup>87</sup> Br | 2006P009 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{18}\text{O}, \text{X})$ , E=85 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{87}\text{Kr}$ deduced high-spin levels, J, $\pi$ , configurations. $^{87}\text{Br}$ deduced ground state J, $\pi$ . Euroball IV array. JOUR ZAANE 28 153  |
|                  | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br} / ^{88}\text{Br} / ^{89}\text{Br} / ^{91}\text{Br} / ^{93}\text{Kr} / ^{94}\text{Rb} / ^{95}\text{Rb} / ^{137}\text{I} / ^{138}\text{I} / ^{139}\text{I} / ^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607   |
| <sup>87</sup> Kr | 2006P009 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{18}\text{O}, \text{X})$ , E=85 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{87}\text{Kr}$ deduced high-spin levels, J, $\pi$ , configurations. $^{87}\text{Br}$ deduced ground state J, $\pi$ . Euroball IV array. JOUR ZAANE 28 153  |
| <sup>87</sup> Sr | 2006SA21 | NUCLEAR MOMENTS $^{87}\text{Sr}$ ; measured hfs; deduced quadrupole moment. JOUR PLRAA 73 062501   |
| <sup>87</sup> Y  | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV; $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |

**A=88**

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| <sup>88</sup> Br | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br} / ^{88}\text{Br} / ^{89}\text{Br} / ^{91}\text{Br} / ^{93}\text{Kr} / ^{94}\text{Rb} / ^{95}\text{Rb} / ^{137}\text{I} / ^{138}\text{I} / ^{139}\text{I} / ^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607  |
| <sup>88</sup> Rb | 2006SZ05 | NUCLEAR REACTIONS $\text{F}(\text{n}, \text{X})^{20}\text{F}$ , E=cold; $\text{Na}(\text{n}, \text{X})^{24}\text{Na}$ , E=cold; $\text{Mn}, \text{Cl}(\text{n}, \text{X})^{38m}\text{Cl} / ^{38}\text{Cl} / ^{56}\text{Mn}$ , E=cold; $\text{Sc}(\text{n}, \text{X})^{46}\text{Sc}$ , E=cold; $\text{Br}(\text{n}, \text{X})^{80}\text{Br} / ^{82}\text{Br}$ , E=cold; $\text{I}(\text{n}, \text{X})^{127}\text{I}$ , E=cold; $\text{Hf}(\text{n}, \text{X})^{179m}\text{Hf}$ , E=cold; $\text{W}(\text{n}, \text{X})^{187}\text{W}$ , E=cold; $\text{Rb}(\text{n}, \text{X})^{86m}\text{Rb} / ^{88}\text{Rb}$ , E=cold; $\text{Ag}(\text{n}, \text{X})^{108}\text{Ag} / ^{110}\text{Ag}$ , E=cold; measured partial $\gamma$ -ray production $\sigma$ , k <sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655 |
|                  | 2006WAZZ | NUCLEAR REACTIONS $^{82}\text{Se}(^{17}\text{N}, 5\text{n}\alpha), (^{17}\text{N}, 5\text{n}\text{p}\alpha), (^{17}\text{N}, 3\text{n}2\alpha)$ , E not given; measured prompt and delayed E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{90}\text{Y}$ deduced possible high-spin isomeric state. REPT RIKEN 2005 Annual, P75, Wakabayashi  |
| <sup>88</sup> Zr | 2006ER06 | NUCLEAR REACTIONS $^{197}\text{Au}, ^{100}\text{Mo}(\text{g}, \text{n}), ^{92}\text{Mo}(\text{g}, \text{n}), (\text{g}, \text{p}), (\text{g}, \alpha)$ , E ≈ 11.8-14 MeV bremsstrahlung; measured activation yields. JOUR ZAANE 27 s01 135  |

**KEYNUMBERS AND KEYWORDS**

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**A=89**

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| <sup>89</sup> Br | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br}$ / $^{88}\text{Br}$ / $^{89}\text{Br}$ / $^{91}\text{Br}$ / $^{93}\text{Kr}$ / $^{94}\text{Rb}$ / $^{95}\text{Rb}$ / $^{137}\text{I}$ / $^{138}\text{I}$ / $^{139}\text{I}$ / $^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607   |
| <sup>89</sup> Sr | 2006WAZZ | NUCLEAR REACTIONS $^{82}\text{Se}({}^{17}\text{N}, 5\text{n}\alpha)$ , $({}^{17}\text{N}, 5\text{n}\alpha\gamma)$ , $({}^{17}\text{N}, 3\text{n}2\alpha)$ , E not given; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. ${}^{90}\text{Y}$ deduced possible high-spin isomeric state. REPT RIKEN 2005 Annual,P75,Wakabayashi   |
| <sup>89</sup> Zr | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}({}^{20}\text{Ne}, \text{F})^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Ru}$ / $^{105}\text{Rh}$ / $^{117m}\text{Sn}$ / $^{120}\text{Sb}$ , E=150 MeV; $^{181}\text{Ta}({}^{20}\text{Ne}, \text{F})^{76}\text{As}$ / $^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{89}\text{Zr}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Rh}$ / $^{111}\text{In}$ / $^{117m}\text{Sn}$ / $^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}({}^{20}\text{Ne}, \text{X})^{180}\text{Os}$ / $^{182}\text{Os}$ / $^{185}\text{Os}$ / $^{181}\text{Re}$ / $^{182}\text{Re}$ / $^{183}\text{Re}$ / $^{184}\text{Ir}$ / $^{186}\text{Ir}$ / $^{188}\text{Pt}$ / $^{189}\text{Pt}$ / $^{190}\text{Hg}$ / $^{191m}\text{Hg}$ / $^{192}\text{Hg}$ / $^{193m}\text{Hg}$ / $^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |

**A=90**

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| <sup>90</sup> Y  | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}({}^{20}\text{Ne}, \text{F})^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Ru}$ / $^{105}\text{Rh}$ / $^{117m}\text{Sn}$ / $^{120}\text{Sb}$ , E=150 MeV; $^{181}\text{Ta}({}^{20}\text{Ne}, \text{F})^{76}\text{As}$ / $^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{89}\text{Zr}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Rh}$ / $^{111}\text{In}$ / $^{117m}\text{Sn}$ / $^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}({}^{20}\text{Ne}, \text{X})^{180}\text{Os}$ / $^{182}\text{Os}$ / $^{185}\text{Os}$ / $^{181}\text{Re}$ / $^{182}\text{Re}$ / $^{183}\text{Re}$ / $^{184}\text{Ir}$ / $^{186}\text{Ir}$ / $^{188}\text{Pt}$ / $^{189}\text{Pt}$ / $^{190}\text{Hg}$ / $^{191m}\text{Hg}$ / $^{192}\text{Hg}$ / $^{193m}\text{Hg}$ / $^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |
|                  | 2006WAZZ | NUCLEAR REACTIONS $^{82}\text{Se}({}^{17}\text{N}, 5\text{n}\alpha)$ , $({}^{17}\text{N}, 5\text{n}\alpha\gamma)$ , $({}^{17}\text{N}, 3\text{n}2\alpha)$ , E not given; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. ${}^{90}\text{Y}$ deduced possible high-spin isomeric state. REPT RIKEN 2005 Annual,P75,Wakabayashi   |
| <sup>90</sup> Zr | 2006HUZY | NUCLEAR REACTIONS ${}^{90}\text{Zr}$ , ${}^{208}\text{Pb}(\alpha, \alpha'\text{p})$ , E=200 MeV; measured Ep. ${}^{90}\text{Zr}$ deduced isoscalar GDR proton decay features. REPT ATOMKI 2005 Annual,P21,Hunyadi  |

**A=91**

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| <sup>91</sup> Br | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br}$ / $^{88}\text{Br}$ / $^{89}\text{Br}$ / $^{91}\text{Br}$ / $^{93}\text{Kr}$ / $^{94}\text{Rb}$ / $^{95}\text{Rb}$ / $^{137}\text{I}$ / $^{138}\text{I}$ / $^{139}\text{I}$ / $^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607 |
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**KEYNUMBERS AND KEYWORDS**

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**A=91 (*continued*)**

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| <sup>91</sup> Y  | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV; $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |
| <sup>91</sup> Nb | 2006ER06 | NUCLEAR REACTIONS $^{197}\text{Au}, ^{100}\text{Mo}(\gamma, \text{n}), ^{92}\text{Mo}(\gamma, \text{n}), (\gamma, \text{p}), (\gamma, \alpha)$ , E $\approx$ 11.8-14 MeV bremsstrahlung; measured activation yields. JOUR ZAANE 27 s01 135   |
| <sup>91</sup> Mo | 2006ER06 | NUCLEAR REACTIONS $^{197}\text{Au}, ^{100}\text{Mo}(\gamma, \text{n}), ^{92}\text{Mo}(\gamma, \text{n}), (\gamma, \text{p}), (\gamma, \alpha)$ , E $\approx$ 11.8-14 MeV bremsstrahlung; measured activation yields. JOUR ZAANE 27 s01 135   |
|                  | 2006RU11 | NUCLEAR REACTIONS $^{92,98,100}\text{Mo}(\gamma, \gamma')$ , E=14 MeV bremsstrahlung; measured $E\gamma, I\gamma$ . $^{91,98,100}\text{Mo}$ deduced dipole strength functions. JOUR ZAANE 27 s01 171   |

**A=92**

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| <sup>92</sup> Rb | 2006LH01 | RADIOACTIVITY $^{92,94}\text{Rb}, ^{92,94}\text{Sr}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$ ]; measured $E\gamma, I\gamma$ ; deduced absolute branching intensities. JOUR PRVCA 74 017308 |
| <sup>92</sup> Sr | 2006LH01 | RADIOACTIVITY $^{92,94}\text{Rb}, ^{92,94}\text{Sr}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$ ]; measured $E\gamma, I\gamma$ ; deduced absolute branching intensities. JOUR PRVCA 74 017308 |
| <sup>92</sup> Y  | 2006LH01 | RADIOACTIVITY $^{92,94}\text{Rb}, ^{92,94}\text{Sr}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$ ]; measured $E\gamma, I\gamma$ ; deduced absolute branching intensities. JOUR PRVCA 74 017308 |
| <sup>92</sup> Mo | 2006RU11 | NUCLEAR REACTIONS $^{92,98,100}\text{Mo}(\gamma, \gamma')$ , E=14 MeV bremsstrahlung; measured $E\gamma, I\gamma$ . $^{91,98,100}\text{Mo}$ deduced dipole strength functions. JOUR ZAANE 27 s01 171   |

**A=93**

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| <sup>93</sup> Kr | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}, ^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br} / ^{88}\text{Br} / ^{89}\text{Br} / ^{91}\text{Br} / ^{93}\text{Kr} / ^{94}\text{Rb} / ^{95}\text{Rb} / ^{137}\text{I} / ^{138}\text{I} / ^{139}\text{I} / ^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607 |
| <sup>93</sup> Nb | 2006OR09 | NUCLEAR REACTIONS $^{93}\text{Nb}(\text{n}, \text{n}')$ , E=1.5-3 MeV; $^{94}\text{Zr}(\text{p}, 2\text{n})$ , E=11.5-19 MeV; measured $E\gamma, I\gamma, \gamma\gamma\text{-coin}$ , DSA. $^{93}\text{Nb}$ deduced levels $J, \pi$ , configurations, $T_{1/2}$ , B(M1), B(E2). Comparison with shell model predictions. JOUR PRLTA 97 062504                             |

## KEYNUMBERS AND KEYWORDS

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### A=93 (*continued*)

2006ORZZ NUCLEAR REACTIONS  $^{93}\text{Nb}(\text{n}, \text{n}')$ , E=1.5-3 MeV;  $^{94}\text{Zr}(\text{p}, 2\text{n})$ , E=11.5-19 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin, DSA, excitation functions.  $^{93}\text{Nb}$  deduced levels, J,  $\pi$ ,  $T_{1/2}$ , mixed-symmetry states. PREPRINT nucl-ex/0607026, 7/24/2006

### A=94

|                  |          |   |
|------------------|----------|---|
| $^{94}\text{Rb}$ | 2006LH01 | RADIOACTIVITY $^{92,94}\text{Rb}$ , $^{92,94}\text{Sr}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$ ]; measured $E\gamma$ , $I\gamma$ ; deduced absolute branching intensities. JOUR PRVCA 74 017308  |
|                  | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})$ / $^{87}\text{Br}$ / $^{88}\text{Br}$ / $^{89}\text{Br}$ / $^{91}\text{Br}$ / $^{93}\text{Kr}$ / $^{94}\text{Rb}$ / $^{95}\text{Rb}$ / $^{137}\text{I}$ / $^{138}\text{I}$ / $^{139}\text{I}$ / $^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607 |
| $^{94}\text{Sr}$ | 2006LH01 | RADIOACTIVITY $^{92,94}\text{Rb}$ , $^{92,94}\text{Sr}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$ ]; measured $E\gamma$ , $I\gamma$ ; deduced absolute branching intensities. JOUR PRVCA 74 017308  |
| $^{94}\text{Y}$  | 2006LH01 | RADIOACTIVITY $^{92,94}\text{Rb}$ , $^{92,94}\text{Sr}(\beta^-)$ [from $^{238}\text{U}(\text{p}, \text{F})$ ]; measured $E\gamma$ , $I\gamma$ ; deduced absolute branching intensities. JOUR PRVCA 74 017308  |
| $^{94}\text{Ru}$ | 2006BA55 | RADIOACTIVITY $^{94}\text{Pd}$ , $^{94m}\text{Rh}(\beta^+)$ , (EC) [from $^{58}\text{Ni}(^{40}\text{Ca}, 2\text{n}2\text{p})$ and subsequent decay]; measured $E\gamma$ , $E\beta$ , $\gamma\gamma$ -, $\beta\gamma$ -coin, $T_{1/2}$ ; deduced Q(EC), Gamow-Teller strength distributions. Total absorption spectrometer. JOUR ZAANE 29 175  |
| $^{94}\text{Rh}$ | 2006BA55 | RADIOACTIVITY $^{94}\text{Pd}$ , $^{94m}\text{Rh}(\beta^+)$ , (EC) [from $^{58}\text{Ni}(^{40}\text{Ca}, 2\text{n}2\text{p})$ and subsequent decay]; measured $E\gamma$ , $E\beta$ , $\gamma\gamma$ -, $\beta\gamma$ -coin, $T_{1/2}$ ; deduced Q(EC), Gamow-Teller strength distributions. Total absorption spectrometer. JOUR ZAANE 29 175  |
| $^{94}\text{Pd}$ | 2006BA55 | RADIOACTIVITY $^{94}\text{Pd}$ , $^{94m}\text{Rh}(\beta^+)$ , (EC) [from $^{58}\text{Ni}(^{40}\text{Ca}, 2\text{n}2\text{p})$ and subsequent decay]; measured $E\gamma$ , $E\beta$ , $\gamma\gamma$ -, $\beta\gamma$ -coin, $T_{1/2}$ ; deduced Q(EC), Gamow-Teller strength distributions. Total absorption spectrometer. JOUR ZAANE 29 175  |

### A=95

|                  |          |   |
|------------------|----------|---|
| $^{95}\text{Rb}$ | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})$ / $^{87}\text{Br}$ / $^{88}\text{Br}$ / $^{89}\text{Br}$ / $^{91}\text{Br}$ / $^{93}\text{Kr}$ / $^{94}\text{Rb}$ / $^{95}\text{Rb}$ / $^{137}\text{I}$ / $^{138}\text{I}$ / $^{139}\text{I}$ / $^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607 |
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**KEYNUMBERS AND KEYWORDS**

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**A=96**

<sup>96</sup>Nb      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

**A=97**

No references found

**A=98**

<sup>98</sup>Mo      2006RU11      NUCLEAR REACTIONS  $^{92,98,100}\text{Mo}(\gamma, \gamma')$ , E=14 MeV bremsstrahlung; measured  $E\gamma, I\gamma, ^{91,98,100}\text{Mo}$  deduced dipole strength functions. JOUR ZAANE 27 s01 171

<sup>98</sup>Ru      2006WI15      NUCLEAR REACTIONS  $^{27}\text{Al}(^{98}\text{Ru}, ^{98}\text{Ru}')$ , E=289 MeV; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin following projectile Coulomb excitation.  $^{98}\text{Ru}$  deduced transitions B(E2).  $^{122}\text{Sn}(^{62}\text{Ni}, 4n)$ , E=265 MeV; measured Doppler-shifted  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{180}\text{Pt}$  deduced transitions  $T_{1/2}$ , B(E2). Comparison with previous results, model predictions. JOUR PRVCA 74 024302

**A=99**

<sup>99</sup>Mo      2005KHZV      NUCLEAR REACTIONS  $^{100}\text{Mo}(\gamma, n)$ , E=22 MeV bremsstrahlung;  $^{48,49}\text{Ti}(\gamma, p)$ , E=22 MeV bremsstrahlung; measured  $\sigma$ . Activation technique, comparison with model predictions. CONF Ulaanbaatar (ISCP-III) Proc,P97,Khuukhenkhuu

2006ER06      NUCLEAR REACTIONS  $^{197}\text{Au}, ^{100}\text{Mo}(\gamma, n), ^{92}\text{Mo}(\gamma, n), (\gamma, p), (\gamma, \alpha)$ , E  $\approx$  11.8-14 MeV bremsstrahlung; measured activation yields. JOUR ZAANE 27 s01 135

2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

<sup>99</sup>Tc      2006CA25      RADIOACTIVITY  $^{99m}\text{Tc}(\text{IT}), (\beta^-)$ ; measured  $T_{1/2}$ . JOUR ARISE 64 1425

## KEYNUMBERS AND KEYWORDS

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### A=99 (*continued*)

<sup>99</sup>Ru      2006CA25      RADIOACTIVITY <sup>99m</sup>Tc(IT), ( $\beta^-$ ); measured T<sub>1/2</sub>. JOUR ARISE 64 1425

### A=100

<sup>100</sup>Zr      2006HW04      RADIOACTIVITY <sup>252</sup>Cf(SF); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>100</sup>Zr deduced high-spin levels, J,  $\pi$ . Gammasphere array. JOUR PRVCA 74 017303

<sup>100</sup>Mo      2006RU11      NUCLEAR REACTIONS <sup>92,98,100</sup>Mo( $\gamma$ ,  $\gamma'$ ), E=14 MeV bremsstrahlung; measured E $\gamma$ , I $\gamma$ . <sup>91,98,100</sup>Mo deduced dipole strength functions. JOUR ZAANE 27 s01 171

### A=101

<sup>101</sup>Sn      2006LI41      RADIOACTIVITY <sup>109</sup>Xe, <sup>105</sup>Te( $\alpha$ ) [from <sup>54</sup>Fe(<sup>58</sup>Ni, 3n) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. <sup>109</sup>Xe, <sup>105</sup>Te, <sup>101</sup>Sn deduced levels, J,  $\pi$ . JOUR PRLTA 97 082501

2006SE08      RADIOACTIVITY <sup>105</sup>Te( $\alpha$ ) [from <sup>50</sup>Cr(<sup>58</sup>Ni, 3n)]; measured Q $\alpha$ , T<sub>1/2</sub>. Comparison with neighboring isotopes, model predictions. JOUR PRVCA 73 061301

### A=102

No references found

### A=103

<sup>103</sup>Ru      2006TR05      NUCLEAR REACTIONS <sup>181</sup>Ta(<sup>20</sup>Ne, F)<sup>82</sup>Br / <sup>87</sup>Y / <sup>90m</sup>Y / <sup>91m</sup>Y / <sup>96</sup>Nb / <sup>99</sup>Mo / <sup>103</sup>Ru / <sup>105</sup>Ru / <sup>105</sup>Rh / <sup>117m</sup>Sn / <sup>120</sup>Sb, E=150 MeV; <sup>181</sup>Ta(<sup>20</sup>Ne, F)<sup>76</sup>As / <sup>82</sup>Br / <sup>87</sup>Y / <sup>90m</sup>Y / <sup>91m</sup>Y / <sup>89</sup>Zr / <sup>96</sup>Nb / <sup>99</sup>Mo / <sup>103</sup>Ru / <sup>105</sup>Rh / <sup>111</sup>In / <sup>117m</sup>Sn / <sup>118</sup>Sb, E=180 MeV; measured fission fragment yields, angular distributions. <sup>181</sup>Ta(<sup>20</sup>Ne, X)<sup>180</sup>Os / <sup>182</sup>Os / <sup>185</sup>Os / <sup>181</sup>Re / <sup>182</sup>Re / <sup>183</sup>Re / <sup>184</sup>Ir / <sup>186</sup>Ir / <sup>188</sup>Pt / <sup>189</sup>Pt / <sup>190</sup>Hg / <sup>191m</sup>Hg / <sup>192</sup>Hg / <sup>193m</sup>Hg / <sup>194m</sup>Tl, E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

### A=104

<sup>104</sup>Mo      2006J005      RADIOACTIVITY <sup>252</sup>Cf(SF); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>104,106,108</sup>Mo deduced levels, J,  $\pi$ , configurations, collective bands features. <sup>106</sup>Mo deduced possible chiral doublet bands. Gammasphere array. JOUR PANUE 69 1198

**A=104 (continued)**

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| $^{104}\text{Cd}$ | 2006KA44 | RADIOACTIVITY $^{105}\text{Sn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from $^{50}\text{Cr}(^{58}\text{Ni}, \text{n}2\text{p})$ ]; measured $E\gamma$ , $E\beta$ , $E\text{p}$ , $\beta\gamma$ -, $\beta\text{p}$ -coin, $T_{1/2}$ ; deduced branching ratios. $^{105}\text{In}$ deduced isomer feeding intensity, transition ICC. Total absorption spectrometer. JOUR ZAANE 29 183  |
| <b>A=105</b>      |          |  |
| $^{105}\text{Ru}$ | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , $E=150$ MeV; $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , $E=180$ MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , $E=150, 180$ MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |
| $^{105}\text{Rh}$ | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , $E=150$ MeV; $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , $E=180$ MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , $E=150, 180$ MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |
| $^{105}\text{Ag}$ | 2006EG04 | NUCLEAR REACTIONS $^{48}\text{Ti}, ^{76,77,78,80,82}\text{Se}$ , $^{106,110,111,112,114,116}\text{Cd}(\mu^-, \text{n}\nu)$ , $E$ at rest; measured $E\gamma$ , $I\gamma$ ; deduced muon capture rates. Comparison with model predictions, implications for $2\beta$ -decay matrix elements discussed. JOUR CZYPA 56 453  |
|                   | 2006UD01 | NUCLEAR REACTIONS $\text{Ag}(\text{d}, \text{X})^{105}\text{Ag} / ^{106m}\text{Ag} / ^{110m}\text{Ag} / ^{107}\text{Cd} / ^{109}\text{Cd}$ , $E \approx 0.4\text{-}40$ MeV; $^{27}\text{Al}(\text{d}, \text{X})^{24}\text{Na}$ , $E \approx 14\text{-}40$ MeV; measured excitation functions; deduced thick target integral yields. Stacked-foil activation technique. JOUR ARISE 64 1013  |
| $^{105}\text{In}$ | 2006KA44 | RADIOACTIVITY $^{105}\text{Sn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from $^{50}\text{Cr}(^{58}\text{Ni}, \text{n}2\text{p})$ ]; measured $E\gamma$ , $E\beta$ , $E\text{p}$ , $\beta\gamma$ -, $\beta\text{p}$ -coin, $T_{1/2}$ ; deduced branching ratios. $^{105}\text{In}$ deduced isomer feeding intensity, transition ICC. Total absorption spectrometer. JOUR ZAANE 29 183  |
| $^{105}\text{Sn}$ | 2006KA44 | RADIOACTIVITY $^{105}\text{Sn}(\beta^+)$ , (EC), ( $\beta^+$ p) [from $^{50}\text{Cr}(^{58}\text{Ni}, \text{n}2\text{p})$ ]; measured $E\gamma$ , $E\beta$ , $E\text{p}$ , $\beta\gamma$ -, $\beta\text{p}$ -coin, $T_{1/2}$ ; deduced branching ratios. $^{105}\text{In}$ deduced isomer feeding intensity, transition ICC. Total absorption spectrometer. JOUR ZAANE 29 183  |
| $^{105}\text{Te}$ | 2006LI41 | RADIOACTIVITY $^{109}\text{Xe}, ^{105}\text{Te}(\alpha)$ [from $^{54}\text{Fe}(^{58}\text{Ni}, 3\text{n})$ and subsequent decay]; measured $E\alpha$ , $T_{1/2}$ . $^{109}\text{Xe}, ^{105}\text{Te}, ^{101}\text{Sn}$ deduced levels, $J, \pi$ . JOUR PRLTA 97 082501   |
|                   | 2006SE08 | RADIOACTIVITY $^{105}\text{Te}(\alpha)$ [from $^{50}\text{Cr}(^{58}\text{Ni}, 3\text{n})$ ]; measured $Q\alpha$ , $T_{1/2}$ . Comparison with neighboring isotopes, model predictions. JOUR PRVCA 73 061301  |

**KEYNUMBERS AND KEYWORDS**

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**A=106**

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| <sup>106</sup> Mo | 2006J005 | RADIOACTIVITY <sup>252</sup> Cf(SF); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>104,106,108</sup> Mo deduced levels, J, $\pi$ , configurations, collective bands features. <sup>106</sup> Mo deduced possible chiral doublet bands. Gammasphere array. JOUR PANUE 69 1198                                       |
| <sup>106</sup> Pd | 2006ST11 | RADIOACTIVITY <sup>106</sup> Cd(2EC); measured $2\nu\beta\beta$ -decay T <sub>1/2</sub> lower limits for transitions to ground and excited states. JOUR CZYPA 56 505   |
| <sup>106</sup> Ag | 2006UD01 | NUCLEAR REACTIONS Ag(d, X) <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>110m</sup> Ag / <sup>107</sup> Cd / <sup>109</sup> Cd, E ≈ 0.4-40 MeV; <sup>27</sup> Al(d, X) <sup>24</sup> Na, E ≈ 14-40 MeV; measured excitation functions; deduced thick target integral yields. Stacked-foil activation technique. JOUR ARISE 64 1013 |
| <sup>106</sup> Cd | 2006KI11 | NUCLEAR REACTIONS <sup>106</sup> Cd( $\alpha$ , $\alpha$ ), E(cm)=15.5, 17, 19 MeV; measured $\sigma(\theta)$ ; deduced optical model parameters. <sup>106</sup> Cd( $\alpha$ , $\gamma$ ), E(cm)=5-11 MeV; calculated astrophysical S-factors. JOUR ZAANE 27 s01 197  |
|                   | 2006ST11 | RADIOACTIVITY <sup>106</sup> Cd(2EC); measured $2\nu\beta\beta$ -decay T <sub>1/2</sub> lower limits for transitions to ground and excited states. JOUR CZYPA 56 505   |

**A=107**

|                   |          |  |
|-------------------|----------|--|
| <sup>107</sup> Cd | 2006UD01 | NUCLEAR REACTIONS Ag(d, X) <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>110m</sup> Ag / <sup>107</sup> Cd / <sup>109</sup> Cd, E ≈ 0.4-40 MeV; <sup>27</sup> Al(d, X) <sup>24</sup> Na, E ≈ 14-40 MeV; measured excitation functions; deduced thick target integral yields. Stacked-foil activation technique. JOUR ARISE 64 1013 |
| <sup>107</sup> In | 2006GY02 | NUCLEAR REACTIONS <sup>106,108</sup> Cd(p, $\gamma$ ), E=2.4-4.8 MeV; measured $\sigma$ ; deduced astrophysical S-factors. Activation technique. JOUR ZAANE 27 s01 141   |
|                   | 2006GYZX | NUCLEAR REACTIONS <sup>106,108</sup> Cd(p, $\gamma$ ), E(cm)=2.4-4.8 MeV; measured $\sigma$ ; deduced astrophysical S-factors. Activation technique. REPT ATOMKI 2005 Annual,P16,Gyurky  |

**A=108**

|                   |          |  |
|-------------------|----------|--|
| <sup>108</sup> Mo | 2006J005 | RADIOACTIVITY <sup>252</sup> Cf(SF); measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>104,106,108</sup> Mo deduced levels, J, $\pi$ , configurations, collective bands features. <sup>106</sup> Mo deduced possible chiral doublet bands. Gammasphere array. JOUR PANUE 69 1198   |
| <sup>108</sup> Ag | 2006SZ05 | NUCLEAR REACTIONS F(n, X) <sup>20</sup> F, E=cold; Na(n, X) <sup>24</sup> Na, E=cold; Mn, Cl(n, X) <sup>38m</sup> Cl / <sup>38</sup> Cl / <sup>56</sup> Mn, E=cold; Sc(n, X) <sup>46</sup> Sc, E=cold; Br(n, X) <sup>80</sup> Br / <sup>82</sup> Br, E=cold; I(n, X) <sup>127</sup> I, E=cold; Hf(n, X) <sup>179m</sup> Hf, E=cold; W(n, X) <sup>187</sup> W, E=cold; Rb(n, X) <sup>86m</sup> Rb / <sup>88</sup> Rb, E=cold; Ag(n, X) <sup>108</sup> Ag / <sup>110</sup> Ag, E=cold; measured partial $\gamma$ -ray production $\sigma$ , k <sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655 |

**KEYNUMBERS AND KEYWORDS**

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**A=109**

|                   |          |   |
|-------------------|----------|---|
| $^{109}\text{Ag}$ | 2006EG04 | NUCLEAR REACTIONS $^{48}\text{Ti}$ , $^{76,77,78,80,82}\text{Se}$ , $^{106,110,111,112,114,116}\text{Cd}(\mu^-, n\nu)$ , E at rest; measured $E\gamma$ , $I\gamma$ ; deduced muon capture rates. Comparison with model predictions, implications for $2\beta$ -decay matrix elements discussed. JOUR CZYPA 56 453   |
|                   | 2006K027 | RADIOACTIVITY $^{109}\text{Cd}(\text{EC})$ ; measured conversion electron spectra; deduced photon emission probability. $^{109}\text{Ag}$ transition deduced ICC. JOUR ARISE 64 1031  |
| $^{109}\text{Cd}$ | 2006K027 | RADIOACTIVITY $^{109}\text{Cd}(\text{EC})$ ; measured conversion electron spectra; deduced photon emission probability. $^{109}\text{Ag}$ transition deduced ICC. JOUR ARISE 64 1031  |
|                   | 2006UD01 | NUCLEAR REACTIONS $\text{Ag(d, X)}^{105}\text{Ag} / {}^{106m}\text{Ag} / {}^{110m}\text{Ag} / {}^{107}\text{Cd} / {}^{109}\text{Cd}$ , $E \approx 0.4\text{-}40$ MeV; $^{27}\text{Al(d, X)}^{24}\text{Na}$ , $E \approx 14\text{-}40$ MeV; measured excitation functions; deduced thick target integral yields. Stacked-foil activation technique. JOUR ARISE 64 1013 |
| $^{109}\text{In}$ | 2006GY01 | NUCLEAR REACTIONS ${}^{106}\text{Cd}(\alpha, \gamma)$ , $(\alpha, n)$ , $(\alpha, p)$ , $E \approx 7.5\text{-}12.5$ MeV; measured $\sigma$ ; deduced S-factors. Comparison with statistical model predictions. Astrophysical implications discussed. JOUR PRVCA 74 025805   |
|                   | 2006GY02 | NUCLEAR REACTIONS ${}^{106,108}\text{Cd}(p, \gamma)$ , $E=2.4\text{-}4.8$ MeV; measured $\sigma$ ; deduced astrophysical S-factors. Activation technique. JOUR ZAANE 27 s01 141   |
|                   | 2006GYZX | NUCLEAR REACTIONS ${}^{106,108}\text{Cd}(p, \gamma)$ , $E(\text{cm})=2.4\text{-}4.8$ MeV; measured $\sigma$ ; deduced astrophysical S-factors. Activation technique. REPT ATOMKI 2005 Annual,P16,Gyurky   |
| $^{109}\text{Sn}$ | 2006GY01 | NUCLEAR REACTIONS ${}^{106}\text{Cd}(\alpha, \gamma)$ , $(\alpha, n)$ , $(\alpha, p)$ , $E \approx 7.5\text{-}12.5$ MeV; measured $\sigma$ ; deduced S-factors. Comparison with statistical model predictions. Astrophysical implications discussed. JOUR PRVCA 74 025805   |
| $^{109}\text{Xe}$ | 2006LI41 | RADIOACTIVITY ${}^{109}\text{Xe}$ , ${}^{105}\text{Te}(\alpha)$ [from ${}^{54}\text{Fe}({}^{58}\text{Ni}, 3n)$ and subsequent decay]; measured $E\alpha$ , $T_{1/2}$ . ${}^{109}\text{Xe}$ , ${}^{105}\text{Te}$ , ${}^{101}\text{Sn}$ deduced levels, $J$ , $\pi$ . JOUR PRLTA 97 082501   |

**A=110**

|                   |          |  |
|-------------------|----------|--|
| $^{110}\text{Tc}$ | 2006LU12 | RADIOACTIVITY ${}^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. ${}^{110,111}\text{Tc}$ deduced high-spin levels, $J$ , $\pi$ , configurations. Gammasphere array, cranking model calculations. Level systematics in neighboring nuclides discussed. JOUR PRVCA 74 024308  |
| $^{110}\text{Ag}$ | 2006EG04 | NUCLEAR REACTIONS $^{48}\text{Ti}$ , $^{76,77,78,80,82}\text{Se}$ , $^{106,110,111,112,114,116}\text{Cd}(\mu^-, n\nu)$ , E at rest; measured $E\gamma$ , $I\gamma$ ; deduced muon capture rates. Comparison with model predictions, implications for $2\beta$ -decay matrix elements discussed. JOUR CZYPA 56 453  |
|                   | 2006SZ05 | NUCLEAR REACTIONS $F(n, X){}^{20}\text{F}$ , $E=\text{cold}$ ; $Na(n, X){}^{24}\text{Na}$ , $E=\text{cold}$ ; $Mn$ , $Cl(n, X){}^{38m}\text{Cl} / {}^{38}\text{Cl} / {}^{56}\text{Mn}$ , $E=\text{cold}$ ; $Sc(n, X){}^{46}\text{Sc}$ , $E=\text{cold}$ ; $Br(n, X){}^{80}\text{Br} / {}^{82}\text{Br}$ , $E=\text{cold}$ ; $I(n, X){}^{127}\text{I}$ , $E=\text{cold}$ ; $Hf(n, X){}^{179m}\text{Hf}$ , $E=\text{cold}$ ; $W(n, X){}^{187}\text{W}$ , $E=\text{cold}$ ; $Rb(n, X){}^{86m}\text{Rb} / {}^{88}\text{Rb}$ , $E=\text{cold}$ ; $Ag(n, X){}^{108}\text{Ag} / {}^{110}\text{Ag}$ , $E=\text{cold}$ ; measured partial $\gamma$ -ray production $\sigma$ , $k_0$ factors. Chopped beam. JOUR NIMAE 564 655 |

## KEYNUMBERS AND KEYWORDS

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### A=110 (*continued*)

|                   |          |  |
|-------------------|----------|--|
|                   | 2006UD01 | NUCLEAR REACTIONS Ag(d, X) <sup>105</sup> Ag / <sup>106m</sup> Ag / <sup>110m</sup> Ag / <sup>107</sup> Cd / <sup>109</sup> Cd, E ≈ 0.4-40 MeV; <sup>27</sup> Al(d, X) <sup>24</sup> Na, E ≈ 14-40 MeV; measured excitation functions; deduced thick target integral yields. Stacked-foil activation technique. JOUR ARISE 64 1013 |
| <sup>110</sup> Sn | 2006GY01 | NUCLEAR REACTIONS <sup>106</sup> Cd(α, γ), (α, n), (α, p), E ≈ 7.5-12.5 MeV; measured σ; deduced S-factors. Comparison with statistical model predictions. Astrophysical implications discussed. JOUR PRVCA 74 025805  |
|                   | 2006KI11 | NUCLEAR REACTIONS <sup>106</sup> Cd(α, α), E(cm)=15.5, 17, 19 MeV; measured σ(θ); deduced optical model parameters. <sup>106</sup> Cd(α, γ), E(cm)=5-11 MeV; calculated astrophysical S-factors. JOUR ZAANE 27 s01 197   |

### A=111

|                   |          |  |
|-------------------|----------|--|
| <sup>111</sup> Tc | 2006LU12 | RADIOACTIVITY <sup>252</sup> Cf(SF); measured Eγ, Iγ, γγ-coincidence. <sup>110,111</sup> Tc deduced high-spin levels, J, π, configurations. Gammasphere array, cranking model calculations. Level systematics in neighboring nuclides discussed. JOUR PRVCA 74 024308  |
| <sup>111</sup> Ag | 2006EG04 | NUCLEAR REACTIONS <sup>48</sup> Ti, <sup>76,77,78,80,82</sup> Se, <sup>106,110,111,112,114,116</sup> Cd(μ-, nν), E at rest; measured Eγ, Iγ; deduced muon capture rates. Comparison with model predictions, implications for 2β-decay matrix elements discussed. JOUR CZYPA 56 453   |
| <sup>111</sup> In | 2006TR05 | NUCLEAR REACTIONS <sup>181</sup> Ta( <sup>20</sup> Ne, F) <sup>82</sup> Br / <sup>87</sup> Y / <sup>90m</sup> Y / <sup>91m</sup> Y / <sup>96</sup> Nb / <sup>99</sup> Mo / <sup>103</sup> Ru / <sup>105</sup> Ru / <sup>105</sup> Rh / <sup>117m</sup> Sn / <sup>120</sup> Sb, E=150 MeV; <sup>181</sup> Ta( <sup>20</sup> Ne, F) <sup>76</sup> As / <sup>82</sup> Br / <sup>87</sup> Y / <sup>90m</sup> Y / <sup>91m</sup> Y / <sup>89</sup> Zr / <sup>96</sup> Nb / <sup>99</sup> Mo / <sup>103</sup> Ru / <sup>105</sup> Rh / <sup>111</sup> In / <sup>117m</sup> Sn / <sup>118</sup> Sb, E=180 MeV; measured fission fragment yields, angular distributions. <sup>181</sup> Ta( <sup>20</sup> Ne, X) <sup>180</sup> Os / <sup>182</sup> Os / <sup>185</sup> Os / <sup>181</sup> Re / <sup>182</sup> Re / <sup>183</sup> Re / <sup>184</sup> Ir / <sup>186</sup> Ir / <sup>188</sup> Pt / <sup>189</sup> Pt / <sup>190</sup> Hg / <sup>191m</sup> Hg / <sup>192</sup> Hg / <sup>193m</sup> Hg / <sup>194m</sup> Tl, E=150, 180 MeV; measured evaporation residue production σ, recoil range distributions. JOUR PRVCA 74 014610 |

### A=112

|                   |          |  |
|-------------------|----------|--|
| <sup>112</sup> Sn | 2006FUZZ | NUCLEAR REACTIONS <sup>89</sup> Y, <sup>92</sup> Mo, <sup>106</sup> Cd, <sup>112,124</sup> Sn(α, α), E ≈ 13-20 MeV; measured elastic σ(θ). Optical model analysis. CONF Tokyo(OMEG05),P351,Fulop |
|-------------------|----------|--|

### A=113

|                   |          |  |
|-------------------|----------|--|
| <sup>113</sup> Ag | 2006EG04 | NUCLEAR REACTIONS <sup>48</sup> Ti, <sup>76,77,78,80,82</sup> Se, <sup>106,110,111,112,114,116</sup> Cd(μ-, nν), E at rest; measured Eγ, Iγ; deduced muon capture rates. Comparison with model predictions, implications for 2β-decay matrix elements discussed. JOUR CZYPA 56 453 |
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*KEYNUMBERS AND KEYWORDS*

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**A=114**

$^{114}\text{Cs}$       2006SM02      NUCLEAR REACTIONS  $^{58}\text{Ni}(^{58}\text{Ni}, \text{np})$ , E=230 MeV; measured  $\text{E}\gamma$ ,  $\text{I}\gamma$ ,  $\gamma\gamma$ -, (charged particle) $\gamma$ -, (recoil) $\gamma$ -coin.  $^{114}\text{Cs}$  deduced high-spin levels, J,  $\pi$ , configurations. Gammasphere, Microball arrays, level systematics in neighboring nuclides discussed. JOUR PRVCA 73 061303

**A=115**

$^{115}\text{Ag}$       2006EG04      NUCLEAR REACTIONS  $^{48}\text{Ti}$ ,  $^{76,77,78,80,82}\text{Se}$ ,  $^{106,110,111,112,114,116}\text{Cd}(\mu^-, \text{n}\nu)$ , E at rest; measured  $\text{E}\gamma$ ,  $\text{I}\gamma$ ; deduced muon capture rates. Comparison with model predictions, implications for  $2\beta$ -decay matrix elements discussed. JOUR CZYPA 56 453

$^{115}\text{In}$       2006B015      NUCLEAR REACTIONS  $^{115}\text{In}(\gamma, \gamma')$  $^{115m}\text{In}$ , E=7-25 MeV; measured  $\text{E}\gamma$ ,  $\text{I}\gamma$ , yield; deduced isomer production  $\sigma$ . JOUR UKPJA 51 657

**A=116**

$^{116}\text{Cd}$       2006WI12      RADIOACTIVITY  $^{116}\text{Cd}$ ,  $^{130}\text{Te}(2\beta^-)$ ;  $^{64}\text{Zn}$ ,  $^{120}\text{Te}(\beta^+\text{EC})$ , (2EC); measured  $0\nu 2\beta\beta$ -decay  $T_{1/2}$  lower limits. CdZnTe semiconductor detectors. JOUR CZYPA 56 543

$^{116}\text{Sn}$       2006WI12      RADIOACTIVITY  $^{116}\text{Cd}$ ,  $^{130}\text{Te}(2\beta^-)$ ;  $^{64}\text{Zn}$ ,  $^{120}\text{Te}(\beta^+\text{EC})$ , (2EC); measured  $0\nu 2\beta\beta$ -decay  $T_{1/2}$  lower limits. CdZnTe semiconductor detectors. JOUR CZYPA 56 543

$^{116}\text{Te}$       2006OZ05      NUCLEAR REACTIONS  $^{112}\text{Sn}(\alpha, \gamma)$ , E=8-12 MeV; measured  $\sigma$ . Activation technique. JOUR ZAANE 27 s01 145

**A=117**

$^{117}\text{Sn}$       2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

## A=118

<sup>118</sup>Sb      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}$ ( $^{20}\text{Ne}, \text{F}$ ) $^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}$ ( $^{20}\text{Ne}, \text{F}$ ) $^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}$ ( $^{20}\text{Ne}, \text{X}$ ) $^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

## A=119

No references found

## A=120

<sup>120</sup>Sn      2006WI12      RADIOACTIVITY  $^{116}\text{Cd}, ^{130}\text{Te}(2\beta^-)$ ;  $^{64}\text{Zn}, ^{120}\text{Te}(\beta^+ \text{EC}), (\text{2EC})$ ; measured  $0\nu 2\beta\beta$ -decay  $T_{1/2}$  lower limits. CdZnTe semiconductor detectors. JOUR CZYPA 56 543

<sup>120</sup>Sb      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}$ ( $^{20}\text{Ne}, \text{F}$ ) $^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}$ ( $^{20}\text{Ne}, \text{F}$ ) $^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}$ ( $^{20}\text{Ne}, \text{X}$ ) $^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

<sup>120</sup>Te      2006PH01      RADIOACTIVITY  $^{120}\text{Cs}, ^{120}\text{Xe}, ^{120}\text{I}(\beta^+)$ , (EC); measured  $E\gamma, I\gamma, T_{1/2}$ . JOUR PRVCA 74 027302

              2006WI12      RADIOACTIVITY  $^{116}\text{Cd}, ^{130}\text{Te}(2\beta^-)$ ;  $^{64}\text{Zn}, ^{120}\text{Te}(\beta^+ \text{EC}), (\text{2EC})$ ; measured  $0\nu 2\beta\beta$ -decay  $T_{1/2}$  lower limits. CdZnTe semiconductor detectors. JOUR CZYPA 56 543

<sup>120</sup>I      2006PH01      RADIOACTIVITY  $^{120}\text{Cs}, ^{120}\text{Xe}, ^{120}\text{I}(\beta^+)$ , (EC); measured  $E\gamma, I\gamma, T_{1/2}$ . JOUR PRVCA 74 027302

<sup>120</sup>Xe      2006PH01      RADIOACTIVITY  $^{120}\text{Cs}, ^{120}\text{Xe}, ^{120}\text{I}(\beta^+)$ , (EC); measured  $E\gamma, I\gamma, T_{1/2}$ . JOUR PRVCA 74 027302

<sup>120</sup>Cs      2006PH01      RADIOACTIVITY  $^{120}\text{Cs}, ^{120}\text{Xe}, ^{120}\text{I}(\beta^+)$ , (EC); measured  $E\gamma, I\gamma, T_{1/2}$ . JOUR PRVCA 74 027302

## A=121

<sup>121</sup>Xe      2006BEZX      NUCLEAR REACTIONS  $^{64}\text{Ni}$ ( $^{64}\text{Ni}, 3n\alpha$ ), ( $^{64}\text{Ni}, 2n\alpha$ ), E=255, 261 MeV; measured  $E\gamma, I\gamma, \gamma\gamma-$ , (charged particle) $\gamma$ -coin.  $^{121,122}\text{Xe}$  deduced high-spin levels, transitions. Euroball IV and Diamant arrays. REPT ATOMKI 2005 Annual, P17, Berek

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**KEYNUMBERS AND KEYWORDS**

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**A=122**

$^{122}\text{Xe}$  2006BEZX NUCLEAR REACTIONS  $^{64}\text{Ni}(^{64}\text{Ni}, 3n\alpha)$ ,  $(^{64}\text{Ni}, 2n\alpha)$ , E=255, 261 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -, (charged particle) $\gamma$ -coin.  $^{121,122}\text{Xe}$  deduced high-spin levels, transitions. Euroball IV and Diamant arrays. REPT ATOMKI 2005 Annual, P17, Berek

**A=123**

No references found

**A=124**

$^{124}\text{Sn}$  2006FUZZ NUCLEAR REACTIONS  $^{89}\text{Y}$ ,  $^{92}\text{Mo}$ ,  $^{106}\text{Cd}$ ,  $^{112,124}\text{Sn}(\alpha, \alpha)$ , E  $\approx$  13-20 MeV; measured elastic  $\sigma(\theta)$ . Optical model analysis. CONF Tokyo(OMEG05), P351, Fulop

$^{124}\text{I}$  2006SA27 NUCLEAR REACTIONS  $^{124}\text{Te}(p, n)$ , E=14 MeV; measured yield. Comparison with previous results. JOUR ARISE 64 965

$^{124}\text{Ba}$  2006AL15 NUCLEAR REACTIONS  $^{64}\text{Ni}(^{64}\text{Ni}, 4n)$ , E=255, 261, 265 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{124}\text{Ba}$  deduced high-spin levels,  $J, \pi$ , configurations, B(M1) / B(E2). Euroball and Gammasphere arrays. JOUR PRVCA 74 014305

**A=125**

$^{125}\text{I}$  2006DA20 RADIOACTIVITY  $^{54}\text{Mn}$ ,  $^{125}\text{I}$ ,  $^{203}\text{Hg}$ ; measured  $E\gamma$ ,  $I\gamma$ ; deduced photon emission probabilities. JOUR ARISE 64 1440

**A=126**

$^{126}\text{Xe}$  2006HUZZ NUCLEAR REACTIONS  $^{82}\text{Se}(^{48}\text{Ca}, 4n)$ , E=185, 195, 205 MeV;  $^{64}\text{Ni}(^{64}\text{Ni}, 2n)$ , E=255, 261, 265 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{126}\text{Xe}$ ,  $^{126}\text{Ba}$  deduced rotational band transitions, possible evidence for hyperdeformation. Gammasphere, Euroball arrays. CONF Bormio (XLIV Winter Meeting) Proc, P287

$^{126}\text{Ba}$  2006HUZZ NUCLEAR REACTIONS  $^{82}\text{Se}(^{48}\text{Ca}, 4n)$ , E=185, 195, 205 MeV;  $^{64}\text{Ni}(^{64}\text{Ni}, 2n)$ , E=255, 261, 265 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{126}\text{Xe}$ ,  $^{126}\text{Ba}$  deduced rotational band transitions, possible evidence for hyperdeformation. Gammasphere, Euroball arrays. CONF Bormio (XLIV Winter Meeting) Proc, P287

## KEYNUMBERS AND KEYWORDS

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### A=127

<sup>127</sup>I        2006SZ05        NUCLEAR REACTIONS F(n, X)<sup>20</sup>F, E=cold; Na(n, X)<sup>24</sup>Na, E=cold; Mn, Cl(n, X)<sup>38m</sup>Cl / <sup>38</sup>Cl / <sup>56</sup>Mn, E=cold; Sc(n, X)<sup>46</sup>Sc, E=cold; Br(n, X)<sup>80</sup>Br / <sup>82</sup>Br, E=cold; I(n, X)<sup>127</sup>I, E=cold; Hf(n, X)<sup>179m</sup>Hf, E=cold; W(n, X)<sup>187</sup>W, E=cold; Rb(n, X)<sup>86m</sup>Rb / <sup>88</sup>Rb, E=cold; Ag(n, X)<sup>108</sup>Ag / <sup>110</sup>Ag, E=cold; measured partial  $\gamma$ -ray production  $\sigma$ ,  $k_0$  factors. Chopped beam. JOUR NIMAE 564 655

### A=128

<sup>128</sup>Xe        2006ORZY        NUCLEAR REACTIONS <sup>124</sup>Sn(<sup>9</sup>Be, 5n), E=58 MeV; measured prompt and delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin. <sup>128</sup>Xe deduced high-spin levels,  $J$ ,  $\pi$ , configurations, isomer  $T_{1/2}$ . Caesar array. Potential energy surface calculations, configuration-constrained blocking method. REPT ANU-P/1716,Orce

### A=129

No references found

### A=130

<sup>130</sup>Te        2006WI12        RADIOACTIVITY <sup>116</sup>Cd, <sup>130</sup>Te( $2\beta^-$ ); <sup>64</sup>Zn, <sup>120</sup>Te( $\beta^+$ EC), (2EC); measured  $0\nu2\beta\beta$ -decay  $T_{1/2}$  lower limits. CdZnTe semiconductor detectors. JOUR CZYPA 56 543

<sup>130</sup>Xe        2006WI12        RADIOACTIVITY <sup>116</sup>Cd, <sup>130</sup>Te( $2\beta^-$ ); <sup>64</sup>Zn, <sup>120</sup>Te( $\beta^+$ EC), (2EC); measured  $0\nu2\beta\beta$ -decay  $T_{1/2}$  lower limits. CdZnTe semiconductor detectors. JOUR CZYPA 56 543

### A=131

<sup>131</sup>Ba        2006DI12        NUCLEAR REACTIONS <sup>74</sup>Se, <sup>84</sup>Sr, <sup>120</sup>Te, <sup>130,132</sup>Ba(n,  $\gamma$ ), E=spectrum; measured  $\sigma$ . Activation technique. JOUR ZAANE 27 s01 129

### A=132

<sup>132</sup>Ce        2006WI13        NUCLEAR REACTIONS <sup>68</sup>Zn(<sup>64</sup>Ni, X), E=300, 400, 500 MeV; <sup>116</sup>Sn(<sup>16</sup>O, X), E=250 MeV; measured  $E\gamma$ ,  $I\gamma$ , (charged particle) $\gamma$ -, (recoil) $\gamma$ -coin. <sup>132</sup>Ce deduced GDR width vs temperature. Comparison with model predictions. JOUR PRLTA 97 012501

## KEYNUMBERS AND KEYWORDS

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### A=132 (*continued*)

<sup>132</sup>Nd      2006XU07      RADIOACTIVITY <sup>133</sup>Sm(EC), ( $\beta^+$ ), ( $\beta^+p$ ) [from <sup>96</sup>Ru(<sup>40</sup>Ca, n2p)]; measured  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin, T<sub>1/2</sub>; deduced decay branching ratios. <sup>132</sup>Nd, <sup>133</sup>Sm deduced levels, J,  $\pi$ , feeding intensities. <sup>149</sup>Yb( $\beta^+p$ ); analyzed  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin; deduced decay branching ratios. <sup>148</sup>Er levels deduced feeding intensities. <sup>133</sup>Sm, <sup>149</sup>Yb deduced ground-state J,  $\pi$ . Potential energy surface calculations.  
JOUR ZAANE 29 161

### A=133

<sup>133</sup>Ba      2006DI12      NUCLEAR REACTIONS <sup>74</sup>Se, <sup>84</sup>Sr, <sup>120</sup>Te, <sup>130,132</sup>Ba(n,  $\gamma$ ), E=spectrum; measured  $\sigma$ . Activation technique. JOUR ZAANE 27 s01 129  
<sup>133</sup>Pm      2006XU07      RADIOACTIVITY <sup>133</sup>Sm(EC), ( $\beta^+$ ), ( $\beta^+p$ ) [from <sup>96</sup>Ru(<sup>40</sup>Ca, n2p)]; measured  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin, T<sub>1/2</sub>; deduced decay branching ratios. <sup>132</sup>Nd, <sup>133</sup>Sm deduced levels, J,  $\pi$ , feeding intensities. <sup>149</sup>Yb( $\beta^+p$ ); analyzed  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin; deduced decay branching ratios. <sup>148</sup>Er levels deduced feeding intensities. <sup>133</sup>Sm, <sup>149</sup>Yb deduced ground-state J,  $\pi$ . Potential energy surface calculations.  
JOUR ZAANE 29 161  
<sup>133</sup>Sm      2006XU07      RADIOACTIVITY <sup>133</sup>Sm(EC), ( $\beta^+$ ), ( $\beta^+p$ ) [from <sup>96</sup>Ru(<sup>40</sup>Ca, n2p)]; measured  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin, T<sub>1/2</sub>; deduced decay branching ratios. <sup>132</sup>Nd, <sup>133</sup>Sm deduced levels, J,  $\pi$ , feeding intensities. <sup>149</sup>Yb( $\beta^+p$ ); analyzed  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin; deduced decay branching ratios. <sup>148</sup>Er levels deduced feeding intensities. <sup>133</sup>Sm, <sup>149</sup>Yb deduced ground-state J,  $\pi$ . Potential energy surface calculations.  
JOUR ZAANE 29 161

### A=134

<sup>134</sup>Cs      2006HA36      RADIOACTIVITY <sup>193m</sup>Ir(IT); measured E $\gamma$ , I $\gamma$ , X-ray spectra; deduced conversion coefficient. <sup>134m</sup>Cs, <sup>137</sup>Ba; analyzed ICC ratio. Comparison with model predictions. JOUR ARISE 64 1392

### A=135

No references found

### A=136

<sup>136</sup>Xe      2006BE42      RADIOACTIVITY <sup>136</sup>Xe; measured T<sub>1/2</sub> lower limits for nucleon, di-nucleon, and tri-nucleon channels. JOUR ZAANE 27 s01 35

## KEYNUMBERS AND KEYWORDS

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### A=137

|                   |          |  |
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| <sup>137</sup> I  | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br} / ^{88}\text{Br} / ^{89}\text{Br} / ^{91}\text{Br} / ^{93}\text{Kr} / ^{94}\text{Rb} / ^{95}\text{Rb} / ^{137}\text{I} / ^{138}\text{I} / ^{139}\text{I} / ^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607 |
| <sup>137</sup> Ba | 2006HA36 | RADIOACTIVITY $^{193m}\text{Ir}(\text{IT})$ ; measured $E\gamma$ , $I\gamma$ , X-ray spectra; deduced conversion coefficient. $^{134m}\text{Cs}$ , $^{137}\text{Ba}$ ; analyzed ICC ratio. Comparison with model predictions. JOUR ARISE 64 1392   |
| <sup>137</sup> La | 2006CH38 | NUCLEAR REACTIONS $^{130}\text{Te}(^{11}\text{B}, 4\text{n})$ , E=52 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin, $\gamma$ -ray polarization. $^{137}\text{La}$ deduced high-spin levels, $J$ , $\pi$ , configurations. Comparison with shell model predictions. JOUR NUPAB 775 153   |

### A=138

|                  |          |  |
|------------------|----------|--|
| <sup>138</sup> I | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br} / ^{88}\text{Br} / ^{89}\text{Br} / ^{91}\text{Br} / ^{93}\text{Kr} / ^{94}\text{Rb} / ^{95}\text{Rb} / ^{137}\text{I} / ^{138}\text{I} / ^{139}\text{I} / ^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607 |
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### A=139

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|------------------|----------|--|
| <sup>139</sup> I | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br} / ^{88}\text{Br} / ^{89}\text{Br} / ^{91}\text{Br} / ^{93}\text{Kr} / ^{94}\text{Rb} / ^{95}\text{Rb} / ^{137}\text{I} / ^{138}\text{I} / ^{139}\text{I} / ^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607 |
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### A=140

|                   |          |  |
|-------------------|----------|--|
| <sup>140</sup> I  | 2006R026 | NUCLEAR REACTIONS $^{235}\text{U}$ , $^{239}\text{Pu}(\text{n}, \text{F})^{87}\text{Br} / ^{88}\text{Br} / ^{89}\text{Br} / ^{91}\text{Br} / ^{93}\text{Kr} / ^{94}\text{Rb} / ^{95}\text{Rb} / ^{137}\text{I} / ^{138}\text{I} / ^{139}\text{I} / ^{140}\text{I}$ , E=thermal-1.2 MeV; measured cumulative fission yields, energy dependence features. JOUR PRVCA 74 014607 |
| <sup>140</sup> Pr | 2006UT01 | NUCLEAR REACTIONS $^{139}\text{La}$ , $^{141}\text{Pr}(\gamma, \text{n})$ , E=9.1-14.0 MeV; measured $\sigma$ . Comparison with previous results and model predictions. Astrophysical implications discussed. JOUR PRVCA 74 025806   |

### A=141

No references found

### A=142

No references found

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**KEYNUMBERS AND KEYWORDS**

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**A=143**

No references found

**A=144**

- <sup>144</sup>Sm      2006G019      NUCLEAR REACTIONS  $^{144}\text{Sm}(^9\text{Be}, ^9\text{Be})$ , E=33-41 MeV; measured elastic  $\sigma(\theta)$ .  $^{144}\text{Sm}(^9\text{Be}, \text{n})$ ,  $(^9\text{Be}, 2\text{n})$ ,  $(^9\text{Be}, 3\text{n})$ ,  $(^9\text{Be}, 4\text{n})$ ,  $(^9\text{Be}, \text{np})$ ,  $(^9\text{Be}, 2\text{np})$ , E=30-44 MeV;  $^{144}\text{Sm}(^9\text{Be}, \text{X})^{147}\text{Gd}$ , E=3-44 MeV; measured  $\sigma$ ; deduced complete and incomplete fusion  $\sigma$ , reaction  $\sigma$ . Delayed x-ray detection technique, comparison with model predictions.  
JOUR PRVCA 73 064606

**A=145**

- <sup>145</sup>Gd      2006KR07      NUCLEAR REACTIONS  $^{115}\text{In}(^{34}\text{S}, \text{X})^{34}\text{P} / ^{36}\text{S} / ^{146}\text{Tb} / ^{145}\text{Gd} / ^{146}\text{Gd}$ , E=140 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $\gamma$ -ray polarization.  $^{34}\text{P}$ ,  $^{36}\text{S}$  deduced levels, J,  $\pi$ , configurations. JOUR ZAANE 29 151

**A=146**

- <sup>146</sup>Gd      2006KR07      NUCLEAR REACTIONS  $^{115}\text{In}(^{34}\text{S}, \text{X})^{34}\text{P} / ^{36}\text{S} / ^{146}\text{Tb} / ^{145}\text{Gd} / ^{146}\text{Gd}$ , E=140 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $\gamma$ -ray polarization.  $^{34}\text{P}$ ,  $^{36}\text{S}$  deduced levels, J,  $\pi$ , configurations. JOUR ZAANE 29 151  
<sup>146</sup>Tb      2006KR07      NUCLEAR REACTIONS  $^{115}\text{In}(^{34}\text{S}, \text{X})^{34}\text{P} / ^{36}\text{S} / ^{146}\text{Tb} / ^{145}\text{Gd} / ^{146}\text{Gd}$ , E=140 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $\gamma$ -ray polarization.  $^{34}\text{P}$ ,  $^{36}\text{S}$  deduced levels, J,  $\pi$ , configurations. JOUR ZAANE 29 151

**A=147**

- <sup>147</sup>Ce      2006VE04      NUCLEAR REACTIONS  $^{238}\text{U}(^{12}\text{C}, \text{X})^{149}\text{Nd} / ^{147}\text{Ce}$ , E=90 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{149}\text{Nd}$ ,  $^{147}\text{Ce}$  deduced high-spin levels, J,  $\pi$ , configurations. Euroball III array. JOUR ZAANE 28 147  
<sup>147</sup>Gd      2006G019      NUCLEAR REACTIONS  $^{144}\text{Sm}(^9\text{Be}, ^9\text{Be})$ , E=33-41 MeV; measured elastic  $\sigma(\theta)$ .  $^{144}\text{Sm}(^9\text{Be}, \text{n})$ ,  $(^9\text{Be}, 2\text{n})$ ,  $(^9\text{Be}, 3\text{n})$ ,  $(^9\text{Be}, 4\text{n})$ ,  $(^9\text{Be}, \text{np})$ ,  $(^9\text{Be}, 2\text{np})$ , E=30-44 MeV;  $^{144}\text{Sm}(^9\text{Be}, \text{X})^{147}\text{Gd}$ , E=3-44 MeV; measured  $\sigma$ ; deduced complete and incomplete fusion  $\sigma$ , reaction  $\sigma$ . Delayed x-ray detection technique, comparison with model predictions.  
JOUR PRVCA 73 064606

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**KEYNUMBERS AND KEYWORDS**

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**A=148**

<sup>148</sup>Er      2006XU07      RADIOACTIVITY <sup>133</sup>Sm(EC), ( $\beta^+$ ), ( $\beta^+p$ ) [from <sup>96</sup>Ru(<sup>40</sup>Ca, n2p)]; measured  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin, T<sub>1/2</sub>; deduced decay branching ratios. <sup>132</sup>Nd, <sup>133</sup>Sm deduced levels, J,  $\pi$ , feeding intensities. <sup>149</sup>Yb( $\beta^+p$ ); analyzed  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin; deduced decay branching ratios. <sup>148</sup>Er levels deduced feeding intensities. <sup>133</sup>Sm, <sup>149</sup>Yb deduced ground-state J,  $\pi$ . Potential energy surface calculations.  
JOUR ZAANE 29 161

**A=149**

<sup>149</sup>Nd      2006VE04      NUCLEAR REACTIONS <sup>238</sup>U(<sup>12</sup>C, X)<sup>149</sup>Nd / <sup>147</sup>Ce, E=90 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>149</sup>Nd, <sup>147</sup>Ce deduced high-spin levels, J,  $\pi$ , configurations. Euroball III array. JOUR ZAANE 28 147  
<sup>149</sup>Sm      2006TS03      NUCLEAR REACTIONS <sup>149</sup>Sm( $\gamma$ ,  $\gamma'$ ), E not given; measured Mossbauer spectra in several compounds. JOUR PHYBE 383 142  
<sup>149</sup>Dy      2006G019      NUCLEAR REACTIONS <sup>144</sup>Sm(<sup>9</sup>Be, <sup>9</sup>Be), E=33-41 MeV; measured elastic  $\sigma(\theta)$ . <sup>144</sup>Sm(<sup>9</sup>Be, n), (<sup>9</sup>Be, 2n), (<sup>9</sup>Be, 3n), (<sup>9</sup>Be, 4n), (<sup>9</sup>Be, np), (<sup>9</sup>Be, 2np), E=30-44 MeV; <sup>144</sup>Sm(<sup>9</sup>Be, X)<sup>147</sup>Gd, E=3-44 MeV; measured  $\sigma$ ; deduced complete and incomplete fusion  $\sigma$ , reaction  $\sigma$ . Delayed x-ray detection technique, comparison with model predictions.  
JOUR PRVCA 73 064606  
<sup>149</sup>Yb      2006XU07      RADIOACTIVITY <sup>133</sup>Sm(EC), ( $\beta^+$ ), ( $\beta^+p$ ) [from <sup>96</sup>Ru(<sup>40</sup>Ca, n2p)]; measured  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin, T<sub>1/2</sub>; deduced decay branching ratios. <sup>132</sup>Nd, <sup>133</sup>Sm deduced levels, J,  $\pi$ , feeding intensities. <sup>149</sup>Yb( $\beta^+p$ ); analyzed  $\beta$ -delayed E $\gamma$ , Ep, p $\gamma$ -coin; deduced decay branching ratios. <sup>148</sup>Er levels deduced feeding intensities. <sup>133</sup>Sm, <sup>149</sup>Yb deduced ground-state J,  $\pi$ . Potential energy surface calculations.  
JOUR ZAANE 29 161

**A=150**

<sup>150</sup>Tb      2006G019      NUCLEAR REACTIONS <sup>144</sup>Sm(<sup>9</sup>Be, <sup>9</sup>Be), E=33-41 MeV; measured elastic  $\sigma(\theta)$ . <sup>144</sup>Sm(<sup>9</sup>Be, n), (<sup>9</sup>Be, 2n), (<sup>9</sup>Be, 3n), (<sup>9</sup>Be, 4n), (<sup>9</sup>Be, np), (<sup>9</sup>Be, 2np), E=30-44 MeV; <sup>144</sup>Sm(<sup>9</sup>Be, X)<sup>147</sup>Gd, E=3-44 MeV; measured  $\sigma$ ; deduced complete and incomplete fusion  $\sigma$ , reaction  $\sigma$ . Delayed x-ray detection technique, comparison with model predictions.  
JOUR PRVCA 73 064606  
<sup>150</sup>Dy      2006G019      NUCLEAR REACTIONS <sup>144</sup>Sm(<sup>9</sup>Be, <sup>9</sup>Be), E=33-41 MeV; measured elastic  $\sigma(\theta)$ . <sup>144</sup>Sm(<sup>9</sup>Be, n), (<sup>9</sup>Be, 2n), (<sup>9</sup>Be, 3n), (<sup>9</sup>Be, 4n), (<sup>9</sup>Be, np), (<sup>9</sup>Be, 2np), E=30-44 MeV; <sup>144</sup>Sm(<sup>9</sup>Be, X)<sup>147</sup>Gd, E=3-44 MeV; measured  $\sigma$ ; deduced complete and incomplete fusion  $\sigma$ , reaction  $\sigma$ . Delayed x-ray detection technique, comparison with model predictions.  
JOUR PRVCA 73 064606  
<sup>150</sup>Ho      2006FU06      NUCLEAR REACTIONS <sup>141</sup>Pr(<sup>16</sup>O, 7n), E=165 MeV; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>150</sup>Ho deduced levels, J,  $\pi$ , configurations, high-spin isomer T<sub>1/2</sub>. JOUR PRVCA 73 067303

**A=151**

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|-------------------|----------|--|
| $^{151}\text{Ce}$ | 2006K025 | RADIOACTIVITY $^{151}\text{Ce}(\beta^-)$ [from $^{235}\text{U}(n, F)$ ]; measured $E\gamma$ , $I\gamma$ , $E\beta\gamma$ -coin. $^{151}\text{Pr}$ deduced levels, $J$ , $\pi$ , isomeric state $T_{1/2}$ . Mass separator. JOUR NIMAE 564 275  |
| $^{151}\text{Pr}$ | 2006K025 | RADIOACTIVITY $^{151}\text{Ce}(\beta^-)$ [from $^{235}\text{U}(n, F)$ ]; measured $E\gamma$ , $I\gamma$ , $E\beta\gamma$ -coin. $^{151}\text{Pr}$ deduced levels, $J$ , $\pi$ , isomeric state $T_{1/2}$ . Mass separator. JOUR NIMAE 564 275  |
| $^{151}\text{Tb}$ | 2006G019 | NUCLEAR REACTIONS $^{144}\text{Sm}(^9\text{Be}, ^9\text{Be})$ , $E=33-41$ MeV; measured elastic $\sigma(\theta)$ . $^{144}\text{Sm}(^9\text{Be}, n)$ , $(^9\text{Be}, 2n)$ , $(^9\text{Be}, 3n)$ , $(^9\text{Be}, 4n)$ , $(^9\text{Be}, np)$ , $(^9\text{Be}, 2np)$ , $E=30-44$ MeV; $^{144}\text{Sm}(^9\text{Be}, X)^{147}\text{Gd}$ , $E=3-44$ MeV; measured $\sigma$ ; deduced complete and incomplete fusion $\sigma$ , reaction $\sigma$ . Delayed x-ray detection technique, comparison with model predictions. JOUR PRVCA 73 064606 |
| $^{151}\text{Dy}$ | 2006G019 | NUCLEAR REACTIONS $^{144}\text{Sm}(^9\text{Be}, ^9\text{Be})$ , $E=33-41$ MeV; measured elastic $\sigma(\theta)$ . $^{144}\text{Sm}(^9\text{Be}, n)$ , $(^9\text{Be}, 2n)$ , $(^9\text{Be}, 3n)$ , $(^9\text{Be}, 4n)$ , $(^9\text{Be}, np)$ , $(^9\text{Be}, 2np)$ , $E=30-44$ MeV; $^{144}\text{Sm}(^9\text{Be}, X)^{147}\text{Gd}$ , $E=3-44$ MeV; measured $\sigma$ ; deduced complete and incomplete fusion $\sigma$ , reaction $\sigma$ . Delayed x-ray detection technique, comparison with model predictions. JOUR PRVCA 73 064606 |

**A=152**

|                   |          |  |
|-------------------|----------|--|
| $^{152}\text{Sm}$ | 2006KUZY | RADIOACTIVITY $^{152,152m}\text{Eu}(\text{EC})$ , $(\beta^+)$ [from $^{151}\text{Eu}(n, \gamma)$ ]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{152}\text{Sm}$ deduced levels, $J$ , $\pi$ , $B(E2)$ . PREPRINT nucl-ex/0607025,7/20/2006  |
| $^{152}\text{Eu}$ | 2006KUZY | RADIOACTIVITY $^{152,152m}\text{Eu}(\text{EC})$ , $(\beta^+)$ [from $^{151}\text{Eu}(n, \gamma)$ ]; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{152}\text{Sm}$ deduced levels, $J$ , $\pi$ , $B(E2)$ . PREPRINT nucl-ex/0607025,7/20/2006  |
| $^{152}\text{Gd}$ | 2006ME13 | NUCLEAR REACTIONS $^{154,156}\text{Gd}$ , $^{164}\text{Dy}$ , $^{170}\text{Er}$ , $^{178}\text{Hf}$ , $^{182,186}\text{W}$ , $^{192}\text{Os}(p, t)$ , $E=25$ MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{152,154}\text{Gd}$ , $^{162}\text{Dy}$ , $^{168}\text{Er}$ , $^{176}\text{Hf}$ , $^{180,184}\text{W}$ , $^{190}\text{Os}$ deduced levels, $J$ , $\pi$ , configurations. Comparison with interacting boson approximation model predictions. JOUR PYLBB 638 44  |
|                   | 2006SHZY | NUCLEAR REACTIONS $^{152,154}\text{Sm}(\alpha, 4n)$ , $E=45$ MeV; $^{152}\text{Sm}(\alpha, 2n)$ , $E=25$ MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{152,154}\text{Gd}$ deduced high-spin levels, $J$ , $\pi$ , configurations. Afrodite array. CONF Bormio (XLIV Winter Meeting) Proc, P295  |
| $^{152}\text{Dy}$ | 2006G019 | NUCLEAR REACTIONS $^{144}\text{Sm}(^9\text{Be}, ^9\text{Be})$ , $E=33-41$ MeV; measured elastic $\sigma(\theta)$ . $^{144}\text{Sm}(^9\text{Be}, n)$ , $(^9\text{Be}, 2n)$ , $(^9\text{Be}, 3n)$ , $(^9\text{Be}, 4n)$ , $(^9\text{Be}, np)$ , $(^9\text{Be}, 2np)$ , $E=30-44$ MeV; $^{144}\text{Sm}(^9\text{Be}, X)^{147}\text{Gd}$ , $E=3-44$ MeV; measured $\sigma$ ; deduced complete and incomplete fusion $\sigma$ , reaction $\sigma$ . Delayed x-ray detection technique, comparison with model predictions. JOUR PRVCA 73 064606 |

**A=153**

|                   |          |  |
|-------------------|----------|--|
| $^{153}\text{Sm}$ | 2006LE32 | RADIOACTIVITY $^{153}\text{Sm}(\beta^-)$ ; measured $E\gamma$ , $I\gamma$ , X-ray spectra; deduced photon emission intensities. JOUR ARISE 64 1428 |
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**A=153 (*continued*)**

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| $^{153}\text{Eu}$ | 2006LE32 | RADIOACTIVITY $^{153}\text{Sm}(\beta^-)$ ; measured E $\gamma$ , I $\gamma$ , X-ray spectra; deduced photon emission intensities. JOUR ARISE 64 1428                                     |
| $^{153}\text{Gd}$ | 2006LEZV | NUCLEAR REACTIONS $^{152,154,155,156,157,158,160}\text{Gd}(n, \gamma)$ , E=thermal; measured capture $\sigma$ ; deduced resonance parameters. CONF Vancouver(PHYSOR-2006),C035,Leinweber |

**A=154**

|                   |          |  |
|-------------------|----------|--|
| $^{154}\text{Gd}$ | 2006ME13 | NUCLEAR REACTIONS $^{154,156}\text{Gd}$ , $^{164}\text{Dy}$ , $^{170}\text{Er}$ , $^{178}\text{Hf}$ , $^{182,186}\text{W}$ , $^{192}\text{Os}(p, t)$ , E=25 MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{152,154}\text{Gd}$ , $^{162}\text{Dy}$ , $^{168}\text{Er}$ , $^{176}\text{Hf}$ , $^{180,184}\text{W}$ , $^{190}\text{Os}$ deduced levels, J, $\pi$ , configurations. Comparison with interacting boson approximation model predictions. JOUR PYLBB 638 44 |
|                   | 2006SHZY | NUCLEAR REACTIONS $^{152,154}\text{Sm}(\alpha, 4n)$ , E=45 MeV; $^{152}\text{Sm}(\alpha, 2n)$ , E=25 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{152,154}\text{Gd}$ deduced high-spin levels, J, $\pi$ , configurations. Afrodite array. CONF Bormio (XLIV Winter Meeting) Proc,P295  |

**A=155**

|                   |          |  |
|-------------------|----------|--|
| $^{155}\text{Gd}$ | 2006LEZV | NUCLEAR REACTIONS $^{152,154,155,156,157,158,160}\text{Gd}(n, \gamma)$ , E=thermal; measured capture $\sigma$ ; deduced resonance parameters. CONF Vancouver(PHYSOR-2006),C035,Leinweber |
|-------------------|----------|--|

**A=156**

|                   |          |   |
|-------------------|----------|---|
| $^{156}\text{Gd}$ | 2006LEZV | NUCLEAR REACTIONS $^{152,154,155,156,157,158,160}\text{Gd}(n, \gamma)$ , E=thermal; measured capture $\sigma$ ; deduced resonance parameters. CONF Vancouver(PHYSOR-2006),C035,Leinweber  |
| $^{156}\text{Dy}$ | 2006M022 | NUCLEAR REACTIONS $^{124}\text{Sn}(^{36}\text{S}, 4n)$ , E=155 MeV; measured Doppler-shifted E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{156}\text{Dy}$ levels deduced T <sub>1/2</sub> , B(E2), transition quadrupole moments, symmetry features. GASP array, recoil-distance technique. JOUR PRVCA 74 024313 |

**A=157**

|                   |          |   |
|-------------------|----------|---|
| $^{157}\text{Gd}$ | 2006LEZV | NUCLEAR REACTIONS $^{152,154,155,156,157,158,160}\text{Gd}(n, \gamma)$ , E=thermal; measured capture $\sigma$ ; deduced resonance parameters. CONF Vancouver(PHYSOR-2006),C035,Leinweber  |
| $^{157}\text{Er}$ | 2006EV02 | NUCLEAR REACTIONS $^{114}\text{Cd}(^{48}\text{Ca}, 5n)$ , E=215 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{157}\text{Er}$ deduced high-spin levels, J, $\pi$ , configurations, B(M1) / B(E2), band termination. Gammasphere array. JOUR PRVCA 73 064303 |

*KEYNUMBERS AND KEYWORDS*

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**A=158**

$^{158}\text{Gd}$       2006LEZV      NUCLEAR REACTIONS  $^{152,154,155,156,157,158,160}\text{Gd}(n, \gamma)$ , E=thermal; measured capture  $\sigma$ ; deduced resonance parameters. CONF Vancouver(PHYSOR-2006),C035,Leinweber

**A=159**

$^{159}\text{Gd}$       2006LEZV      NUCLEAR REACTIONS  $^{152,154,155,156,157,158,160}\text{Gd}(n, \gamma)$ , E=thermal; measured capture  $\sigma$ ; deduced resonance parameters. CONF Vancouver(PHYSOR-2006),C035,Leinweber

**A=160**

No references found

**A=161**

$^{161}\text{Gd}$       2006LEZV      NUCLEAR REACTIONS  $^{152,154,155,156,157,158,160}\text{Gd}(n, \gamma)$ , E=thermal; measured capture  $\sigma$ ; deduced resonance parameters. CONF Vancouver(PHYSOR-2006),C035,Leinweber

$^{161}\text{Re}$       2006LA16      NUCLEAR REACTIONS  $^{106}\text{Cd}({}^{58}\text{Ni}, 2\text{np})$ , E=270 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -, ( $\text{recoil}\gamma$ -coin).  $^{161}\text{Re}$  deduced high-spin levels,  $J, \pi$ , configurations. Jurogam array, mass separator, recoil-decay tagging, total Routhian surface calculations. JOUR PRVCA 74 024316

**A=162**

$^{162}\text{Dy}$       2006ME13      NUCLEAR REACTIONS  $^{154,156}\text{Gd}$ ,  $^{164}\text{Dy}$ ,  $^{170}\text{Er}$ ,  $^{178}\text{Hf}$ ,  $^{182,186}\text{W}$ ,  $^{192}\text{Os}(p, t)$ , E=25 MeV; measured triton spectra,  $\sigma(E, \theta)$ .  $^{152,154}\text{Gd}$ ,  $^{162}\text{Dy}$ ,  $^{168}\text{Er}$ ,  $^{176}\text{Hf}$ ,  $^{180,184}\text{W}$ ,  $^{190}\text{Os}$  deduced levels,  $J, \pi$ , configurations. Comparison with interacting boson approximation model predictions. JOUR PYLBB 638 44

**A=163**

No references found

**A=164**

No references found

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**KEYNUMBERS AND KEYWORDS**

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**A=165**

<sup>165</sup>Tm      2006SH18      NUCLEAR REACTIONS <sup>159</sup>Tb(<sup>16</sup>O, 3n), (<sup>16</sup>O, 4n), (<sup>16</sup>O, 5n), (<sup>16</sup>O, 3np), (<sup>16</sup>O, 4np), (<sup>16</sup>O, 2n2p), (<sup>16</sup>O, n $\alpha$ ), (<sup>16</sup>O, 2n $\alpha$ ), (<sup>16</sup>O, 2n2 $\alpha$ ), E ≈ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83

**A=166**

No references found

**A=167**

No references found

**A=168**

<sup>168</sup>Er      2006BU09      NUCLEAR REACTIONS <sup>170</sup>Er(p, t), E=25 MeV; measured triton spectra,  $\sigma(E, \theta)$ . <sup>168</sup>Er deduced levels, J,  $\pi$ , configurations. Comparison with quasiparticle-phonon model and projected shell model predictions. JOUR PRVCA 73 064309

2006ME13      NUCLEAR REACTIONS <sup>154,156</sup>Gd, <sup>164</sup>Dy, <sup>170</sup>Er, <sup>178</sup>Hf, <sup>182,186</sup>W, <sup>192</sup>Os(p, t), E=25 MeV; measured triton spectra,  $\sigma(E, \theta)$ . <sup>152,154</sup>Gd, <sup>162</sup>Dy, <sup>168</sup>Er, <sup>176</sup>Hf, <sup>180,184</sup>W, <sup>190</sup>Os deduced levels, J,  $\pi$ , configurations. Comparison with interacting boson approximation model predictions. JOUR PYLBB 638 44

**A=169**

<sup>169</sup>Lu      2006SH18      NUCLEAR REACTIONS <sup>159</sup>Tb(<sup>16</sup>O, 3n), (<sup>16</sup>O, 4n), (<sup>16</sup>O, 5n), (<sup>16</sup>O, 3np), (<sup>16</sup>O, 4np), (<sup>16</sup>O, 2n2p), (<sup>16</sup>O, n $\alpha$ ), (<sup>16</sup>O, 2n $\alpha$ ), (<sup>16</sup>O, 2n2 $\alpha$ ), E ≈ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83

<sup>169</sup>Pt      2006J004      NUCLEAR REACTIONS <sup>112</sup>Sn(<sup>60</sup>Ni, 2n), (<sup>60</sup>Ni, 3n), E=266 MeV; Sn(<sup>60</sup>Ni, xn)<sup>171</sup>Pt / <sup>172</sup>Pt / <sup>173</sup>Pt, E=266 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ - (recoil) $\gamma$ -coin. <sup>170,172,173</sup>Pt deduced levels, J,  $\pi$ , configurations. <sup>169,171,173</sup>Pt deduced transitions. Jurogam array, recoil-decay tagging. JOUR PRVCA 74 014302

**KEYNUMBERS AND KEYWORDS**

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**A=170**

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| $^{170}\text{Lu}$ | 2006SH18 | NUCLEAR REACTIONS $^{159}\text{Tb}(\text{16O}, 3\text{n})$ , $(\text{16O}, 4\text{n})$ , $(\text{16O}, 5\text{n})$ , $(\text{16O}, 3\text{np})$ , $(\text{16O}, 4\text{np})$ , $(\text{16O}, 2\text{n}2\text{p})$ , $(\text{16O}, \text{n}\alpha)$ , $(\text{16O}, 2\text{n}\alpha)$ , $(\text{16O}, 2\text{n}2\alpha)$ , E $\approx$ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83 |
| $^{170}\text{Hf}$ | 2006SH18 | NUCLEAR REACTIONS $^{159}\text{Tb}(\text{16O}, 3\text{n})$ , $(\text{16O}, 4\text{n})$ , $(\text{16O}, 5\text{n})$ , $(\text{16O}, 3\text{np})$ , $(\text{16O}, 4\text{np})$ , $(\text{16O}, 2\text{n}2\text{p})$ , $(\text{16O}, \text{n}\alpha)$ , $(\text{16O}, 2\text{n}\alpha)$ , $(\text{16O}, 2\text{n}2\alpha)$ , E $\approx$ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83 |
| $^{170}\text{Ta}$ | 2006SH18 | NUCLEAR REACTIONS $^{159}\text{Tb}(\text{16O}, 3\text{n})$ , $(\text{16O}, 4\text{n})$ , $(\text{16O}, 5\text{n})$ , $(\text{16O}, 3\text{np})$ , $(\text{16O}, 4\text{np})$ , $(\text{16O}, 2\text{n}2\text{p})$ , $(\text{16O}, \text{n}\alpha)$ , $(\text{16O}, 2\text{n}\alpha)$ , $(\text{16O}, 2\text{n}2\alpha)$ , E $\approx$ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83 |
| $^{170}\text{Pt}$ | 2006J004 | NUCLEAR REACTIONS $^{112}\text{Sn}(\text{60Ni}, 2\text{n})$ , $(\text{60Ni}, 3\text{n})$ , E=266 MeV; $\text{Sn}(\text{60Ni}, \text{xn})^{171}\text{Pt} / ^{172}\text{Pt} / ^{173}\text{Pt}$ , E=266 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{170,172,173}\text{Pt}$ deduced levels, $J$ , $\pi$ , configurations. $^{169,171,173}\text{Pt}$ deduced transitions. Jurogam array, recoil-decay tagging. JOUR PRVCA 74 014302  |

**A=171**

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| $^{171}\text{Lu}$ | 2006SH18 | NUCLEAR REACTIONS $^{159}\text{Tb}(\text{16O}, 3\text{n})$ , $(\text{16O}, 4\text{n})$ , $(\text{16O}, 5\text{n})$ , $(\text{16O}, 3\text{np})$ , $(\text{16O}, 4\text{np})$ , $(\text{16O}, 2\text{n}2\text{p})$ , $(\text{16O}, \text{n}\alpha)$ , $(\text{16O}, 2\text{n}\alpha)$ , $(\text{16O}, 2\text{n}2\alpha)$ , E $\approx$ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83 |
| $^{171}\text{Hf}$ | 2006SH18 | NUCLEAR REACTIONS $^{159}\text{Tb}(\text{16O}, 3\text{n})$ , $(\text{16O}, 4\text{n})$ , $(\text{16O}, 5\text{n})$ , $(\text{16O}, 3\text{np})$ , $(\text{16O}, 4\text{np})$ , $(\text{16O}, 2\text{n}2\text{p})$ , $(\text{16O}, \text{n}\alpha)$ , $(\text{16O}, 2\text{n}\alpha)$ , $(\text{16O}, 2\text{n}2\alpha)$ , E $\approx$ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83 |
| $^{171}\text{Ta}$ | 2006SH18 | NUCLEAR REACTIONS $^{159}\text{Tb}(\text{16O}, 3\text{n})$ , $(\text{16O}, 4\text{n})$ , $(\text{16O}, 5\text{n})$ , $(\text{16O}, 3\text{np})$ , $(\text{16O}, 4\text{np})$ , $(\text{16O}, 2\text{n}2\text{p})$ , $(\text{16O}, \text{n}\alpha)$ , $(\text{16O}, 2\text{n}\alpha)$ , $(\text{16O}, 2\text{n}2\alpha)$ , E $\approx$ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83 |
| $^{171}\text{Pt}$ | 2006J004 | NUCLEAR REACTIONS $^{112}\text{Sn}(\text{60Ni}, 2\text{n})$ , $(\text{60Ni}, 3\text{n})$ , E=266 MeV; $\text{Sn}(\text{60Ni}, \text{xn})^{171}\text{Pt} / ^{172}\text{Pt} / ^{173}\text{Pt}$ , E=266 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{170,172,173}\text{Pt}$ deduced levels, $J$ , $\pi$ , configurations. $^{169,171,173}\text{Pt}$ deduced transitions. Jurogam array, recoil-decay tagging. JOUR PRVCA 74 014302  |

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**A=172**

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| $^{172}\text{Yb}$ | 2006SC17 | NUCLEAR REACTIONS $^{171}\text{Yb}(\text{n}, \gamma)$ , E=thermal; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin; deduced primary and secondary $\gamma$ intensities. JOUR PRVCA 74 017305  |
| $^{172}\text{Ta}$ | 2006SH18 | NUCLEAR REACTIONS $^{159}\text{Tb}(\text{O}, 3\text{n})$ , $(^{16}\text{O}, 4\text{n})$ , $(^{16}\text{O}, 5\text{n})$ , $(^{16}\text{O}, 3\text{np})$ , $(^{16}\text{O}, 4\text{np})$ , $(^{16}\text{O}, 2\text{n}2\text{p})$ , $(^{16}\text{O}, \text{n}\alpha)$ , $(^{16}\text{O}, 2\text{n}\alpha)$ , $(^{16}\text{O}, 2\text{n}2\alpha)$ , E $\approx$ 70-95 MeV; measured excitation functions, recoil range distributions; deduced contribution from incomplete fusion. Activation technique, comparison with model predictions. JOUR NUPAB 776 83 |
| $^{172}\text{Pt}$ | 2006J004 | NUCLEAR REACTIONS $^{112}\text{Sn}(\text{O}, 2\text{n})$ , $(^{60}\text{Ni}, 3\text{n})$ , E=266 MeV; $\text{Sn}(\text{O}, \text{xn})^{171}\text{Pt} / ^{172}\text{Pt} / ^{173}\text{Pt}$ , E=266 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, $(\text{recoil})\gamma$ -coin. $^{170,172,173}\text{Pt}$ deduced levels, $J, \pi$ , configurations. $^{169,171,173}\text{Pt}$ deduced transitions. Jurogam array, recoil-decay tagging. JOUR PRVCA 74 014302  |

**A=173**

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| $^{173}\text{Pt}$ | 2006J004 | NUCLEAR REACTIONS $^{112}\text{Sn}(\text{O}, 2\text{n})$ , $(^{60}\text{Ni}, 3\text{n})$ , E=266 MeV; $\text{Sn}(\text{O}, \text{xn})^{171}\text{Pt} / ^{172}\text{Pt} / ^{173}\text{Pt}$ , E=266 MeV; measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, $(\text{recoil})\gamma$ -coin. $^{170,172,173}\text{Pt}$ deduced levels, $J, \pi$ , configurations. $^{169,171,173}\text{Pt}$ deduced transitions. Jurogam array, recoil-decay tagging. JOUR PRVCA 74 014302 |
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**A=174**

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| $^{174}\text{Lu}$ | 2006DR07 | NUCLEAR REACTIONS $^{175,176}\text{Lu}$ , $^{174}\text{Yb}(\text{Xe}, \text{X})^{174}\text{Lu}$ , E=6.0 MeV / nucleon; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{174}\text{Lu}$ deduced levels, $J, \pi$ , configurations, isomer $T_{1/2}$ , K-mixing. Gammasphere array. JOUR PRLTA 97 122501      |
|                   | 2006DRZY | NUCLEAR REACTIONS $^{175,176}\text{Lu}$ , $^{174}\text{Yb}(\text{Xe}, \text{X})^{174}\text{Lu}$ , E=6.0 MeV / nucleon; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{174}\text{Lu}$ deduced levels, $J, \pi$ , configurations, isomer $T_{1/2}$ , K-mixing. Gammasphere array. REPT ANU-P/1717,Dracoulis |

**A=175**

No references found

**A=176**

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| $^{176}\text{Hf}$ | 2006ME13 | NUCLEAR REACTIONS $^{154,156}\text{Gd}$ , $^{164}\text{Dy}$ , $^{170}\text{Er}$ , $^{178}\text{Hf}$ , $^{182,186}\text{W}$ , $^{192}\text{Os}(\text{p}, \text{t})$ , E=25 MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{152,154}\text{Gd}$ , $^{162}\text{Dy}$ , $^{168}\text{Er}$ , $^{176}\text{Hf}$ , $^{180,184}\text{W}$ , $^{190}\text{Os}$ deduced levels, $J, \pi$ , configurations. Comparison with interacting boson approximation model predictions. JOUR PYLBB 638 44 |
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## KEYNUMBERS AND KEYWORDS

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### A=177

No references found

### A=178

<sup>178</sup>Hf      2006UG01      RADIOACTIVITY <sup>178m</sup>Hf(IT); measured E $\gamma$ , I $\gamma$ , multiplicities. JOUR NIMAE 565 657

### A=179

<sup>179</sup>Hf      2006SZ05      NUCLEAR REACTIONS F(n, X)<sup>20</sup>F, E=cold; Na(n, X)<sup>24</sup>Na, E=cold; Mn, Cl(n, X)<sup>38m</sup>Cl / <sup>38</sup>Cl / <sup>56</sup>Mn, E=cold; Sc(n, X)<sup>46</sup>Sc, E=cold; Br(n, X)<sup>80</sup>Br / <sup>82</sup>Br, E=cold; I(n, X)<sup>127</sup>I, E=cold; Hf(n, X)<sup>179m</sup>Hf, E=cold; W(n, X)<sup>187</sup>W, E=cold; Rb(n, X)<sup>86m</sup>Rb / <sup>88</sup>Rb, E=cold; Ag(n, X)<sup>108</sup>Ag / <sup>110</sup>Ag, E=cold; measured partial  $\gamma$ -ray production  $\sigma$ , k<sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655

### A=180

<sup>180</sup>W      2006ME13      NUCLEAR REACTIONS <sup>154,156</sup>Gd, <sup>164</sup>Dy, <sup>170</sup>Er, <sup>178</sup>Hf, <sup>182,186</sup>W, <sup>192</sup>Os(p, t), E=25 MeV; measured triton spectra,  $\sigma(E, \theta)$ . <sup>152,154</sup>Gd, <sup>162</sup>Dy, <sup>168</sup>Er, <sup>176</sup>Hf, <sup>180,184</sup>W, <sup>190</sup>Os deduced levels, J,  $\pi$ , configurations. Comparison with interacting boson approximation model predictions. JOUR PYLBB 638 44

<sup>180</sup>Os      2006TR05      NUCLEAR REACTIONS <sup>181</sup>Ta(<sup>20</sup>Ne, F)<sup>82</sup>Br / <sup>87</sup>Y / <sup>90m</sup>Y / <sup>91m</sup>Y / <sup>96</sup>Nb / <sup>99</sup>Mo / <sup>103</sup>Ru / <sup>105</sup>Ru / <sup>105</sup>Rh / <sup>117m</sup>Sn / <sup>120</sup>Sb, E=150 MeV; <sup>181</sup>Ta(<sup>20</sup>Ne, F)<sup>76</sup>As / <sup>82</sup>Br / <sup>87</sup>Y / <sup>90m</sup>Y / <sup>91m</sup>Y / <sup>89</sup>Zr / <sup>96</sup>Nb / <sup>99</sup>Mo / <sup>103</sup>Ru / <sup>105</sup>Rh / <sup>111</sup>In / <sup>117m</sup>Sn / <sup>118</sup>Sb, E=180 MeV; measured fission fragment yields, angular distributions. <sup>181</sup>Ta(<sup>20</sup>Ne, X)<sup>180</sup>Os / <sup>182</sup>Os / <sup>185</sup>Os / <sup>181</sup>Re / <sup>182</sup>Re / <sup>183</sup>Re / <sup>184</sup>Ir / <sup>186</sup>Ir / <sup>188</sup>Pt / <sup>189</sup>Pt / <sup>190</sup>Hg / <sup>191m</sup>Hg / <sup>192</sup>Hg / <sup>193m</sup>Hg / <sup>194m</sup>Tl, E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

<sup>180</sup>Pt      2006WI15      NUCLEAR REACTIONS <sup>27</sup>Al(<sup>98</sup>Ru, <sup>98</sup>Ru'), E=289 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin following projectile Coulomb excitation. <sup>98</sup>Ru deduced transitions B(E2). <sup>122</sup>Sn(<sup>62</sup>Ni, 4n), E=265 MeV; measured Doppler-shifted E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>180</sup>Pt deduced transitions T<sub>1/2</sub>, B(E2). Comparison with previous results, model predictions. JOUR PRVCA 74 024302

### A=181

<sup>181</sup>Re      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions.  
JOUR PRVCA 74 014610

### A=182

<sup>182</sup>Re      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions.  
JOUR PRVCA 74 014610

<sup>182</sup>Os      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions.  
JOUR PRVCA 74 014610

### A=183

<sup>183</sup>Re      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions.  
JOUR PRVCA 74 014610

**KEYNUMBERS AND KEYWORDS**

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**A=184**

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| $^{184}\text{W}$  | 2006ME13 | NUCLEAR REACTIONS $^{154,156}\text{Gd}$ , $^{164}\text{Dy}$ , $^{170}\text{Er}$ , $^{178}\text{Hf}$ , $^{182,186}\text{W}$ , $^{192}\text{Os}(\text{p}, \text{t})$ , E=25 MeV; measured triton spectra, $\sigma(E, \theta)$ . $^{152,154}\text{Gd}$ , $^{162}\text{Dy}$ , $^{168}\text{Er}$ , $^{176}\text{Hf}$ , $^{180,184}\text{W}$ , $^{190}\text{Os}$ deduced levels, J, $\pi$ , configurations. Comparison with interacting boson approximation model predictions. JOUR PYLBB 638 44   |
| $^{184}\text{Ir}$ | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}(\text{F})^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Ru}$ / $^{105}\text{Rh}$ / $^{117m}\text{Sn}$ / $^{120}\text{Sb}$ , E=150 MeV; $^{181}\text{Ta}(\text{F})^{76}\text{As}$ / $^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{89}\text{Zr}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Rh}$ / $^{111}\text{In}$ / $^{117m}\text{Sn}$ / $^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}(\text{F})^{180}\text{Os}$ / $^{182}\text{Os}$ / $^{185}\text{Os}$ / $^{181}\text{Re}$ / $^{182}\text{Re}$ / $^{183}\text{Re}$ / $^{184}\text{Ir}$ / $^{186}\text{Ir}$ / $^{188}\text{Pt}$ / $^{189}\text{Pt}$ / $^{190}\text{Hg}$ / $^{191m}\text{Hg}$ / $^{192}\text{Hg}$ / $^{193m}\text{Hg}$ / $^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |

**A=185**

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| $^{185}\text{Os}$ | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}(\text{F})^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Ru}$ / $^{105}\text{Rh}$ / $^{117m}\text{Sn}$ / $^{120}\text{Sb}$ , E=150 MeV; $^{181}\text{Ta}(\text{F})^{76}\text{As}$ / $^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{89}\text{Zr}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Rh}$ / $^{111}\text{In}$ / $^{117m}\text{Sn}$ / $^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}(\text{F})^{180}\text{Os}$ / $^{182}\text{Os}$ / $^{185}\text{Os}$ / $^{181}\text{Re}$ / $^{182}\text{Re}$ / $^{183}\text{Re}$ / $^{184}\text{Ir}$ / $^{186}\text{Ir}$ / $^{188}\text{Pt}$ / $^{189}\text{Pt}$ / $^{190}\text{Hg}$ / $^{191m}\text{Hg}$ / $^{192}\text{Hg}$ / $^{193m}\text{Hg}$ / $^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |
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**A=186**

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| $^{186}\text{Re}$ | 2006ST13 | NUCLEAR REACTIONS $^{75}\text{As}$ , $^{87}\text{Rb}$ , $^{84}\text{Sr}$ , $^{108}\text{Pd}$ , $^{109}\text{Ag}$ , $^{114}\text{Cd}$ , $^{115}\text{In}$ , $^{127}\text{I}$ , $^{133}\text{Cs}$ , $^{130}\text{Ba}$ , $^{169}\text{Tm}$ , $^{181}\text{Ta}$ , $^{185}\text{Re}(\text{n}, \gamma)$ , E=reactor; measured ratio of resonance integral to thermal neutron activation $\sigma$ , $k_0$ values. Two-channel method, comparison with previous results. JOUR NIMAE 564 669  |
| $^{186}\text{Ir}$ | 2006TR05 | NUCLEAR REACTIONS $^{181}\text{Ta}(\text{F})^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Ru}$ / $^{105}\text{Rh}$ / $^{117m}\text{Sn}$ / $^{120}\text{Sb}$ , E=150 MeV; $^{181}\text{Ta}(\text{F})^{76}\text{As}$ / $^{82}\text{Br}$ / $^{87}\text{Y}$ / $^{90m}\text{Y}$ / $^{91m}\text{Y}$ / $^{89}\text{Zr}$ / $^{96}\text{Nb}$ / $^{99}\text{Mo}$ / $^{103}\text{Ru}$ / $^{105}\text{Rh}$ / $^{111}\text{In}$ / $^{117m}\text{Sn}$ / $^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions. $^{181}\text{Ta}(\text{F})^{180}\text{Os}$ / $^{182}\text{Os}$ / $^{185}\text{Os}$ / $^{181}\text{Re}$ / $^{182}\text{Re}$ / $^{183}\text{Re}$ / $^{184}\text{Ir}$ / $^{186}\text{Ir}$ / $^{188}\text{Pt}$ / $^{189}\text{Pt}$ / $^{190}\text{Hg}$ / $^{191m}\text{Hg}$ / $^{192}\text{Hg}$ / $^{193m}\text{Hg}$ / $^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610 |

**KEYNUMBERS AND KEYWORDS**

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**A=186 (*continued*)**

<sup>186</sup>Pb      2006GR16      NUCLEAR REACTIONS <sup>106</sup>Pd(<sup>83</sup>Kr, 3n), E=357 MeV; <sup>108</sup>Pd(<sup>83</sup>Kr, 3n), E=340 MeV; <sup>114</sup>Cd(<sup>83</sup>Kr, 3n), E=375 MeV; measured Doppler-shifted E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (recoil) $\gamma$ -coin. <sup>186,188</sup>Pb, <sup>194</sup>Po levels deduced T<sub>1/2</sub>, B(E2), transition quadrupole moments. configuration-mixing features. Jurogam array, recoil decay tagging, recoil-distance Doppler-shift technique. JOUR PRLTA 97 062501

**A=187**

<sup>187</sup>W      2006SZ05      NUCLEAR REACTIONS F(n, X)<sup>20</sup>F, E=cold; Na(n, X)<sup>24</sup>Na, E=cold; Mn, Cl(n, X)<sup>38m</sup>Cl / <sup>56</sup>Mn, E=cold; Sc(n, X)<sup>46</sup>Sc, E=cold; Br(n, X)<sup>80</sup>Br / <sup>82</sup>Br, E=cold; I(n, X)<sup>127</sup>I, E=cold; Hf(n, X)<sup>179m</sup>Hf, E=cold; W(n, X)<sup>187</sup>W, E=cold; Rb(n, X)<sup>86m</sup>Rb / <sup>88</sup>Rb, E=cold; Ag(n, X)<sup>108</sup>Ag / <sup>110</sup>Ag, E=cold; measured partial  $\gamma$ -ray production  $\sigma$ , k<sub>0</sub> factors. Chopped beam. JOUR NIMAE 564 655

<sup>187</sup>Os      2006UT02      NUCLEAR REACTIONS <sup>139</sup>La, <sup>141</sup>Pr, <sup>186</sup>W, <sup>187</sup>Re, <sup>188</sup>Os( $\gamma$ , n), E ≈ 8-16 MeV; measured photodisintegration  $\sigma$ . JOUR ZAANE 27 s01 153

**A=188**

<sup>188</sup>Pt      2006TR05      NUCLEAR REACTIONS <sup>181</sup>Ta(<sup>20</sup>Ne, F)<sup>82</sup>Br / <sup>87</sup>Y / <sup>90m</sup>Y / <sup>91m</sup>Y / <sup>96</sup>Nb / <sup>99</sup>Mo / <sup>103</sup>Ru / <sup>105</sup>Ru / <sup>105</sup>Rh / <sup>117m</sup>Sn / <sup>120</sup>Sb, E=150 MeV; <sup>181</sup>Ta(<sup>20</sup>Ne, F)<sup>76</sup>As / <sup>82</sup>Br / <sup>87</sup>Y / <sup>90m</sup>Y / <sup>91m</sup>Y / <sup>89</sup>Zr / <sup>96</sup>Nb / <sup>99</sup>Mo / <sup>103</sup>Ru / <sup>105</sup>Rh / <sup>111</sup>In / <sup>117m</sup>Sn / <sup>118</sup>Sb, E=180 MeV; measured fission fragment yields, angular distributions. <sup>181</sup>Ta(<sup>20</sup>Ne, X)<sup>180</sup>Os / <sup>182</sup>Os / <sup>185</sup>Os / <sup>181</sup>Re / <sup>182</sup>Re / <sup>183</sup>Re / <sup>184</sup>Ir / <sup>186</sup>Ir / <sup>188</sup>Pt / <sup>189</sup>Pt / <sup>190</sup>Hg / <sup>191m</sup>Hg / <sup>192</sup>Hg / <sup>193m</sup>Hg / <sup>194m</sup>Tl, E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

<sup>188</sup>Tl      2006MA39      NUCLEAR REACTIONS <sup>157</sup>Gd(<sup>35</sup>Cl, 4n), E=170 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>188</sup>Tl deduced high-spin levels, J,  $\pi$ , configurations, B(M1) / B(E2). JOUR CPLEE 23 1727

                2006ZH22      NUCLEAR REACTIONS <sup>157</sup>Gd(<sup>35</sup>Cl, 4n), E=170 MeV; measured E $\gamma$ , I $\gamma(\theta)$ ,  $\gamma\gamma$ -coin. <sup>188</sup>Tl deduced levels, J,  $\pi$ , configurations, B(M1) / B(E2), configurations, oblate rotational band. Gemini array. JOUR ZAANE 28 271

<sup>188</sup>Pb      2006GR16      NUCLEAR REACTIONS <sup>106</sup>Pd(<sup>83</sup>Kr, 3n), E=357 MeV; <sup>108</sup>Pd(<sup>83</sup>Kr, 3n), E=340 MeV; <sup>114</sup>Cd(<sup>83</sup>Kr, 3n), E=375 MeV; measured Doppler-shifted E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (recoil) $\gamma$ -coin. <sup>186,188</sup>Pb, <sup>194</sup>Po levels deduced T<sub>1/2</sub>, B(E2), transition quadrupole moments. configuration-mixing features. Jurogam array, recoil decay tagging, recoil-distance Doppler-shift technique. JOUR PRLTA 97 062501

**KEYNUMBERS AND KEYWORDS**

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**A=189**

<sup>189</sup>Pt      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

**A=190**

<sup>190</sup>Os      2006ME13      NUCLEAR REACTIONS  $^{154,156}\text{Gd}, ^{164}\text{Dy}, ^{170}\text{Er}, ^{178}\text{Hf}, ^{182,186}\text{W}, ^{192}\text{Os}(\text{p}, \text{t})$ , E=25 MeV; measured triton spectra,  $\sigma(E, \theta)$ .  $^{152,154}\text{Gd}, ^{162}\text{Dy}, ^{168}\text{Er}, ^{176}\text{Hf}, ^{180,184}\text{W}, ^{190}\text{Os}$  deduced levels, J,  $\pi$ , configurations. Comparison with interacting boson approximation model predictions. JOUR PYLBB 638 44

<sup>190</sup>Hg      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

**A=191**

<sup>191</sup>Hg      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

**A=192**

<sup>192</sup>Hg      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

**A=193**

<sup>193</sup>Ir      2006HA36      RADIOACTIVITY  $^{193m}\text{Ir}(\text{IT})$ ; measured  $E\gamma$ ,  $I\gamma$ , X-ray spectra; deduced conversion coefficient.  $^{134m}\text{Cs}$ ,  $^{137}\text{Ba}$ ; analyzed ICC ratio. Comparison with model predictions. JOUR ARISE 64 1392

<sup>193</sup>Hg      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

**A=194**

<sup>194</sup>Tl      2006TR05      NUCLEAR REACTIONS  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Ru} / ^{105}\text{Rh} / ^{117m}\text{Sn} / ^{120}\text{Sb}$ , E=150 MeV;  $^{181}\text{Ta}(^{20}\text{Ne}, \text{F})^{76}\text{As} / ^{82}\text{Br} / ^{87}\text{Y} / ^{90m}\text{Y} / ^{91m}\text{Y} / ^{89}\text{Zr} / ^{96}\text{Nb} / ^{99}\text{Mo} / ^{103}\text{Ru} / ^{105}\text{Rh} / ^{111}\text{In} / ^{117m}\text{Sn} / ^{118}\text{Sb}$ , E=180 MeV; measured fission fragment yields, angular distributions.  $^{181}\text{Ta}(^{20}\text{Ne}, \text{X})^{180}\text{Os} / ^{182}\text{Os} / ^{185}\text{Os} / ^{181}\text{Re} / ^{182}\text{Re} / ^{183}\text{Re} / ^{184}\text{Ir} / ^{186}\text{Ir} / ^{188}\text{Pt} / ^{189}\text{Pt} / ^{190}\text{Hg} / ^{191m}\text{Hg} / ^{192}\text{Hg} / ^{193m}\text{Hg} / ^{194m}\text{Tl}$ , E=150, 180 MeV; measured evaporation residue production  $\sigma$ , recoil range distributions. JOUR PRVCA 74 014610

<sup>194</sup>Po      2006GR16      NUCLEAR REACTIONS  $^{106}\text{Pd}(^{83}\text{Kr}, 3n)$ , E=357 MeV;  $^{108}\text{Pd}(^{83}\text{Kr}, 3n)$ , E=340 MeV;  $^{114}\text{Cd}(^{83}\text{Kr}, 3n)$ , E=375 MeV; measured Doppler-shifted  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma\gamma$ , (recoil) $\gamma$ -coin.  $^{186,188}\text{Pb}$ ,  $^{194}\text{Po}$  levels deduced  $T_{1/2}$ ,  $B(E2)$ , transition quadrupole moments. configuration-mixing features. Jurogam array, recoil decay tagging, recoil-distance Doppler-shift technique. JOUR PRLTA 97 062501

## KEYNUMBERS AND KEYWORDS

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### A=195

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| $^{195}\text{Au}$ | 2006WH02 | NUCLEAR REACTIONS $^{198}\text{Pt}(^{136}\text{Xe}, \text{X})^{195}\text{Au} / ^{197}\text{Au}$ , E=850 MeV; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{197}\text{Au}$ deduced levels, J, $\pi$ , configurations, high-spin isomer $T_{1/2}$ . $^{195}\text{Au}$ deduced transition. Gammasphere, Chico arrays. JOUR PRVCA 74 027303 |
| $^{195}\text{Hg}$ | 2006AL14 | NUCLEAR REACTIONS $^{196,198,204}\text{Hg}(n, 2n)$ , $^{198,199}\text{Hg}(n, p)$ , E=7.6-12.5 MeV; measured excitation functions, isomer ratios. Activation technique, comparison with previous results and model predictions. JOUR PRVCA 73 064608   |

### A=196

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| $^{196}\text{Au}$ | 2005PEZV | NUCLEAR REACTIONS $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV; $^{197}\text{Au}(^6\text{He}, 2n)$ , $(^6\text{He}, 3n)$ , $(^6\text{He}, 4n)$ , $(^6\text{He}, 5n)$ , $(^6\text{He}, 6n)$ , $(^6\text{He}, 7n)$ , E=15-70 MeV; $^{197}\text{Au}(^6\text{He}, \text{X})^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich |
| $^{196}\text{Tl}$ | 2005PEZV | NUCLEAR REACTIONS $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV; $^{197}\text{Au}(^6\text{He}, 2n)$ , $(^6\text{He}, 3n)$ , $(^6\text{He}, 4n)$ , $(^6\text{He}, 5n)$ , $(^6\text{He}, 6n)$ , $(^6\text{He}, 7n)$ , E=15-70 MeV; $^{197}\text{Au}(^6\text{He}, \text{X})^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich |

### A=197

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| $^{197}\text{Au}$ | 2006STZY | NUCLEAR REACTIONS $^{197}\text{Au}(^{38}\text{S}, ^{38}\text{S}')$ , $(^{40}\text{S}, ^{40}\text{S}')$ , E $\approx$ 40 MeV / nucleon; measured $E\gamma$ , $I\gamma(\theta, \text{H}, \text{t})$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. $^{38,40}\text{S}$ levels deduced excitation B(E2), g factors. Transient field technique. PREPRINT nucl-ex/0609033, 9/21/2006   |
|                   | 2006WH02 | NUCLEAR REACTIONS $^{198}\text{Pt}(^{136}\text{Xe}, \text{X})^{195}\text{Au} / ^{197}\text{Au}$ , E=850 MeV; measured prompt and delayed $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -, (recoil) $\gamma$ -coin. $^{197}\text{Au}$ deduced levels, J, $\pi$ , configurations, high-spin isomer $T_{1/2}$ . $^{195}\text{Au}$ deduced transition. Gammasphere, Chico arrays. JOUR PRVCA 74 027303  |
| $^{197}\text{Hg}$ | 2006AL14 | NUCLEAR REACTIONS $^{196,198,204}\text{Hg}(n, 2n)$ , $^{198,199}\text{Hg}(n, p)$ , E=7.6-12.5 MeV; measured excitation functions, isomer ratios. Activation technique, comparison with previous results and model predictions. JOUR PRVCA 73 064608  |
| $^{197}\text{Tl}$ | 2005PEZV | NUCLEAR REACTIONS $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV; $^{197}\text{Au}(^6\text{He}, 2n)$ , $(^6\text{He}, 3n)$ , $(^6\text{He}, 4n)$ , $(^6\text{He}, 5n)$ , $(^6\text{He}, 6n)$ , $(^6\text{He}, 7n)$ , E=15-70 MeV; $^{197}\text{Au}(^6\text{He}, \text{X})^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich |

**A=198**

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| $^{198}\text{Au}$ | 2005PEZV | NUCLEAR REACTIONS $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV; $^{197}\text{Au}(^6\text{He}, 2n)$ , ( $^6\text{He}, 3n$ ), ( $^6\text{He}, 4n$ ), ( $^6\text{He}, 5n$ ), ( $^6\text{He}, 6n$ ), ( $^6\text{He}, 7n$ ), E=15-70 MeV; $^{197}\text{Au}(^6\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich |
|                   | 2006AL14 | NUCLEAR REACTIONS $^{196,198,204}\text{Hg}(n, 2n)$ , $^{198,199}\text{Hg}(n, p)$ , E=7.6-12.5 MeV; measured excitation functions, isomer ratios. Activation technique, comparison with previous results and model predictions. JOUR PRVCA 73 064608  |
|                   | 2006N010 | RADIOACTIVITY $^{198}\text{Au}(\beta^-)$ ; measured $T_{1/2}$ , decay characteristics; deduced no deviation from exponential decay. JOUR NIMAE 566 477   |
| $^{198}\text{Hg}$ | 2006N010 | RADIOACTIVITY $^{198}\text{Au}(\beta^-)$ ; measured $T_{1/2}$ , decay characteristics; deduced no deviation from exponential decay. JOUR NIMAE 566 477   |
| $^{198}\text{Tl}$ | 2005PEZV | NUCLEAR REACTIONS $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV; $^{197}\text{Au}(^6\text{He}, 2n)$ , ( $^6\text{He}, 3n$ ), ( $^6\text{He}, 4n$ ), ( $^6\text{He}, 5n$ ), ( $^6\text{He}, 6n$ ), ( $^6\text{He}, 7n$ ), E=15-70 MeV; $^{197}\text{Au}(^6\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich |

**A=199**

|                   |          |  |
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| $^{199}\text{Au}$ | 2005PEZV | NUCLEAR REACTIONS $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV; $^{197}\text{Au}(^6\text{He}, 2n)$ , ( $^6\text{He}, 3n$ ), ( $^6\text{He}, 4n$ ), ( $^6\text{He}, 5n$ ), ( $^6\text{He}, 6n$ ), ( $^6\text{He}, 7n$ ), E=15-70 MeV; $^{197}\text{Au}(^6\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich |
|                   | 2006AL14 | NUCLEAR REACTIONS $^{196,198,204}\text{Hg}(n, 2n)$ , $^{198,199}\text{Hg}(n, p)$ , E=7.6-12.5 MeV; measured excitation functions, isomer ratios. Activation technique, comparison with previous results and model predictions. JOUR PRVCA 73 064608  |
| $^{199}\text{Tl}$ | 2005PEZV | NUCLEAR REACTIONS $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV; $^{197}\text{Au}(^6\text{He}, 2n)$ , ( $^6\text{He}, 3n$ ), ( $^6\text{He}, 4n$ ), ( $^6\text{He}, 5n$ ), ( $^6\text{He}, 6n$ ), ( $^6\text{He}, 7n$ ), E=15-70 MeV; $^{197}\text{Au}(^6\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich |

**A=200**

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| $^{200}\text{Tl}$ | 2005PEZV | NUCLEAR REACTIONS $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV; $^{197}\text{Au}(^6\text{He}, 2n)$ , ( $^6\text{He}, 3n$ ), ( $^6\text{He}, 4n$ ), ( $^6\text{He}, 5n$ ), ( $^6\text{He}, 6n$ ), ( $^6\text{He}, 7n$ ), E=15-70 MeV; $^{197}\text{Au}(^6\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich |
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**KEYNUMBERS AND KEYWORDS**

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**A=201**

<sup>201</sup>Tl      2005PEZV      NUCLEAR REACTIONS  $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV;  $^{197}\text{Au}(^6\text{He}, 2n)$ , ( $^6\text{He}, 3n$ ), ( $^6\text{He}, 4n$ ), ( $^6\text{He}, 5n$ ), ( $^6\text{He}, 6n$ ), ( $^6\text{He}, 7n$ ), E=15-70 MeV;  $^{197}\text{Au}(^6\text{He}, X)$   $^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkovich

**A=202**

No references found

**A=203**

<sup>203</sup>Hg      2006AL14      NUCLEAR REACTIONS  $^{196,198,204}\text{Hg}(n, 2n)$ ,  $^{198,199}\text{Hg}(n, p)$ , E=7.6-12.5 MeV; measured excitation functions, isomer ratios. Activation technique, comparison with previous results and model predictions. JOUR PRVCA 73 064608

                2006DA20      RADIOACTIVITY  $^{54}\text{Mn}$ ,  $^{125}\text{I}$ ,  $^{203}\text{Hg}$ ; measured  $E\gamma$ ,  $I\gamma$ ; deduced photon emission probabilities. JOUR ARISE 64 1440

<sup>203</sup>At      2006RA14      NUCLEAR REACTIONS  $^{175}\text{Lu}(^{28}\text{Si}, nX)$ , ( $^{28}\text{Si}, pX$ ), ( $^{28}\text{Si}, \alpha X$ ), E=159 MeV; measured precession neutron, proton, and  $\alpha$  multiplicities,  $\sigma(E, \theta)$ .  $^{203}\text{At}$  deduced fission time scale. Deformation dependent particle binding energies and transmission co-efficients, dynamical effects. JOUR PRVCA 73 064609

**A=204**

No references found

**A=205**

No references found

**A=206**

No references found

**A=207**

<sup>207</sup>Tl      2006HUZY      NUCLEAR REACTIONS  $^{90}\text{Zr}$ ,  $^{208}\text{Pb}(\alpha, \alpha'p)$ , E=200 MeV; measured Ep.  $^{90}\text{Zr}$  deduced isoscalar GDR proton decay features. REPT ATOMKI 2005 Annual, P21, Hunyadi

<sup>207</sup>Rn      2006P010      NUCLEAR REACTIONS  $^{164}\text{Dy}(^{48}\text{Ca}, 5n)$ , E not given; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin. JOUR PANUE 69 1183

*KEYNUMBERS AND KEYWORDS*

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**A=208**

$^{208}\text{Pb}$       2006WA17      NUCLEAR REACTIONS  $^{208}\text{Pb}(^{17}\text{F}, ^{17}\text{F})$ , E=141 MeV;  $^{208}\text{Pb}(^{17}\text{O}, ^{17}\text{O})$ , E=128 MeV; measured  $\sigma(\theta)$ ; deduced possible halo effects.  
JOUR CPLEE 23 1731

**A=209**

$^{209}\text{Bi}$       2006MA51      NUCLEAR REACTIONS  $^{209}\text{Bi}(^{11}\text{Be}, ^{11}\text{Be})$ , E=40 MeV; measured quasielastic  $\sigma$ ,  $\sigma(\theta)$ . Discussed halo structure reaction mechanism features. Comparison with optical model, similar systems. EXODET array. JOUR ZAANE 28 295

**A=210**

$^{210}\text{Bi}$       2006BOZX      NUCLEAR REACTIONS  $^{209}\text{Bi}(n, X)$ ,  $(n, \gamma)$ , E  $\approx$  0-40 keV; measured total and capture  $\sigma$ ; deduced resonance parameters. CONF Vancouver(PHYSOR-2006),B043,Borella  
 $^{2006}\text{BOZY}$       NUCLEAR REACTIONS  $^{209}\text{Bi}(n, \gamma)$ , E=0.5-20 keV; measured  $E\gamma$ ,  $I\gamma$ ; deduced resonance features. CONF Vancouver(PHYSOR-2006),B042,Borella  
 $^{2006}\text{D020}$       NUCLEAR REACTIONS  $^{209}\text{Bi}(n, \gamma)$ , E=0.8-23.15 keV; measured capture  $\sigma$ ; deduced resonance parameters, Maxwellian averaged  $\sigma$ .  
JOUR PRVCA 74 025807  
 $^{210}\text{Po}$       2005PEZV      NUCLEAR REACTIONS  $^{206}\text{Pb}(^6\text{He}, 2n)$ , E=12-26 MeV;  $^{197}\text{Au}(^6\text{He}, 2n)$ ,  $(^6\text{He}, 3n)$ ,  $(^6\text{He}, 4n)$ ,  $(^6\text{He}, 5n)$ ,  $(^6\text{He}, 6n)$ ,  $(^6\text{He}, 7n)$ , E=15-70 MeV;  $^{197}\text{Au}(^6\text{He}, X)^{196}\text{Au} / ^{198}\text{Au} / ^{199}\text{Au}$ , E=20-60 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2005-106, Penionzhkevich

**A=211**

No references found

**A=212**

No references found

**A=213**

No references found

**A=214**

No references found

*KEYNUMBERS AND KEYWORDS*

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**A=215**

$^{215}\text{Ra}$       2006PE17      RADIOACTIVITY  $^{250}\text{No}(\text{SF})$  [from  $^{204}\text{Pb}(^{48}\text{Ca}, 2\text{n})$ ]; measured  $T_{1/2}$  for ground and isomeric state decay; deduced upper limit for  $\alpha$ -decay branching ratio.  $^{219,220}\text{Th}(\alpha)$  [from  $^{176}\text{Yb}(^{48}\text{Ca}, \text{xn})$ ]; measured  $T_{1/2}$ .  
JOUR PRVCA 74 014316

**A=216**

$^{216}\text{Ra}$       2006PE17      RADIOACTIVITY  $^{250}\text{No}(\text{SF})$  [from  $^{204}\text{Pb}(^{48}\text{Ca}, 2\text{n})$ ]; measured  $T_{1/2}$  for ground and isomeric state decay; deduced upper limit for  $\alpha$ -decay branching ratio.  $^{219,220}\text{Th}(\alpha)$  [from  $^{176}\text{Yb}(^{48}\text{Ca}, \text{xn})$ ]; measured  $T_{1/2}$ .  
JOUR PRVCA 74 014316

**A=217**

No references found

**A=218**

No references found

**A=219**

$^{219}\text{Th}$       2006PE17      RADIOACTIVITY  $^{250}\text{No}(\text{SF})$  [from  $^{204}\text{Pb}(^{48}\text{Ca}, 2\text{n})$ ]; measured  $T_{1/2}$  for ground and isomeric state decay; deduced upper limit for  $\alpha$ -decay branching ratio.  $^{219,220}\text{Th}(\alpha)$  [from  $^{176}\text{Yb}(^{48}\text{Ca}, \text{xn})$ ]; measured  $T_{1/2}$ .  
JOUR PRVCA 74 014316

**A=220**

$^{220}\text{Th}$       2006PE17      RADIOACTIVITY  $^{250}\text{No}(\text{SF})$  [from  $^{204}\text{Pb}(^{48}\text{Ca}, 2\text{n})$ ]; measured  $T_{1/2}$  for ground and isomeric state decay; deduced upper limit for  $\alpha$ -decay branching ratio.  $^{219,220}\text{Th}(\alpha)$  [from  $^{176}\text{Yb}(^{48}\text{Ca}, \text{xn})$ ]; measured  $T_{1/2}$ .  
JOUR PRVCA 74 014316

**A=221**

No references found

**A=222**

No references found

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**A=223**

No references found

**A=224**

No references found

**A=225**

No references found

**A=226**

No references found

**A=227**

No references found

**A=228**

No references found

**A=229**

No references found

**A=230**

No references found

**A=231**

No references found

**A=232**

<sup>232</sup>Pa      2006CSZZ      NUCLEAR REACTIONS <sup>231</sup>Pa(d, p), E=12 MeV; measured Ep,  $\sigma(E, \theta=140^\circ)$ . <sup>232</sup>Pa deduced levels. REPT ATOMKI 2005  
Annual,P22,Csatlos

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**KEYNUMBERS AND KEYWORDS**

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**A=233**

No references found

**A=234**

|                   |          |   |
|-------------------|----------|---|
| $^{234}\text{Pa}$ | 2006B020 | NUCLEAR REACTIONS $^{232}\text{Th}(\text{He}, \text{p})$ , E=24 MeV; measured $E\gamma$ , $I\gamma$ , (particle) $\gamma$ -coin. $^{234}\text{Pa}$ deduced $\gamma$ -ray emission probabilities.<br>$^{233}\text{Pa}(\text{n}, \gamma)$ , E=100-900 keV; deduced capture $\sigma$ . Comparison with model predictions. JOUR NUPAB 775 175 |
| $^{234}\text{Pu}$ | 2006AS03 | RADIOACTIVITY $^{238}\text{Cm}(\alpha)$ [from $^{237}\text{Np}(\text{Li}, 5\text{n})$ ]; measured $E\alpha$ , $T_{1/2}$ . $^{234}\text{Pu}$ deduced $2^+$ excited state energy. Systematics of $2^+$ levels discussed. JOUR PRVCA 73 067301   |

**A=235**

|                  |          |  |
|------------------|----------|--|
| $^{235}\text{U}$ | 2006DRZX | NUCLEAR REACTIONS $^{234}\text{U}(\text{n}, \gamma)$ , E $\approx$ 0-1.5 keV; measured capture $\sigma$ ; deduced resonance features. Total absorption calorimeter. CONF Vancouver(PHYSOR-2006),C032,Dridi |
|------------------|----------|--|

**A=236**

|                   |          |   |
|-------------------|----------|---|
| $^{236}\text{U}$  | 2006CSZY | NUCLEAR REACTIONS $^{235}\text{U}(\text{d}, \text{pF})$ , E=13 MeV; measured Ep, fission fragments angular distributions; deduced rotational parameter.<br>$^{236}\text{U}$ deduced fission resonance features. REPT ATOMKI 2005 Annual,P23,Csige |
| $^{236}\text{Pu}$ | 2006AS03 | NUCLEAR REACTIONS $^{237}\text{Np}(\text{Li}, \text{X})$ , E=52-59 MeV; measured delayed $E\alpha$ , $I\alpha$ ; deduced evidence for $^{236,238}\text{Pu}$ , $^{237}\text{Am}$ , $^{237,238}\text{Cm}$ . Mass separator. JOUR PRVCA 73 067301    |

**A=237**

|                   |          |  |
|-------------------|----------|--|
| $^{237}\text{U}$  | 2006GUZZ | NUCLEAR REACTIONS $^{236}\text{U}(\text{n}, \gamma)$ , E=0-1800 eV; measured capture yield. CONF Vancouver(PHYSOR-2006),B072,Gunsing   |
| $^{237}\text{Am}$ | 2006AS03 | NUCLEAR REACTIONS $^{237}\text{Np}(\text{Li}, \text{X})$ , E=52-59 MeV; measured delayed $E\alpha$ , $I\alpha$ ; deduced evidence for $^{236,238}\text{Pu}$ , $^{237}\text{Am}$ , $^{237,238}\text{Cm}$ . Mass separator. JOUR PRVCA 73 067301 |
| $^{237}\text{Cm}$ | 2006AS03 | NUCLEAR REACTIONS $^{237}\text{Np}(\text{Li}, \text{X})$ , E=52-59 MeV; measured delayed $E\alpha$ , $I\alpha$ ; deduced evidence for $^{236,238}\text{Pu}$ , $^{237}\text{Am}$ , $^{237,238}\text{Cm}$ . Mass separator. JOUR PRVCA 73 067301 |

**A=238**

|                   |          |  |
|-------------------|----------|--|
| $^{238}\text{Np}$ | 2006GUZY | NUCLEAR REACTIONS $^{237}\text{Np}(\text{n}, \gamma)$ , E < 100 eV; $^{240}\text{Pu}(\text{n}, \gamma)$ , E < 1 keV; measured capture $\sigma$ ; deduced resonance features. Total absorption calorimeter. CONF Vancouver(PHYSOR-2006),C031,Guerrero |
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## KEYNUMBERS AND KEYWORDS

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### A=238 (*continued*)

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|-------------------|----------|--|
|                   | 2006RE09 | RADIOACTIVITY $^{238}\text{Np}(\beta^-)$ [from $^{237}\text{Np}(n, \gamma)$ ]; measured E $\beta$ , E $\gamma$ , X-ray spectra, T <sub>1/2</sub> . $^{238}\text{Pu}$ deduced levels. Chemical separation.  |
| $^{238}\text{Pu}$ | 2006AS03 | JOUR NIMAE 565 612   |
|                   | 2006RE09 | NUCLEAR REACTIONS $^{237}\text{Np}(^6\text{Li}, X)$ , E=52-59 MeV; measured delayed E $\alpha$ , I $\alpha$ ; deduced evidence for $^{236,238}\text{Pu}$ , $^{237}\text{Am}$ , $^{237,238}\text{Cm}$ . Mass separator. JOUR PRVCA 73 067301                      |
|                   | 2006AS03 | RADIOACTIVITY $^{238}\text{Np}(\beta^-)$ [from $^{237}\text{Np}(n, \gamma)$ ]; measured E $\beta$ , E $\gamma$ , X-ray spectra, T <sub>1/2</sub> . $^{238}\text{Pu}$ deduced levels. Chemical separation.  |
| $^{238}\text{Cm}$ | 2006AS03 | JOUR NIMAE 565 612   |
|                   | 2006AS03 | NUCLEAR REACTIONS $^{237}\text{Np}(^6\text{Li}, X)$ , E=52-59 MeV; measured delayed E $\alpha$ , I $\alpha$ ; deduced evidence for $^{236,238}\text{Pu}$ , $^{237}\text{Am}$ , $^{237,238}\text{Cm}$ . Mass separator. JOUR PRVCA 73 067301                      |
|                   | 2006AS03 | RADIOACTIVITY $^{238}\text{Cm}(\alpha)$ [from $^{237}\text{Np}(^6\text{Li}, 5n)$ ]; measured E $\alpha$ , T <sub>1/2</sub> . $^{234}\text{Pu}$ deduced 2 <sup>+</sup> excited state energy. Systematics of 2 <sup>+</sup> levels discussed. JOUR PRVCA 73 067301 |

### A=239

No references found

### A=240

|                   |          |  |
|-------------------|----------|--|
| $^{240}\text{Pu}$ | 2006BEZU | NUCLEAR REACTIONS $^{234}\text{U}$ , $^{237}\text{Np}$ , $^{239,242}\text{Pu}(n, \gamma)$ , E=low; measured $\sigma$ . Oscillation technique. CONF Vancouver(PHYSOR-2006),B075,Bernard |
| $^{240}\text{Am}$ | 2006PE14 | NUCLEAR REACTIONS $^{241}\text{Am}(n, 2n)$ , E=8.8-11.4 MeV; measured $\sigma$ . Activation method. JOUR PRVCA 73 067601   |

### A=241

|                   |          |  |
|-------------------|----------|--|
| $^{241}\text{Pu}$ | 2006GUZY | NUCLEAR REACTIONS $^{237}\text{Np}(n, \gamma)$ , E < 100 eV; $^{240}\text{Pu}(n, \gamma)$ , E < 1 keV; measured capture $\sigma$ ; deduced resonance features. Total absorption calorimeter. CONF Vancouver(PHYSOR-2006),C031,Guerrero |
|-------------------|----------|--|

### A=242

|                   |          |  |
|-------------------|----------|--|
| $^{242}\text{Am}$ | 2006BE29 | NUCLEAR REACTIONS $^{241}\text{Am}(n, X)^{242m}\text{Am}$ , E=thermal; measured yield. Comparison with model predictions. JOUR NIMAE 564 482 |
|-------------------|----------|--|

### A=243

|                   |          |  |
|-------------------|----------|--|
| $^{243}\text{Pu}$ | 2006BEZU | NUCLEAR REACTIONS $^{234}\text{U}$ , $^{237}\text{Np}$ , $^{239,242}\text{Pu}(n, \gamma)$ , E=low; measured $\sigma$ . Oscillation technique. CONF Vancouver(PHYSOR-2006),B075,Bernard |
|-------------------|----------|--|

## KEYNUMBERS AND KEYWORDS

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### A=243 (*continued*)

$^{243}\text{Cm}$  2006BRZX NUCLEAR REACTIONS  $^{232}\text{Th}$ ,  $^{233}\text{Pa}$ ,  $^{234,235}\text{U}$ ,  $^{241,242m}\text{Am}$ ,  $^{242}\text{Cm}(n, \gamma)$ , E=thermal;  $^{242,242m}\text{Am}(n, F)$ , E=thermal; measured  $\sigma$ . Comparison with previous results. CONF Vancouver(PHYSOR-2006), C034, Bringer

### A=244

$^{244}\text{Cf}$  2006NI09 RADIOACTIVITY  $^{248,249,250}\text{Fm}(\alpha)$  [from  $^{238}\text{U}(^{16}\text{O}, xn)$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR PANUE 69 1399

### A=245

$^{245}\text{Cf}$  2006NI09 RADIOACTIVITY  $^{248,249,250}\text{Fm}(\alpha)$  [from  $^{238}\text{U}(^{16}\text{O}, xn)$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR PANUE 69 1399

### A=246

$^{246}\text{Cf}$  2006NI09 RADIOACTIVITY  $^{248,249,250}\text{Fm}(\alpha)$  [from  $^{238}\text{U}(^{16}\text{O}, xn)$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR PANUE 69 1399

### A=247

No references found

### A=248

$^{248}\text{Fm}$  2006LE29 RADIOACTIVITY  $^{252}\text{No}(\alpha)$ , (SF) [from  $^{206}\text{Pb}(^{48}\text{Ca}, 2n)$ ]; measured  $T_{1/2}$ . JOUR ZAANE 28 301  
2006NI09 NUCLEAR REACTIONS  $^{238}\text{U}(^{16}\text{O}, 4n)$ ,  $(^{16}\text{O}, 5n)$ ,  $(^{16}\text{O}, 6n)$ , E(cm)=70-95 MeV; measured evaporation residue  $\sigma$ ; deduced reaction mechanism features. Comparison with statistical model predictions. JOUR PANUE 69 1399  
2006NI09 RADIOACTIVITY  $^{248,249,250}\text{Fm}(\alpha)$  [from  $^{238}\text{U}(^{16}\text{O}, xn)$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR PANUE 69 1399

### A=249

$^{249}\text{Fm}$  2006NI09 NUCLEAR REACTIONS  $^{238}\text{U}(^{16}\text{O}, 4n)$ ,  $(^{16}\text{O}, 5n)$ ,  $(^{16}\text{O}, 6n)$ , E(cm)=70-95 MeV; measured evaporation residue  $\sigma$ ; deduced reaction mechanism features. Comparison with statistical model predictions. JOUR PANUE 69 1399  
2006NI09 RADIOACTIVITY  $^{248,249,250}\text{Fm}(\alpha)$  [from  $^{238}\text{U}(^{16}\text{O}, xn)$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR PANUE 69 1399

## KEYNUMBERS AND KEYWORDS

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### A=249 (*continued*)

2006P010      RADIOACTIVITY  $^{253}\text{No}(\alpha)$  [from  $^{207}\text{Pb}(^{48}\text{Ca}, 2n)$ ]; measured E $\gamma$ , E(ce),  $\gamma\alpha$ -, (ce) $\alpha$ -coin.  $^{249}\text{Fm}$  deduced levels, J,  $\pi$ .  $^{255}\text{No}(\alpha)$  [from  $^{208}\text{Pb}(^{48}\text{Ca}, n)$ ]; measured prompt and delayed  $\alpha\gamma$ -,  $\alpha\beta$ -coin.  $^{251}\text{Fm}$  deduced isomeric state. JOUR PANUE 69 1183

### A=250

$^{250}\text{Fm}$     2006NI09      NUCLEAR REACTIONS  $^{238}\text{U}(^{16}\text{O}, 4n)$ ,  $(^{16}\text{O}, 5n)$ ,  $(^{16}\text{O}, 6n)$ , E(cm)=70-95 MeV; measured evaporation residue  $\sigma$ ; deduced reaction mechanism features. Comparison with statistical model predictions. JOUR PANUE 69 1399

2006NI09      RADIOACTIVITY  $^{248,249,250}\text{Fm}(\alpha)$  [from  $^{238}\text{U}(^{16}\text{O}, xn)$ ]; measured E $\alpha$ ,  $T_{1/2}$ . JOUR PANUE 69 1399

$^{250}\text{No}$     2006PE17      RADIOACTIVITY  $^{250}\text{No}(\text{SF})$  [from  $^{204}\text{Pb}(^{48}\text{Ca}, 2n)$ ]; measured  $T_{1/2}$  for ground and isomeric state decay; deduced upper limit for  $\alpha$ -decay branching ratio.  $^{219,220}\text{Th}(\alpha)$  [from  $^{176}\text{Yb}(^{48}\text{Ca}, xn)$ ]; measured  $T_{1/2}$ . JOUR PRVCA 74 014316

### A=251

$^{251}\text{Fm}$     2006HE20      RADIOACTIVITY  $^{255}\text{No}(\alpha)$  [from  $^{208}\text{Pb}(^{48}\text{Ca}, n)$ ,  $^{209}\text{Bi}(^{48}\text{Ca}, 2n)$ ,  $^{238}\text{U}(^{22}\text{Ne}, 5n)$ ]; measured E $\alpha$ , E $\gamma$ ,  $\alpha\gamma$ -coin,  $T_{1/2}$ .  $^{251}\text{Fm}$  deduced levels, J,  $\pi$ . Level systematics in neighboring nuclides discussed. JOUR ZAANE 29 165

2006P010      RADIOACTIVITY  $^{253}\text{No}(\alpha)$  [from  $^{207}\text{Pb}(^{48}\text{Ca}, 2n)$ ]; measured E $\gamma$ , E(ce),  $\gamma\alpha$ -, (ce) $\alpha$ -coin.  $^{249}\text{Fm}$  deduced levels, J,  $\pi$ .  $^{255}\text{No}(\alpha)$  [from  $^{208}\text{Pb}(^{48}\text{Ca}, n)$ ]; measured prompt and delayed  $\alpha\gamma$ -,  $\alpha\beta$ -coin.  $^{251}\text{Fm}$  deduced isomeric state. JOUR PANUE 69 1183

### A=252

$^{252}\text{Cf}$     2006DA21      RADIOACTIVITY  $^{252}\text{Cf}(\text{SF})$ ; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, fission fragment and light charged particle yields. Gammasphere array. JOUR PANUE 69 1405

2006F010      RADIOACTIVITY  $^{252}\text{Cf}(\text{SF})$ ; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -,  $\alpha\gamma$ -coin; deduced fission fragment isotopic yields, neutron multiplicity distributions, evidence for "hot" mode. Gammasphere array. JOUR PANUE 69 1161

2006G020      RADIOACTIVITY  $^{252}\text{Cf}(\text{SF})$ ; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -,  $\alpha\gamma$ -coin; deduced fission fragment isotopic yields, neutron multiplicity distributions. No "hot" fission mode seen. JOUR PRVCA 74 017309

2006HW04      RADIOACTIVITY  $^{252}\text{Cf}(\text{SF})$ ; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin.  $^{100}\text{Zr}$  deduced high-spin levels, J,  $\pi$ . Gammasphere array. JOUR PRVCA 74 017303

**A=252 (*continued*)**

|                   |  |
|-------------------|--|
| 2006J005          | RADIOACTIVITY $^{252}\text{Cf}$ (SF); measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{104,106,108}\text{Mo}$ deduced levels, $J$ , $\pi$ , configurations, collective bands features. $^{106}\text{Mo}$ deduced possible chiral doublet bands. Gammasphere array. JOUR PANUE 69 1198   |
| 2006LU12          | RADIOACTIVITY $^{252}\text{Cf}$ (SF); measured $E\gamma$ , $I\gamma$ , $\gamma\gamma$ -coin. $^{110,111}\text{Tc}$ deduced high-spin levels, $J$ , $\pi$ , configurations. Gammasphere array, cranking model calculations. Level systematics in neighboring nuclides discussed. JOUR PRVCA 74 024308   |
| 2006RE10          | RADIOACTIVITY $^{252}\text{Cf}$ (SF); measured neutron spectra. JOUR NIMAE 565 753   |
| $^{252}\text{No}$ | NUCLEAR REACTIONS $^{206}\text{Pb}(^{48}\text{Ca}, 2n)$ , $E=216$ MeV; measured $E\gamma$ , $I\gamma$ , (recoil) $\gamma$ -coin, (fission) $\gamma$ -coin, $E\alpha$ , $I\alpha$ , (recoil) $\alpha$ -coin. $^{252}\text{No}$ deduced fission and $\alpha$ branching ratios. Jurosphere II array, recoil-decay and recoil-fission tagging. JOUR ZAANE 28 301 |
| 2006LE29          | RADIOACTIVITY $^{252}\text{No}(\alpha)$ , (SF) [from $^{206}\text{Pb}(^{48}\text{Ca}, 2n)$ ]; measured $T_{1/2}$ . JOUR ZAANE 28 301   |

**A=253**

|                   |          |   |
|-------------------|----------|---|
| $^{253}\text{No}$ | 2006PO10 | RADIOACTIVITY $^{253}\text{No}(\alpha)$ [from $^{207}\text{Pb}(^{48}\text{Ca}, 2n)$ ]; measured $E\gamma$ , $E(\text{ce})$ , $\gamma\alpha$ -, (ce) $\alpha$ -coin. $^{249}\text{Fm}$ deduced levels, $J$ , $\pi$ . $^{255}\text{No}(\alpha)$ [from $^{208}\text{Pb}(^{48}\text{Ca}, n)$ ]; measured prompt and delayed $\alpha\gamma$ -, $\alpha\beta$ -coin. $^{251}\text{Fm}$ deduced isomeric state. JOUR PANUE 69 1183 |
|-------------------|----------|---|

**A=254**

|                   |          |   |
|-------------------|----------|---|
| $^{254}\text{No}$ | 2006HE19 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{48}\text{Ca}, 2n)$ , $E=219$ MeV; measured delayed $E\gamma$ , $I\gamma$ , $E(\text{ce})$ , $I(\text{ce})$ , X-ray spectra. $^{254}\text{No}$ deduced levels, $J$ , $\pi$ , isomeric states $T_{1/2}$ , configurations. Gas-filled separator, recoil-decay tagging. JOUR NATUA 442 896                               |
|                   | 2006TA19 | NUCLEAR REACTIONS $^{208}\text{Pb}(^{48}\text{Ca}, 2n)$ , $E=217$ MeV; measured delayed $E\gamma$ , $I\gamma$ , $E(\text{ce})$ , $I(\text{ce})$ , (ce) $\gamma$ -coin, X-ray spectra. $^{254}\text{No}$ deduced levels, $J$ , $\pi$ , isomeric states $T_{1/2}$ , configurations, deformation. Mass separator, recoil-decay tagging. JOUR PRLTA 97 082502 |

**A=255**

|                   |          |   |
|-------------------|----------|---|
| $^{255}\text{No}$ | 2006HE20 | RADIOACTIVITY $^{255}\text{No}(\alpha)$ [from $^{208}\text{Pb}(^{48}\text{Ca}, n)$ , $^{209}\text{Bi}(^{48}\text{Ca}, 2n)$ , $^{238}\text{U}(^{22}\text{Ne}, 5n)$ ]; measured $E\alpha$ , $E\gamma$ , $\alpha\gamma$ -coin, $T_{1/2}$ . $^{251}\text{Fm}$ deduced levels, $J$ , $\pi$ . Level systematics in neighboring nuclides discussed. JOUR ZAANE 29 165  |
|                   | 2006PO10 | RADIOACTIVITY $^{253}\text{No}(\alpha)$ [from $^{207}\text{Pb}(^{48}\text{Ca}, 2n)$ ]; measured $E\gamma$ , $E(\text{ce})$ , $\gamma\alpha$ -, (ce) $\alpha$ -coin. $^{249}\text{Fm}$ deduced levels, $J$ , $\pi$ . $^{255}\text{No}(\alpha)$ [from $^{208}\text{Pb}(^{48}\text{Ca}, n)$ ]; measured prompt and delayed $\alpha\gamma$ -, $\alpha\beta$ -coin. $^{251}\text{Fm}$ deduced isomeric state. JOUR PANUE 69 1183 |

*KEYNUMBERS AND KEYWORDS*

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**A=256**

No references found

**A=257**

No references found

**A=258**

No references found

**A=259**

No references found

**A=260**

No references found

**A=261**

<sup>261</sup>Rf      2005NA46      NUCLEAR REACTIONS <sup>248</sup>Cm(<sup>18</sup>O, 5n), E ≈ 90-100 MeV; measured excitation function. Chemical properties of rutherfordium studied.  
JOUR RAACA 93 519

**A=262**

<sup>262</sup>Db      2006MOZW      RADIOACTIVITY <sup>278</sup>113, <sup>274</sup>Rg, <sup>270</sup>Mt, <sup>266</sup>Bh(α) [from <sup>209</sup>Bi(<sup>70</sup>Zn, n) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>. REPT RIKEN 2005 Annual, P76, Morita

**A=263**

No references found

**A=264**

No references found

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**A=265**

No references found

**A=266**

$^{266}\text{Bh}$       2006MOZW      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 2005 Annual,P76,Morita

**A=267**

No references found

**A=268**

No references found

**A=269**

No references found

**A=270**

$^{270}\text{Mt}$       2006MOZW      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 2005 Annual,P76,Morita

**A=271**

No references found

**A=272**

No references found

**A=273**

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**A=274**

$^{274}\text{Rg}$       2006MOZW      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  $E\alpha$ ,  $T_{1/2}$ . REPT RIKEN 2005 Annual,P76,Morita

**A=275**

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**A=276**

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**A=277**

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**A=278**

$^{278}\text{113}$       2006MOZW      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  $E\alpha$ ,  $T_{1/2}$ . REPT RIKEN 2005 Annual,P76,Morita

2006MOZW      NUCLEAR REACTIONS  $^{209}\text{Bi}(^{70}\text{Zn}, \text{n})$ ,  $E=349.5$  MeV; measured delayed  $\alpha\alpha$ -coin; deduced production  $\sigma$ . REPT RIKEN 2005 Annual,P76,Morita

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