

Recent References:  
January 1, 2005 to March 31, 2005

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 January 1, 2005 to March 31, 2005. 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

|                |          |  |
|----------------|----------|--|
| <sup>1</sup> n | 2004G056 | NUCLEAR REACTIONS <sup>3</sup> H( $\alpha$ , d $\alpha$ ), E=67.2 MeV; measured Ed, E $\alpha$ , d $\alpha$ -coin, $\sigma(\theta)$ . <sup>6</sup> Li deduced levels, widths. JOUR UKPJA 49 16   |
|                | 2004NI18 | NUCLEAR REACTIONS <sup>3</sup> He( $\gamma$ , 2p), E=0.35-1.55 GeV; measured Ep, pp-coin, $\sigma$ , $\sigma(E, \theta)$ ; deduced reaction mechanism features. Tagged photons. JOUR PRVCA 70 064003   |
|                | 2004ZH42 | NUCLEAR REACTIONS <sup>3</sup> He(polarized e, e), E=1.2 GeV; <sup>3</sup> He(polarized e, e'X), E=5.7 GeV; measured asymmetries. <sup>1</sup> n deduced spin asymmetries, polarized structure functions. Polarized target. JOUR PRVCA 70 065207   |
|                | 2005AB01 | NUCLEAR REACTIONS <sup>1</sup> H(p, p $\pi^+$ ), (p, $\pi^+$ ), E=951 MeV; measured missing mass spectra, $\sigma$ ; deduced D-state effects. JOUR PYLBB 610 31  |
|                | 2005AH01 | NUCLEAR REACTIONS <sup>1</sup> H( $\gamma$ , $\pi^+\gamma$ ), E=537-817 MeV; measured E $\gamma$ , En, (pion)n $\gamma$ -coin, $\sigma(\theta)$ ; deduced pion polarizabilities. Tagged photon beam, comparison with model predictions. JOUR ZAANE 23 113  |
|                | 2005DI03 | NUCLEAR REACTIONS <sup>1,2</sup> H(polarized e <sup>+</sup> , e <sup>+</sup> X), E=27.6 GeV; <sup>1</sup> H(polarized e <sup>+</sup> , e <sup>+</sup> $\pi^+$ ), E=27.6 GeV; measured $\sigma$ , polarization observables. <sup>1</sup> n, <sup>1</sup> H deduced spin structure features. Polarized targets. JOUR ZAANE 24 s01 23   |
|                | 2005GL03 | NUCLEAR REACTIONS <sup>2</sup> H(polarized e, e'n), E=660, 855, 883 MeV; measured asymmetry, polarization transfer. <sup>1</sup> n deduced electric form factor. JOUR ZAANE 24 101   |
|                | 2005PEZZ | NUCLEAR REACTIONS <sup>2</sup> H(p, 2p), E=6 MeV; measured Ep, pp-coin. <sup>1</sup> H(p, p), E=0.3-0.8 MeV; deduced $\sigma$ , Coulomb interaction effects. Trojan horse method. CONF Riken(Origin of Matter) Proc,P513,Pellegriti  |
|                | 2005R002 | NUCLEAR REACTIONS <sup>2</sup> H( $\gamma$ , p), E=0.5-3 GeV; measured Ep, $\sigma(\theta)$ ; deduced scaling features. JOUR PRLTA 94 012301   |
|                | 2005SE01 | RADIOACTIVITY <sup>1</sup> n( $\beta^-$ ); measured T <sub>1/2</sub> . Ultracold neutrons, comparison with previous results, model predictions. JOUR PYLBB 605 72  |
|                | 2005TUZZ | NUCLEAR REACTIONS <sup>2</sup> H( <sup>7</sup> Li, 2 $\alpha$ ), ( <sup>6</sup> Li, <sup>3</sup> He $\alpha$ ), <sup>6</sup> Li( <sup>6</sup> Li, 2 $\alpha$ ), E not given; measured particle spectra. <sup>7</sup> Li(p, $\alpha$ ), E(cm) $\approx$ 0.01-0.5 MeV; <sup>6</sup> Li(d, $\alpha$ ), (p, $\alpha$ ), E(cm) $\approx$ 0.01-1 MeV; deduced astrophysical S-factors. CONF Riken(Origin of Matter) Proc,P553,Tumino |
|                | 2005YA05 | NUCLEAR REACTIONS <sup>2</sup> H(polarized p, 2p), E=0.5, 0.8 GeV; measured A $\gamma(\theta)$ . Comparison with model predictions. JOUR PRLTA 94 072304   |
| <sup>1</sup> H | 2004BEZP | NUCLEAR REACTIONS <sup>1</sup> H( <sup>22</sup> O, p), ( <sup>22</sup> O, <sup>22</sup> O'), E $\approx$ 47 MeV / nucleon; measured particle spectra, $\sigma(E, \theta)$ . <sup>22</sup> O level deduced deformation parameter. MUST detector array. REPT IPNO-T-04-17,Becheva  |
|                | 2004SHZZ | NUCLEAR REACTIONS <sup>1</sup> H(polarized n, n), E=1.39, 1.69, 1.89, 1.99 GeV; measured $\sigma$ , polarization, longitudinal cross-section difference. REPT JINR-E1-2004-87,Sharov   |

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- 2005AL01 NUCLEAR REACTIONS  $^1\text{H}(p, p)$ ,  $E=0.45\text{-}2.5$  GeV; measured analyzing powers vs energy, angle. Polarized target, comparisons with previous results. JOUR ZAANE 23 351
- 2005BA11 NUCLEAR REACTIONS  $^1\text{H}(^{16}\text{O}, \alpha^{12}\text{C})$ ,  $E$  at 3.25 GeV / c / nucleon; measured recoil proton spectra, angular distributions, charged fragment spectra; deduced reaction mechanism features. JOUR UKPJA 50 16
- 2005BA25 NUCLEAR REACTIONS  $^1\text{H}(\text{polarized } e, e)$ ,  $E=569.31, 855.15$  MeV; measured transverse spin asymmetry; deduced resonance contributions. JOUR ZAANE 24 s02 35
- 2005BE12 NUCLEAR REACTIONS  $^3\text{He}(e, e'np)$ ,  $E=\text{high}$ ; measured proton spectra, missing energy,  $\sigma(E, \theta)$ .  $^3\text{He}$  deduced proton effective momentum density. JOUR PRLTA 94 082305
- 2005DI03 NUCLEAR REACTIONS  $^{1,2}\text{H}(\text{polarized } e^+, e^+X)$ ,  $E=27.6$  GeV;  $^1\text{H}(\text{polarized } e^+, e^+\pi^+)$ ,  $E=27.6$  GeV; measured  $\sigma$ , polarization observables.  $^1\text{n}$ ,  $^1\text{H}$  deduced spin structure features. Polarized targets. JOUR ZAANE 24 s01 23
- 2005ER01 NUCLEAR REACTIONS  $^2\text{H}(\pi^-, 2\pi^-)$ ,  $E=430$  MeV; measured pion and proton spectra,  $\sigma$ ,  $\sigma(\theta)$ .  $^1\text{n}(\pi^-, 2\pi^-)$ ,  $E=430$  MeV; deduced  $\sigma$ . Comparisons with model predictions. JOUR ZAANE 23 345
- 2005GL03 NUCLEAR REACTIONS  $^2\text{H}(\text{polarized } e, e'n)$ ,  $E=660, 855, 883$  MeV; measured asymmetry, polarization transfer.  $^1\text{n}$  deduced electric form factor. JOUR ZAANE 24 101
- 2005J002 NUCLEAR REACTIONS  $^1\text{H}(n, n)$ ,  $E=96$  MeV; measured  $\sigma(\theta)$ . Comparison with model predictions. JOUR PRVCA 71 024002
- 2005KI03 NUCLEAR REACTIONS  $^1\text{H}(\text{polarized } e, e)$ ,  $E=3$  GeV; measured spin asymmetries. JOUR ZAANE 24 s02 39
- 2005MA13 NUCLEAR REACTIONS  $^1\text{H}(\text{polarized } e, e)$ ,  $E=569.31, 855.15$  MeV; measured transverse spin asymmetry; deduced intermediate states contributions. Comparison with model predictions. JOUR PRLTA 94 082001
- 2005MA19 NUCLEAR REACTIONS  $^1\text{H}(\text{polarized } e, e)$ ,  $E=570.4, 854.3$  MeV; measured parity violating asymmetry. JOUR ZAANE 24 s02 47
- 2005OKZZ NUCLEAR REACTIONS  $^1\text{H}(p, p)$ ,  $E=100$  GeV; measured recoil proton spectra, analyzing power. Polarized target. PREPRINT nucl-ex/0502022,2/25/2005
- 2005PEZZ NUCLEAR REACTIONS  $^2\text{H}(p, 2p)$ ,  $E=6$  MeV; measured  $E_p$ , pp-coin.  $^1\text{H}(p, p)$ ,  $E=0.3\text{-}0.8$  MeV; deduced  $\sigma$ , Coulomb interaction effects. Trojan horse method. CONF Riken(Origin of Matter) Proc,P513,Pellegriti
- 2005SA06 NUCLEAR REACTIONS  $^1\text{H}(n, n)$ ,  $E=194$  MeV; measured  $\sigma(\theta)$ . Tagged beam, comparisons with previous results and model predictions. JOUR PRLTA 94 082303
- 2005SE01 RADIOACTIVITY  $^1\text{n}(\beta^-)$ ; measured  $T_{1/2}$ . Ultracold neutrons, comparison with previous results, model predictions. JOUR PYLBB 605 72
- 2005SE04 NUCLEAR REACTIONS  $^1\text{H}(e, e)$ ,  $E=1.9\text{-}4.7$  GeV; measured recoil proton spectra; deduced electromagnetic form factors. Comparison with spin-transfer measurements. JOUR ZAANE 24 s01 55

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- 2005SP01 NUCLEAR REACTIONS  $^1\text{H}(e, e'\pi^0)$ ,  $E=950$  MeV; measured  $E_p$ ,  $\sigma(\theta)$ .  $^1\text{H}$  deduced quadrupole to dipole amplitude ratios. JOUR PRLTA 94 022003
- 2005SP02 NUCLEAR REACTIONS  $^1\text{H}(\text{polarized } e, e)$ ,  $E=200$  MeV;  $^2\text{H}(\text{polarized } e, e)$ ,  $E=125, 200$  MeV; measured asymmetries; deduced form factors. JOUR ZAANE 24 s02 51
- 2005WU02 NUCLEAR REACTIONS  $^1\text{H}(\gamma, \pi^+\pi^-)$ ,  $E=0.5\text{-}2.6$  GeV; measured total  $\sigma$ ,  $\sigma(E, \theta)$ ; deduced  $\rho^0$ -meson and  $\Delta$ -baryon contributions. Tagged photons. JOUR ZAANE 23 317

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- $^2\text{n}$  2005AM05 NUCLEAR REACTIONS  $^1\text{H}(\text{p-bar}, ee^+)$ ,  $E(\text{cm}) \approx 3600$  MeV; measured  $\psi(2\text{S})$  production associated invariant mass spectra,  $\sigma(\theta)$ ; deduced helicity amplitude ratio. JOUR PYLBB 610 177
- $^2\text{H}$  2004AZZX NUCLEAR REACTIONS  $^9\text{Be}(d, pX)$ ,  $E$  at 5 GeV /  $c$ ; measured tensor analyzing power.  $^2\text{H}$  deduced wave function features. REPT JINR-P1-2004-118,Azhgirey
- 2004BUZY NUCLEAR REACTIONS  $^2\text{H}(\text{polarized } n, n)$ ,  $E=19.0$  MeV; measured  $A_y(\theta)$ . Comparison with model predictions. REPT TUNL-XLIII,P20,Buck
- 2004FOZZ NUCLEAR REACTIONS  $^2\text{H}(\text{polarized } n, n)$ ,  $E=1.18, 5.0, 6.88, 19$  MeV; measured polarization, longitudinal cross-section difference. Polarized target. REPT TUNL-XLIII,P18,Foster
- 2005AB01 NUCLEAR REACTIONS  $^1\text{H}(p, p\pi^+)$ ,  $(p, \pi^+)$ ,  $E=951$  MeV; measured missing mass spectra,  $\sigma$ ; deduced D-state effects. JOUR PYLBB 610 31
- 2005JE01 NUCLEAR REACTIONS  $^2\text{H}(^9\text{Li}, ^9\text{Li})$ ,  $(^9\text{Li}, np)$ ,  $(^9\text{Li}, nX)$ ,  $(^9\text{Li}, pX)$ ,  $E=2.36$  MeV / nucleon; measured particle spectra,  $\sigma(\theta)$ .  $^2\text{H}(^9\text{Li}, \alpha X)$ ,  $(^9\text{Li}, ^6\text{HeX})$ ,  $E=2.36$  MeV / nucleon; measured particle spectra. Post-accelerated radioactive beam. JOUR NUPAB 748 374
- 2005SA12 NUCLEAR REACTIONS  $^3\text{He}(e, e'p)$ ,  $E=4.8$  GeV; measured  $\sigma(E, \theta)$ , asymmetries.  $^3\text{He}$  deduced bound state momentum distributions. Comparisons with model predictions. JOUR ZAANE 24 s01 81
- 2005SP02 NUCLEAR REACTIONS  $^1\text{H}(\text{polarized } e, e)$ ,  $E=200$  MeV;  $^2\text{H}(\text{polarized } e, e)$ ,  $E=125, 200$  MeV; measured asymmetries; deduced form factors. JOUR ZAANE 24 s02 51

**A=3**

- $^3\text{H}$  2004MIZR NUCLEAR REACTIONS  $^4\text{He}(^{22}\text{O}, ^{23}\text{F})$ ,  $E \approx 35$  MeV / nucleon; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin.  $^{23}\text{F}$  deduced levels, transitions. REPT CNS-REP-64,P269,Michimasa
- $^3\text{He}$  2004CRZZ NUCLEAR REACTIONS  $^3\text{He}(\text{polarized } n, n)$ ,  $E=4.02, 5.54$  MeV; measured  $A_y(\theta)$ . REPT TUNL-XLIII,P23,Crowe

**A=3 (continued)**

- 2004ZH42 NUCLEAR REACTIONS  $^3\text{He}(\text{polarized } e, e)$ ,  $E=1.2$  GeV;  $^3\text{He}(\text{polarized } e, e'X)$ ,  $E=5.7$  GeV; measured asymmetries.  $^1\text{n}$  deduced spin asymmetries, polarized structure functions. Polarized target. JOUR PRVCA 70 065207
- 2005BE12 NUCLEAR REACTIONS  $^3\text{He}(e, e'np)$ ,  $E=\text{high}$ ; measured proton spectra, missing energy,  $\sigma(E, \theta)$ .  $^3\text{He}$  deduced proton effective momentum density. JOUR PRLTA 94 082305
- 2005CE02 NUCLEAR REACTIONS  $^3\text{H}(\text{p}, \text{n})$ ,  $E=1.2\text{-}2.3$  MeV; measured neutron spectra. JOUR NIMAE 540 430
- 2005HA07 NUCLEAR REACTIONS  $^2\text{H}(\text{d}, \text{n})$ ,  $E$  not given; measured  $E_n$ . Laser-generated plasma neutron source. JOUR NIMAE 540 464
- 2005LE04 NUCLEAR REACTIONS  $\text{Pb}(\text{p}, X)^3\text{He} / ^4\text{He} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{36}\text{Ar} / ^{38}\text{Ar} / ^{78}\text{Kr} / ^{80}\text{Kr} / ^{81}\text{Kr} / ^{82}\text{Kr} / ^{83}\text{Kr} / ^{84}\text{Kr} / ^{85}\text{Kr} / ^{86}\text{Kr} / ^{124}\text{Xe} / ^{126}\text{Xe} / ^{128}\text{Xe} / ^{129}\text{Xe} / ^{130}\text{Xe} / ^{131}\text{Xe} / ^{132}\text{Xe} / ^{134}\text{Xe}$ ,  $E=44\text{-}2595$  MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1
- 2005ME03 NUCLEAR REACTIONS  $^3\text{He}(\text{polarized } e, e'X)$ ,  $E=0.862\text{-}5.058$  GeV; measured polarized  $\sigma$ ; deduced sum rule features.  $^3\text{He}$  deduced spin structure functions. Polarized target. JOUR ZAANE 24 s01 153
- 2005MEZZ NUCLEAR REACTIONS  $^1\text{H}(\text{polarized } d, \gamma)$ ,  $E=55, 66.5, 90$  MeV / nucleon; measured  $E_\gamma$ , (particle) $\gamma$ -coin, vector and tensor analyzing powers. Comparison with model predictions. PREPRINT nucl-ex/0501012,1/17/2005
- 2005SA12 NUCLEAR REACTIONS  $^3\text{He}(e, e'p)$ ,  $E=4.8$  GeV; measured  $\sigma(E, \theta)$ , asymmetries.  $^3\text{He}$  deduced bound state momentum distributions. Comparisons with model predictions. JOUR ZAANE 24 s01 81
- 2005TUZZ NUCLEAR REACTIONS  $^2\text{H}(^7\text{Li}, 2\alpha)$ ,  $(^6\text{Li}, ^3\text{He}\alpha)$ ,  $^6\text{Li}(^6\text{Li}, 2\alpha)$ ,  $E$  not given; measured particle spectra.  $^7\text{Li}(\text{p}, \alpha)$ ,  $E(\text{cm}) \approx 0.01\text{-}0.5$  MeV;  $^6\text{Li}(\text{d}, \alpha)$ ,  $(\text{p}, \alpha)$ ,  $E(\text{cm}) \approx 0.01\text{-}1$  MeV; deduced astrophysical S-factors. CONF Riken(Origin of Matter) Proc,P553,Tumino

**A=4**

- $^4\text{He}$  2004SA61 NUCLEAR REACTIONS  $^2\text{H}(\text{polarized } d, \gamma)$ ,  $E < 115$  keV; measured  $E_\gamma$ ,  $I_\gamma$ ,  $\sigma(\theta)$ ,  $A_\gamma(\theta)$ ,  $T_{20}(\theta)$ ; deduced transition matrix elements. Comparison with resonating group model predictions. JOUR PRVCA 70 064601
- 2005BR04 NUCLEAR REACTIONS  $^3\text{He}(^3\text{He}, 2\text{p})$ ,  $E(\text{cm}) \approx 10\text{-}1000$  keV;  $^{14}\text{N}(\text{p}, \gamma)$ ,  $E \approx 0.1\text{-}2.5$  MeV; measured astrophysical S-factors. JOUR NPBSE 143 60
- 2005LE04 NUCLEAR REACTIONS  $\text{Pb}(\text{p}, X)^3\text{He} / ^4\text{He} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{36}\text{Ar} / ^{38}\text{Ar} / ^{78}\text{Kr} / ^{80}\text{Kr} / ^{81}\text{Kr} / ^{82}\text{Kr} / ^{83}\text{Kr} / ^{84}\text{Kr} / ^{85}\text{Kr} / ^{86}\text{Kr} / ^{124}\text{Xe} / ^{126}\text{Xe} / ^{128}\text{Xe} / ^{129}\text{Xe} / ^{130}\text{Xe} / ^{131}\text{Xe} / ^{132}\text{Xe} / ^{134}\text{Xe}$ ,  $E=44\text{-}2595$  MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=4 (continued)**

- 2005TUZZ NUCLEAR REACTIONS  ${}^2\text{H}({}^7\text{Li}, 2\alpha)$ ,  $({}^6\text{Li}, {}^3\text{He}\alpha)$ ,  ${}^6\text{Li}({}^6\text{Li}, 2\alpha)$ , E not given; measured particle spectra.  ${}^7\text{Li}(\text{p}, \alpha)$ ,  $E(\text{cm}) \approx 0.01\text{-}0.5$  MeV;  ${}^6\text{Li}(\text{d}, \alpha)$ ,  $(\text{p}, \alpha)$ ,  $E(\text{cm}) \approx 0.01\text{-}1$  MeV; deduced astrophysical S-factors. CONF Riken(Origin of Matter) Proc,P553,Tumino

**A=5**

- ${}^5\text{H}$  2004G054 NUCLEAR REACTIONS  ${}^3\text{H}(\text{t}, \text{p})$ ,  $E=58$  MeV; measured  $E_n$ ,  $E_p$ , missing mass spectrum following residual nucleus decay.  ${}^5\text{H}$  deduced levels,  $J$ ,  $\pi$ . JOUR PRLTA 93 262501
- ${}^5\text{Li}$  2003G041 NUCLEAR REACTIONS  ${}^3\text{He}(\alpha, \text{dt})$ ,  $E=67.2$  MeV; measured particle spectra, dt-coin.  ${}^5\text{Li}$  deduced excited states energies, widths. JOUR UKPJA 48 1035

**A=6**

- ${}^6\text{Li}$  2004G056 NUCLEAR REACTIONS  ${}^3\text{H}(\alpha, \text{d}\alpha)$ ,  $E=67.2$  MeV; measured  $E_d$ ,  $E_\alpha$ ,  $\text{d}\alpha$ -coin,  $\sigma(\theta)$ .  ${}^6\text{Li}$  deduced levels, widths. JOUR UKPJA 49 16

**A=7**

- ${}^7\text{Li}$  2005GI03 NUCLEAR REACTIONS  ${}^{10}\text{B}(\text{n}, \alpha)$ ,  $E=1.5\text{-}3.8$  MeV; measured  $\sigma$ ,  $\sigma(\theta)$ . Effects of particle leaking discussed. JOUR NIMAE 538 550
- 2005SI02 NUCLEAR REACTIONS  ${}^1\text{H}({}^7\text{Li}, \text{p})$ ,  $E=2.28\text{-}5.7$  MeV; measured recoil proton spectra,  $\sigma(\theta=30, 45^\circ)$ . Al-backed melamine target. JOUR NIMBE 229 180
- 2005ZH09 RADIOACTIVITY  ${}^7\text{Be}(\text{EC})$ ; measured decay rates for source implanted in Pd and Au. JOUR CPLEE 22 565
- ${}^7\text{Be}$  2004NA42 NUCLEAR REACTIONS  ${}^4\text{He}({}^3\text{He}, \gamma)$ ,  $E=1000\text{-}2300$  keV; measured capture  $\sigma$ ; deduced S-factors. Activation technique, astrophysical implications discussed. JOUR PRLTA 93 262503
- 2005BU05 NUCLEAR REACTIONS  ${}^7\text{Li}(\text{p}, \text{n})$ ,  $E=1.88\text{-}2.0$  MeV; measured neutron spectra, yields. JOUR NIMBE 229 144
- 2005ZH09 RADIOACTIVITY  ${}^7\text{Be}(\text{EC})$ ; measured decay rates for source implanted in Pd and Au. JOUR CPLEE 22 565

**A=8**

- ${}^8\text{Be}$  2004AHZW NUCLEAR REACTIONS  ${}^7\text{Li}(\text{polarized d}, \text{n})$ ,  $E=160$  keV; measured  $\sigma(\theta)$ , vector and tensor analyzing powers; deduced transition matrix elements. REPT TUNL-XLIII,P28,Ahmed
- 2004FR34 NUCLEAR REACTIONS  ${}^{12}\text{C}({}^{12}\text{C}, 2{}^8\text{Be})$ ,  $E=82\text{-}120$  MeV; measured excitation energy spectra, angular correlations.  ${}^{16}\text{O}$  deduced levels,  $J$ ,  $\pi$ . Comparison with model predictions. JOUR PRVCA 70 064311

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- 2005RU03 NUCLEAR REACTIONS  $^{12}\text{C}(^{11}\text{B}, ^{15}\text{N})$ ,  $E=49$  MeV; measured  $\sigma(E, \theta)$ ;  $^{12}\text{C}(^{11}\text{B}, ^8\text{Be})$ ,  $E(\text{cm})=10\text{-}17$  MeV; analyzed  $\sigma(E, \theta)$ ; deduced reaction mechanism features, optical model parameters. Coupled channels analysis. JOUR ZAANE 23 445
- $^8\text{B}$  2004REZY NUCLEAR REACTIONS  $^1\text{H}(^{11}\text{C}, \text{p})$ ,  $(^{11}\text{C}, \alpha)$ ,  $E^*=8.7\text{-}9.9$  MeV; measured particle spectra, angular distributions,  $\sigma$ .  $^8\text{Be}(\alpha, \text{p})$ ,  $E^*=8.7\text{-}9.9$  MeV; deduced excitation function, astrophysical reaction rates. REPT ANL-04/22,P3,Rehm
- 2005JU03 NUCLEAR REACTIONS  $^7\text{Be}(\text{p}, \gamma)$ ,  $E(\text{cm})=116\text{-}2460$  MeV; measured  $\sigma$ ; deduced astrophysical S-factors. Comparison with previous results. JOUR NPBSE 138 112

**A=9**

- $^9\text{Li}$  2005JE01 NUCLEAR REACTIONS  $^2\text{H}(^9\text{Li}, ^9\text{Li})$ ,  $(^9\text{Li}, \text{np})$ ,  $(^9\text{Li}, \text{nX})$ ,  $(^9\text{Li}, \text{pX})$ ,  $E=2.36$  MeV / nucleon; measured particle spectra,  $\sigma(\theta)$ .  $^2\text{H}(^9\text{Li}, \alpha\text{X})$ ,  $(^9\text{Li}, ^6\text{HeX})$ ,  $E=2.36$  MeV / nucleon; measured particle spectra. Post-accelerated radioactive beam. JOUR NUPAB 748 374
- 2005WU03 NUCLEAR REACTIONS  $^2\text{H}(^8\text{Li}, \text{p})$ ,  $E \approx 76$  MeV; measured  $E_p$ , excitation energy spectra,  $\sigma(\theta)$ .  $^9\text{Li}$  deduced levels,  $J$ ,  $\pi$ , spectroscopic factors. Comparison with model predictions. JOUR PRLTA 94 082502
- $^9\text{Be}$  2005YE01 NUCLEAR REACTIONS  $^9\text{Be}(^6\text{He}, ^6\text{He})$ ,  $E=25$  MeV / nucleon; measured quasielastic  $\sigma(\theta)$ ; deduced optical model parameters, inelastic channels contribution. JOUR PRVCA 71 014604

**A=10**

- $^{10}\text{Li}$  2005SA03 NUCLEAR REACTIONS  $^{10}\text{B}(\pi^-, \text{K}^+)$ ,  $^{10}\text{B}$ ,  $^{12}\text{C}(\pi^+, \text{K}^+)$ ,  $E$  at 1.05, 1.2 GeV / c; measured missing mass spectra, hypernucleus production  $\sigma$ . JOUR PRLTA 94 052502
- $^{10}\text{Be}$  2004MIZS NUCLEAR REACTIONS  $\text{Fe}(\text{p}, \text{X})^{52}\text{Mn}$ ,  $E < 2.6$  GeV;  $\text{Pb}(\text{p}, \text{X})^{10}\text{Be}$ ,  $E < 2.6$  GeV;  $^{209}\text{Bi}(\text{p}, 4\text{np})$ ,  $E < 2.6$  GeV;  $\text{Pb}(\text{n}, \text{X})^{196}\text{Au} / ^{95}\text{Zr}$ ,  $E \approx 70\text{-}180$  MeV; measured excitation functions. Comparison with model predictions. REPT NEA/NSC/DOC(2004)14,P28,Michel
- 2005HI03 RADIOACTIVITY  $^{11}\text{Li}(\beta^-)$ ,  $(\beta^- \text{n})$ ; measured  $\beta$ -delayed  $E_\gamma$ ,  $E_n$ , asymmetry following decay of spin-polarized source.  $^{10,11}\text{Be}$  deduced levels,  $J$ ,  $\pi$ , S-factors. Comparison with antisymmetrized molecular dynamics model predictions. JOUR PYLBB 611 239

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- $^{11}\text{Li}$  2005HI03 RADIOACTIVITY  $^{11}\text{Li}(\beta^-)$ ,  $(\beta^- \text{n})$ ; measured  $\beta$ -delayed  $E_\gamma$ ,  $E_n$ , asymmetry following decay of spin-polarized source.  $^{10,11}\text{Be}$  deduced levels,  $J$ ,  $\pi$ , S-factors. Comparison with antisymmetrized molecular dynamics model predictions. JOUR PYLBB 611 239

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- <sup>11</sup>Be      2005HI03      RADIOACTIVITY <sup>11</sup>Li( $\beta^-$ ), ( $\beta^-n$ ); measured  $\beta$ -delayed  $E_\gamma$ ,  $E_n$ , asymmetry following decay of spin-polarized source. <sup>10,11</sup>Be deduced levels,  $J$ ,  $\pi$ , S-factors. Comparison with antisymmetrized molecular dynamics model predictions. JOUR PYLBB 611 239
- <sup>11</sup>B      2004REZY      NUCLEAR REACTIONS <sup>1</sup>H(<sup>11</sup>C, p), (<sup>11</sup>C,  $\alpha$ ),  $E^*=8.7-9.9$  MeV; measured particle spectra, angular distributions,  $\sigma$ . <sup>8</sup>Be( $\alpha$ , p),  $E^*=8.7-9.9$  MeV; deduced excitation function, astrophysical reaction rates. REPT ANL-04/22,P3,Rehm
- 2005ISZZ      NUCLEAR REACTIONS <sup>4</sup>He(<sup>8</sup>Li, n),  $E=14.6$  MeV; <sup>4</sup>He(<sup>16</sup>N, n),  $E=32$  MeV; measured  $E_n$ , excitation energy spectra. <sup>16</sup>N( $\alpha$ , n),  $E(\text{cm}) \approx 1-4.5$  MeV; <sup>8</sup>Li( $\alpha$ , n),  $E \approx 0.5-3$  MeV; deduced excitation functions. CONF Riken(Origin of Matter) Proc,P316,Ishiyama
- 2005M004      NUCLEAR REACTIONS <sup>12</sup>C(e, e'p),  $E=379-585$  MeV; measured excitation energy spectra, momentum distributions; deduced longitudinal and transverse response functions. <sup>12</sup>C(e, e'p),  $E=379-585$  MeV; <sup>12</sup>C( $\gamma$ , p),  $E=61.8, 71.6$  MeV; analyzed transverse reduced  $\sigma$ , role of two-body currents. JOUR PRVCA 71 014607
- 2005PR02      NUCLEAR REACTIONS <sup>4</sup>He, <sup>12</sup>C(polarized e, e'p),  $E=2.261, 4.461$  GeV; measured single spin azimuthal asymmetries vs missing momentum, missing energy; deduced final state interaction effects. Comparisons with model predictions. JOUR NUPAB 748 357
- <sup>11</sup>C      2004REZY      NUCLEAR REACTIONS <sup>1</sup>H(<sup>11</sup>C, p), (<sup>11</sup>C,  $\alpha$ ),  $E^*=8.7-9.9$  MeV; measured particle spectra, angular distributions,  $\sigma$ . <sup>8</sup>Be( $\alpha$ , p),  $E^*=8.7-9.9$  MeV; deduced excitation function, astrophysical reaction rates. REPT ANL-04/22,P3,Rehm

**A=12**

- <sup>12</sup>B      2005GA09      NUCLEAR REACTIONS <sup>9</sup>Be, <sup>12</sup>C(e, e'K<sup>+</sup>),  $E=4$  GeV; measured hypernucleus production associated missing energy spectra. JOUR ZAANE 24 s01 91
- 2005KA06      NUCLEAR REACTIONS <sup>1</sup>H(<sup>17</sup>B, X)<sup>17</sup>B / <sup>15</sup>B / <sup>14</sup>B / <sup>13</sup>B / <sup>12</sup>B,  $E \approx 43$  MeV / nucleon; measured  $E_\gamma$ ,  $I_\gamma$ , (particle) $\gamma$ -coin, relative yields. <sup>15,17</sup>B deduced levels,  $J$ ,  $\pi$ . Comparison with model predictions. JOUR PYLBB 608 206
- <sup>12</sup>C      2005SA03      NUCLEAR REACTIONS <sup>10</sup>B( $\pi^-$ , K<sup>+</sup>), <sup>10</sup>B, <sup>12</sup>C( $\pi^+$ , K<sup>+</sup>),  $E$  at 1.05, 1.2 GeV / c; measured missing mass spectra, hypernucleus production  $\sigma$ . JOUR PRLTA 94 052502
- 2005SA04      NUCLEAR REACTIONS <sup>12</sup>C, <sup>28</sup>Si, <sup>27</sup>Al, Fe( $\pi^+$ , K<sup>+</sup>),  $E$  at 1.06 GeV / c; measured hypernucleus mass spectra, pion and proton spectra following hypernucleus decay. <sup>12</sup>C, <sup>28</sup>Si, <sup>27</sup>Al, Fe deduced mesonic and nonmesonic hypernucleus decay widths. Comparison with model predictions. JOUR PRVCA 71 025203



**A=13**

<sup>13</sup>B      2005KA06      NUCLEAR REACTIONS <sup>1</sup>H(<sup>17</sup>B, X)<sup>17</sup>B / <sup>15</sup>B / <sup>14</sup>B / <sup>13</sup>B / <sup>12</sup>B, E ≈ 43 MeV / nucleon; measured E<sub>γ</sub>, I<sub>γ</sub>, (particle)γ-coin, relative yields. <sup>15,17</sup>B deduced levels, J, π. Comparison with model predictions. JOUR PYLBB 608 206

**A=14**

<sup>14</sup>B      2005KA06      NUCLEAR REACTIONS <sup>1</sup>H(<sup>17</sup>B, X)<sup>17</sup>B / <sup>15</sup>B / <sup>14</sup>B / <sup>13</sup>B / <sup>12</sup>B, E ≈ 43 MeV / nucleon; measured E<sub>γ</sub>, I<sub>γ</sub>, (particle)γ-coin, relative yields. <sup>15,17</sup>B deduced levels, J, π. Comparison with model predictions. JOUR PYLBB 608 206

**A=15**

<sup>15</sup>B      2005KA06      NUCLEAR REACTIONS <sup>1</sup>H(<sup>17</sup>B, X)<sup>17</sup>B / <sup>15</sup>B / <sup>14</sup>B / <sup>13</sup>B / <sup>12</sup>B, E ≈ 43 MeV / nucleon; measured E<sub>γ</sub>, I<sub>γ</sub>, (particle)γ-coin, relative yields. <sup>15,17</sup>B deduced levels, J, π. Comparison with model predictions. JOUR PYLBB 608 206

<sup>15</sup>C      2005NAZZ      NUCLEAR REACTIONS Pb(<sup>15</sup>C, n<sup>14</sup>C), E=68 MeV / nucleon; measured dissociation σ, relative energy spectra. <sup>14</sup>C(n, γ), E(cm)=0-2.7 MeV; deduced σ. CONF Riken(Origin of Matter) Proc,P155,Nakamura

<sup>15</sup>N      2004HAZR      NUCLEAR REACTIONS <sup>16</sup>O(e, e'p), E=199.53 MeV; measured σ(E, θ), missing momentum spectra. JOUR KKYHB 37 1

2005K002      NUCLEAR REACTIONS <sup>16</sup>O(p, 2p), E=392 MeV; measured E<sub>p</sub>, E<sub>γ</sub>, pp-, pγ-coin. <sup>15</sup>N levels deduced γ-emission probabilities. JOUR NPBSE 139 72

2005RU03      NUCLEAR REACTIONS <sup>12</sup>C(<sup>11</sup>B, <sup>15</sup>N), E=49 MeV; measured σ(E, θ); <sup>12</sup>C(<sup>11</sup>B, <sup>8</sup>Be), E(cm)=10-17 MeV; analyzed σ(E, θ); deduced reaction mechanism features, optical model parameters. Coupled channels analysis. JOUR ZAANE 23 445

<sup>15</sup>O      2005BR04      NUCLEAR REACTIONS <sup>3</sup>He(<sup>3</sup>He, 2p), E(cm) ≈ 10-1000 keV; <sup>14</sup>N(p, γ), E ≈ 0.1-2.5 MeV; measured astrophysical S-factors. JOUR NPBSE 143 60

2005RU04      NUCLEAR REACTIONS <sup>14</sup>N(p, γ), E=155-524 keV; measured E<sub>γ</sub>, excitation function; deduced S-factor. R-matrix analysis, astrophysical implications discussed. JOUR PRLTA 94 082503

**A=16**

<sup>16</sup>C      2004AS13      NUCLEAR REACTIONS C(<sup>16</sup>C, X), E=46 MeV / nucleon; measured particle spectra, breakup and neutron removal σ; deduced reaction mechanism features. <sup>16</sup>C deduced no ground-state cluster structure. Comparison with model predictions. JOUR PRVCA 70 064607

<sup>16</sup>N      2004TAZW      RADIOACTIVITY <sup>16</sup>N(β<sup>-</sup>) [from <sup>2</sup>H(<sup>15</sup>N, n)]; measured β-delayed E<sub>α</sub>. Gas-filled ionization chambers. REPT ANL-04/22,P5,Tang

**A=16 (continued)**

- <sup>16</sup>O      2004FR34      NUCLEAR REACTIONS <sup>12</sup>C(<sup>12</sup>C, <sup>28</sup>Be), E=82-120 MeV; measured excitation energy spectra, angular correlations. <sup>16</sup>O deduced levels, J,  $\pi$ . Comparison with model predictions. JOUR PRVCA 70 064311
- 2004PE24      NUCLEAR REACTIONS <sup>16</sup>O(polarized  $\gamma$ ,  $\gamma'$ ), E=25-40 MeV; measured polarization asymmetries; deduced resonance features. JOUR PRVCA 70 064305
- 2004TAZW      RADIOACTIVITY <sup>16</sup>N( $\beta^-$ ) [from <sup>2</sup>H(<sup>15</sup>N, n)]; measured  $\beta$ -delayed E $\alpha$ . Gas-filled ionization chambers. REPT ANL-04/22,P5,Tang
- 2005SHZZ      NUCLEAR REACTIONS <sup>12</sup>C( $\alpha$ ,  $\gamma$ ), E(cm)=1.3, 1.5 MeV; measured E1 and E2  $\sigma$ ,  $\sigma(\theta)$ . <sup>12</sup>C( $\alpha$ ,  $\gamma$ ), E(cm)  $\approx$  1000-3000 keV; analyzed data; deduced astrophysical S-factors. CONF Riken(Origin of Matter) Proc,P217,Shima

**A=17**

- <sup>17</sup>B      2005KA06      NUCLEAR REACTIONS <sup>1</sup>H(<sup>17</sup>B, X)<sup>17</sup>B / <sup>15</sup>B / <sup>14</sup>B / <sup>13</sup>B / <sup>12</sup>B, E  $\approx$  43 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin, relative yields. <sup>15,17</sup>B deduced levels, J,  $\pi$ . Comparison with model predictions. JOUR PYLBB 608 206

**A=18**

- <sup>18</sup>F      2004FOZY      NUCLEAR REACTIONS <sup>17</sup>O(p,  $\gamma$ ), E=185-215 keV; measured E $\gamma$ , I $\gamma$ ; deduced excitation function. <sup>18</sup>F deduced resonance strengths. Astrophysical implications discussed. REPT TUNL-XLIII,P32,Fox
- 2005FI01      NUCLEAR REACTIONS <sup>1</sup>H(<sup>17</sup>O,  $\gamma$ ), E=12.5 MeV; measured particle spectra; deduced resonance strength. Recoil separator, other reactions discussed. JOUR NUPAB 748 351
- 2005HE04      NUCLEAR REACTIONS <sup>18</sup>O(p, n), E=2582 keV; measured neutron spectrum. <sup>138</sup>Ba(n,  $\gamma$ ), E=spectrum; measured Maxwellian-averaged  $\sigma$ . JOUR PRVCA 71 025803
- <sup>18</sup>Ne      2004SIZX      NUCLEAR REACTIONS <sup>1</sup>H(<sup>21</sup>Na,  $\alpha$ ), E  $\approx$  113 MeV; measured E $\alpha$ ,  $\sigma(E, \theta)$ , (<sup>18</sup>Ne) $\alpha$ -coin. <sup>18</sup>Ne( $\alpha$ , p), E(cm)  $\approx$  2.5 MeV; deduced angle-integrated  $\sigma$ . REPT ANL-04/22,P8,Sinha

**A=19**

- <sup>19</sup>F      2005ISZZ      NUCLEAR REACTIONS <sup>4</sup>He(<sup>8</sup>Li, n), E=14.6 MeV; <sup>4</sup>He(<sup>16</sup>N, n), E=32 MeV; measured E $n$ , excitation energy spectra. <sup>16</sup>N( $\alpha$ , n), E(cm)  $\approx$  1-4.5 MeV; <sup>8</sup>Li( $\alpha$ , n), E  $\approx$  0.5-3 MeV; deduced excitation functions. CONF Riken(Origin of Matter) Proc,P316,Ishiyama

**A=20**

<sup>20</sup>Ne 2005ST09 NUCLEAR REACTIONS <sup>12</sup>C(<sup>12</sup>C, α), E=34.7 MeV; <sup>12</sup>C(<sup>16</sup>O, α), E=38.5 MeV; measured Eα, Eγ, Iγ(θ, t), αγ-coin; Gd(<sup>24</sup>Mg, <sup>24</sup>Mg'), E=165 MeV; measured Eγ, Iγ(θ, t), (particle)γ-coin; deduced transient field strengths. JOUR PYLBB 611 81

**A=21**

<sup>21</sup>Ne 2005LE04 NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production σ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

<sup>21</sup>Na 2004SIZX NUCLEAR REACTIONS <sup>1</sup>H(<sup>21</sup>Na, α), E ≈ 113 MeV; measured Eα, σ(E, θ), (<sup>18</sup>Ne)α-coin. <sup>18</sup>Ne(α, p), E(cm) ≈ 2.5 MeV; deduced angle-integrated σ. REPT ANL-04/22,P8,Sinha

2005RU01 NUCLEAR REACTIONS <sup>1</sup>H(<sup>21</sup>Na, p), E=580-1560 keV / nucleon; measured elastic and inelastic recoil proton spectra, σ(θ). <sup>22</sup>Mg deduced resonance energies, widths, J, π, analog states. <sup>21</sup>Na(p, γ), E=low; calculated reaction rate. R-matrix analysis. JOUR PRVCA 71 025802

**A=22**

<sup>22</sup>O 2004BEZP NUCLEAR REACTIONS <sup>1</sup>H(<sup>22</sup>O, p), (<sup>22</sup>O, <sup>22</sup>O'), E ≈ 47 MeV / nucleon; measured particle spectra, σ(E, θ). <sup>22</sup>O level deduced deformation parameter. MUST detector array. REPT IPNO-T-04-17,Becheva

<sup>22</sup>Ne 2005LE04 NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production σ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

<sup>22</sup>Mg 2004SEZX NUCLEAR REACTIONS <sup>12</sup>C(<sup>12</sup>C, 2n), E not given; measured Eγ, Iγ, (recoil)γ-coin. <sup>22</sup>Mg deduced levels, J, π, mass excess. Gammasphere array, mass separator. REPT ANL-04/22,P12,Seweryniak

2005HEZZ NUCLEAR REACTIONS <sup>1</sup>H(<sup>22</sup>Mg, p), E(cm) ≈ 0.5-3.5 MeV; measured proton spectrum. <sup>23</sup>Al deduced levels, J, π. CONF Riken(Origin of Matter) Proc,P481,He

2005RU01 NUCLEAR REACTIONS <sup>1</sup>H(<sup>21</sup>Na, p), E=580-1560 keV / nucleon; measured elastic and inelastic recoil proton spectra, σ(θ). <sup>22</sup>Mg deduced resonance energies, widths, J, π, analog states. <sup>21</sup>Na(p, γ), E=low; calculated reaction rate. R-matrix analysis. JOUR PRVCA 71 025802

**A=22 (continued)**

- 2005SE02 NUCLEAR REACTIONS  $^{12}\text{C}(^{12}\text{C}, 2\text{n})$ ,  $E=52$  MeV; measured  $E_\gamma$ ,  $I_\gamma$ , (recoil) $\gamma$ -coin.  $^{22}\text{Mg}$  deduced levels,  $J$ ,  $\pi$ , mass excess. Implications for astrophysical reaction rate discussed. Gammasphere array. JOUR PRLTA 94 032501
- 2005SHZY NUCLEAR REACTIONS  $^{24}\text{Mg}$ ,  $^{28}\text{Si}(\alpha, ^6\text{He})$ ,  $E=205$  MeV; measured excitation energy spectra.  $^{22}\text{Mg}$ ,  $^{26}\text{Si}$  deduced resonance energies. Astrophysical implications discussed. CONF Riken(Origin of Matter) Proc,P367,Shimizu

**A=23**

- $^{23}\text{O}$  2005N001 NUCLEAR REACTIONS  $\text{Pb}(^{23}\text{O}, \text{n}^{22}\text{O})$ ,  $E=422$  MeV / nucleon; measured  $E_n$ ,  $E_\gamma$ ,  $I_\gamma$ , (fragment) $\gamma$ -,  $\text{n}\gamma$ -coin,  $\sigma(E)$ ; deduced final-state interaction effects.  $^{23}\text{O}$  deduced ground state  $J$ ,  $\pi$ , configuration, spectroscopic factor. JOUR PYLBB 605 79
- $^{23}\text{F}$  2004MIZR NUCLEAR REACTIONS  $^4\text{He}(^{22}\text{O}, ^{23}\text{F})$ ,  $E \approx 35$  MeV / nucleon; measured  $E_\gamma$ ,  $I_\gamma$ , (particle) $\gamma$ -coin.  $^{23}\text{F}$  deduced levels, transitions. REPT CNS-REP-64,P269,Michimasa
- $^{23}\text{Ne}$  2005K001 NUCLEAR REACTIONS  $^{13}\text{C}(^{18}\text{O}, ^8\text{Be})$ ,  $(^{18}\text{O}, 2\alpha)$ ,  $E=100$  MeV;  $^{24}\text{Mg}(^{28}\text{Si}, ^{12}\text{C})$ ,  $(^{28}\text{Si}, 3\alpha)$ ,  $E=130$  MeV; measured particle spectra,  $E_\gamma$ ,  $I_\gamma$ , (particle) $\gamma$ -coin; deduced cluster emission features. GASP, ISIS arrays. JOUR ZAANE 23 19
- $^{23}\text{Na}$  2004V021 NUCLEAR REACTIONS  $^{22}\text{Ne}(\text{p}, \gamma)$ ,  $E=840-2220$  keV; measured  $E_\gamma$ ,  $I_\gamma$ , excitation function.  $^{23}\text{Na}$  deduced levels,  $J$ ,  $\pi$ , IAS features. Comparison with model predictions. JOUR BRSPE 68 210
- 2005BE03 RADIOACTIVITY  $^{23}\text{Na}$ ,  $^{127}\text{I}$ ; measured  $T_{1/2}$  lower limits for spontaneous decay to superdense state; deduced potential barrier features. NaI detectors. JOUR ZAANE 23 7
- $^{23}\text{Mg}$  2005TEZZ NUCLEAR REACTIONS  $^1\text{H}(^{23}\text{Mg}, \text{p})$ ,  $(^{24}\text{Mg}, \text{p})$ ,  $E(\text{cm}) \approx 0.5-3.5$  MeV; measured excitation functions,  $\sigma(\theta)$ ; deduced resonance features. CONF Riken(Origin of Matter) Proc,P361,Teranishi
- $^{23}\text{Al}$  2005HEZZ NUCLEAR REACTIONS  $^1\text{H}(^{22}\text{Mg}, \text{p})$ ,  $E(\text{cm}) \approx 0.5-3.5$  MeV; measured proton spectrum.  $^{23}\text{Al}$  deduced levels,  $J$ ,  $\pi$ . CONF Riken(Origin of Matter) Proc,P481,He

**A=24**

- $^{24}\text{Ne}$  2004KRZX NUCLEAR REACTIONS  $^{27}\text{Al}(\text{n}, \text{n}3\text{p})$ ,  $^{59}\text{Co}$ ,  $^{139}\text{La}$ ,  $^{129}\text{I}$ ,  $^{197}\text{Au}$ ,  $^{237}\text{Np}(\text{n}, \gamma)$ ,  $^{59}\text{Co}$ ,  $^{127,129}\text{I}$ ,  $^{197}\text{Au}$ ,  $^{209}\text{Bi}(\text{n}, \text{xn})$ ,  $^{235,238}\text{U}(\text{n}, \text{F})$ ,  $E$ =spectrum; measured yields; deduced reaction rates.  $\text{Pb}(\text{p}, \text{nX})$ ,  $E=1.5$  GeV; deduced neutron spectrum. REPT JINR-E1-2004-79,Krivopustov
- $^{24}\text{Mg}$  2005ST09 NUCLEAR REACTIONS  $^{12}\text{C}(^{12}\text{C}, \alpha)$ ,  $E=34.7$  MeV;  $^{12}\text{C}(^{16}\text{O}, \alpha)$ ,  $E=38.5$  MeV; measured  $E_\alpha$ ,  $E_\gamma$ ,  $I_\gamma(\theta, \text{t})$ ,  $\alpha\gamma$ -coin;  $\text{Gd}(^{24}\text{Mg}, ^{24}\text{Mg}')$ ,  $E=165$  MeV; measured  $E_\gamma$ ,  $I_\gamma(\theta, \text{t})$ , (particle) $\gamma$ -coin; deduced transient field strengths. JOUR PYLBB 611 81

**A=24 (continued)**

2005TEZZ NUCLEAR REACTIONS  $^1\text{H}(^{23}\text{Mg}, \text{p})$ ,  $(^{24}\text{Mg}, \text{p})$ ,  $E(\text{cm}) \approx 0.5\text{-}3.5$  MeV; measured excitation functions,  $\sigma(\theta)$ ; deduced resonance features. CONF Riken(Origin of Matter) Proc,P361,Teranishi

**A=25**

$^{25}\text{Al}$  2005MOZZ NUCLEAR REACTIONS  $^1\text{H}(^{25}\text{Al}, \text{p})$ ,  $E(\text{cm}) \approx 0.5\text{-}3.44$  MeV / nucleon;  $^1\text{H}(^{26}\text{Si}, \text{p})$ ,  $E(\text{cm}) \approx 0.5\text{-}3.95$  MeV / nucleon; measured excitation functions; deduced resonance features. Thick target. CONF Riken(Origin of Matter) Proc,P505,Moon

**A=26**

$^{26}\text{Mg}$  2005SC01 RADIOACTIVITY  $^{26m}\text{Al}(\beta^+)$  [from  $^{27}\text{Al}(\gamma, \text{n})$ ]; measured  $T_{1/2}$ . JOUR NIMAE 539 191

$^{26}\text{Al}$  2005SC01 RADIOACTIVITY  $^{26m}\text{Al}(\beta^+)$  [from  $^{27}\text{Al}(\gamma, \text{n})$ ]; measured  $T_{1/2}$ . JOUR NIMAE 539 191

$^{26}\text{Si}$  2004PA42 NUCLEAR REACTIONS  $^{24}\text{Mg}(^3\text{He}, \text{n})$ ,  $E=7.9, 8.11, 10.0$  MeV; measured  $E_n$ ,  $\sigma(\theta)$ .  $^{26}\text{Si}$  deduced levels,  $J$ ,  $\pi$ .  $^{25}\text{Al}(\text{p}, \gamma)$ ,  $E=\text{low}$ ; calculated astrophysical reaction rates. JOUR PRVCA 70 065805

2005MOZZ NUCLEAR REACTIONS  $^1\text{H}(^{25}\text{Al}, \text{p})$ ,  $E(\text{cm}) \approx 0.5\text{-}3.44$  MeV / nucleon;  $^1\text{H}(^{26}\text{Si}, \text{p})$ ,  $E(\text{cm}) \approx 0.5\text{-}3.95$  MeV / nucleon; measured excitation functions; deduced resonance features. Thick target. CONF Riken(Origin of Matter) Proc,P505,Moon

2005SHZY NUCLEAR REACTIONS  $^{24}\text{Mg}$ ,  $^{28}\text{Si}(\alpha, ^6\text{He})$ ,  $E=205$  MeV; measured excitation energy spectra.  $^{22}\text{Mg}$ ,  $^{26}\text{Si}$  deduced resonance energies. Astrophysical implications discussed. CONF Riken(Origin of Matter) Proc,P367,Shimizu

**A=27**

$^{27}\text{Al}$  2005SA04 NUCLEAR REACTIONS  $^{12}\text{C}$ ,  $^{28}\text{Si}$ ,  $^{27}\text{Al}$ ,  $\text{Fe}(\pi^+, \text{K}^+)$ ,  $E$  at 1.06 GeV /  $c$ ; measured hypernucleus mass spectra, pion and proton spectra following hypernucleus decay.  $^{12}\text{C}$ ,  $^{28}\text{Si}$ ,  $^{27}\text{Al}$ ,  $\text{Fe}$  deduced mesonic and nonmesonic hypernucleus decay widths. Comparison with model predictions. JOUR PRVCA 71 025203

$^{27}\text{P}$  2005TOZZ NUCLEAR REACTIONS  $^{208}\text{Pb}(^{27}\text{P}, \text{p}^{26}\text{Si})$ ,  $E=57$  MeV / nucleon; measured relative energy spectrum,  $\sigma(E)$ .  $^{27}\text{P}$  deduced gamma decay width of first excited state. CONF Riken(Origin of Matter) Proc,P549,Togano

**A=28**

- <sup>28</sup>Si      2005SA04      NUCLEAR REACTIONS <sup>12</sup>C, <sup>28</sup>Si, <sup>27</sup>Al, Fe( $\pi^+$ ,  $K^+$ ), E at 1.06 GeV / c; measured hypernucleus mass spectra, pion and proton spectra following hypernucleus decay. <sup>12</sup>C, <sup>28</sup>Si, <sup>27</sup>Al, Fe deduced mesonic and nonmesonic hypernucleus decay widths. Comparison with model predictions. JOUR PRVCA 71 025203
- 2005WE01      NUCLEAR REACTIONS <sup>12</sup>C(<sup>29</sup>P, <sup>28</sup>SiX), E=30.7 MeV / nucleon; measured fragments parallel momentum distribution. <sup>28</sup>Si, <sup>29</sup>P deduced particle density distributions, related features. Glauber model and Skyrme-Hartree-Fock calculations. JOUR CPLEE 22 61

**A=29**

- <sup>29</sup>P      2005WE01      NUCLEAR REACTIONS <sup>12</sup>C(<sup>29</sup>P, <sup>28</sup>SiX), E=30.7 MeV / nucleon; measured fragments parallel momentum distribution. <sup>28</sup>Si, <sup>29</sup>P deduced particle density distributions, related features. Glauber model and Skyrme-Hartree-Fock calculations. JOUR CPLEE 22 61

**A=30**

No references found

**A=31**

- <sup>31</sup>Mg      2005NE01      RADIOACTIVITY <sup>31</sup>Mg( $\beta^-$ ) [from U(p, X)]; measured  $\beta$ -asymmetry,  $\beta$ -NMR spectra from polarized source. <sup>31</sup>Mg deduced ground-state J,  $\pi$ ,  $\mu$ . JOUR PRLTA 94 022501
- <sup>31</sup>Al      2005NE01      RADIOACTIVITY <sup>31</sup>Mg( $\beta^-$ ) [from U(p, X)]; measured  $\beta$ -asymmetry,  $\beta$ -NMR spectra from polarized source. <sup>31</sup>Mg deduced ground-state J,  $\pi$ ,  $\mu$ . JOUR PRLTA 94 022501
- <sup>31</sup>P      2004V022      NUCLEAR REACTIONS <sup>30</sup>Si(p,  $\gamma$ ), E=1750-1905 keV; measured  $E\gamma$ ,  $I\gamma$ , excitation function. <sup>31</sup>P deduced levels, J,  $\pi$ , B(M1), IAR features. JOUR BRSPE 68 218

**A=32**

No references found

**A=33**

No references found

**A=34**

- <sup>34</sup>S      2005MA03      NUCLEAR REACTIONS <sup>24</sup>Mg(<sup>16</sup>O, 2pα), E=70 MeV; measured E<sub>γ</sub>, I<sub>γ</sub>, γγ-, (charged particle)γ-coin, DSA. <sup>34</sup>S deduced high-spin levels, J, π, T<sub>1/2</sub>, B(M1), B(E2). Comparison with shell model calculations. JOUR PRVCA 71 014316

**A=35**

No references found

**A=36**

- <sup>36</sup>Ar      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production σ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=37**

- <sup>37</sup>Cl      2005HE03      RADIOACTIVITY <sup>37</sup>K(β<sup>+</sup>); <sup>37</sup>Ar(EC); measured T<sub>1/2</sub>. JOUR NJOPF 7 44
- <sup>37</sup>Ar      2005HE03      RADIOACTIVITY <sup>37</sup>K(β<sup>+</sup>); <sup>37</sup>Ar(EC); measured T<sub>1/2</sub>. JOUR NJOPF 7 44
- 2005HE03      ATOMIC MASSES <sup>37</sup>K, <sup>37</sup>Ar; measured masses. Penning trap spectrometer. JOUR NJOPF 7 44
- <sup>37</sup>K      2005HE03      RADIOACTIVITY <sup>37</sup>K(β<sup>+</sup>); <sup>37</sup>Ar(EC); measured T<sub>1/2</sub>. JOUR NJOPF 7 44
- 2005HE03      ATOMIC MASSES <sup>37</sup>K, <sup>37</sup>Ar; measured masses. Penning trap spectrometer. JOUR NJOPF 7 44

**A=38**

- <sup>38</sup>Ar      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production σ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=39**

No references found

**A=40**

<sup>40</sup>Ca      2005K001      NUCLEAR REACTIONS <sup>13</sup>C(<sup>18</sup>O, <sup>8</sup>Be), (<sup>18</sup>O, 2 $\alpha$ ), E=100 MeV; <sup>24</sup>Mg(<sup>28</sup>Si, <sup>12</sup>C), (<sup>28</sup>Si, 3 $\alpha$ ), E=130 MeV; measured particle spectra, E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin; deduced cluster emission features. GASP, ISIS arrays. JOUR ZAANE 23 19

**A=41**

No references found

**A=42**

<sup>42</sup>Ca      2004KMZZ      NUCLEAR REACTIONS <sup>28</sup>Si(<sup>18</sup>O,  $\alpha$ ), E=105 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>46</sup>Ti deduced GDR strength distribution. <sup>42</sup>Ca deduced rotational band feeding intensities. Euroball IV, Hector arrays. PREPRINT nucl-ex/0412046,12/21/2004

**A=43**

No references found

**A=44**

No references found

**A=45**

No references found

**A=46**

<sup>46</sup>Ca      2005TA02      NUCLEAR REACTIONS C(<sup>46</sup>Ca, <sup>46</sup>Ca'), E=95 MeV; measured E $\gamma$ , I $\gamma$ ( $\theta$ , H, t), (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>46</sup>Ca level deduced g-factor, configuration. Transient field technique, comparisons with neighboring isotopes. JOUR PYLBB 605 265

<sup>46</sup>Ti      2004KMZZ      NUCLEAR REACTIONS <sup>28</sup>Si(<sup>18</sup>O,  $\alpha$ ), E=105 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>46</sup>Ti deduced GDR strength distribution. <sup>42</sup>Ca deduced rotational band feeding intensities. Euroball IV, Hector arrays. PREPRINT nucl-ex/0412046,12/21/2004

<sup>46</sup>V      2004ONZZ      RADIOACTIVITY <sup>46</sup>Cr(EC) [from Be(<sup>50</sup>Cr, X)]; measured E $\gamma$ , I $\gamma$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>; deduced Gamow-Teller transition, branching ratio, log ft. <sup>46</sup>V deduced  $\beta$ -feeding intensity. Comparison with model predictions. REPT CNS-REP-64,P235,Onishi



**A=46 (continued)**

<sup>46</sup>Cr 20040NZZ RADIOACTIVITY <sup>46</sup>Cr(EC) [from Be(<sup>50</sup>Cr, X)]; measured E $\gamma$ , I $\gamma$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>; deduced Gamow-Teller transition, branching ratio, log ft. <sup>46</sup>V deduced  $\beta$ -feeding intensity. Comparison with model predictions. REPT CNS-REP-64,P235,Onishi

**A=47**

<sup>47</sup>K 2004ISZX NUCLEAR REACTIONS <sup>198</sup>Pt(<sup>48</sup>Ca, X)<sup>47</sup>K / <sup>48</sup>K, E=8.5 MeV / nucleon; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (particle) $\gamma$ -coin. <sup>47,48</sup>K deduced levels, J,  $\pi$ , isomeric states T<sub>1/2</sub>. REPT CNS-REP-64,P27,Ishii

**A=48**

<sup>48</sup>K 2004ISZX NUCLEAR REACTIONS <sup>198</sup>Pt(<sup>48</sup>Ca, X)<sup>47</sup>K / <sup>48</sup>K, E=8.5 MeV / nucleon; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (particle) $\gamma$ -coin. <sup>47,48</sup>K deduced levels, J,  $\pi$ , isomeric states T<sub>1/2</sub>. REPT CNS-REP-64,P27,Ishii

<sup>48</sup>Ca 2005ZD02 RADIOACTIVITY <sup>48</sup>Ca(2 $\beta^-$ ); measured 0 $\nu\beta\beta$ -decay T<sub>1/2</sub> lower limit. CaWO<sub>4</sub> crystal scintillators. JOUR APHYE 23 249

<sup>48</sup>Ti 2005ZD02 RADIOACTIVITY <sup>48</sup>Ca(2 $\beta^-$ ); measured 0 $\nu\beta\beta$ -decay T<sub>1/2</sub> lower limit. CaWO<sub>4</sub> crystal scintillators. JOUR APHYE 23 249

<sup>48</sup>V 2005B010 NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101

**A=49**

No references found

**A=50**

<sup>50</sup>Ti 2005BA14 NUCLEAR REACTIONS <sup>50</sup>V(d, 2p), E=171 MeV; measured E $p$ , pp-coin,  $\sigma(E, \theta)$ . <sup>50</sup>V deduced Gamow-Teller strength distribution. Comparison with model predictions. JOUR PRVCA 71 024603

<sup>50</sup>V 2005BA14 NUCLEAR REACTIONS <sup>50</sup>V(d, 2p), E=171 MeV; measured E $p$ , pp-coin,  $\sigma(E, \theta)$ . <sup>50</sup>V deduced Gamow-Teller strength distribution. Comparison with model predictions. JOUR PRVCA 71 024603

<sup>50</sup>Cr 2005W001 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>84</sup>Kr, <sup>84</sup>Kr'), (<sup>56</sup>Cr, <sup>56</sup>Cr'), (<sup>108</sup>Sn, <sup>108</sup>Sn'), E=113-142 MeV / nucleon; measured E $\gamma$ , I $\gamma$  following projectile Coulomb excitation. <sup>84</sup>Kr, <sup>56</sup>Cr, <sup>108</sup>Sn deduced transitions. <sup>9</sup>Be(<sup>55</sup>Ni, X)<sup>54</sup>Co / <sup>52</sup>Fe / <sup>50</sup>Cr, E=171 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. JOUR NIMAE 537 637

**A=51**

<sup>51</sup>Cr      2005B010      NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E ≈ 31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101

**A=52**

<sup>52</sup>Mn      2004ADZW      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam

2004MIZS      NUCLEAR REACTIONS Fe(p, X)<sup>52</sup>Mn, E < 2.6 GeV; Pb(p, X)<sup>10</sup>Be, E < 2.6 GeV; <sup>209</sup>Bi(p, 4np), E < 2.6 GeV; Pb(n, X)<sup>196</sup>Au / <sup>95</sup>Zr, E ≈ 70-180 MeV; measured excitation functions. Comparison with model predictions. REPT NEA/NSC/DOC(2004)14,P28, Michel

2004QAZZ      NUCLEAR REACTIONS <sup>52</sup>Cr(p, n), (<sup>3</sup>He, t), <sup>54</sup>Fe(d,  $\alpha$ ), (<sup>3</sup>He, p $\alpha$ ), E ≈ 5-35 MeV; measured isomer production ratios. REPT NEA/NSC/DOC(2004)14,P11, Qaim

2005AD01      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61

2005B010      NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E ≈ 31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101

<sup>52</sup>Fe      2005B010      NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E ≈ 31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101

2005W001      NUCLEAR REACTIONS <sup>197</sup>Au(<sup>84</sup>Kr, <sup>84</sup>Kr'), (<sup>56</sup>Cr, <sup>56</sup>Cr'), (<sup>108</sup>Sn, <sup>108</sup>Sn'), E=113-142 MeV / nucleon; measured E $\gamma$ , I $\gamma$  following projectile Coulomb excitation. <sup>84</sup>Kr, <sup>56</sup>Cr, <sup>108</sup>Sn deduced transitions. <sup>9</sup>Be(<sup>55</sup>Ni, X)<sup>54</sup>Co / <sup>52</sup>Fe / <sup>50</sup>Cr, E=171 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. JOUR NIMAE 537 637

**A=53**

No references found

## A=54

- <sup>54</sup>Sc 2004LI75 RADIOACTIVITY <sup>54,55,56</sup>Sc( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , E $\gamma$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>54,55,56</sup>Ti deduced levels, J,  $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 70 064303
- <sup>54</sup>Ti 2004F009 NUCLEAR REACTIONS <sup>238</sup>U(<sup>48</sup>Ca, X)<sup>54</sup>Ti / <sup>56</sup>Ti, E=330 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>54,56</sup>Ti deduced levels, J,  $\pi$ , configurations. Gammasphere array. JOUR PRVCA 70 064304
- 2004LI75 RADIOACTIVITY <sup>54,55,56</sup>Sc( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , E $\gamma$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>54,55,56</sup>Ti deduced levels, J,  $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 70 064303
- <sup>54</sup>Mn 2005B010 NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNC D 264 101
- <sup>54</sup>Co 2005W001 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>84</sup>Kr, <sup>84</sup>Kr'), (<sup>56</sup>Cr, <sup>56</sup>Cr'), (<sup>108</sup>Sn, <sup>108</sup>Sn'), E=113-142 MeV / nucleon; measured E $\gamma$ , I $\gamma$  following projectile Coulomb excitation. <sup>84</sup>Kr, <sup>56</sup>Cr, <sup>108</sup>Sn deduced transitions. <sup>9</sup>Be(<sup>55</sup>Ni, X)<sup>54</sup>Co / <sup>52</sup>Fe / <sup>50</sup>Cr, E=171 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. JOUR NIMAE 537 637

## A=55

- <sup>55</sup>Sc 2004LI75 RADIOACTIVITY <sup>54,55,56</sup>Sc( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , E $\gamma$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>54,55,56</sup>Ti deduced levels, J,  $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 70 064303
- <sup>55</sup>Ti 2004LI75 RADIOACTIVITY <sup>54,55,56</sup>Sc( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , E $\gamma$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>54,55,56</sup>Ti deduced levels, J,  $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 70 064303
- <sup>55</sup>Co 2004ADZW NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005AD01 NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- 2005B010 NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNC D 264 101
- <sup>55</sup>Ni 2004YU11 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>55</sup>Ni, <sup>55</sup>Ni'), E=84.8 MeV; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>55</sup>Ni deduced level, transition B(E2). Comparison with model predictions. JOUR PRVCA 70 064321

## A=56

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| <sup>56</sup> Sc | 2004LI75 | RADIOACTIVITY <sup>54,55,56</sup> Sc( $\beta^-$ ) [from Be( <sup>86</sup> Kr, X)]; measured E $\beta$ , E $\gamma$ , $\beta\gamma$ -coin, T <sub>1/2</sub> . <sup>54,55,56</sup> Ti deduced levels, J, $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 70 064303   |
| <sup>56</sup> Ti | 2004F009 | NUCLEAR REACTIONS <sup>238</sup> U( <sup>48</sup> Ca, X) <sup>54</sup> Ti / <sup>56</sup> Ti, E=330 MeV; measured E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. <sup>54,56</sup> Ti deduced levels, J, $\pi$ , configurations. Gammasphere array. JOUR PRVCA 70 064304   |
|                  | 2004LI75 | RADIOACTIVITY <sup>54,55,56</sup> Sc( $\beta^-$ ) [from Be( <sup>86</sup> Kr, X)]; measured E $\beta$ , E $\gamma$ , $\beta\gamma$ -coin, T <sub>1/2</sub> . <sup>54,55,56</sup> Ti deduced levels, J, $\pi$ , configurations. Comparison with model predictions. JOUR PRVCA 70 064303   |
| <sup>56</sup> Cr | 2005W001 | NUCLEAR REACTIONS <sup>197</sup> Au( <sup>84</sup> Kr, <sup>84</sup> Kr'), ( <sup>56</sup> Cr, <sup>56</sup> Cr'), ( <sup>108</sup> Sn, <sup>108</sup> Sn'), E=113-142 MeV / nucleon; measured E $\gamma$ , I $\gamma$ following projectile Coulomb excitation. <sup>84</sup> Kr, <sup>56</sup> Cr, <sup>108</sup> Sn deduced transitions. <sup>9</sup> Be( <sup>55</sup> Ni, X) <sup>54</sup> Co / <sup>52</sup> Fe / <sup>50</sup> Cr, E=171 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. JOUR NIMAE 537 637 |
| <sup>56</sup> Co | 2004ADZW | NUCLEAR REACTIONS <sup>209</sup> Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup> Th(n, $\gamma$ ), <sup>197</sup> Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, $\gamma$ ), <sup>115</sup> In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup> Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam  |
|                  | 2005AD01 | NUCLEAR REACTIONS <sup>209</sup> Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup> Th(n, $\gamma$ ), <sup>197</sup> Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, $\gamma$ ), <sup>59</sup> Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup> In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61  |
|                  | 2005B010 | NUCLEAR REACTIONS Zn(p, X) <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>56</sup> Ni / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>51</sup> Cr / <sup>48</sup> V / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>66</sup> Ga / <sup>67</sup> Ga / <sup>52</sup> Fe / <sup>59</sup> Fe, E $\approx$ 31-141 MeV; measured production $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101  |
| <sup>56</sup> Ni | 2005B010 | NUCLEAR REACTIONS Zn(p, X) <sup>64</sup> Cu / <sup>57</sup> Ni / <sup>56</sup> Ni / <sup>52</sup> Mn / <sup>54</sup> Mn / <sup>62</sup> Zn / <sup>65</sup> Zn / <sup>51</sup> Cr / <sup>48</sup> V / <sup>55</sup> Co / <sup>56</sup> Co / <sup>57</sup> Co / <sup>58</sup> Co / <sup>60</sup> Co / <sup>66</sup> Ga / <sup>67</sup> Ga / <sup>52</sup> Fe / <sup>59</sup> Fe, E $\approx$ 31-141 MeV; measured production $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101  |
|                  | 2005TAZZ | NUCLEAR REACTIONS <sup>13</sup> C, <sup>56</sup> Fe( <sup>11</sup> B, <sup>11</sup> Li), E=758 MeV; measured $\sigma$ (E); deduced Gamow-Teller resonance, IAS features. CONF Riken(Origin of Matter) Proc,P533,Takahisa   |

## A=57

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|------------------|----------|--|
| <sup>57</sup> Sc | 2005GA01 | RADIOACTIVITY <sup>57,58</sup> Sc, <sup>58,59,60</sup> Ti, <sup>61</sup> V, <sup>62,63,64,65,66</sup> Cr( $\beta^-$ ) [from <sup>58</sup> Ni( <sup>76</sup> Ge, X)]; measured E $\gamma$ , E $\beta$ , $\beta\gamma$ -coin, T <sub>1/2</sub> . <sup>58</sup> V, <sup>61</sup> Cr, <sup>62</sup> Mn deduced levels, J, $\pi$ . <sup>58</sup> V, <sup>61</sup> Cr, <sup>62,63,64,65</sup> Mn deduced transitions. <sup>60</sup> V, <sup>62</sup> Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41 |
|                  | 2005GA01 | NUCLEAR REACTIONS <sup>58</sup> Ni( <sup>76</sup> Ge, X) <sup>57</sup> Sc / <sup>58</sup> Sc / <sup>58</sup> Ti / <sup>59</sup> Ti / <sup>60</sup> Ti / <sup>60</sup> V / <sup>61</sup> V / <sup>62</sup> V / <sup>63</sup> V / <sup>62</sup> Cr / <sup>63</sup> Cr / <sup>64</sup> Cr / <sup>65</sup> Cr / <sup>66</sup> Cr / <sup>65</sup> Mn / <sup>66</sup> Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41  |

**A=57 (continued)**

- <sup>57</sup>Ti      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- <sup>57</sup>Co      2004ADZW      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005AD01      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- 2005B010      NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101
- <sup>57</sup>Ni      2005B010      NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101

**A=58**

- <sup>58</sup>Sc      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- <sup>58</sup>Ti      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41

**A=58 (continued)**

- <sup>58</sup>V      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- <sup>58</sup>Co      2004ADZW      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005AD01      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- 2005B010      NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101
- 2005HA03      NUCLEAR REACTIONS <sup>58</sup>Ni(d, 2p), E=170 MeV; measured Ep, pp-coin,  $\sigma(E, \theta)$ . <sup>58</sup>Co deduced levels, Gamow-Teller strengths, related features. <sup>58</sup>Ni, <sup>58</sup>Co deduced analog states Coulomb displacement energy. Comparison with large-scale shell model calculations. JOUR PRVCA 71 014606
- <sup>58</sup>Ni      2005AL03      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>16</sup>O, <sup>16</sup>O'), (<sup>16</sup>O, <sup>16</sup>O'), (<sup>16</sup>O, <sup>12</sup>C), E=46 MeV; <sup>58</sup>Ni(<sup>18</sup>O, <sup>18</sup>O'), (<sup>18</sup>O, <sup>18</sup>O'), (<sup>18</sup>O, <sup>17</sup>O), (<sup>18</sup>O, <sup>16</sup>O), E=46 MeV; measured elastic, inelastic, and transfer  $\sigma(E, \theta)$ . Coupled-channels analysis, comparison with previous results. JOUR NUPAB 748 59
- 2005HA03      NUCLEAR REACTIONS <sup>58</sup>Ni(d, 2p), E=170 MeV; measured Ep, pp-coin,  $\sigma(E, \theta)$ . <sup>58</sup>Co deduced levels, Gamow-Teller strengths, related features. <sup>58</sup>Ni, <sup>58</sup>Co deduced analog states Coulomb displacement energy. Comparison with large-scale shell model calculations. JOUR PRVCA 71 014606

**A=59**

- <sup>59</sup>Ti      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41

**A=59 (continued)**

- <sup>59</sup>V      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- <sup>59</sup>Fe      2004ADZW      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005AD01      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- 2005B010      NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101
- <sup>59</sup>Ni      2005AL03      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>16</sup>O, <sup>16</sup>O'), (<sup>16</sup>O, <sup>16</sup>O'), (<sup>16</sup>O, <sup>12</sup>C), E=46 MeV; <sup>58</sup>Ni(<sup>18</sup>O, <sup>18</sup>O'), (<sup>18</sup>O, <sup>18</sup>O'), (<sup>18</sup>O, <sup>17</sup>O), (<sup>18</sup>O, <sup>16</sup>O), E=46 MeV; measured elastic, inelastic, and transfer  $\sigma(E, \theta)$ . Coupled-channels analysis, comparison with previous results. JOUR NUPAB 748 59

**A=60**

- <sup>60</sup>Ti      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- <sup>60</sup>V      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41

**A=60 (continued)**

- <sup>60</sup>Co      2004ADZW      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005B010      NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101
- 2005N004      NUCLEAR REACTIONS Ge, Mo, Te(p, X)<sup>60</sup>Co, E=0.8, 1.85 GeV; measured production  $\sigma$ . Comparison with model predictions. JOUR NPBSE 143 508
- <sup>60</sup>Ni      2005AL03      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>16</sup>O, <sup>16</sup>O'), (<sup>16</sup>O, <sup>16</sup>O'), (<sup>16</sup>O, <sup>12</sup>C), E=46 MeV; <sup>58</sup>Ni(<sup>18</sup>O, <sup>18</sup>O'), (<sup>18</sup>O, <sup>18</sup>O'), (<sup>18</sup>O, <sup>17</sup>O), (<sup>18</sup>O, <sup>16</sup>O), E=46 MeV; measured elastic, inelastic, and transfer  $\sigma(E, \theta)$ . Coupled-channels analysis, comparison with previous results. JOUR NUPAB 748 59

**A=61**

- <sup>61</sup>V      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2}. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41</sub>
- 2005GA01      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- <sup>61</sup>Cr      2005GA01      RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2}. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41</sub>
- <sup>61</sup>Ga      2005AN03      NUCLEAR REACTIONS <sup>24</sup>Mg(<sup>40</sup>Ca, 2np), E=104 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (recoil) $\gamma$ -coin. <sup>61</sup>Ga deduced levels, J,  $\pi$ , analog states features. Clarion array, mass separator. JOUR PRVCA 71 011303

**A=62**

- <sup>62</sup>V      2005GA01      NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41



**A=62 (continued)**

- <sup>62</sup>Cr 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- <sup>62</sup>Mn 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- <sup>62</sup>Zn 2005AL03 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>16</sup>O, <sup>16</sup>O'), (<sup>16</sup>O, <sup>16</sup>O'), (<sup>16</sup>O, <sup>12</sup>C), E=46 MeV; <sup>58</sup>Ni(<sup>18</sup>O, <sup>18</sup>O'), (<sup>18</sup>O, <sup>18</sup>O'), (<sup>18</sup>O, <sup>17</sup>O), (<sup>18</sup>O, <sup>16</sup>O), E=46 MeV; measured elastic, inelastic, and transfer  $\sigma(E, \theta)$ . Coupled-channels analysis, comparison with previous results. JOUR NUPAB 748 59
- 2005B010 NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNC D 264 101
- 2005CA06 RADIOACTIVITY <sup>62</sup>Ga(EC) [from <sup>64</sup>Zn(p, 3n)]; measured E $\gamma$ , I $\gamma$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>; deduced branching ratios. <sup>62</sup>Zn deduced levels,  $\beta$ -feeding intensities. JOUR ZAANE 23 409
- <sup>62</sup>Ga 2005CA06 RADIOACTIVITY <sup>62</sup>Ga(EC) [from <sup>64</sup>Zn(p, 3n)]; measured E $\gamma$ , I $\gamma$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>; deduced branching ratios. <sup>62</sup>Zn deduced levels,  $\beta$ -feeding intensities. JOUR ZAANE 23 409

**A=63**

- <sup>63</sup>V 2005GA01 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- <sup>63</sup>Cr 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , T<sub>1/2</sub>. Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura

**A=63 (continued)**

- <sup>63</sup>Mn 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , T<sub>1/2</sub>. Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- <sup>63</sup>Ni 2004AHZZ NUCLEAR REACTIONS <sup>62</sup>Ni(n,  $\gamma$ ), E=low; measured capture  $\sigma$  for neutron spectrum with kT=25 keV. Accelerator mass spectrometry. REPT ANL-04/22,P15,Ahmad
- 2005NA08 NUCLEAR REACTIONS <sup>62</sup>Ni(n,  $\gamma$ ), E=spectrum; measured total  $\sigma$ . Fast-neutron activation, accelerator mass spectrometry. Astrophysical implications discussed. JOUR PRLTA 94 092504

**A=64**

- <sup>64</sup>Cr 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , T<sub>1/2</sub>. Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- <sup>64</sup>Mn 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , T<sub>1/2</sub>. Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- <sup>64</sup>Ni 2005ZU01 RADIOACTIVITY <sup>120</sup>Te( $\beta^+$ EC); <sup>64</sup>Zn, <sup>106,108</sup>Cd, <sup>120</sup>Te(2EC); measured T<sub>1/2</sub>lower limits. JOUR NPBSE 138 236
- <sup>64</sup>Cu 2005B010 NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101
- <sup>64</sup>Zn 2005ZU01 RADIOACTIVITY <sup>120</sup>Te( $\beta^+$ EC); <sup>64</sup>Zn, <sup>106,108</sup>Cd, <sup>120</sup>Te(2EC); measured T<sub>1/2</sub>lower limits. JOUR NPBSE 138 236

**A=65**

- <sup>65</sup>Cr 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- <sup>65</sup>Mn 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , T<sub>1/2</sub>. Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- <sup>65</sup>Fe 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured E $\beta$ , T<sub>1/2</sub>. Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- <sup>65</sup>Zn 2005B010 NUCLEAR REACTIONS Zn(p, X)<sup>64</sup>Cu / <sup>57</sup>Ni / <sup>56</sup>Ni / <sup>52</sup>Mn / <sup>54</sup>Mn / <sup>62</sup>Zn / <sup>65</sup>Zn / <sup>51</sup>Cr / <sup>48</sup>V / <sup>55</sup>Co / <sup>56</sup>Co / <sup>57</sup>Co / <sup>58</sup>Co / <sup>60</sup>Co / <sup>66</sup>Ga / <sup>67</sup>Ga / <sup>52</sup>Fe / <sup>59</sup>Fe, E  $\approx$  31-141 MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101

**A=66**

- <sup>66</sup>Cr 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41
- <sup>66</sup>Mn 2005GA01 RADIOACTIVITY <sup>57,58</sup>Sc, <sup>58,59,60</sup>Ti, <sup>61</sup>V, <sup>62,63,64,65,66</sup>Cr( $\beta^-$ ) [from <sup>58</sup>Ni(<sup>76</sup>Ge, X)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin, T<sub>1/2</sub>. <sup>58</sup>V, <sup>61</sup>Cr, <sup>62</sup>Mn deduced levels, J,  $\pi$ . <sup>58</sup>V, <sup>61</sup>Cr, <sup>62,63,64,65</sup>Mn deduced transitions. <sup>60</sup>V, <sup>62</sup>Mn deduced isomeric states. Comparison with model predictions. JOUR ZAANE 23 41
- 2005GA01 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>76</sup>Ge, X)<sup>57</sup>Sc / <sup>58</sup>Sc / <sup>58</sup>Ti / <sup>59</sup>Ti / <sup>60</sup>Ti / <sup>60</sup>V / <sup>61</sup>V / <sup>62</sup>V / <sup>63</sup>V / <sup>62</sup>Cr / <sup>63</sup>Cr / <sup>64</sup>Cr / <sup>65</sup>Cr / <sup>66</sup>Cr / <sup>65</sup>Mn / <sup>66</sup>Mn, E=61.8 MeV / nucleon; measured yields. JOUR ZAANE 23 41

**A=66 (continued)**

- 2005NIZZ RADIOACTIVITY  $^{63,64}\text{Cr}$ ,  $^{65,66}\text{Mn}$ ,  $^{67,68}\text{Fe}$ ,  $^{69,70}\text{Co}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- $^{66}\text{Fe}$  2005NIZZ RADIOACTIVITY  $^{63,64}\text{Cr}$ ,  $^{65,66}\text{Mn}$ ,  $^{67,68}\text{Fe}$ ,  $^{69,70}\text{Co}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- $^{66}\text{Ga}$  2005B010 NUCLEAR REACTIONS  $\text{Zn}(\text{p}, \text{X})^{64}\text{Cu} / ^{57}\text{Ni} / ^{56}\text{Ni} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{62}\text{Zn} / ^{65}\text{Zn} / ^{51}\text{Cr} / ^{48}\text{V} / ^{55}\text{Co} / ^{56}\text{Co} / ^{57}\text{Co} / ^{58}\text{Co} / ^{60}\text{Co} / ^{66}\text{Ga} / ^{67}\text{Ga} / ^{52}\text{Fe} / ^{59}\text{Fe}$ ,  $E \approx 31\text{-}141$  MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101

**A=67**

- $^{67}\text{Fe}$  2005NIZZ RADIOACTIVITY  $^{63,64}\text{Cr}$ ,  $^{65,66}\text{Mn}$ ,  $^{67,68}\text{Fe}$ ,  $^{69,70}\text{Co}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- $^{67}\text{Co}$  2005NIZZ RADIOACTIVITY  $^{63,64}\text{Cr}$ ,  $^{65,66}\text{Mn}$ ,  $^{67,68}\text{Fe}$ ,  $^{69,70}\text{Co}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- $^{67}\text{Ga}$  2005B010 NUCLEAR REACTIONS  $\text{Zn}(\text{p}, \text{X})^{64}\text{Cu} / ^{57}\text{Ni} / ^{56}\text{Ni} / ^{52}\text{Mn} / ^{54}\text{Mn} / ^{62}\text{Zn} / ^{65}\text{Zn} / ^{51}\text{Cr} / ^{48}\text{V} / ^{55}\text{Co} / ^{56}\text{Co} / ^{57}\text{Co} / ^{58}\text{Co} / ^{60}\text{Co} / ^{66}\text{Ga} / ^{67}\text{Ga} / ^{52}\text{Fe} / ^{59}\text{Fe}$ ,  $E \approx 31\text{-}141$  MeV; measured production  $\sigma$ . Stacked-foil activation. JOUR JRNCD 264 101

**A=68**

- $^{68}\text{Fe}$  2005NIZZ RADIOACTIVITY  $^{63,64}\text{Cr}$ ,  $^{65,66}\text{Mn}$ ,  $^{67,68}\text{Fe}$ ,  $^{69,70}\text{Co}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- $^{68}\text{Co}$  2005NIZZ RADIOACTIVITY  $^{63,64}\text{Cr}$ ,  $^{65,66}\text{Mn}$ ,  $^{67,68}\text{Fe}$ ,  $^{69,70}\text{Co}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- $^{68}\text{As}$  2005ST08 NUCLEAR REACTIONS  $^{40}\text{Ca}(^{32}\text{S}, \text{n}3\text{p})$ ,  $E=95, 105$  MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma^-$ , (charged particle) $\gamma^-$ , (neutron) $\gamma$ -coin.  $^{68}\text{As}$  deduced high-spin levels,  $J$ ,  $\pi$ , configurations. Euroball and Euclides arrays, total Routhian surface calculations. JOUR ZAANE 24 1

**A=69**

- <sup>69</sup>Co 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- <sup>69</sup>Ni 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura

**A=70**

- <sup>70</sup>Co 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- <sup>70</sup>Ni 2005NIZZ RADIOACTIVITY <sup>63,64</sup>Cr, <sup>65,66</sup>Mn, <sup>67,68</sup>Fe, <sup>69,70</sup>Co( $\beta^-$ ) [from Be(<sup>86</sup>Kr, X)]; measured  $E\beta$ ,  $T_{1/2}$ . Fragment separator, comparisons with previous results and model predictions. CONF Riken(Origin of Matter) Proc,P304,Nishimura
- <sup>70</sup>Ge 2004K064 NUCLEAR REACTIONS <sup>6</sup>Li, <sup>16</sup>O, <sup>32</sup>S, <sup>50,51</sup>V, <sup>70,72</sup>Ge(d, d), (d, d'), E=171 MeV; <sup>90</sup>Zr, <sup>116</sup>Sn(d, d), (d, d'), E=183 MeV; measured  $\sigma(\theta)$ ; deduced optical model parameters. JOUR PRVCA 70 067601
- 2005BA13 NUCLEAR REACTIONS <sup>70,72,74</sup>Ge(<sup>6</sup>Li, <sup>6</sup>Li), (<sup>6</sup>Li, <sup>6</sup>Li'), E=28 MeV; measured  $\sigma(E, \theta)$ , elastic  $\sigma(\theta)$ ; deduced Coulomb-nuclear interference effects. <sup>70,72,74</sup>Ge levels deduced B(E2) / B(IS2) ratio, mixed-symmetry effects. JOUR PRVCA 71 024303

**A=71**

No references found

**A=72**

- <sup>72</sup>Ga 2005LI02 RADIOACTIVITY <sup>72</sup>Ga( $\beta^-$ ) [from <sup>71</sup>Ga(n,  $\gamma$ )]; measured  $\beta$ -delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>72</sup>Ge deduced levels, J,  $\pi$ ,  $\beta$ -feeding intensities. JOUR CHPHD 14 95
- 2005SH03 RADIOACTIVITY <sup>72</sup>Ga( $\beta^-$ ) [from <sup>71</sup>Ga(n,  $\gamma$ )]; measured  $\beta$ -delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>72</sup>Ge deduced levels, J,  $\pi$ ,  $\beta$ -feeding intensities. JOUR JUPSA 74 299
- <sup>72</sup>Ge 2004K064 NUCLEAR REACTIONS <sup>6</sup>Li, <sup>16</sup>O, <sup>32</sup>S, <sup>50,51</sup>V, <sup>70,72</sup>Ge(d, d), (d, d'), E=171 MeV; <sup>90</sup>Zr, <sup>116</sup>Sn(d, d), (d, d'), E=183 MeV; measured  $\sigma(\theta)$ ; deduced optical model parameters. JOUR PRVCA 70 067601
- 2005BA13 NUCLEAR REACTIONS <sup>70,72,74</sup>Ge(<sup>6</sup>Li, <sup>6</sup>Li), (<sup>6</sup>Li, <sup>6</sup>Li'), E=28 MeV; measured  $\sigma(E, \theta)$ , elastic  $\sigma(\theta)$ ; deduced Coulomb-nuclear interference effects. <sup>70,72,74</sup>Ge levels deduced B(E2) / B(IS2) ratio, mixed-symmetry effects. JOUR PRVCA 71 024303

**A=72 (continued)**

- 2005LI02 RADIOACTIVITY  $^{72}\text{Ga}(\beta^-)$  [from  $^{71}\text{Ga}(n, \gamma)$ ]; measured  $\beta$ -delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft.  $^{72}\text{Ge}$  deduced levels, J,  $\pi$ ,  $\beta$ -feeding intensities. JOUR CHPHD 14 95
- 2005LI09 RADIOACTIVITY  $^{72}\text{As}(\text{EC})$  [from  $^{72}\text{Ge}(p, n)$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft.  $^{72}\text{Ge}$  deduced levels, J,  $\pi$ . JOUR CHPHD 14 487
- 2005SH03 RADIOACTIVITY  $^{72}\text{Ga}(\beta^-)$  [from  $^{71}\text{Ga}(n, \gamma)$ ]; measured  $\beta$ -delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft.  $^{72}\text{Ge}$  deduced levels, J,  $\pi$ ,  $\beta$ -feeding intensities. JOUR JUPSA 74 299
- $^{72}\text{As}$  2005LI09 RADIOACTIVITY  $^{72}\text{As}(\text{EC})$  [from  $^{72}\text{Ge}(p, n)$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft.  $^{72}\text{Ge}$  deduced levels, J,  $\pi$ . JOUR CHPHD 14 487

**A=73**

No references found

**A=74**

- $^{74}\text{Ge}$  2005BA13 NUCLEAR REACTIONS  $^{70,72,74}\text{Ge}(^6\text{Li}, ^6\text{Li})$ , ( $^6\text{Li}, ^6\text{Li}'$ ),  $E=28$  MeV; measured  $\sigma(E, \theta)$ , elastic  $\sigma(\theta)$ ; deduced Coulomb-nuclear interference effects.  $^{70,72,74}\text{Ge}$  levels deduced B(E2) / B(IS2) ratio, mixed-symmetry effects. JOUR PRVCA 71 024303

**A=75**

- $^{75}\text{Ni}$  2005H008 RADIOACTIVITY  $^{75,76,77,78}\text{Ni}$ ,  $^{77,78}\text{Cu}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $T_{1/2}$ . Astrophysical implications discussed. JOUR PRLTA 94 112501
- $^{75}\text{Cu}$  2005H008 RADIOACTIVITY  $^{75,76,77,78}\text{Ni}$ ,  $^{77,78}\text{Cu}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $T_{1/2}$ . Astrophysical implications discussed. JOUR PRLTA 94 112501

**A=76**

- $^{76}\text{Ni}$  2005H008 RADIOACTIVITY  $^{75,76,77,78}\text{Ni}$ ,  $^{77,78}\text{Cu}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $T_{1/2}$ . Astrophysical implications discussed. JOUR PRLTA 94 112501
- $^{76}\text{Cu}$  2005H008 RADIOACTIVITY  $^{75,76,77,78}\text{Ni}$ ,  $^{77,78}\text{Cu}(\beta^-)$  [from  $\text{Be}(^{86}\text{Kr}, \text{X})$ ]; measured  $T_{1/2}$ . Astrophysical implications discussed. JOUR PRLTA 94 112501
- $^{76}\text{Ge}$  2005KL02 RADIOACTIVITY  $^{76}\text{Ge}(2\beta^-)$ ; measured  $0\nu\beta\beta$ -decay  $T_{1/2}$ ; deduced non-conservation of lepton number. JOUR NPBSE 143 229
- $^{76}\text{Se}$  2005KL02 RADIOACTIVITY  $^{76}\text{Ge}(2\beta^-)$ ; measured  $0\nu\beta\beta$ -decay  $T_{1/2}$ ; deduced non-conservation of lepton number. JOUR NPBSE 143 229

**A=76 (continued)**

<sup>76</sup>Br 2004SCZU NUCLEAR REACTIONS <sup>76</sup>Se(p, n), E ≈ 5-40 MeV; <sup>78</sup>Kr(d, α), E ≈ 4-14 MeV; measured σ. <sup>126</sup>Te(p, 3n), E=8-70 MeV; <sup>85</sup>Rb(p, 4n), E=44-66 MeV; measured yields. REPT  
NEA/NSC/DOC(2004)14,P13,Scholten

**A=77**

<sup>77</sup>Ni 2005H008 RADIOACTIVITY <sup>75,76,77,78</sup>Ni, <sup>77,78</sup>Cu(β<sup>-</sup>) [from Be(<sup>86</sup>Kr, X)]; measured T<sub>1/2</sub>. Astrophysical implications discussed. JOUR PRLTA 94 112501

<sup>77</sup>Cu 2005H008 RADIOACTIVITY <sup>75,76,77,78</sup>Ni, <sup>77,78</sup>Cu(β<sup>-</sup>) [from Be(<sup>86</sup>Kr, X)]; measured T<sub>1/2</sub>. Astrophysical implications discussed. JOUR PRLTA 94 112501

<sup>77</sup>Zn 2005H008 RADIOACTIVITY <sup>75,76,77,78</sup>Ni, <sup>77,78</sup>Cu(β<sup>-</sup>) [from Be(<sup>86</sup>Kr, X)]; measured T<sub>1/2</sub>. Astrophysical implications discussed. JOUR PRLTA 94 112501

**A=78**

<sup>78</sup>Ni 2005H008 RADIOACTIVITY <sup>75,76,77,78</sup>Ni, <sup>77,78</sup>Cu(β<sup>-</sup>) [from Be(<sup>86</sup>Kr, X)]; measured T<sub>1/2</sub>. Astrophysical implications discussed. JOUR PRLTA 94 112501

<sup>78</sup>Cu 2005H008 RADIOACTIVITY <sup>75,76,77,78</sup>Ni, <sup>77,78</sup>Cu(β<sup>-</sup>) [from Be(<sup>86</sup>Kr, X)]; measured T<sub>1/2</sub>. Astrophysical implications discussed. JOUR PRLTA 94 112501

<sup>78</sup>Zn 2005H008 RADIOACTIVITY <sup>75,76,77,78</sup>Ni, <sup>77,78</sup>Cu(β<sup>-</sup>) [from Be(<sup>86</sup>Kr, X)]; measured T<sub>1/2</sub>. Astrophysical implications discussed. JOUR PRLTA 94 112501

<sup>78</sup>Ge 2005BE17 RADIOACTIVITY <sup>127</sup>I(<sup>24</sup>Ne), (<sup>28</sup>Mg), (<sup>30</sup>Mg), (<sup>32</sup>Si), (<sup>34</sup>Si), (<sup>48</sup>Ca), (<sup>49</sup>Sc); measured cluster decay T<sub>1/2</sub> lower limits. JOUR ZAANE 24 51

<sup>78</sup>Kr 2005LE04 NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production σ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=79**

<sup>79</sup>As 2005BE17 RADIOACTIVITY <sup>127</sup>I(<sup>24</sup>Ne), (<sup>28</sup>Mg), (<sup>30</sup>Mg), (<sup>32</sup>Si), (<sup>34</sup>Si), (<sup>48</sup>Ca), (<sup>49</sup>Sc); measured cluster decay T<sub>1/2</sub> lower limits. JOUR ZAANE 24 51

**A=80**

<sup>80</sup>Kr      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=81**

<sup>81</sup>Kr      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=82**

<sup>82</sup>Se      2005SA07      RADIOACTIVITY <sup>82</sup>Se, <sup>96</sup>Zr, <sup>100</sup>Mo, <sup>116</sup>Cd, <sup>150</sup>Nd( $2\beta^-$ ); measured  $2\nu\beta\beta$ -decay  $T_{1/2}$ . <sup>82</sup>Se, <sup>100</sup>Mo( $2\beta^-$ ); measured  $0\nu\beta\beta$ -decay  $T_{1/2}$  lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221

<sup>82</sup>Kr      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

2005SA07      RADIOACTIVITY <sup>82</sup>Se, <sup>96</sup>Zr, <sup>100</sup>Mo, <sup>116</sup>Cd, <sup>150</sup>Nd( $2\beta^-$ ); measured  $2\nu\beta\beta$ -decay  $T_{1/2}$ . <sup>82</sup>Se, <sup>100</sup>Mo( $2\beta^-$ ); measured  $0\nu\beta\beta$ -decay  $T_{1/2}$  lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221

<sup>82</sup>Sr      2004SCZU      NUCLEAR REACTIONS <sup>76</sup>Se(p, n), E  $\approx$  5-40 MeV; <sup>78</sup>Kr(d,  $\alpha$ ), E  $\approx$  4-14 MeV; measured  $\sigma$ . <sup>126</sup>Te(p, 3n), E=8-70 MeV; <sup>85</sup>Rb(p, 4n), E=44-66 MeV; measured yields. REPT NEA/NSC/DOC(2004)14,P13,Scholten

**A=83**

<sup>83</sup>Ge      2005TH03      NUCLEAR REACTIONS <sup>2</sup>H(<sup>83</sup>Ge, p), E=330 MeV; measured proton spectra,  $\sigma(\theta)$ , Q value. <sup>83</sup>Ge deduced levels, J,  $\pi$ , spectroscopic factors, mass excess. JOUR PRVCA 71 021302

<sup>83</sup>Kr      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1



**A=84**

- <sup>84</sup>Kr      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1
- 2005W001      NUCLEAR REACTIONS <sup>197</sup>Au(<sup>84</sup>Kr, <sup>84</sup>Kr'), (<sup>56</sup>Cr, <sup>56</sup>Cr'), (<sup>108</sup>Sn, <sup>108</sup>Sn'), E=113-142 MeV / nucleon; measured E $\gamma$ , I $\gamma$  following projectile Coulomb excitation. <sup>84</sup>Kr, <sup>56</sup>Cr, <sup>108</sup>Sn deduced transitions. <sup>9</sup>Be(<sup>55</sup>Ni, X)<sup>54</sup>Co / <sup>52</sup>Fe / <sup>50</sup>Cr, E=171 MeV / nucleon; measured E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -coin. JOUR NIMAE 537 637

**A=85**

- <sup>85</sup>Kr      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=86**

- <sup>86</sup>Kr      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=87**

No references found

**A=88**

- <sup>88</sup>Sr      2004KA62      NUCLEAR REACTIONS <sup>88</sup>Sr( $\gamma$ ,  $\gamma'$ ), E=6.8 MeV bremsstrahlung; measured E $\gamma$ , I $\gamma$ . <sup>88</sup>Sr deduced levels, J,  $\pi$ , configurations, B(E1), B(M1), B(E2). Comparison with model predictions. JOUR PRVCA 70 064307

**A=89**

- <sup>89</sup>Kr 2004GAZV NUCLEAR REACTIONS <sup>237</sup>Np, <sup>243</sup>Am( $\gamma$ , F)<sup>89</sup>Kr / <sup>91</sup>Kr / <sup>92</sup>Kr / <sup>93</sup>Kr / <sup>135</sup>Xe / <sup>137</sup>Xe / <sup>138</sup>Xe / <sup>139</sup>Xe / <sup>140</sup>Xe / <sup>141</sup>Xe / <sup>142</sup>Xe,  $E_{max}$ =25 MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced fission fragment yields. REPT JINR-P15-2004-119, Gangrsky
- <sup>89</sup>Rb 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257

**A=90**

- <sup>90</sup>Rb 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257

**A=91**

- <sup>91</sup>Kr 2004GAZV NUCLEAR REACTIONS <sup>237</sup>Np, <sup>243</sup>Am( $\gamma$ , F)<sup>89</sup>Kr / <sup>91</sup>Kr / <sup>92</sup>Kr / <sup>93</sup>Kr / <sup>135</sup>Xe / <sup>137</sup>Xe / <sup>138</sup>Xe / <sup>139</sup>Xe / <sup>140</sup>Xe / <sup>141</sup>Xe / <sup>142</sup>Xe,  $E_{max}$ =25 MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced fission fragment yields. REPT JINR-P15-2004-119, Gangrsky
- <sup>91</sup>Rb 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257

**A=92**

- <sup>92</sup>Kr 2004GAZV NUCLEAR REACTIONS <sup>237</sup>Np, <sup>243</sup>Am( $\gamma$ , F)<sup>89</sup>Kr / <sup>91</sup>Kr / <sup>92</sup>Kr / <sup>93</sup>Kr / <sup>135</sup>Xe / <sup>137</sup>Xe / <sup>138</sup>Xe / <sup>139</sup>Xe / <sup>140</sup>Xe / <sup>141</sup>Xe / <sup>142</sup>Xe,  $E_{max}$ =25 MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced fission fragment yields. REPT JINR-P15-2004-119, Gangrsky
- <sup>92</sup>Nb 2004ODZZ NUCLEAR REACTIONS <sup>82</sup>Se(<sup>17</sup>N, 7n), (<sup>17</sup>N, 6n), E  $\approx$  104 MeV; measured  $E\gamma$ ,  $I\gamma$ . <sup>92,93</sup>Nb deduced transitions. REPT CNS-REP-64,P289,Odahara

**A=93**

- <sup>93</sup>Kr 2004GAZV NUCLEAR REACTIONS <sup>237</sup>Np, <sup>243</sup>Am( $\gamma$ , F)<sup>89</sup>Kr / <sup>91</sup>Kr / <sup>92</sup>Kr / <sup>93</sup>Kr / <sup>135</sup>Xe / <sup>137</sup>Xe / <sup>138</sup>Xe / <sup>139</sup>Xe / <sup>140</sup>Xe / <sup>141</sup>Xe / <sup>142</sup>Xe,  $E_{max}$ =25 MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced fission fragment yields. REPT JINR-P15-2004-119, Gangrsky
- <sup>93</sup>Rb 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257
- <sup>93</sup>Y 2005BE17 RADIOACTIVITY <sup>127</sup>I(<sup>24</sup>Ne), (<sup>28</sup>Mg), (<sup>30</sup>Mg), (<sup>32</sup>Si), (<sup>34</sup>Si), (<sup>48</sup>Ca), (<sup>49</sup>Sc); measured cluster decay  $T_{1/2}$  lower limits. JOUR ZAANE 24 51

**A=93 (continued)**

- <sup>93</sup>Nb 20040DZZ NUCLEAR REACTIONS <sup>82</sup>Se(<sup>17</sup>N, 7n), (<sup>17</sup>N, 6n), E ≈ 104 MeV; measured E $\gamma$ , I $\gamma$ . <sup>92,93</sup>Nb deduced transitions. REPT CNS-REP-64,P289,Odahara
- <sup>93</sup>Mo 2004FUZX NUCLEAR REACTIONS <sup>82</sup>Se(<sup>16</sup>O, 5n), E=100 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>93</sup>Mo deduced high-spin levels, J,  $\pi$ , configurations, isomeric states T<sub>1/2</sub>. REPT CNS-REP-64,P109,Fukuchi

**A=94**

- <sup>94</sup>Rb 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257

**A=95**

- <sup>95</sup>Rb 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257
- <sup>95</sup>Y 2005BE17 RADIOACTIVITY <sup>127</sup>I(<sup>24</sup>Ne), (<sup>28</sup>Mg), (<sup>30</sup>Mg), (<sup>32</sup>Si), (<sup>34</sup>Si), (<sup>48</sup>Ca), (<sup>49</sup>Sc); measured cluster decay T<sub>1/2</sub> lower limits. JOUR ZAANE 24 51
- <sup>95</sup>Zr 2004MIZS NUCLEAR REACTIONS Fe(p, X)<sup>52</sup>Mn, E < 2.6 GeV; Pb(p, X)<sup>10</sup>Be, E < 2.6 GeV; <sup>209</sup>Bi(p, 4np), E < 2.6 GeV; Pb(n, X)<sup>196</sup>Au / <sup>95</sup>Zr, E ≈ 70-180 MeV; measured excitation functions. Comparison with model predictions. REPT NEA/NSC/DOC(2004)14,P28,Michel

**A=96**

- <sup>96</sup>Sr 2004WU08 NUCLEAR REACTIONS <sup>238</sup>U( $\alpha$ , F)<sup>96</sup>Sr / <sup>97</sup>Sr / <sup>98</sup>Zr / <sup>99</sup>Zr, E=30 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (fragment) $\gamma$ -coin. <sup>96,97</sup>Sr, <sup>98,99</sup>Zr deduced high-spin levels, J,  $\pi$ , configurations. Gammasphere, Chico arrays. JOUR PRVCA 70 064312
- <sup>96</sup>Zr 2005SA07 RADIOACTIVITY <sup>82</sup>Se, <sup>96</sup>Zr, <sup>100</sup>Mo, <sup>116</sup>Cd, <sup>150</sup>Nd(2 $\beta$ <sup>-</sup>); measured 2 $\nu\beta\beta$ -decay T<sub>1/2</sub>. <sup>82</sup>Se, <sup>100</sup>Mo(2 $\beta$ <sup>-</sup>); measured 0 $\nu\beta\beta$ -decay T<sub>1/2</sub> lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221
- <sup>96</sup>Mo 2005SA07 RADIOACTIVITY <sup>82</sup>Se, <sup>96</sup>Zr, <sup>100</sup>Mo, <sup>116</sup>Cd, <sup>150</sup>Nd(2 $\beta$ <sup>-</sup>); measured 2 $\nu\beta\beta$ -decay T<sub>1/2</sub>. <sup>82</sup>Se, <sup>100</sup>Mo(2 $\beta$ <sup>-</sup>); measured 0 $\nu\beta\beta$ -decay T<sub>1/2</sub> lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221

**A=97**

- <sup>97</sup>Sr 2004WU08 NUCLEAR REACTIONS <sup>238</sup>U( $\alpha$ , F)<sup>96</sup>Sr / <sup>97</sup>Sr / <sup>98</sup>Zr / <sup>99</sup>Zr, E=30 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (fragment) $\gamma$ -coin. <sup>96,97</sup>Sr, <sup>98,99</sup>Zr deduced high-spin levels, J,  $\pi$ , configurations. Gammasphere, Chico arrays. JOUR PRVCA 70 064312

**A=97 (continued)**

- <sup>97</sup>Nb 2005BE17 RADIOACTIVITY <sup>127</sup>I(<sup>24</sup>Ne), (<sup>28</sup>Mg), (<sup>30</sup>Mg), (<sup>32</sup>Si), (<sup>34</sup>Si), (<sup>48</sup>Ca), (<sup>49</sup>Sc); measured cluster decay T<sub>1/2</sub> lower limits. JOUR ZAANE 24 51
- <sup>97</sup>Ru 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533

**A=98**

- <sup>98</sup>Zr 2004WU08 NUCLEAR REACTIONS <sup>238</sup>U(α, F)<sup>96</sup>Sr / <sup>97</sup>Sr / <sup>98</sup>Zr / <sup>99</sup>Zr, E=30 MeV; measured Eγ, Iγ, γγ-, (fragment)γ-coin. <sup>96,97</sup>Sr, <sup>98,99</sup>Zr deduced high-spin levels, J, π, configurations. Gammasphere, Chico arrays. JOUR PRVCA 70 064312

**A=99**

- <sup>99</sup>Zr 2004WU08 NUCLEAR REACTIONS <sup>238</sup>U(α, F)<sup>96</sup>Sr / <sup>97</sup>Sr / <sup>98</sup>Zr / <sup>99</sup>Zr, E=30 MeV; measured Eγ, Iγ, γγ-, (fragment)γ-coin. <sup>96,97</sup>Sr, <sup>98,99</sup>Zr deduced high-spin levels, J, π, configurations. Gammasphere, Chico arrays. JOUR PRVCA 70 064312
- <sup>99</sup>Nb 2005BE17 RADIOACTIVITY <sup>127</sup>I(<sup>24</sup>Ne), (<sup>28</sup>Mg), (<sup>30</sup>Mg), (<sup>32</sup>Si), (<sup>34</sup>Si), (<sup>48</sup>Ca), (<sup>49</sup>Sc); measured cluster decay T<sub>1/2</sub> lower limits. JOUR ZAANE 24 51
- <sup>99</sup>Rh 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533

**A=100**

- <sup>100</sup>Mo 2005BA01 RADIOACTIVITY <sup>100</sup>Mo(2β<sup>-</sup>); measured 2ν2β-decay Eβ, T<sub>1/2</sub>. JOUR NPBSE 138 207
- 2005SA07 RADIOACTIVITY <sup>82</sup>Se, <sup>96</sup>Zr, <sup>100</sup>Mo, <sup>116</sup>Cd, <sup>150</sup>Nd(2β<sup>-</sup>); measured 2νββ-decay T<sub>1/2</sub>. <sup>82</sup>Se, <sup>100</sup>Mo(2β<sup>-</sup>); measured 0νββ-decay T<sub>1/2</sub> lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221
- <sup>100</sup>Tc 2004FU30 NUCLEAR REACTIONS <sup>99</sup>Tc(n, γ), E=thermal; measured Eγ, Iγ, capture σ. <sup>100</sup>Tc deduced levels, J, π. JOUR JNSTA 41 1033
- 2005J004 NUCLEAR REACTIONS <sup>96</sup>Zr(<sup>7</sup>Li, 3n), E=27 MeV; measured Eγ, Iγ, γγ-coin. <sup>100</sup>Tc deduced levels, J, π, B(M1) / B(E2), chiral partner bands. Total Routhian surface and core quasi-particle coupling model calculations. JOUR ZAANE 24 23
- <sup>100</sup>Ru 2005BA01 RADIOACTIVITY <sup>100</sup>Mo(2β<sup>-</sup>); measured 2ν2β-decay Eβ, T<sub>1/2</sub>. JOUR NPBSE 138 207
- 2005SA07 RADIOACTIVITY <sup>82</sup>Se, <sup>96</sup>Zr, <sup>100</sup>Mo, <sup>116</sup>Cd, <sup>150</sup>Nd(2β<sup>-</sup>); measured 2νββ-decay T<sub>1/2</sub>. <sup>82</sup>Se, <sup>100</sup>Mo(2β<sup>-</sup>); measured 0νββ-decay T<sub>1/2</sub> lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221

**A=100 (continued)**

- <sup>100</sup>Rh 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533
- <sup>100</sup>Pd 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533

**A=101**

- <sup>101</sup>Rh 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533
- <sup>101</sup>Pd 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533

**A=102**

- <sup>102</sup>Rh 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533
- <sup>102</sup>Sn 2005JA03 RADIOACTIVITY <sup>110</sup>Xe, <sup>106</sup>Te( $\alpha$ ) [from <sup>58</sup>Ni(<sup>58</sup>Ni, 2n $\alpha$ ) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>; deduced  $\alpha$ -decay widths. Mass separator. JOUR ZAANE 23 197

**A=103**

- <sup>103</sup>Tc 2005BE17 RADIOACTIVITY <sup>127</sup>I(<sup>24</sup>Ne), (<sup>28</sup>Mg), (<sup>30</sup>Mg), (<sup>32</sup>Si), (<sup>34</sup>Si), (<sup>48</sup>Ca), (<sup>49</sup>Sc); measured cluster decay T<sub>1/2</sub> lower limits. JOUR ZAANE 24 51
- <sup>103</sup>Pd 2004HIZZ NUCLEAR REACTIONS <sup>102</sup>Ru(<sup>3</sup>He, 2n), <sup>100</sup>Ru( $\alpha$ , n), <sup>103</sup>Rh(d, 2n), (p, n), E  $\approx$  5-35 MeV; analyzed excitation functions, yields. Ce(<sup>3</sup>He, xn)<sup>140</sup>Nd, E < 27 MeV; <sup>141</sup>Pr(p, 2n), E < 23 MeV; measured yields. <sup>192</sup>Os(p, n), E  $\approx$  6-20; measured  $\sigma$ . REPT  
NEA/NSC/DOC(2004)14,P15,Hilgers
- 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533

**A=103 (continued)**

- $^{103}\text{Ag}$  2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp) $^{103}\text{Ag}$  /  $^{104}\text{Ag}$  /  $^{105}\text{Ag}$  /  $^{106m}\text{Ag}$  /  $^{110m}\text{Ag}$  /  $^{111}\text{Ag}$  /  $^{112}\text{Ag}$  /  $^{104}\text{Cd}$  /  $^{105}\text{Cd}$  /  $^{111m}\text{Cd}$ , E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321
- $^{103}\text{Sn}$  2004HA59 RADIOACTIVITY  $^{107}\text{Te}(\alpha)$  [from  $^{58}\text{Ni}(^{52}\text{Cr}, 3n)$ ]; measured E $\alpha$ , I $\alpha$ . JOUR PRVCA 70 064314

**A=104**

- $^{104}\text{Ag}$  2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp) $^{103}\text{Ag}$  /  $^{104}\text{Ag}$  /  $^{105}\text{Ag}$  /  $^{106m}\text{Ag}$  /  $^{110m}\text{Ag}$  /  $^{111}\text{Ag}$  /  $^{112}\text{Ag}$  /  $^{104}\text{Cd}$  /  $^{105}\text{Cd}$  /  $^{111m}\text{Cd}$ , E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321
- $^{104}\text{Cd}$  2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp) $^{103}\text{Ag}$  /  $^{104}\text{Ag}$  /  $^{105}\text{Ag}$  /  $^{106m}\text{Ag}$  /  $^{110m}\text{Ag}$  /  $^{111}\text{Ag}$  /  $^{112}\text{Ag}$  /  $^{104}\text{Cd}$  /  $^{105}\text{Cd}$  /  $^{111m}\text{Cd}$ , E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321

**A=105**

- $^{105}\text{Rh}$  2005M007 RADIOACTIVITY  $^{105}\text{Rh}(\beta^-)$  [from  $^{104}\text{Rh}(n, \gamma)$ ]; measured E $\gamma$ , I $\gamma$ ,  $\beta\gamma$ -coin; deduced  $\gamma$ -emission probabilities.  $^{105}\text{Pd}$  deduced levels,  $\beta$ -feeding intensities. Comparison with previous results. JOUR NIMAE 540 324
- 2005UD01 NUCLEAR REACTIONS Ag(p, X) $^{106m}\text{Ag}$  /  $^{105}\text{Ag}$  /  $^{103}\text{Pd}$  /  $^{101}\text{Pd}$  /  $^{100}\text{Pd}$  /  $^{105}\text{Rh}$  /  $^{102}\text{Rh}$  /  $^{101m}\text{Rh}$  /  $^{100}\text{Rh}$  /  $^{99}\text{Rh}$  /  $^{97}\text{Ru}$ , E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533
- $^{105}\text{Pd}$  2005M007 RADIOACTIVITY  $^{105}\text{Rh}(\beta^-)$  [from  $^{104}\text{Rh}(n, \gamma)$ ]; measured E $\gamma$ , I $\gamma$ ,  $\beta\gamma$ -coin; deduced  $\gamma$ -emission probabilities.  $^{105}\text{Pd}$  deduced levels,  $\beta$ -feeding intensities. Comparison with previous results. JOUR NIMAE 540 324
- $^{105}\text{Ag}$  2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp) $^{103}\text{Ag}$  /  $^{104}\text{Ag}$  /  $^{105}\text{Ag}$  /  $^{106m}\text{Ag}$  /  $^{110m}\text{Ag}$  /  $^{111}\text{Ag}$  /  $^{112}\text{Ag}$  /  $^{104}\text{Cd}$  /  $^{105}\text{Cd}$  /  $^{111m}\text{Cd}$ , E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321
- 2005UD01 NUCLEAR REACTIONS Ag(p, X) $^{106m}\text{Ag}$  /  $^{105}\text{Ag}$  /  $^{103}\text{Pd}$  /  $^{101}\text{Pd}$  /  $^{100}\text{Pd}$  /  $^{105}\text{Rh}$  /  $^{102}\text{Rh}$  /  $^{101m}\text{Rh}$  /  $^{100}\text{Rh}$  /  $^{99}\text{Rh}$  /  $^{97}\text{Ru}$ , E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533
- $^{105}\text{Cd}$  2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp) $^{103}\text{Ag}$  /  $^{104}\text{Ag}$  /  $^{105}\text{Ag}$  /  $^{106m}\text{Ag}$  /  $^{110m}\text{Ag}$  /  $^{111}\text{Ag}$  /  $^{112}\text{Ag}$  /  $^{104}\text{Cd}$  /  $^{105}\text{Cd}$  /  $^{111m}\text{Cd}$ , E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321

**A=106**

- <sup>106</sup>Pd 2005ZU01 RADIOACTIVITY <sup>120</sup>Te( $\beta^+$ EC); <sup>64</sup>Zn, <sup>106,108</sup>Cd, <sup>120</sup>Te(2EC); measured  $T_{1/2}$  lower limits. JOUR NPBSE 138 236
- <sup>106</sup>Ag 2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp)<sup>103</sup>Ag / <sup>104</sup>Ag / <sup>105</sup>Ag / <sup>106m</sup>Ag / <sup>110m</sup>Ag / <sup>111</sup>Ag / <sup>112</sup>Ag / <sup>104</sup>Cd / <sup>105</sup>Cd / <sup>111m</sup>Cd, E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321
- 2005UD01 NUCLEAR REACTIONS Ag(p, X)<sup>106m</sup>Ag / <sup>105</sup>Ag / <sup>103</sup>Pd / <sup>101</sup>Pd / <sup>100</sup>Pd / <sup>105</sup>Rh / <sup>102</sup>Rh / <sup>101m</sup>Rh / <sup>100</sup>Rh / <sup>99</sup>Rh / <sup>97</sup>Ru, E=11-80 MeV; measured excitation functions. Stacked-foil activation. JOUR ARISE 62 533
- <sup>106</sup>Cd 2005ZU01 RADIOACTIVITY <sup>120</sup>Te( $\beta^+$ EC); <sup>64</sup>Zn, <sup>106,108</sup>Cd, <sup>120</sup>Te(2EC); measured  $T_{1/2}$  lower limits. JOUR NPBSE 138 236
- <sup>106</sup>Te 2005JA03 RADIOACTIVITY <sup>110</sup>Xe, <sup>106</sup>Te( $\alpha$ ) [from <sup>58</sup>Ni(<sup>58</sup>Ni, 2n $\alpha$ ) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $\alpha$ -decay widths. Mass separator. JOUR ZAANE 23 197

**A=107**

- <sup>107</sup>Te 2004HA59 NUCLEAR REACTIONS <sup>58</sup>Ni(<sup>52</sup>Cr, 3n), E=187 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -, (recoil) $\gamma$ -coin. <sup>107</sup>Te deduced transitions, excited state. Jurogam array, recoil-decay tagging. JOUR PRVCA 70 064314
- 2004HA59 RADIOACTIVITY <sup>107</sup>Te( $\alpha$ ) [from <sup>58</sup>Ni(<sup>52</sup>Cr, 3n)]; measured  $E\alpha$ ,  $I\alpha$ . JOUR PRVCA 70 064314

**A=108**

- <sup>108</sup>Pd 2005ZU01 RADIOACTIVITY <sup>120</sup>Te( $\beta^+$ EC); <sup>64</sup>Zn, <sup>106,108</sup>Cd, <sup>120</sup>Te(2EC); measured  $T_{1/2}$  lower limits. JOUR NPBSE 138 236
- <sup>108</sup>Cd 2005ZU01 RADIOACTIVITY <sup>120</sup>Te( $\beta^+$ EC); <sup>64</sup>Zn, <sup>106,108</sup>Cd, <sup>120</sup>Te(2EC); measured  $T_{1/2}$  lower limits. JOUR NPBSE 138 236
- <sup>108</sup>Sn 2005W001 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>84</sup>Kr, <sup>84</sup>Kr'), (<sup>56</sup>Cr, <sup>56</sup>Cr'), (<sup>108</sup>Sn, <sup>108</sup>Sn'), E=113-142 MeV / nucleon; measured  $E\gamma$ ,  $I\gamma$  following projectile Coulomb excitation. <sup>84</sup>Kr, <sup>56</sup>Cr, <sup>108</sup>Sn deduced transitions. <sup>9</sup>Be(<sup>55</sup>Ni, X)<sup>54</sup>Co / <sup>52</sup>Fe / <sup>50</sup>Cr, E=171 MeV / nucleon; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin. JOUR NIMAE 537 637

**A=109**

- <sup>109</sup>Cd 2005GYZZ RADIOACTIVITY <sup>109</sup>In, <sup>110</sup>Sn(EC) [from <sup>106</sup>Cd( $\alpha$ , X)]; measured  $E\gamma$ ,  $I\gamma$ ,  $T_{1/2}$ . PREPRINT nucl-ex/0503012,3/18/2005
- <sup>109</sup>In 2004ADZW NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam

**A=109 (continued)**

- 2005AD01 NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, p)$ ,  $(n, 6n2p)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ , E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- 2005GYZZ RADIOACTIVITY  $^{109}\text{In}$ ,  $^{110}\text{Sn}(\text{EC})$  [from  $^{106}\text{Cd}(\alpha, X)$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $T_{1/2}$ . PREPRINT nucl-ex/0503012,3/18/2005

**A=110**

- $^{110}\text{Ag}$  2005HE05 NUCLEAR REACTIONS  $\text{Pd}(\alpha, xnyp)^{103}\text{Ag} / ^{104}\text{Ag} / ^{105}\text{Ag} / ^{106m}\text{Ag} / ^{110m}\text{Ag} / ^{111}\text{Ag} / ^{112}\text{Ag} / ^{104}\text{Cd} / ^{105}\text{Cd} / ^{111m}\text{Cd}$ , E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321
- $^{110}\text{In}$  2004ADZW NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, \gamma)$ ,  $(n, p)$ ,  $(n, 6n2p)$ , E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16,Adam
- 2005AD01 NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, p)$ ,  $(n, 6n2p)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ , E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- 2005GYZZ RADIOACTIVITY  $^{109}\text{In}$ ,  $^{110}\text{Sn}(\text{EC})$  [from  $^{106}\text{Cd}(\alpha, X)$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $T_{1/2}$ . PREPRINT nucl-ex/0503012,3/18/2005
- $^{110}\text{Sn}$  2005BA18 NUCLEAR REACTIONS  $^{112}\text{Sn}(d, p)$ ,  $(d, 3np)$ ,  $(p, 2np)$ ,  $^{118}\text{Sn}(d, 2n)$ ,  $(d, 3n)$ ,  $(d, 5n)$ ,  $(d, 2np)$ ,  $(d, 6np)$ ,  $(d, 9np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 4n)$ ,  $(p, np)$ ,  $(p, 5np)$ ,  $(p, 8np)$ ,  $^{120}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 7n)$ ,  $(d, 4np)$ ,  $(d, 8np)$ ,  $(d, 11np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 6n)$ ,  $(p, 3np)$ ,  $(p, 7np)$ ,  $(p, 10np)$ ,  $^{124}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 8n)$ ,  $(d, 10n)$ ,  $(d, 11n)$ ,  $(d, 2np)$ ,  $(d, 8np)$ ,  $(d, 12np)$ ,  $(d, 15np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 7n)$ ,  $(p, 9n)$ ,  $(p, 10n)$ ,  $(p, np)$ ,  $(p, 7np)$ ,  $(p, 11np)$ ,  $(p, 14np)$ , E=3.65 GeV / nucleon; measured  $\sigma$ .  $^{120}\text{Sn}(p, X)$ , E=0.66 GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195
- 2005GYZZ RADIOACTIVITY  $^{109}\text{In}$ ,  $^{110}\text{Sn}(\text{EC})$  [from  $^{106}\text{Cd}(\alpha, X)$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $T_{1/2}$ . PREPRINT nucl-ex/0503012,3/18/2005
- $^{110}\text{Xe}$  2005JA03 RADIOACTIVITY  $^{110}\text{Xe}$ ,  $^{106}\text{Te}(\alpha)$  [from  $^{58}\text{Ni}(^{58}\text{Ni}, 2n\alpha)$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $\alpha$ -decay widths. Mass separator. JOUR ZAANE 23 197



**A=111**

- <sup>111</sup>Ag 2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp)<sup>103</sup>Ag / <sup>104</sup>Ag / <sup>105</sup>Ag / <sup>106m</sup>Ag / <sup>110m</sup>Ag / <sup>111</sup>Ag / <sup>112</sup>Ag / <sup>104</sup>Cd / <sup>105</sup>Cd / <sup>111m</sup>Cd, E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321
- <sup>111</sup>Cd 2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp)<sup>103</sup>Ag / <sup>104</sup>Ag / <sup>105</sup>Ag / <sup>106m</sup>Ag / <sup>110m</sup>Ag / <sup>111</sup>Ag / <sup>112</sup>Ag / <sup>104</sup>Cd / <sup>105</sup>Cd / <sup>111m</sup>Cd, E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321
- <sup>111</sup>In 2004ADZW NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005AD01 NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61

**A=112**

- <sup>112</sup>Ag 2005HE05 NUCLEAR REACTIONS Pd( $\alpha$ , xnyp)<sup>103</sup>Ag / <sup>104</sup>Ag / <sup>105</sup>Ag / <sup>106m</sup>Ag / <sup>110m</sup>Ag / <sup>111</sup>Ag / <sup>112</sup>Ag / <sup>104</sup>Cd / <sup>105</sup>Cd / <sup>111m</sup>Cd, E=10-37 MeV; measured  $\sigma$ . Stacked-foil activation, comparison with model predictions. JOUR NIMBE 229 321
- <sup>112</sup>Sn 2004KU30 NUCLEAR REACTIONS <sup>112,114,120,124</sup>Sn( $\alpha$ ,  $\alpha'$ ), ( $\alpha$ ,  $\alpha'$ ), E  $\approx$  50 MeV; measured  $\sigma(E, \theta)$ ; deduced optical model parameters. <sup>112,114,120,124</sup>Sn deduced transition strengths, deformation parameters, related features. JOUR UKPJA 49 841
- <sup>112</sup>Sb 2005DE02 NUCLEAR REACTIONS <sup>89</sup>Y(<sup>30</sup>Si, 3n $\alpha$ ), E=120 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, DSA. <sup>112</sup>Sb levels deduced T<sub>1/2</sub>, B(M1), B(E2). Comparisons with tilted axis cranking model predictions. JOUR PRVCA 71 017303

**A=113**

- <sup>113</sup>In 2004MB03 NUCLEAR MOMENTS <sup>113,115</sup>In, <sup>153,155</sup>Eu, <sup>185,187</sup>Re, <sup>203,205</sup>Tl, <sup>209,211</sup>Fr; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPE 68 157

**A=113 (continued)**

<sup>113</sup>Sn 2005BA18 NUCLEAR REACTIONS <sup>112</sup>Sn(d, p), (d, 3np), (p, 2np), <sup>118</sup>Sn(d, 2n), (d, 3n), (d, 5n), (d, 2np), (d, 6np), (d, 9np), (p, n), (p, 3n), (p, 4n), (p, np), (p, 5np), (p, 8np), <sup>120</sup>Sn(d, 2n), (d, 4n), (d, 6n), (d, 7n), (d, 4np), (d, 8np), (d, 11np), (p, n), (p, 3n), (p, 5n), (p, 6n), (p, 3np), (p, 7np), (p, 10np), <sup>124</sup>Sn(d, 2n), (d, 4n), (d, 6n), (d, 8n), (d, 10n), (d, 11n), (d, 2np), (d, 8np), (d, 12np), (d, 15np), (p, n), (p, 3n), (p, 5n), (p, 7n), (p, 9n), (p, 10n), (p, np), (p, 7np), (p, 11np), (p, 14np), E=3.65 GeV / nucleon; measured  $\sigma$ . <sup>120</sup>Sn(p, X), E=0.66 GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195

**A=114**

<sup>114</sup>Sn 2004KU30 NUCLEAR REACTIONS <sup>112,114,120,124</sup>Sn( $\alpha$ ,  $\alpha'$ ), E  $\approx$  50 MeV; measured  $\sigma(E, \theta)$ ; deduced optical model parameters. <sup>112,114,120,124</sup>Sn deduced transition strengths, deformation parameters, related features. JOUR UKPJA 49 841

**A=115**

<sup>115</sup>In 2004MB03 NUCLEAR MOMENTS <sup>113,115</sup>In, <sup>153,155</sup>Eu, <sup>185,187</sup>Re, <sup>203,205</sup>Tl, <sup>209,211</sup>Fr; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPE 68 157

2005CA03 RADIOACTIVITY <sup>115</sup>In( $\beta^-$ ); measured  $\beta$ -delayed E $\gamma$ , I $\gamma$ ; deduced branching ratio and Q $\beta$  for decay to excited level, limit on charge-nonconserving decay. <sup>115</sup>Sn level deduced energy,  $\beta$ -feeding intensity. JOUR NUPAB 748 333

<sup>115</sup>Sn 2005CA03 RADIOACTIVITY <sup>115</sup>In( $\beta^-$ ); measured  $\beta$ -delayed E $\gamma$ , I $\gamma$ ; deduced branching ratio and Q $\beta$  for decay to excited level, limit on charge-nonconserving decay. <sup>115</sup>Sn level deduced energy,  $\beta$ -feeding intensity. JOUR NUPAB 748 333

<sup>115</sup>Sb 2005BA18 NUCLEAR REACTIONS <sup>112</sup>Sn(d, p), (d, 3np), (p, 2np), <sup>118</sup>Sn(d, 2n), (d, 3n), (d, 5n), (d, 2np), (d, 6np), (d, 9np), (p, n), (p, 3n), (p, 4n), (p, np), (p, 5np), (p, 8np), <sup>120</sup>Sn(d, 2n), (d, 4n), (d, 6n), (d, 7n), (d, 4np), (d, 8np), (d, 11np), (p, n), (p, 3n), (p, 5n), (p, 6n), (p, 3np), (p, 7np), (p, 10np), <sup>124</sup>Sn(d, 2n), (d, 4n), (d, 6n), (d, 8n), (d, 10n), (d, 11n), (d, 2np), (d, 8np), (d, 12np), (d, 15np), (p, n), (p, 3n), (p, 5n), (p, 7n), (p, 9n), (p, 10n), (p, np), (p, 7np), (p, 11np), (p, 14np), E=3.65 GeV / nucleon; measured  $\sigma$ . <sup>120</sup>Sn(p, X), E=0.66 GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195

**A=116**

<sup>116</sup>Cd 2005DA03 RADIOACTIVITY <sup>116</sup>Cd( $2\beta^-$ ); measured  $2\nu 2\beta$ -decay T<sub>1/2</sub>,  $0\nu 2\beta$ -decay T<sub>1/2</sub> lower limit. JOUR NPBSE 138 230

**A=116 (continued)**

- 2005SA07 RADIOACTIVITY  $^{82}\text{Se}$ ,  $^{96}\text{Zr}$ ,  $^{100}\text{Mo}$ ,  $^{116}\text{Cd}$ ,  $^{150}\text{Nd}(2\beta^-)$ ; measured  $2\nu\beta\beta$ -decay  $T_{1/2}$ .  $^{82}\text{Se}$ ,  $^{100}\text{Mo}(2\beta^-)$ ; measured  $0\nu\beta\beta$ -decay  $T_{1/2}$  lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221
- $^{116}\text{Sn}$  2004K064 NUCLEAR REACTIONS  $^6\text{Li}$ ,  $^{16}\text{O}$ ,  $^{32}\text{S}$ ,  $^{50,51}\text{V}$ ,  $^{70,72}\text{Ge}(d, d)$ ,  $(d, d')$ ,  $E=171$  MeV;  $^{90}\text{Zr}$ ,  $^{116}\text{Sn}(d, d)$ ,  $(d, d')$ ,  $E=183$  MeV; measured  $\sigma(\theta)$ ; deduced optical model parameters. JOUR PRVCA 70 067601
- 2005DA03 RADIOACTIVITY  $^{116}\text{Cd}(2\beta^-)$ ; measured  $2\nu2\beta$ -decay  $T_{1/2}$ ,  $0\nu2\beta$ -decay  $T_{1/2}$  lower limit. JOUR NPBSE 138 230
- 2005SA07 RADIOACTIVITY  $^{82}\text{Se}$ ,  $^{96}\text{Zr}$ ,  $^{100}\text{Mo}$ ,  $^{116}\text{Cd}$ ,  $^{150}\text{Nd}(2\beta^-)$ ; measured  $2\nu\beta\beta$ -decay  $T_{1/2}$ .  $^{82}\text{Se}$ ,  $^{100}\text{Mo}(2\beta^-)$ ; measured  $0\nu\beta\beta$ -decay  $T_{1/2}$  lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221
- $^{116}\text{Sb}$  2005BA18 NUCLEAR REACTIONS  $^{112}\text{Sn}(d, p)$ ,  $(d, 3np)$ ,  $(p, 2np)$ ,  $^{118}\text{Sn}(d, 2n)$ ,  $(d, 3n)$ ,  $(d, 5n)$ ,  $(d, 2np)$ ,  $(d, 6np)$ ,  $(d, 9np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 4n)$ ,  $(p, np)$ ,  $(p, 5np)$ ,  $(p, 8np)$ ,  $^{120}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 7n)$ ,  $(d, 4np)$ ,  $(d, 8np)$ ,  $(d, 11np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 6n)$ ,  $(p, 3np)$ ,  $(p, 7np)$ ,  $(p, 10np)$ ,  $^{124}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 8n)$ ,  $(d, 10n)$ ,  $(d, 11n)$ ,  $(d, 2np)$ ,  $(d, 8np)$ ,  $(d, 12np)$ ,  $(d, 15np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 7n)$ ,  $(p, 9n)$ ,  $(p, 10n)$ ,  $(p, np)$ ,  $(p, 7np)$ ,  $(p, 11np)$ ,  $(p, 14np)$ ,  $E=3.65$  GeV / nucleon; measured  $\sigma$ .  $^{120}\text{Sn}(p, X)$ ,  $E=0.66$  GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195
- $^{116}\text{Xe}$  2005JA06 RADIOACTIVITY  $^{117}\text{Ba}(\beta^+p)$  [from  $^{63}\text{Cu}(^{58}\text{Ni}, 3np)$ ]; measured  $E\gamma$ ,  $E\beta$ ,  $\beta\gamma$ -coin,  $\beta$ -delayed proton spectra; deduced  $Q$ .  $^{117}\text{Cs}$  deduced  $\beta$ -feeding intensities, proton decay branching ratios, resonance structure. Total absorption spectrometer, comparison with model predictions. JOUR ZAANE 23 401

**A=117**

- $^{117}\text{Sn}$  2005BA18 NUCLEAR REACTIONS  $^{112}\text{Sn}(d, p)$ ,  $(d, 3np)$ ,  $(p, 2np)$ ,  $^{118}\text{Sn}(d, 2n)$ ,  $(d, 3n)$ ,  $(d, 5n)$ ,  $(d, 2np)$ ,  $(d, 6np)$ ,  $(d, 9np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 4n)$ ,  $(p, np)$ ,  $(p, 5np)$ ,  $(p, 8np)$ ,  $^{120}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 7n)$ ,  $(d, 4np)$ ,  $(d, 8np)$ ,  $(d, 11np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 6n)$ ,  $(p, 3np)$ ,  $(p, 7np)$ ,  $(p, 10np)$ ,  $^{124}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 8n)$ ,  $(d, 10n)$ ,  $(d, 11n)$ ,  $(d, 2np)$ ,  $(d, 8np)$ ,  $(d, 12np)$ ,  $(d, 15np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 7n)$ ,  $(p, 9n)$ ,  $(p, 10n)$ ,  $(p, np)$ ,  $(p, 7np)$ ,  $(p, 11np)$ ,  $(p, 14np)$ ,  $E=3.65$  GeV / nucleon; measured  $\sigma$ .  $^{120}\text{Sn}(p, X)$ ,  $E=0.66$  GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195
- 2005HE08 NUCLEAR REACTIONS  $^{100}\text{Mo}(^{17}\text{O}, xnyp)$ ,  $E=78.8$  MeV;  $^{100}\text{Mo}(^{18}\text{O}, xnyp)$ ,  $E=95.0$  MeV; measured  $E\gamma$ ,  $I\gamma$ , (evaporation residue) $\gamma$ -coin.  $^{117,118}\text{Sn}$  deduced GDR widths, temperature and spin dependence features. Comparison with model predictions. JOUR NUPAB 750 175

**A=117 (continued)**

- <sup>117</sup>Sb      2005BA18      NUCLEAR REACTIONS <sup>112</sup>Sn(d, p), (d, 3np), (p, 2np), <sup>118</sup>Sn(d, 2n), (d, 3n), (d, 5n), (d, 2np), (d, 6np), (d, 9np), (p, n), (p, 3n), (p, 4n), (p, np), (p, 5np), (p, 8np), <sup>120</sup>Sn(d, 2n), (d, 4n), (d, 6n), (d, 7n), (d, 4np), (d, 8np), (d, 11np), (p, n), (p, 3n), (p, 5n), (p, 6n), (p, 3np), (p, 7np), (p, 10np), <sup>124</sup>Sn(d, 2n), (d, 4n), (d, 6n), (d, 8n), (d, 10n), (d, 11n), (d, 2np), (d, 8np), (d, 12np), (d, 15np), (p, n), (p, 3n), (p, 5n), (p, 7n), (p, 9n), (p, 10n), (p, np), (p, 7np), (p, 11np), (p, 14np), E=3.65 GeV / nucleon; measured  $\sigma$ . <sup>120</sup>Sn(p, X), E=0.66 GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195
- <sup>117</sup>Cs      2005JA06      RADIOACTIVITY <sup>117</sup>Ba( $\beta^+$ p) [from <sup>63</sup>Cu(<sup>58</sup>Ni, 3np)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin,  $\beta$ -delayed proton spectra; deduced Q. <sup>117</sup>Cs deduced  $\beta$ -feeding intensities, proton decay branching ratios, resonance structure. Total absorption spectrometer, comparison with model predictions. JOUR ZAANE 23 401
- <sup>117</sup>Ba      2005JA06      RADIOACTIVITY <sup>117</sup>Ba( $\beta^+$ p) [from <sup>63</sup>Cu(<sup>58</sup>Ni, 3np)]; measured E $\gamma$ , E $\beta$ ,  $\beta\gamma$ -coin,  $\beta$ -delayed proton spectra; deduced Q. <sup>117</sup>Cs deduced  $\beta$ -feeding intensities, proton decay branching ratios, resonance structure. Total absorption spectrometer, comparison with model predictions. JOUR ZAANE 23 401

**A=118**

- <sup>118</sup>Sn      2005HE08      NUCLEAR REACTIONS <sup>100</sup>Mo(<sup>17</sup>O, xnyp), E=78.8 MeV; <sup>100</sup>Mo(<sup>18</sup>O, xnyp), E=95.0 MeV; measured E $\gamma$ , I $\gamma$ , (evaporation residue) $\gamma$ -coin. <sup>117,118</sup>Sn deduced GDR widths, temperature and spin dependence features. Comparison with model predictions. JOUR NUPAB 750 175
- <sup>118</sup>Sb      2005BA18      NUCLEAR REACTIONS <sup>112</sup>Sn(d, p), (d, 3np), (p, 2np), <sup>118</sup>Sn(d, 2n), (d, 3n), (d, 5n), (d, 2np), (d, 6np), (d, 9np), (p, n), (p, 3n), (p, 4n), (p, np), (p, 5np), (p, 8np), <sup>120</sup>Sn(d, 2n), (d, 4n), (d, 6n), (d, 7n), (d, 4np), (d, 8np), (d, 11np), (p, n), (p, 3n), (p, 5n), (p, 6n), (p, 3np), (p, 7np), (p, 10np), <sup>124</sup>Sn(d, 2n), (d, 4n), (d, 6n), (d, 8n), (d, 10n), (d, 11n), (d, 2np), (d, 8np), (d, 12np), (d, 15np), (p, n), (p, 3n), (p, 5n), (p, 7n), (p, 9n), (p, 10n), (p, np), (p, 7np), (p, 11np), (p, 14np), E=3.65 GeV / nucleon; measured  $\sigma$ . <sup>120</sup>Sn(p, X), E=0.66 GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195

**A=119**

No references found

**A=120**

- $^{120}\text{Sn}$  2004KU30 NUCLEAR REACTIONS  $^{112,114,120,124}\text{Sn}(\alpha, \alpha)$ ,  $(\alpha, \alpha')$ ,  $E \approx 50$  MeV; measured  $\sigma(E, \theta)$ ; deduced optical model parameters.  $^{112,114,120,124}\text{Sn}$  deduced transition strengths, deformation parameters, related features. JOUR UKPJA 49 841
- 2005ZU01 RADIOACTIVITY  $^{120}\text{Te}(\beta^+\text{EC})$ ;  $^{64}\text{Zn}$ ,  $^{106,108}\text{Cd}$ ,  $^{120}\text{Te}(2\text{EC})$ ; measured  $T_{1/2}$  lower limits. JOUR NPBSE 138 236
- $^{120}\text{Sb}$  2005BA18 NUCLEAR REACTIONS  $^{112}\text{Sn}(\text{d}, \text{p})$ ,  $(\text{d}, 3\text{np})$ ,  $(\text{p}, 2\text{np})$ ,  $^{118}\text{Sn}(\text{d}, 2\text{n})$ ,  $(\text{d}, 3\text{n})$ ,  $(\text{d}, 5\text{n})$ ,  $(\text{d}, 2\text{np})$ ,  $(\text{d}, 6\text{np})$ ,  $(\text{d}, 9\text{np})$ ,  $(\text{p}, \text{n})$ ,  $(\text{p}, 3\text{n})$ ,  $(\text{p}, 4\text{n})$ ,  $(\text{p}, \text{np})$ ,  $(\text{p}, 5\text{np})$ ,  $(\text{p}, 8\text{np})$ ,  $^{120}\text{Sn}(\text{d}, 2\text{n})$ ,  $(\text{d}, 4\text{n})$ ,  $(\text{d}, 6\text{n})$ ,  $(\text{d}, 7\text{n})$ ,  $(\text{d}, 4\text{np})$ ,  $(\text{d}, 8\text{np})$ ,  $(\text{d}, 11\text{np})$ ,  $(\text{p}, \text{n})$ ,  $(\text{p}, 3\text{n})$ ,  $(\text{p}, 5\text{n})$ ,  $(\text{p}, 6\text{n})$ ,  $(\text{p}, 3\text{np})$ ,  $(\text{p}, 7\text{np})$ ,  $(\text{p}, 10\text{np})$ ,  $^{124}\text{Sn}(\text{d}, 2\text{n})$ ,  $(\text{d}, 4\text{n})$ ,  $(\text{d}, 6\text{n})$ ,  $(\text{d}, 8\text{n})$ ,  $(\text{d}, 10\text{n})$ ,  $(\text{d}, 11\text{n})$ ,  $(\text{d}, 2\text{np})$ ,  $(\text{d}, 8\text{np})$ ,  $(\text{d}, 12\text{np})$ ,  $(\text{d}, 15\text{np})$ ,  $(\text{p}, \text{n})$ ,  $(\text{p}, 3\text{n})$ ,  $(\text{p}, 5\text{n})$ ,  $(\text{p}, 7\text{n})$ ,  $(\text{p}, 9\text{n})$ ,  $(\text{p}, 10\text{n})$ ,  $(\text{p}, \text{np})$ ,  $(\text{p}, 7\text{np})$ ,  $(\text{p}, 11\text{np})$ ,  $(\text{p}, 14\text{np})$ ,  $E=3.65$  GeV / nucleon; measured  $\sigma$ .  $^{120}\text{Sn}(\text{p}, \text{X})$ ,  $E=0.66$  GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195
- $^{120}\text{Te}$  2005ZU01 RADIOACTIVITY  $^{120}\text{Te}(\beta^+\text{EC})$ ;  $^{64}\text{Zn}$ ,  $^{106,108}\text{Cd}$ ,  $^{120}\text{Te}(2\text{EC})$ ; measured  $T_{1/2}$  lower limits. JOUR NPBSE 138 236

**A=121**

- $^{121}\text{Sb}$  2005P003 NUCLEAR REACTIONS  $^{238}\text{U}(^{12}\text{C}, \text{X})$ ,  $E=90$  MeV;  $^{208}\text{Pb}(^{18}\text{O}, \text{X})$ ,  $E=85$  MeV;  $^{176}\text{Yb}(^{31}\text{P}, \text{X})$ ,  $E=152$  MeV; measured prompt and delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{121,123,125,127}\text{Sb}$  deduced high-spin levels,  $J$ ,  $\pi$ , configurations.  $^{123,125,127}\text{Sb}$  deduced isomeric states energies,  $T_{1/2}$ . Euroball III and IV arrays. JOUR ZAANE 24 39

**A=122**

- $^{122}\text{Sb}$  2005BA18 NUCLEAR REACTIONS  $^{112}\text{Sn}(\text{d}, \text{p})$ ,  $(\text{d}, 3\text{np})$ ,  $(\text{p}, 2\text{np})$ ,  $^{118}\text{Sn}(\text{d}, 2\text{n})$ ,  $(\text{d}, 3\text{n})$ ,  $(\text{d}, 5\text{n})$ ,  $(\text{d}, 2\text{np})$ ,  $(\text{d}, 6\text{np})$ ,  $(\text{d}, 9\text{np})$ ,  $(\text{p}, \text{n})$ ,  $(\text{p}, 3\text{n})$ ,  $(\text{p}, 4\text{n})$ ,  $(\text{p}, \text{np})$ ,  $(\text{p}, 5\text{np})$ ,  $(\text{p}, 8\text{np})$ ,  $^{120}\text{Sn}(\text{d}, 2\text{n})$ ,  $(\text{d}, 4\text{n})$ ,  $(\text{d}, 6\text{n})$ ,  $(\text{d}, 7\text{n})$ ,  $(\text{d}, 4\text{np})$ ,  $(\text{d}, 8\text{np})$ ,  $(\text{d}, 11\text{np})$ ,  $(\text{p}, \text{n})$ ,  $(\text{p}, 3\text{n})$ ,  $(\text{p}, 5\text{n})$ ,  $(\text{p}, 6\text{n})$ ,  $(\text{p}, 3\text{np})$ ,  $(\text{p}, 7\text{np})$ ,  $(\text{p}, 10\text{np})$ ,  $^{124}\text{Sn}(\text{d}, 2\text{n})$ ,  $(\text{d}, 4\text{n})$ ,  $(\text{d}, 6\text{n})$ ,  $(\text{d}, 8\text{n})$ ,  $(\text{d}, 10\text{n})$ ,  $(\text{d}, 11\text{n})$ ,  $(\text{d}, 2\text{np})$ ,  $(\text{d}, 8\text{np})$ ,  $(\text{d}, 12\text{np})$ ,  $(\text{d}, 15\text{np})$ ,  $(\text{p}, \text{n})$ ,  $(\text{p}, 3\text{n})$ ,  $(\text{p}, 5\text{n})$ ,  $(\text{p}, 7\text{n})$ ,  $(\text{p}, 9\text{n})$ ,  $(\text{p}, 10\text{n})$ ,  $(\text{p}, \text{np})$ ,  $(\text{p}, 7\text{np})$ ,  $(\text{p}, 11\text{np})$ ,  $(\text{p}, 14\text{np})$ ,  $E=3.65$  GeV / nucleon; measured  $\sigma$ .  $^{120}\text{Sn}(\text{p}, \text{X})$ ,  $E=0.66$  GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195
- $^{122}\text{Te}$  2005HIZZ NUCLEAR REACTIONS  $^{122}\text{Te}(\text{n}, \text{n}')$ ,  $E=1.72, 2.80, 3.35$  MeV; measured Doppler-shifted  $E\gamma$ ,  $I\gamma$ , DSA.  $^{122}\text{Te}$  deduced levels,  $J$ ,  $\pi$ ,  $T_{1/2}$ ,  $B(E1)$ ,  $B(M1)$ ,  $B(E2)$ . PC S F Hicks, 1/3/2005
- $^{122}\text{Cs}$  2005UU01 NUCLEAR REACTIONS  $^{107}\text{Ag}(^{19}\text{F}, 3\text{np})$ ,  $E=85$  MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{122}\text{Cs}$  deduced high-spin levels,  $J$ ,  $\pi$ , configurations,  $B(M1)$  /  $B(E2)$ , chiral doublet bands. Level systematics in neighboring isotopes compared. JOUR JPGPE 31 B1

**A=123**

- $^{123}\text{Sn}$  2005BA18 NUCLEAR REACTIONS  $^{112}\text{Sn}(d, p)$ ,  $(d, 3np)$ ,  $(p, 2np)$ ,  $^{118}\text{Sn}(d, 2n)$ ,  $(d, 3n)$ ,  $(d, 5n)$ ,  $(d, 2np)$ ,  $(d, 6np)$ ,  $(d, 9np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 4n)$ ,  $(p, np)$ ,  $(p, 5np)$ ,  $(p, 8np)$ ,  $^{120}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 7n)$ ,  $(d, 4np)$ ,  $(d, 8np)$ ,  $(d, 11np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 6n)$ ,  $(p, 3np)$ ,  $(p, 7np)$ ,  $(p, 10np)$ ,  $^{124}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 8n)$ ,  $(d, 10n)$ ,  $(d, 11n)$ ,  $(d, 2np)$ ,  $(d, 8np)$ ,  $(d, 12np)$ ,  $(d, 15np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 7n)$ ,  $(p, 9n)$ ,  $(p, 10n)$ ,  $(p, np)$ ,  $(p, 7np)$ ,  $(p, 11np)$ ,  $(p, 14np)$ ,  $E=3.65$  GeV / nucleon; measured  $\sigma$ .  $^{120}\text{Sn}(p, X)$ ,  $E=0.66$  GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195
- $^{123}\text{Sb}$  2005P003 NUCLEAR REACTIONS  $^{238}\text{U}(^{12}\text{C}, X)$ ,  $E=90$  MeV;  $^{208}\text{Pb}(^{18}\text{O}, X)$ ,  $E=85$  MeV;  $^{176}\text{Yb}(^{31}\text{P}, X)$ ,  $E=152$  MeV; measured prompt and delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{121,123,125,127}\text{Sb}$  deduced high-spin levels,  $J$ ,  $\pi$ , configurations.  $^{123,125,127}\text{Sb}$  deduced isomeric states energies,  $T_{1/2}$ . Euroball III and IV arrays. JOUR ZAANE 24 39

**A=124**

- $^{124}\text{Sn}$  2004KU30 NUCLEAR REACTIONS  $^{112,114,120,124}\text{Sn}(\alpha, \alpha')$ ,  $(\alpha, \alpha')$ ,  $E \approx 50$  MeV; measured  $\sigma(E, \theta)$ ; deduced optical model parameters.  $^{112,114,120,124}\text{Sn}$  deduced transition strengths, deformation parameters, related features. JOUR UKPJA 49 841
- 2005BA02 NUCLEAR REACTIONS  $^{124}\text{Sn}(n, n'\gamma)$ ,  $E=2.2-4.5$  MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin, excitation functions, angular distributions, DSA.  $^{124}\text{Sn}$  deduced levels,  $J$ ,  $\pi$ ,  $T_{1/2}$ , two- and three-phonon excitations. JOUR NUPAB 747 206
- $^{124}\text{Sb}$  2005BA18 NUCLEAR REACTIONS  $^{112}\text{Sn}(d, p)$ ,  $(d, 3np)$ ,  $(p, 2np)$ ,  $^{118}\text{Sn}(d, 2n)$ ,  $(d, 3n)$ ,  $(d, 5n)$ ,  $(d, 2np)$ ,  $(d, 6np)$ ,  $(d, 9np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 4n)$ ,  $(p, np)$ ,  $(p, 5np)$ ,  $(p, 8np)$ ,  $^{120}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 7n)$ ,  $(d, 4np)$ ,  $(d, 8np)$ ,  $(d, 11np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 6n)$ ,  $(p, 3np)$ ,  $(p, 7np)$ ,  $(p, 10np)$ ,  $^{124}\text{Sn}(d, 2n)$ ,  $(d, 4n)$ ,  $(d, 6n)$ ,  $(d, 8n)$ ,  $(d, 10n)$ ,  $(d, 11n)$ ,  $(d, 2np)$ ,  $(d, 8np)$ ,  $(d, 12np)$ ,  $(d, 15np)$ ,  $(p, n)$ ,  $(p, 3n)$ ,  $(p, 5n)$ ,  $(p, 7n)$ ,  $(p, 9n)$ ,  $(p, 10n)$ ,  $(p, np)$ ,  $(p, 7np)$ ,  $(p, 11np)$ ,  $(p, 14np)$ ,  $E=3.65$  GeV / nucleon; measured  $\sigma$ .  $^{120}\text{Sn}(p, X)$ ,  $E=0.66$  GeV; measured spallation fragments mass distribution. Activation technique, comparison with model predictions. JOUR YAFIA 68 195
- $^{124}\text{I}$  2004SCZU NUCLEAR REACTIONS  $^{76}\text{Se}(p, n)$ ,  $E \approx 5-40$  MeV;  $^{78}\text{Kr}(d, \alpha)$ ,  $E \approx 4-14$  MeV; measured  $\sigma$ .  $^{126}\text{Te}(p, 3n)$ ,  $E=8-70$  MeV;  $^{85}\text{Rb}(p, 4n)$ ,  $E=44-66$  MeV; measured yields. REPT NEA/NSC/DOC(2004)14,P13,Scholten
- $^{124}\text{Xe}$  2005LE04 NUCLEAR REACTIONS  $\text{Pb}(p, X)^3\text{He} / ^4\text{He} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{36}\text{Ar} / ^{38}\text{Ar} / ^{78}\text{Kr} / ^{80}\text{Kr} / ^{81}\text{Kr} / ^{82}\text{Kr} / ^{83}\text{Kr} / ^{84}\text{Kr} / ^{85}\text{Kr} / ^{86}\text{Kr} / ^{124}\text{Xe} / ^{126}\text{Xe} / ^{128}\text{Xe} / ^{129}\text{Xe} / ^{130}\text{Xe} / ^{131}\text{Xe} / ^{132}\text{Xe} / ^{134}\text{Xe}$ ,  $E=44-2595$  MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=125**

- $^{125}\text{Sn}$  2004J019 NUCLEAR REACTIONS  $^2\text{H}(^{124}\text{Sn}, \text{p})$ , E=562 MeV; measured  $E_p$ ,  $\sigma(\theta)$ .  $^{125}\text{Sn}$  deduced levels, spectroscopic factors. DWBA analysis. Comparison with previous results. JOUR PRVCA 70 067602
- $^{125}\text{Sb}$  2005P003 NUCLEAR REACTIONS  $^{238}\text{U}(^{12}\text{C}, \text{X})$ , E=90 MeV;  $^{208}\text{Pb}(^{18}\text{O}, \text{X})$ , E=85 MeV;  $^{176}\text{Yb}(^{31}\text{P}, \text{X})$ , E=152 MeV; measured prompt and delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{121,123,125,127}\text{Sb}$  deduced high-spin levels, J,  $\pi$ , configurations.  $^{123,125,127}\text{Sb}$  deduced isomeric states energies,  $T_{1/2}$ . Euroball III and IV arrays. JOUR ZAANE 24 39

**A=126**

- $^{126}\text{Sn}$  2005CA14 RADIOACTIVITY  $^{126}\text{Sn}(\beta^-)$ ; measured  $T_{1/2}$ .  $^{126}\text{Sb}$  deduced transitions. Radiochemical separation. JOUR JRNC D 263 599
- $^{126}\text{Sb}$  2005CA14 RADIOACTIVITY  $^{126}\text{Sn}(\beta^-)$ ; measured  $T_{1/2}$ .  $^{126}\text{Sb}$  deduced transitions. Radiochemical separation. JOUR JRNC D 263 599
- $^{126}\text{Xe}$  2005LE04 NUCLEAR REACTIONS  $\text{Pb}(\text{p}, \text{X})^3\text{He} / ^4\text{He} / ^{21}\text{Ne} / ^{22}\text{Ne} / ^{36}\text{Ar} / ^{38}\text{Ar} / ^{78}\text{Kr} / ^{80}\text{Kr} / ^{81}\text{Kr} / ^{82}\text{Kr} / ^{83}\text{Kr} / ^{84}\text{Kr} / ^{85}\text{Kr} / ^{86}\text{Kr} / ^{124}\text{Xe} / ^{126}\text{Xe} / ^{128}\text{Xe} / ^{129}\text{Xe} / ^{130}\text{Xe} / ^{131}\text{Xe} / ^{132}\text{Xe} / ^{134}\text{Xe}$ , E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=127**

- $^{127}\text{Sb}$  2005P003 NUCLEAR REACTIONS  $^{238}\text{U}(^{12}\text{C}, \text{X})$ , E=90 MeV;  $^{208}\text{Pb}(^{18}\text{O}, \text{X})$ , E=85 MeV;  $^{176}\text{Yb}(^{31}\text{P}, \text{X})$ , E=152 MeV; measured prompt and delayed  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{121,123,125,127}\text{Sb}$  deduced high-spin levels, J,  $\pi$ , configurations.  $^{123,125,127}\text{Sb}$  deduced isomeric states energies,  $T_{1/2}$ . Euroball III and IV arrays. JOUR ZAANE 24 39
- $^{127}\text{I}$  2005BE03 RADIOACTIVITY  $^{23}\text{Na}$ ,  $^{127}\text{I}$ ; measured  $T_{1/2}$  lower limits for spontaneous decay to superdense state; deduced potential barrier features. NaI detectors. JOUR ZAANE 23 7
- 2005BE17 RADIOACTIVITY  $^{127}\text{I}(^{24}\text{Ne})$ ,  $(^{28}\text{Mg})$ ,  $(^{30}\text{Mg})$ ,  $(^{32}\text{Si})$ ,  $(^{34}\text{Si})$ ,  $(^{48}\text{Ca})$ ,  $(^{49}\text{Sc})$ ; measured cluster decay  $T_{1/2}$  lower limits. JOUR ZAANE 24 51
- $^{127}\text{La}$  2005II01 RADIOACTIVITY  $^{127}\text{Ce}(\beta^+)$ , (EC) [from  $\text{Mo}(^{35}\text{Cl}, \text{xnp})$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $E(\text{ce})$ ,  $I(\text{ce})$ ,  $\beta\gamma^-$ ,  $\gamma\gamma$ -coin,  $T_{1/2}$ .  $^{127}\text{La}$  deduced levels, J,  $\pi$ ,  $T_{1/2}$ , configurations. Comparison with Nilsson model predictions. JOUR ZAANE 23 33
- $^{127}\text{Ce}$  2005II01 RADIOACTIVITY  $^{127}\text{Ce}(\beta^+)$ , (EC) [from  $\text{Mo}(^{35}\text{Cl}, \text{xnp})$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $E(\text{ce})$ ,  $I(\text{ce})$ ,  $\beta\gamma^-$ ,  $\gamma\gamma$ -coin,  $T_{1/2}$ .  $^{127}\text{La}$  deduced levels, J,  $\pi$ ,  $T_{1/2}$ , configurations. Comparison with Nilsson model predictions. JOUR ZAANE 23 33

**A=128**

- <sup>128</sup>Sb 2005NA05 NUCLEAR REACTIONS <sup>232</sup>Th, <sup>232,238</sup>U, <sup>238,240</sup>Pu, <sup>244</sup>Cm(n, F)<sup>128</sup>Sb / <sup>130</sup>Sb / <sup>132</sup>Sb / <sup>131</sup>Te / <sup>133</sup>Te / <sup>132</sup>I / <sup>134</sup>I / <sup>136</sup>I / <sup>135</sup>Xe / <sup>138</sup>Cs, E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304
- <sup>128</sup>Xe 2005LE04 NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=129**

- <sup>129</sup>Xe 2005LE04 NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=130**

- <sup>130</sup>Sb 2005NA05 NUCLEAR REACTIONS <sup>232</sup>Th, <sup>232,238</sup>U, <sup>238,240</sup>Pu, <sup>244</sup>Cm(n, F)<sup>128</sup>Sb / <sup>130</sup>Sb / <sup>132</sup>Sb / <sup>131</sup>Te / <sup>133</sup>Te / <sup>132</sup>I / <sup>134</sup>I / <sup>136</sup>I / <sup>135</sup>Xe / <sup>138</sup>Cs, E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304
- <sup>130</sup>Te 2005PI02 RADIOACTIVITY <sup>130</sup>Te(2 $\beta^-$ ); measured 0 $\nu$ 2 $\beta$ -decay T<sub>1/2</sub> lower limit. JOUR NPBSE 138 210
- <sup>130</sup>Xe 2005LE04 NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1
- 2005PI02 RADIOACTIVITY <sup>130</sup>Te(2 $\beta^-$ ); measured 0 $\nu$ 2 $\beta$ -decay T<sub>1/2</sub> lower limit. JOUR NPBSE 138 210

**A=131**

- <sup>131</sup>Te 2005NA05 NUCLEAR REACTIONS <sup>232</sup>Th, <sup>232,238</sup>U, <sup>238,240</sup>Pu, <sup>244</sup>Cm(n, F)<sup>128</sup>Sb / <sup>130</sup>Sb / <sup>132</sup>Sb / <sup>131</sup>Te / <sup>133</sup>Te / <sup>132</sup>I / <sup>134</sup>I / <sup>136</sup>I / <sup>135</sup>Xe / <sup>138</sup>Cs, E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304



**A=131 (continued)**

- $^{131}\text{Xe}$  2005LE04 NUCLEAR REACTIONS Pb(p, X) $^3\text{He}$  /  $^4\text{He}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{36}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{78}\text{Kr}$  /  $^{80}\text{Kr}$  /  $^{81}\text{Kr}$  /  $^{82}\text{Kr}$  /  $^{83}\text{Kr}$  /  $^{84}\text{Kr}$  /  $^{85}\text{Kr}$  /  $^{86}\text{Kr}$  /  $^{124}\text{Xe}$  /  $^{126}\text{Xe}$  /  $^{128}\text{Xe}$  /  $^{129}\text{Xe}$  /  $^{130}\text{Xe}$  /  $^{131}\text{Xe}$  /  $^{132}\text{Xe}$  /  $^{134}\text{Xe}$ , E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1
- $^{131}\text{Cs}$  2005KU10 NUCLEAR REACTIONS  $^{124}\text{Sn}(^{11}\text{B}, 4n)$ , E=57 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{131}\text{Cs}$  deduced high-spin levels, J,  $\pi$ , configurations B(M1) / B(E2). Total Routhian surface and tilted axis cranking model calculations. JOUR ZAANE 24 13

**A=132**

- $^{132}\text{Sb}$  2005NA05 NUCLEAR REACTIONS  $^{232}\text{Th}$ ,  $^{232,238}\text{U}$ ,  $^{238,240}\text{Pu}$ ,  $^{244}\text{Cm}(n, F)^{128}\text{Sb}$  /  $^{130}\text{Sb}$  /  $^{132}\text{Sb}$  /  $^{131}\text{Te}$  /  $^{133}\text{Te}$  /  $^{132}\text{I}$  /  $^{134}\text{I}$  /  $^{136}\text{I}$  /  $^{135}\text{Xe}$  /  $^{138}\text{Cs}$ , E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304
- $^{132}\text{I}$  2005NA05 NUCLEAR REACTIONS  $^{232}\text{Th}$ ,  $^{232,238}\text{U}$ ,  $^{238,240}\text{Pu}$ ,  $^{244}\text{Cm}(n, F)^{128}\text{Sb}$  /  $^{130}\text{Sb}$  /  $^{132}\text{Sb}$  /  $^{131}\text{Te}$  /  $^{133}\text{Te}$  /  $^{132}\text{I}$  /  $^{134}\text{I}$  /  $^{136}\text{I}$  /  $^{135}\text{Xe}$  /  $^{138}\text{Cs}$ , E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304
- $^{132}\text{Xe}$  2005LE04 NUCLEAR REACTIONS Pb(p, X) $^3\text{He}$  /  $^4\text{He}$  /  $^{21}\text{Ne}$  /  $^{22}\text{Ne}$  /  $^{36}\text{Ar}$  /  $^{38}\text{Ar}$  /  $^{78}\text{Kr}$  /  $^{80}\text{Kr}$  /  $^{81}\text{Kr}$  /  $^{82}\text{Kr}$  /  $^{83}\text{Kr}$  /  $^{84}\text{Kr}$  /  $^{85}\text{Kr}$  /  $^{86}\text{Kr}$  /  $^{124}\text{Xe}$  /  $^{126}\text{Xe}$  /  $^{128}\text{Xe}$  /  $^{129}\text{Xe}$  /  $^{130}\text{Xe}$  /  $^{131}\text{Xe}$  /  $^{132}\text{Xe}$  /  $^{134}\text{Xe}$ , E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=133**

- $^{133}\text{Te}$  2005NA05 NUCLEAR REACTIONS  $^{232}\text{Th}$ ,  $^{232,238}\text{U}$ ,  $^{238,240}\text{Pu}$ ,  $^{244}\text{Cm}(n, F)^{128}\text{Sb}$  /  $^{130}\text{Sb}$  /  $^{132}\text{Sb}$  /  $^{131}\text{Te}$  /  $^{133}\text{Te}$  /  $^{132}\text{I}$  /  $^{134}\text{I}$  /  $^{136}\text{I}$  /  $^{135}\text{Xe}$  /  $^{138}\text{Cs}$ , E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304

**A=134**

- $^{134}\text{I}$  2005NA05 NUCLEAR REACTIONS  $^{232}\text{Th}$ ,  $^{232,238}\text{U}$ ,  $^{238,240}\text{Pu}$ ,  $^{244}\text{Cm}(n, F)^{128}\text{Sb}$  /  $^{130}\text{Sb}$  /  $^{132}\text{Sb}$  /  $^{131}\text{Te}$  /  $^{133}\text{Te}$  /  $^{132}\text{I}$  /  $^{134}\text{I}$  /  $^{136}\text{I}$  /  $^{135}\text{Xe}$  /  $^{138}\text{Cs}$ , E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304

**A=134 (continued)**

<sup>134</sup>Xe      2005LE04      NUCLEAR REACTIONS Pb(p, X)<sup>3</sup>He / <sup>4</sup>He / <sup>21</sup>Ne / <sup>22</sup>Ne / <sup>36</sup>Ar / <sup>38</sup>Ar / <sup>78</sup>Kr / <sup>80</sup>Kr / <sup>81</sup>Kr / <sup>82</sup>Kr / <sup>83</sup>Kr / <sup>84</sup>Kr / <sup>85</sup>Kr / <sup>86</sup>Kr / <sup>124</sup>Xe / <sup>126</sup>Xe / <sup>128</sup>Xe / <sup>129</sup>Xe / <sup>130</sup>Xe / <sup>131</sup>Xe / <sup>132</sup>Xe / <sup>134</sup>Xe, E=44-2595 MeV; measured production  $\sigma$ ; deduced reaction mechanism features. Mini-stack approach, comparisons with model predictions. JOUR NIMBE 229 1

**A=135**

<sup>135</sup>Xe      2004GAZV      NUCLEAR REACTIONS <sup>237</sup>Np, <sup>243</sup>Am( $\gamma$ , F)<sup>89</sup>Kr / <sup>91</sup>Kr / <sup>92</sup>Kr / <sup>93</sup>Kr / <sup>135</sup>Xe / <sup>137</sup>Xe / <sup>138</sup>Xe / <sup>139</sup>Xe / <sup>140</sup>Xe / <sup>141</sup>Xe / <sup>142</sup>Xe,  $E_{max}$ =25 MeV; measured E $\gamma$ , I $\gamma$ ; deduced fission fragment yields. REPT JINR-P15-2004-119, Gangrsky

2005NA05      NUCLEAR REACTIONS <sup>232</sup>Th, <sup>232,238</sup>U, <sup>238,240</sup>Pu, <sup>244</sup>Cm(n, F)<sup>128</sup>Sb / <sup>130</sup>Sb / <sup>132</sup>Sb / <sup>131</sup>Te / <sup>133</sup>Te / <sup>132</sup>I / <sup>134</sup>I / <sup>136</sup>I / <sup>135</sup>Xe / <sup>138</sup>Cs, E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304

**A=136**

<sup>136</sup>I      2005NA05      NUCLEAR REACTIONS <sup>232</sup>Th, <sup>232,238</sup>U, <sup>238,240</sup>Pu, <sup>244</sup>Cm(n, F)<sup>128</sup>Sb / <sup>130</sup>Sb / <sup>132</sup>Sb / <sup>131</sup>Te / <sup>133</sup>Te / <sup>132</sup>I / <sup>134</sup>I / <sup>136</sup>I / <sup>135</sup>Xe / <sup>138</sup>Cs, E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis. JOUR PRVCA 71 014304

<sup>136</sup>La      2005BH06      NUCLEAR REACTIONS <sup>130</sup>Te(<sup>11</sup>B, 5n), E=52 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>136</sup>La deduced high-spin levels, J,  $\pi$ , configurations. Two-quasiparticle-rotor model calculation. JOUR NUPAB 750 199

**A=137**

<sup>137</sup>Xe      2004GAZV      NUCLEAR REACTIONS <sup>237</sup>Np, <sup>243</sup>Am( $\gamma$ , F)<sup>89</sup>Kr / <sup>91</sup>Kr / <sup>92</sup>Kr / <sup>93</sup>Kr / <sup>135</sup>Xe / <sup>137</sup>Xe / <sup>138</sup>Xe / <sup>139</sup>Xe / <sup>140</sup>Xe / <sup>141</sup>Xe / <sup>142</sup>Xe,  $E_{max}$ =25 MeV; measured E $\gamma$ , I $\gamma$ ; deduced fission fragment yields. REPT JINR-P15-2004-119, Gangrsky

**A=138**

<sup>138</sup>Xe      2004GAZV      NUCLEAR REACTIONS <sup>237</sup>Np, <sup>243</sup>Am( $\gamma$ , F)<sup>89</sup>Kr / <sup>91</sup>Kr / <sup>92</sup>Kr / <sup>93</sup>Kr / <sup>135</sup>Xe / <sup>137</sup>Xe / <sup>138</sup>Xe / <sup>139</sup>Xe / <sup>140</sup>Xe / <sup>141</sup>Xe / <sup>142</sup>Xe,  $E_{max}$ =25 MeV; measured E $\gamma$ , I $\gamma$ ; deduced fission fragment yields. REPT JINR-P15-2004-119, Gangrsky

**A=138 (continued)**

$^{138}\text{Cs}$  2005NA05 NUCLEAR REACTIONS  $^{232}\text{Th}$ ,  $^{232,238}\text{U}$ ,  $^{238,240}\text{Pu}$ ,  $^{244}\text{Cm}(n, F)^{128}\text{Sb}$  /  $^{130}\text{Sb}$  /  $^{132}\text{Sb}$  /  $^{131}\text{Te}$  /  $^{133}\text{Te}$  /  $^{132}\text{I}$  /  $^{134}\text{I}$  /  $^{136}\text{I}$  /  $^{135}\text{Xe}$  /  $^{138}\text{Cs}$ ,  
E=thermal, fast; measured isomer yield ratios; deduced fission fragment angular momenta. Spin-dependent statistical model analysis.  
JOUR PRVCA 71 014304

**A=139**

$^{139}\text{Xe}$  2004GAZV NUCLEAR REACTIONS  $^{237}\text{Np}$ ,  $^{243}\text{Am}(\gamma, F)^{89}\text{Kr}$  /  $^{91}\text{Kr}$  /  $^{92}\text{Kr}$  /  $^{93}\text{Kr}$  /  $^{135}\text{Xe}$  /  $^{137}\text{Xe}$  /  $^{138}\text{Xe}$  /  $^{139}\text{Xe}$  /  $^{140}\text{Xe}$  /  $^{141}\text{Xe}$  /  $^{142}\text{Xe}$ ,  
 $E_{max}=25$  MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced fission fragment yields.  
REPT JINR-P15-2004-119,Gangrsky

$^{139}\text{Cs}$  2005AN01 NUCLEAR REACTIONS  $^{238}\text{U}(p, F)^{89}\text{Rb}$  /  $^{90}\text{Rb}$  /  $^{91}\text{Rb}$  /  $^{93}\text{Rb}$  /  $^{94}\text{Rb}$  /  $^{95}\text{Rb}$  /  $^{139}\text{Cs}$  /  $^{140}\text{Cs}$  /  $^{141}\text{Cs}$  /  $^{142}\text{Cs}$  /  $^{144}\text{Cs}$  /  $^{145}\text{Cs}$ ,  $E=1$   
GeV; measured yields. JOUR ZAANE 23 257

$^{139}\text{Ba}$  2005HE04 NUCLEAR REACTIONS  $^{18}\text{O}(p, n)$ ,  $E=2582$  keV; measured neutron spectrum.  $^{138}\text{Ba}(n, \gamma)$ ,  $E=\text{spectrum}$ ; measured Maxwellian-averaged  $\sigma$ .  
JOUR PRVCA 71 025803

**A=140**

$^{140}\text{Xe}$  2004GAZV NUCLEAR REACTIONS  $^{237}\text{Np}$ ,  $^{243}\text{Am}(\gamma, F)^{89}\text{Kr}$  /  $^{91}\text{Kr}$  /  $^{92}\text{Kr}$  /  $^{93}\text{Kr}$  /  $^{135}\text{Xe}$  /  $^{137}\text{Xe}$  /  $^{138}\text{Xe}$  /  $^{139}\text{Xe}$  /  $^{140}\text{Xe}$  /  $^{141}\text{Xe}$  /  $^{142}\text{Xe}$ ,  
 $E_{max}=25$  MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced fission fragment yields.  
REPT JINR-P15-2004-119,Gangrsky

$^{140}\text{Cs}$  2005AN01 NUCLEAR REACTIONS  $^{238}\text{U}(p, F)^{89}\text{Rb}$  /  $^{90}\text{Rb}$  /  $^{91}\text{Rb}$  /  $^{93}\text{Rb}$  /  $^{94}\text{Rb}$  /  $^{95}\text{Rb}$  /  $^{139}\text{Cs}$  /  $^{140}\text{Cs}$  /  $^{141}\text{Cs}$  /  $^{142}\text{Cs}$  /  $^{144}\text{Cs}$  /  $^{145}\text{Cs}$ ,  $E=1$   
GeV; measured yields. JOUR ZAANE 23 257

$^{140}\text{Nd}$  2004HIZZ NUCLEAR REACTIONS  $^{102}\text{Ru}(^3\text{He}, 2n)$ ,  $^{100}\text{Ru}(\alpha, n)$ ,  $^{103}\text{Rh}(d, 2n)$ ,  
(p, n),  $E \approx 5\text{-}35$  MeV; analyzed excitation functions, yields.  $\text{Ce}(^3\text{He}, xn)^{140}\text{Nd}$ ,  $E < 27$  MeV;  $^{141}\text{Pr}(p, 2n)$ ,  $E < 23$  MeV; measured yields.  
 $^{192}\text{Os}(p, n)$ ,  $E \approx 6\text{-}20$ ; measured  $\sigma$ . REPT

2004NE13 NEA/NSC/DOC(2004)14,P15,Hilgers  
NUCLEAR REACTIONS  $^{96}\text{Zr}(^{48}\text{Ca}, 4n)$ ,  $E=195$  MeV; measured  $E\gamma$ ,  
 $I\gamma$ ,  $\gamma\gamma$ -coin, fractional Doppler shifts.  $^{140}\text{Nd}$  deduced superdeformed  
band transitions, quadrupole moments, configurations. Euroball array.  
JOUR PRVCA 70 064315

**A=141**

$^{141}\text{Xe}$  2004GAZV NUCLEAR REACTIONS  $^{237}\text{Np}$ ,  $^{243}\text{Am}(\gamma, F)^{89}\text{Kr}$  /  $^{91}\text{Kr}$  /  $^{92}\text{Kr}$  /  $^{93}\text{Kr}$  /  $^{135}\text{Xe}$  /  $^{137}\text{Xe}$  /  $^{138}\text{Xe}$  /  $^{139}\text{Xe}$  /  $^{140}\text{Xe}$  /  $^{141}\text{Xe}$  /  $^{142}\text{Xe}$ ,  
 $E_{max}=25$  MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced fission fragment yields.  
REPT JINR-P15-2004-119,Gangrsky

**A=141 (continued)**

<sup>141</sup>Cs 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257

**A=142**

<sup>142</sup>Xe 2004GAZV NUCLEAR REACTIONS <sup>237</sup>Np, <sup>243</sup>Am( $\gamma$ , F)<sup>89</sup>Kr / <sup>91</sup>Kr / <sup>92</sup>Kr / <sup>93</sup>Kr / <sup>135</sup>Xe / <sup>137</sup>Xe / <sup>138</sup>Xe / <sup>139</sup>Xe / <sup>140</sup>Xe / <sup>141</sup>Xe / <sup>142</sup>Xe,  $E_{max}$ =25 MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced fission fragment yields. REPT JINR-P15-2004-119, Gangrsky

<sup>142</sup>Cs 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257

<sup>142</sup>Ba 2005BI02 RADIOACTIVITY <sup>252</sup>Cf(SF); measured Doppler-shifted  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -,  $\gamma\gamma$ -coin. <sup>142,144</sup>Ba levels deduced  $T_{1/2}$ , transition quadrupole moments. Euroball, Saphir arrays, differential Doppler shift method. JOUR PRVCA 71 011301

<sup>142</sup>Nd 2005MA10 NUCLEAR MOMENTS <sup>142,143,144,145,146,148,150</sup>Nd; measured hfs, isotope shifts. JOUR CHPHD 14 511

<sup>142</sup>Gd 2005PA07 NUCLEAR REACTIONS <sup>114</sup>Sn(<sup>32</sup>S, 2n2p), E=160 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -, (charged particle) $\gamma$ -coin, DSA. <sup>142</sup>Gd deduced high-spin levels, J,  $\pi$ , configurations,  $T_{1/2}$ , B(M1), B(E2). Euroball IV and Euclides arrays, comparisons with model predictions. JOUR ZAANE 23 191

**A=143**

<sup>143</sup>Nd 2003KI26 RADIOACTIVITY <sup>147</sup>Sm( $\alpha$ ); measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with previous results. JOUR JNRS 4, No 1,5

2004WAZV NUCLEAR REACTIONS Mg(<sup>132</sup>Xe, xn)<sup>149</sup>Dy, E=7 MeV / nucleon; <sup>12</sup>C(<sup>136</sup>Xe, 5n), E=6.5 MeV / nucleon; measured  $E\gamma$ ,  $I\gamma(\theta, H, t)$ . <sup>149</sup>Dy, <sup>143</sup>Nd deduced high-spin isomers g-factors. Time-differential perturbed angular distribution method. REPT CNS-REP-64,P243,Watanabe

2005MA10 NUCLEAR MOMENTS <sup>142,143,144,145,146,148,150</sup>Nd; measured hfs, isotope shifts. JOUR CHPHD 14 511

**A=144**

<sup>144</sup>Cs 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257

<sup>144</sup>Ba 2005BI02 RADIOACTIVITY <sup>252</sup>Cf(SF); measured Doppler-shifted  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -,  $\gamma\gamma$ -coin. <sup>142,144</sup>Ba levels deduced  $T_{1/2}$ , transition quadrupole moments. Euroball, Saphir arrays, differential Doppler shift method. JOUR PRVCA 71 011301

**A=144 (continued)**

- <sup>144</sup>Nd 2005MA10 NUCLEAR MOMENTS <sup>142,143,144,145,146,148,150</sup>Nd; measured hfs, isotope shifts. JOUR CHPHD 14 511
- <sup>144</sup>Er 2004SEZW RADIOACTIVITY <sup>145,147</sup>Tm(p); measured Ep. REPT ANL-04/22,P27,Seweryniak

**A=145**

- <sup>145</sup>Cs 2005AN01 NUCLEAR REACTIONS <sup>238</sup>U(p, F)<sup>89</sup>Rb / <sup>90</sup>Rb / <sup>91</sup>Rb / <sup>93</sup>Rb / <sup>94</sup>Rb / <sup>95</sup>Rb / <sup>139</sup>Cs / <sup>140</sup>Cs / <sup>141</sup>Cs / <sup>142</sup>Cs / <sup>144</sup>Cs / <sup>145</sup>Cs, E=1 GeV; measured yields. JOUR ZAANE 23 257
- <sup>145</sup>Nd 2005MA10 NUCLEAR MOMENTS <sup>142,143,144,145,146,148,150</sup>Nd; measured hfs, isotope shifts. JOUR CHPHD 14 511
- <sup>145</sup>Er 2004DAZX RADIOACTIVITY <sup>146</sup>Tm(p); measured Ep. REPT ANL-04/22,P29, Davids
- <sup>145</sup>Tm 2004SEZW RADIOACTIVITY <sup>145,147</sup>Tm(p); measured Ep. REPT ANL-04/22,P27,Seweryniak

**A=146**

- <sup>146</sup>Nd 2005MA10 NUCLEAR MOMENTS <sup>142,143,144,145,146,148,150</sup>Nd; measured hfs, isotope shifts. JOUR CHPHD 14 511
- <sup>146</sup>Er 2004SEZW RADIOACTIVITY <sup>145,147</sup>Tm(p); measured Ep. REPT ANL-04/22,P27,Seweryniak
- <sup>146</sup>Tm 2004DAZX RADIOACTIVITY <sup>146</sup>Tm(p); measured Ep. REPT ANL-04/22,P29, Davids

**A=147**

- <sup>147</sup>Cs 2005SY01 RADIOACTIVITY <sup>147</sup>Cs( $\beta^-$ ) [from <sup>235</sup>U(n, F)]; measured  $\beta$ -delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma^-$ , (X-ray) $\gamma$ -coin, T<sub>1/2</sub>. <sup>147</sup>Ba deduced levels, J,  $\pi$ , T<sub>1/2</sub>, B(M1), B(E2). JOUR ZAANE 23 481
- <sup>147</sup>Ba 2005SY01 RADIOACTIVITY <sup>147</sup>Cs( $\beta^-$ ) [from <sup>235</sup>U(n, F)]; measured  $\beta$ -delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma^-$ , (X-ray) $\gamma$ -coin, T<sub>1/2</sub>. <sup>147</sup>Ba deduced levels, J,  $\pi$ , T<sub>1/2</sub>, B(M1), B(E2). JOUR ZAANE 23 481
- <sup>147</sup>Sm 2003KI26 RADIOACTIVITY <sup>147</sup>Sm( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>. Comparison with previous results. JOUR JNRS A 4, No 1,5
- <sup>147</sup>Tm 2004SEZW RADIOACTIVITY <sup>145,147</sup>Tm(p); measured Ep. REPT ANL-04/22,P27,Seweryniak

**A=148**

- <sup>148</sup>Nd 2005MA10 NUCLEAR MOMENTS <sup>142,143,144,145,146,148,150</sup>Nd; measured hfs, isotope shifts. JOUR CHPHD 14 511

**A=148 (continued)**

- <sup>148</sup>Tb 2004AL35 RADIOACTIVITY <sup>148</sup>Dy(EC), ( $\beta^+$ ) [from <sup>93</sup>Nb(<sup>58</sup>Ni, 3p)]; measured E $\gamma$ , I $\gamma$ , (X-ray) $\gamma^-$ ,  $\beta\gamma$ -coin; deduced log ft. <sup>148</sup>Tb levels deduced  $\beta$ -feeding intensities, Gamow-Teller strength distribution, resonant state features. Total absorption spectrometer, comparison with previous results. JOUR PRVCA 70 064301
- <sup>148</sup>Dy 2004AL35 RADIOACTIVITY <sup>148</sup>Dy(EC), ( $\beta^+$ ) [from <sup>93</sup>Nb(<sup>58</sup>Ni, 3p)]; measured E $\gamma$ , I $\gamma$ , (X-ray) $\gamma^-$ ,  $\beta\gamma$ -coin; deduced log ft. <sup>148</sup>Tb levels deduced  $\beta$ -feeding intensities, Gamow-Teller strength distribution, resonant state features. Total absorption spectrometer, comparison with previous results. JOUR PRVCA 70 064301

**A=149**

- <sup>149</sup>Dy 2004WAZW NUCLEAR REACTIONS Mg(<sup>132</sup>Xe, xn)<sup>149</sup>Dy, E=7 MeV / nucleon; <sup>12</sup>C(<sup>136</sup>Xe, 5n), E=6.5 MeV / nucleon; measured E $\gamma$ , I $\gamma$ ( $\theta$ , H, t). <sup>149</sup>Dy, <sup>143</sup>Nd deduced high-spin isomers g-factors. Time-differential perturbed angular distribution method. REPT CNS-REP-64,P243,Watanabe

**A=150**

- <sup>150</sup>Nd 2005MA10 NUCLEAR MOMENTS <sup>142,143,144,145,146,148,150</sup>Nd; measured hfs, isotope shifts. JOUR CHPHD 14 511
- 2005SA07 RADIOACTIVITY <sup>82</sup>Se, <sup>96</sup>Zr, <sup>100</sup>Mo, <sup>116</sup>Cd, <sup>150</sup>Nd( $2\beta^-$ ); measured  $2\nu\beta\beta$ -decay T<sub>1/2</sub>. <sup>82</sup>Se, <sup>100</sup>Mo( $2\beta^-$ ); measured  $0\nu\beta\beta$ -decay T<sub>1/2</sub> lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221
- <sup>150</sup>Sm 2005SA07 RADIOACTIVITY <sup>82</sup>Se, <sup>96</sup>Zr, <sup>100</sup>Mo, <sup>116</sup>Cd, <sup>150</sup>Nd( $2\beta^-$ ); measured  $2\nu\beta\beta$ -decay T<sub>1/2</sub>. <sup>82</sup>Se, <sup>100</sup>Mo( $2\beta^-$ ); measured  $0\nu\beta\beta$ -decay T<sub>1/2</sub> lower limits; deduced neutrino mass limits. JOUR NPBSE 143 221

**A=151**

No references found

**A=152**

- <sup>152</sup>Dy 2004LAZW NUCLEAR REACTIONS <sup>108</sup>Pd(<sup>48</sup>Ca, 4n), E=194 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>152</sup>Dy deduced ridge widths, quadrupole moments, rotational damping features for deformed and superdeformed quasicontinuum spectra. Gammasphere array. REPT ANL-04/22,P51,Lauritsen

**A=153**

- $^{153}\text{Eu}$       2004MB03      NUCLEAR MOMENTS  $^{113,115}\text{In}$ ,  $^{153,155}\text{Eu}$ ,  $^{185,187}\text{Re}$ ,  $^{203,205}\text{Tl}$ ,  $^{209,211}\text{Fr}$ ; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPE 68 157
- 2005BU02      NUCLEAR REACTIONS  $^{154}\text{Gd}(t, \alpha)$ ,  $E=15$  MeV;  $^{152}\text{Sm}(^3\text{He}, d)$ ,  $E=24$  MeV;  $^{152}\text{Sm}(\alpha, t)$ ,  $E=25$  MeV; measured particle spectra,  $\sigma(E, \theta)$ .  $^{153}\text{Eu}$  deduced levels, l-values, spectroscopic strengths, configurations. Nilsson model with Coriolis mixing. JOUR NUPAB 747 131

**A=154**

No references found

**A=155**

- $^{155}\text{Eu}$       2004MB03      NUCLEAR MOMENTS  $^{113,115}\text{In}$ ,  $^{153,155}\text{Eu}$ ,  $^{185,187}\text{Re}$ ,  $^{203,205}\text{Tl}$ ,  $^{209,211}\text{Fr}$ ; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPE 68 157

**A=156**

No references found

**A=157**

No references found

**A=158**

No references found

**A=159**

No references found

**A=160**

No references found

**A=161**

No references found

**A=162**

<sup>162</sup>Dy 2004KI23 NUCLEAR REACTIONS <sup>161,162,163,164</sup>Dy(n,  $\gamma$ ), E=550 keV; measured E $\gamma$ , I $\gamma$ , capture  $\sigma$ . JOUR KPSJA 45 1474

**A=163**

<sup>163</sup>Dy 2004KI23 NUCLEAR REACTIONS <sup>161,162,163,164</sup>Dy(n,  $\gamma$ ), E=550 keV; measured E $\gamma$ , I $\gamma$ , capture  $\sigma$ . JOUR KPSJA 45 1474

**A=164**

<sup>164</sup>Dy 2004KI23 NUCLEAR REACTIONS <sup>161,162,163,164</sup>Dy(n,  $\gamma$ ), E=550 keV; measured E $\gamma$ , I $\gamma$ , capture  $\sigma$ . JOUR KPSJA 45 1474

<sup>164</sup>W 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=165**

<sup>165</sup>Dy 2004KI23 NUCLEAR REACTIONS <sup>161,162,163,164</sup>Dy(n,  $\gamma$ ), E=550 keV; measured E $\gamma$ , I $\gamma$ , capture  $\sigma$ . JOUR KPSJA 45 1474

2005BU07 NUCLEAR REACTIONS <sup>163</sup>Dy, <sup>177</sup>Hf(t, p), E=17 MeV; measured  $\sigma$ (Ep,  $\theta$ ). <sup>165</sup>Dy, <sup>179</sup>Hf deduced levels, L-values, L=0 strengths. Enriched targets, magnetic spectrograph. Systematic trends in neighboring nuclides discussed. JOUR NUPAB 750 185

<sup>165</sup>Lu 2005AN04 NUCLEAR REACTIONS <sup>139</sup>La(<sup>30</sup>Si, 4n), E=135 MeV; measured Doppler-shifted E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>165</sup>Lu levels deduced T<sub>1/2</sub>, transition quadrupole moments, B(E2). GASP array, total Routhian surface calculations. JOUR PRVCA 71 014312

<sup>165</sup>Ta 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee



**A=165 (continued)**

- <sup>165</sup>W 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>165</sup>Re 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=166**

- <sup>166</sup>Yb 2005ST03 NUCLEAR REACTIONS <sup>124</sup>Sn(<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), (<sup>48</sup>Ca, 6n), E=215 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma$  $\gamma$ -coin. <sup>166,167,168</sup>Yb deduced transition energy correlations, level spacing and interaction potential features, order-to-chaos transition. Gammasphere array. JOUR PRLTA 94 042501
- <sup>166</sup>Lu 2005MC01 RADIOACTIVITY <sup>166</sup>Hf( $\beta^+$ ), (EC) [from <sup>159</sup>Tb(<sup>16</sup>O, 9n)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma$  $\gamma$ -coin. <sup>166</sup>Hf deduced levels, J,  $\pi$ , X(5) symmetry features. JOUR PRVCA 71 024309
- <sup>166</sup>Hf 2005MC01 RADIOACTIVITY <sup>166</sup>Hf( $\beta^+$ ), (EC) [from <sup>159</sup>Tb(<sup>16</sup>O, 9n)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma$  $\gamma$ -coin. <sup>166</sup>Hf deduced levels, J,  $\pi$ , X(5) symmetry features. JOUR PRVCA 71 024309
- <sup>166</sup>W 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>166</sup>Re 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>166</sup>Os 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=167**

- <sup>167</sup>Yb 2005ST03 NUCLEAR REACTIONS <sup>124</sup>Sn(<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), (<sup>48</sup>Ca, 6n), E=215 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>166,167,168</sup>Yb deduced transition energy correlations, level spacing and interaction potential features, order-to-chaos transition. Gammasphere array. JOUR PRLTA 94 042501
- <sup>167</sup>Lu 2005AM02 NUCLEAR REACTIONS <sup>123</sup>Sb(<sup>48</sup>Ca, 4n), E=203 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>167</sup>Lu deduced high-spin levels, J,  $\pi$ , triaxial superdeformed bands, configurations. Gammasphere array. JOUR PRVCA 71 011302
- <sup>167</sup>W 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>167</sup>Re 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>167</sup>Os 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=168**

- <sup>168</sup>Yb 2005ST03 NUCLEAR REACTIONS <sup>124</sup>Sn(<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), (<sup>48</sup>Ca, 6n), E=215 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>166,167,168</sup>Yb deduced transition energy correlations, level spacing and interaction potential features, order-to-chaos transition. Gammasphere array. JOUR PRLTA 94 042501
- <sup>168</sup>W 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631
- 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=168 (continued)**

- <sup>168</sup>Re 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>168</sup>Os 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=169**

- <sup>169</sup>Tm 2005BA10 NUCLEAR MOMENTS <sup>169</sup>Tm; measured hfs. JOUR PHSTB 71 159
- <sup>169</sup>W 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631
- <sup>169</sup>Re 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>169</sup>Os 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>169</sup>Ir 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=170**

- <sup>170</sup>Re 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=170 (continued)**

- 2004WA35 NUCLEAR REACTIONS  $^{142}\text{Nd}(^{32}\text{S}, 3\text{np})$ , E=155, 166 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -, (X-ray) $\gamma$ -coin.  $^{170}\text{Re}$  deduced high-spin levels, J,  $\pi$ , configurations. Level systematics in neighboring nuclides discussed. JOUR PRVCA 70 064306
- $^{170}\text{Os}$  2004GOZZ RADIOACTIVITY  $^{168,169,170,171,172}\text{Os}$ ,  $^{169,170,171,172,173,174,175}\text{Ir}$ ,  $^{170,171,172,173,174,175,176,177}\text{Pt}$ ,  $^{173,174,175,176,177}\text{Au}$ ,  $^{174,175,176,177,178}\text{Hg}(\alpha)$  [from  $^{92,94}\text{Mo}(^{84}\text{Sr}, \text{xnyp})$  and subsequent decay]; measured  $E\alpha$ ,  $E\gamma$ ,  $\alpha$ - $\gamma$ -coin,  $T_{1/2}$ .  $^{165}\text{Ta}$ ,  $^{165,167}\text{W}$ ,  $^{165,166,167,168,171}\text{Re}$ ,  $^{169,170,171}\text{Os}$ ,  $^{169,170,171,172,175}\text{Ir}$ ,  $^{173,175}\text{Pt}$ ,  $^{174,176}\text{Au}$  deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- $^{170}\text{Ir}$  2004GOZZ RADIOACTIVITY  $^{168,169,170,171,172}\text{Os}$ ,  $^{169,170,171,172,173,174,175}\text{Ir}$ ,  $^{170,171,172,173,174,175,176,177}\text{Pt}$ ,  $^{173,174,175,176,177}\text{Au}$ ,  $^{174,175,176,177,178}\text{Hg}(\alpha)$  [from  $^{92,94}\text{Mo}(^{84}\text{Sr}, \text{xnyp})$  and subsequent decay]; measured  $E\alpha$ ,  $E\gamma$ ,  $\alpha$ - $\gamma$ -coin,  $T_{1/2}$ .  $^{165}\text{Ta}$ ,  $^{165,167}\text{W}$ ,  $^{165,166,167,168,171}\text{Re}$ ,  $^{169,170,171}\text{Os}$ ,  $^{169,170,171,172,175}\text{Ir}$ ,  $^{173,175}\text{Pt}$ ,  $^{174,176}\text{Au}$  deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- $^{170}\text{Pt}$  2004GOZZ RADIOACTIVITY  $^{168,169,170,171,172}\text{Os}$ ,  $^{169,170,171,172,173,174,175}\text{Ir}$ ,  $^{170,171,172,173,174,175,176,177}\text{Pt}$ ,  $^{173,174,175,176,177}\text{Au}$ ,  $^{174,175,176,177,178}\text{Hg}(\alpha)$  [from  $^{92,94}\text{Mo}(^{84}\text{Sr}, \text{xnyp})$  and subsequent decay]; measured  $E\alpha$ ,  $E\gamma$ ,  $\alpha$ - $\gamma$ -coin,  $T_{1/2}$ .  $^{165}\text{Ta}$ ,  $^{165,167}\text{W}$ ,  $^{165,166,167,168,171}\text{Re}$ ,  $^{169,170,171}\text{Os}$ ,  $^{169,170,171,172,175}\text{Ir}$ ,  $^{173,175}\text{Pt}$ ,  $^{174,176}\text{Au}$  deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=171**

- $^{171}\text{Re}$  2004GOZZ RADIOACTIVITY  $^{168,169,170,171,172}\text{Os}$ ,  $^{169,170,171,172,173,174,175}\text{Ir}$ ,  $^{170,171,172,173,174,175,176,177}\text{Pt}$ ,  $^{173,174,175,176,177}\text{Au}$ ,  $^{174,175,176,177,178}\text{Hg}(\alpha)$  [from  $^{92,94}\text{Mo}(^{84}\text{Sr}, \text{xnyp})$  and subsequent decay]; measured  $E\alpha$ ,  $E\gamma$ ,  $\alpha$ - $\gamma$ -coin,  $T_{1/2}$ .  $^{165}\text{Ta}$ ,  $^{165,167}\text{W}$ ,  $^{165,166,167,168,171}\text{Re}$ ,  $^{169,170,171}\text{Os}$ ,  $^{169,170,171,172,175}\text{Ir}$ ,  $^{173,175}\text{Pt}$ ,  $^{174,176}\text{Au}$  deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- $^{171}\text{Os}$  2004GOZZ RADIOACTIVITY  $^{168,169,170,171,172}\text{Os}$ ,  $^{169,170,171,172,173,174,175}\text{Ir}$ ,  $^{170,171,172,173,174,175,176,177}\text{Pt}$ ,  $^{173,174,175,176,177}\text{Au}$ ,  $^{174,175,176,177,178}\text{Hg}(\alpha)$  [from  $^{92,94}\text{Mo}(^{84}\text{Sr}, \text{xnyp})$  and subsequent decay]; measured  $E\alpha$ ,  $E\gamma$ ,  $\alpha$ - $\gamma$ -coin,  $T_{1/2}$ .  $^{165}\text{Ta}$ ,  $^{165,167}\text{W}$ ,  $^{165,166,167,168,171}\text{Re}$ ,  $^{169,170,171}\text{Os}$ ,  $^{169,170,171,172,175}\text{Ir}$ ,  $^{173,175}\text{Pt}$ ,  $^{174,176}\text{Au}$  deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- $^{171}\text{Ir}$  2004GOZZ RADIOACTIVITY  $^{168,169,170,171,172}\text{Os}$ ,  $^{169,170,171,172,173,174,175}\text{Ir}$ ,  $^{170,171,172,173,174,175,176,177}\text{Pt}$ ,  $^{173,174,175,176,177}\text{Au}$ ,  $^{174,175,176,177,178}\text{Hg}(\alpha)$  [from  $^{92,94}\text{Mo}(^{84}\text{Sr}, \text{xnyp})$  and subsequent decay]; measured  $E\alpha$ ,  $E\gamma$ ,  $\alpha$ - $\gamma$ -coin,  $T_{1/2}$ .  $^{165}\text{Ta}$ ,  $^{165,167}\text{W}$ ,  $^{165,166,167,168,171}\text{Re}$ ,  $^{169,170,171}\text{Os}$ ,  $^{169,170,171,172,175}\text{Ir}$ ,  $^{173,175}\text{Pt}$ ,  $^{174,176}\text{Au}$  deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=171 (continued)**

<sup>171</sup>Pt 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=172**

<sup>172</sup>Yb 2005SAZZ NUCLEAR REACTIONS <sup>172,174</sup>Yb(polarized  $\gamma$ ,  $\gamma'$ ), E=2930, 3005, 3550 keV; measured E $\gamma$ , I $\gamma$ , asymmetries. <sup>172,174</sup>Yb levels deduced  $\pi$ . Comparison with previous results. PREPRINT  
nucl-ex/0501006,1/11/2005

<sup>172</sup>Os 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631

2002DU22 NUCLEAR REACTIONS <sup>156</sup>Dy(<sup>22</sup>Ne, 5n), (<sup>22</sup>Ne, 6n), E=127 MeV; <sup>162</sup>Er(<sup>18</sup>O, 6n), (<sup>18</sup>O, 7n), E=116 MeV; measured radiochemical yields. JOUR NIMAE 479 631

2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

<sup>172</sup>Ir 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

<sup>172</sup>Pt 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=173**

<sup>173</sup>Hf 2005HA05 NUCLEAR REACTIONS <sup>130</sup>Te(<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E=200, 205 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, DSA. <sup>174</sup>Hf deduced superdeformed bands transitions, T<sub>1/2</sub>, quadrupole moments. <sup>173</sup>Hf deduced superdeformed band transitions. Gammasphere array, comparisons with model predictions. JOUR PYLBB 608 31

**A=173 (continued)**

- <sup>173</sup>Os 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631
- 2002DU22 NUCLEAR REACTIONS <sup>156</sup>Dy(<sup>22</sup>Ne, 5n), (<sup>22</sup>Ne, 6n), E=127 MeV; <sup>162</sup>Er(<sup>18</sup>O, 6n), (<sup>18</sup>O, 7n), E=116 MeV; measured radiochemical yields. JOUR NIMAE 479 631
- 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>173</sup>Ir 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>173</sup>Pt 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>173</sup>Au 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=174**

- <sup>174</sup>Er 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201
- <sup>174</sup>Yb 2005SAZZ NUCLEAR REACTIONS <sup>172,174</sup>Yb(polarized  $\gamma$ ,  $\gamma'$ ), E=2930, 3005, 3550 keV; measured E $\gamma$ , I $\gamma$ , asymmetries. <sup>172,174</sup>Yb levels deduced  $\pi$ . Comparison with previous results. PREPRINT nucl-ex/0501006,1/11/2005
- <sup>174</sup>Hf 2005HA05 NUCLEAR REACTIONS <sup>130</sup>Te(<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E=200, 205 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, DSA. <sup>174</sup>Hf deduced superdeformed bands transitions, T<sub>1/2</sub>, quadrupole moments. <sup>173</sup>Hf deduced superdeformed band transitions. Gammasphere array, comparisons with model predictions. JOUR PYLBB 608 31

**A=174 (continued)**

- 2005ME01 NUCLEAR REACTIONS Hf(n, X), E=0.1-100 eV; measured total neutron  $\sigma$ . <sup>174,176,177,178,179,180</sup>Hf deduced resonance parameters. Comparison with previous results. JOUR KPSJA 46 401
- <sup>174</sup>Os 2002DU22 NUCLEAR REACTIONS <sup>156</sup>Dy(<sup>22</sup>Ne, 5n), (<sup>22</sup>Ne, 6n), E=127 MeV; <sup>162</sup>Er(<sup>18</sup>O, 6n), (<sup>18</sup>O, 7n), E=116 MeV; measured radiochemical yields. JOUR NIMAE 479 631
- <sup>174</sup>Ir 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>174</sup>Pt 2004GOZZ NUCLEAR REACTIONS <sup>92</sup>Mo(<sup>84</sup>Sr, 2p), E=380 MeV; <sup>94</sup>Mo(<sup>84</sup>Sr, 2n2p), E=385 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (recoil) $\gamma$ -coin. <sup>174</sup>Pt deduced high-spin levels, J,  $\pi$ , configurations, shape coexistence features. Gammasphere, fragment separator, cranked mean-field calculations. THESIS J Goon, University of Tennessee
- 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>174</sup>Au 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>174</sup>Hg 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=175**

- <sup>175</sup>Er 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201

**A=175 (continued)**

- <sup>175</sup>Ir 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- 2004RA28 RADIOACTIVITY <sup>183</sup>Tl, <sup>179</sup>Au( $\alpha$ ) [from <sup>144</sup>Sm(<sup>42</sup>Ca, 2np) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>179</sup>Au, <sup>175</sup>Ir deduced levels, J,  $\pi$ . JOUR PRVCA 70 064308
- <sup>175</sup>Pt 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>175</sup>Au 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>175</sup>Hg 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=176**

- <sup>176</sup>Yb 2005AM04 RADIOACTIVITY <sup>176</sup>Lu( $\beta^-$ ), ( $\beta^+$ ); measured isotope ratios; deduced decay branch upper limit. JOUR GCACA 69 465
- <sup>176</sup>Lu 2005AM04 RADIOACTIVITY <sup>176</sup>Lu( $\beta^-$ ), ( $\beta^+$ ); measured isotope ratios; deduced decay branch upper limit. JOUR GCACA 69 465
- <sup>176</sup>Hf 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606
- 2005AM04 RADIOACTIVITY <sup>176</sup>Lu( $\beta^-$ ), ( $\beta^+$ ); measured isotope ratios; deduced decay branch upper limit. JOUR GCACA 69 465
- 2005ME01 NUCLEAR REACTIONS Hf(n, X), E=0.1-100 eV; measured total neutron  $\sigma$ . <sup>174,176,177,178,179,180</sup>Hf deduced resonance parameters. Comparison with previous results. JOUR KPSJA 46 401
- <sup>176</sup>Pt 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee



**A=176 (continued)**

- <sup>176</sup>Au 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>176</sup>Hg 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=177**

- <sup>177</sup>Hf 2005ME01 NUCLEAR REACTIONS Hf(n, X), E=0.1-100 eV; measured total neutron  $\sigma$ . <sup>174,176,177,178,179,180</sup>Hf deduced resonance parameters. Comparison with previous results. JOUR KPSJA 46 401
- <sup>177</sup>Pt 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>177</sup>Au 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee
- <sup>177</sup>Hg 2004CAZW RADIOACTIVITY <sup>181</sup>Pb( $\alpha$ ) [from <sup>92</sup>Mo(<sup>90</sup>Zr, p)]; measured E $\alpha$ , T<sub>1/2</sub>. <sup>181</sup>Pb deduced ground-state J,  $\pi$ . REPT ANL-04/22,P43,Carpenter
- 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=178**

- <sup>178</sup>Hf 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606
- 2005ME01 NUCLEAR REACTIONS Hf(n, X), E=0.1-100 eV; measured total neutron  $\sigma$ . <sup>174,176,177,178,179,180</sup>Hf deduced resonance parameters. Comparison with previous results. JOUR KPSJA 46 401

**A=178 (continued)**

<sup>178</sup>Hg 2004GOZZ RADIOACTIVITY <sup>168,169,170,171,172</sup>Os, <sup>169,170,171,172,173,174,175</sup>Ir, <sup>170,171,172,173,174,175,176,177</sup>Pt, <sup>173,174,175,176,177</sup>Au, <sup>174,175,176,177,178</sup>Hg( $\alpha$ ) [from <sup>92,94</sup>Mo(<sup>84</sup>Sr, xnyp) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>165</sup>Ta, <sup>165,167</sup>W, <sup>165,166,167,168,171</sup>Re, <sup>169,170,171</sup>Os, <sup>169,170,171,172,175</sup>Ir, <sup>173,175</sup>Pt, <sup>174,176</sup>Au deduced levels, J,  $\pi$ . THESIS J Goon, University of Tennessee

**A=179**

<sup>179</sup>Hf 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606

2005BU07 NUCLEAR REACTIONS <sup>163</sup>Dy, <sup>177</sup>Hf(t, p), E=17 MeV; measured  $\sigma$ (Ep,  $\theta$ ). <sup>165</sup>Dy, <sup>179</sup>Hf deduced levels, L-values, L=0 strengths. Enriched targets, magnetic spectrograph. Systematic trends in neighboring nuclides discussed. JOUR NUPAB 750 185

2005ME01 NUCLEAR REACTIONS Hf(n, X), E=0.1-100 eV; measured total neutron  $\sigma$ . <sup>174,176,177,178,179,180</sup>Hf deduced resonance parameters. Comparison with previous results. JOUR KPSJA 46 401

<sup>179</sup>Pt 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631

<sup>179</sup>Au 2004RA28 RADIOACTIVITY <sup>183</sup>Tl, <sup>179</sup>Au( $\alpha$ ) [from <sup>144</sup>Sm(<sup>42</sup>Ca, 2np) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha$ - $\gamma$ -coin, T<sub>1/2</sub>. <sup>179</sup>Au, <sup>175</sup>Ir deduced levels, J,  $\pi$ . JOUR PRVCA 70 064308

**A=180**

<sup>180</sup>Hf 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606

2005ME01 NUCLEAR REACTIONS Hf(n, X), E=0.1-100 eV; measured total neutron  $\sigma$ . <sup>174,176,177,178,179,180</sup>Hf deduced resonance parameters. Comparison with previous results. JOUR KPSJA 46 401

<sup>180</sup>W 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606

<sup>180</sup>Pt 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631

**A=181**

<sup>181</sup>Pt 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631

**A=181 (continued)**

<sup>181</sup>Pb 2004CAZW RADIOACTIVITY <sup>181</sup>Pb( $\alpha$ ) [from <sup>92</sup>Mo(<sup>90</sup>Zr, p)]; measured E $\alpha$ , T<sub>1/2</sub>. <sup>181</sup>Pb deduced ground-state J,  $\pi$ . REPT ANL-04/22,P43,Carpenter

**A=182**

<sup>182</sup>Hf 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606

<sup>182</sup>W 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606

**A=183**

<sup>183</sup>W 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606

<sup>183</sup>Au 2005S001 NUCLEAR REACTIONS <sup>159</sup>Tb(<sup>29</sup>Si, 5n), E=140 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>183</sup>Au deduced high-spin levels, J,  $\pi$ , configurations. GASP array. JOUR PRVCA 71 017302

<sup>183</sup>Hg 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631

<sup>183</sup>Tl 2004RA28 NUCLEAR REACTIONS <sup>144</sup>Sm(<sup>42</sup>Ca, 2np), E=195, 200 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (recoil) $\gamma$ -coin. <sup>183</sup>Tl deduced high-spin levels, J,  $\pi$ , configurations. Jurosphere array, recoil-decay tagging. JOUR PRVCA 70 064308

2004RA28 RADIOACTIVITY <sup>183</sup>Tl, <sup>179</sup>Au( $\alpha$ ) [from <sup>144</sup>Sm(<sup>42</sup>Ca, 2np) and subsequent decay]; measured E $\alpha$ , E $\gamma$ ,  $\alpha\gamma$ -coin, T<sub>1/2</sub>. <sup>179</sup>Au, <sup>175</sup>Ir deduced levels, J,  $\pi$ . JOUR PRVCA 70 064308

**A=184**

<sup>184</sup>W 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606

<sup>184</sup>Re 2004GA57 NUCLEAR REACTIONS <sup>185</sup>Re, <sup>191</sup>Ir, <sup>197</sup>Au( $\gamma$ , n), E=22 MeV bremsstrahlung; <sup>185</sup>Re, <sup>191</sup>Ir, <sup>197</sup>Au(n, 2n), E=14.7 MeV; <sup>181</sup>Ta( $\alpha$ , n), E=18 MeV; <sup>190</sup>Os, <sup>196</sup>Pt(d, n), E=13, 14 MeV; measured E $\gamma$ , I $\gamma$ ; deduced isomer production ratios. Activation method. JOUR BRSPPE 68 187

<sup>184</sup>Hg 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631

**A=184 (continued)**

<sup>184</sup>Tl 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57

**A=185**

<sup>185</sup>Hf 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201

<sup>185</sup>W 2002B067 NUCLEAR REACTIONS <sup>184</sup>W(n,  $\gamma$ ), E=thermal; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>185</sup>W deduced level energies, two-step cascade intensities, level density features. JOUR FIZBE 11 201

<sup>185</sup>Re 2004MB03 NUCLEAR MOMENTS <sup>113,115</sup>In, <sup>153,155</sup>Eu, <sup>185,187</sup>Re, <sup>203,205</sup>Tl, <sup>209,211</sup>Fr; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPPE 68 157

<sup>185</sup>Hg 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631

<sup>185</sup>Tl 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57

<sup>185</sup>Pb 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57

**A=186**

<sup>186</sup>W 2004C026 RADIOACTIVITY <sup>180</sup>W( $\alpha$ ); measured E $\alpha$ , T<sub>1/2</sub>, Q-value. <sup>182,183,184,186</sup>W( $\alpha$ ); measured T<sub>1/2</sub> lower limits. CaWO<sub>4</sub> crystals. JOUR PRVCA 70 064606

<sup>186</sup>Re 2005HAZZ NUCLEAR REACTIONS <sup>185</sup>Re(n,  $\gamma$ ), E=thermal; measured capture  $\sigma$  to ground and isomeric states. Astrophysical implications discussed. CONF Riken(Origin of Matter) Proc,P208,Hayakawa

**A=186 (continued)**

- <sup>186</sup>Tl 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57
- <sup>186</sup>Pb 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57

**A=187**

- <sup>187</sup>Re 2004MB03 NUCLEAR MOMENTS <sup>113,115</sup>In, <sup>153,155</sup>Eu, <sup>185,187</sup>Re, <sup>203,205</sup>Tl, <sup>209,211</sup>Fr; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPPE 68 157
- <sup>187</sup>Tl 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57

**A=188**

- <sup>188</sup>Ta 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201
- <sup>188</sup>Bi 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57

**A=189**

- <sup>189</sup>Tl 2005DE01 RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243

**A=189 (continued)**

- <sup>189</sup>Pb 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>189</sup>Bi 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57
- <sup>189</sup>Po 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57

**A=190**

- <sup>190</sup>W 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201
- <sup>190</sup>Pb 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>190</sup>Bi 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57
- <sup>190</sup>Po 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2</sub>, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57

## A=191

- <sup>191</sup>Re 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2}. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201</sub>
- <sup>191</sup>Pt 2005KU01 NUCLEAR REACTIONS <sup>186</sup>W(<sup>11</sup>B, 5np), E=85 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>191</sup>Pt deduced high-spin levels, J,  $\pi$ , configurations, shape coexistence. Eurogam-II array, cranked mean-field calculations. JOUR ZAANE 23 69
- <sup>191</sup>Au 2004ADZW NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005AD01 NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- <sup>191</sup>Pb 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2},  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306</sub>
- <sup>191</sup>Bi 2005VA04 RADIOACTIVITY <sup>189</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, 5n), (<sup>50</sup>Cr, 3n)]; measured E $\alpha$ , E $\gamma$ , E(ce),  $\alpha\gamma$ -coin. <sup>185</sup>Pb deduced levels, J,  $\pi$ , ICC, T<sub>1/2}, configurations. <sup>188,189,190,191</sup>Bi, <sup>189,190</sup>Po( $\alpha$ ) [from <sup>142</sup>Nd(<sup>52</sup>Cr, X), (<sup>50</sup>Cr, X)]; measured E $\alpha$ , I $\alpha$ . Potential energy surface calculations, level systematics in neighboring isotopes discussed. JOUR ZAANE 24 57</sub>

## A=192

- <sup>192</sup>Re 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2}. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201</sub>
- <sup>192</sup>Ir 2004HI ZZ NUCLEAR REACTIONS <sup>102</sup>Ru(<sup>3</sup>He, 2n), <sup>100</sup>Ru( $\alpha$ , n), <sup>103</sup>Rh(d, 2n), (p, n), E  $\approx$  5-35 MeV; analyzed excitation functions, yields. Ce(<sup>3</sup>He, xn)<sup>140</sup>Nd, E < 27 MeV; <sup>141</sup>Pr(p, 2n), E < 23 MeV; measured yields. <sup>192</sup>Os(p, n), E  $\approx$  6-20; measured  $\sigma$ . REPT NEA/NSC/DOC(2004)14,P15,Hilgers

**A=192 (continued)**

- <sup>192</sup>Au    2004ADZW    NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005AD01    NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- <sup>192</sup>Pb    2004WIZX    NUCLEAR REACTIONS <sup>168</sup>Er(<sup>29</sup>Si, 5n), E=154 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, DSA. <sup>192</sup>Pb deduced superdeformed band levels T<sub>1/2</sub>, quadrupole moment. Gammasphere array, total Routhian surface calculations. PREPRINT ANU-P/1610, Wilson
- 2005UU02    RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- 2005WI01    NUCLEAR REACTIONS <sup>168</sup>Er(<sup>29</sup>Si, 5n), E=154 MeV; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, DSA. <sup>192</sup>Pb deduced superdeformed band levels T<sub>1/2</sub>, quadrupole moment. Gammasphere array, total Routhian surface calculations. JOUR NUPAB 748 12
- <sup>192</sup>Bi    2005DE01    RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243

**A=193**

- <sup>193</sup>Re    2005CA02    RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201
- <sup>193</sup>Os    2002B066    NUCLEAR REACTIONS <sup>192</sup>Os(n,  $\gamma$ ), E=thermal; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>193</sup>Os deduced level energies, two-step cascade intensities, level density features. JOUR FIZBE 11 83
- <sup>193</sup>Ir    2005KI01    NUCLEAR REACTIONS <sup>193</sup>Ir(X-ray, X-ray), (X-ray,  $\gamma$ ), E=low; measured  $\gamma$ -spectra, X-ray spectra. <sup>193</sup>Ir deduced probability for nuclear excitation by electron transition. Synchrotron radiation, silicon avalanche photodiode. JOUR NUPAB 748 3
- <sup>193</sup>Pb    2002DU22    RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631



**A=193 (continued)**

- <sup>193</sup>Bi      2004KE15      NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- 2005DE01      RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243
- 2005UU02      RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>193</sup>Po      2005UU02      RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=194**

- <sup>194</sup>Re      2005CA02      RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $T_{1/2}$ . <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ . JOUR ZAANE 23 201
- <sup>194</sup>Au      2004ADZW      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16,Adam
- 2005AD01      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- <sup>194</sup>Hg      2004KHZX      NUCLEAR REACTIONS <sup>150</sup>Nd(<sup>48</sup>Ca, 4n), E not given; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin. <sup>194</sup>Hg deduced spreading widths for excited superdeformed quasicontinuum transitions. Gammasphere array. REPT ANL-04/22,P61,Khoo

**A=194 (continued)**

- <sup>194</sup>Pb 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR NIMAE 479 631
- <sup>194</sup>Bi 2004KE15 NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ )], <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>194</sup>Po 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ )], <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=195**

- <sup>195</sup>Os 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $T_{1/2}$ . <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ . JOUR ZAANE 23 201
- <sup>195</sup>Au 2003HI23 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>208</sup>Pb, X)<sup>195</sup>Au / <sup>196</sup>Au, E=40, 158 GeV / nucleon; measured electromagnetic dissociation  $\sigma$  for one- and two-neutron removal. JOUR UKPJA 48 1165
- <sup>195</sup>Pb 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR NIMAE 479 631
- <sup>195</sup>Bi 2004KE15 NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- 2005DE01 RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243

**A=195 (continued)**

- 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>195</sup>Po 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=196**

- <sup>196</sup>Au 2003HI23 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>208</sup>Pb, X)<sup>195</sup>Au / <sup>196</sup>Au, E=40, 158 GeV / nucleon; measured electromagnetic dissociation  $\sigma$  for one- and two-neutron removal. JOUR UKPJA 48 1165
- 2004ADZW NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16,Adam
- 2004GA57 NUCLEAR REACTIONS <sup>185</sup>Re, <sup>191</sup>Ir, <sup>197</sup>Au( $\gamma$ , n), E=22 MeV bremsstrahlung; <sup>185</sup>Re, <sup>191</sup>Ir, <sup>197</sup>Au(n, 2n), E=14.7 MeV; <sup>181</sup>Ta( $\alpha$ , n), E=18 MeV; <sup>190</sup>Os, <sup>196</sup>Pt(d, n), E=13, 14 MeV; measured E $\gamma$ , I $\gamma$ ; deduced isomer production ratios. Activation method. JOUR BRSPE 68 187
- 2004MIZS NUCLEAR REACTIONS Fe(p, X)<sup>52</sup>Mn, E < 2.6 GeV; Pb(p, X)<sup>10</sup>Be, E < 2.6 GeV; <sup>209</sup>Bi(p, 4np), E < 2.6 GeV; Pb(n, X)<sup>196</sup>Au / <sup>95</sup>Zr, E  $\approx$  70-180 MeV; measured excitation functions. Comparison with model predictions. REPT NEA/NSC/DOC(2004)14,P28,Michel
- 2005AD01 NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- <sup>196</sup>Pb 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631
- <sup>196</sup>Bi 2004KE15 NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608

**A=196 (continued)**

- 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>196</sup>Po 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>196</sup>At 2005DE01 RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243

**A=197**

- <sup>197</sup>Ir 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $T_{1/2}$ . <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ . JOUR ZAANE 23 201
- <sup>197</sup>Au 2004GA57 NUCLEAR REACTIONS <sup>185</sup>Re, <sup>191</sup>Ir, <sup>197</sup>Au( $\gamma$ , n), E=22 MeV bremsstrahlung; <sup>185</sup>Re, <sup>191</sup>Ir, <sup>197</sup>Au(n, 2n), E=14.7 MeV; <sup>181</sup>Ta( $\alpha$ , n), E=18 MeV; <sup>190</sup>Os, <sup>196</sup>Pt(d, n), E=13, 14 MeV; measured  $E\gamma$ ,  $I\gamma$ ; deduced isomer production ratios. Activation method. JOUR BRSPE 68 187
- 2004YU11 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>55</sup>Ni, <sup>55</sup>Ni'), E=84.8 MeV; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin following projectile Coulomb excitation. <sup>55</sup>Ni deduced level, transition B(E2). Comparison with model predictions. JOUR PRVCA 70 064321
- 2005W001 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>84</sup>Kr, <sup>84</sup>Kr'), (<sup>56</sup>Cr, <sup>56</sup>Cr'), (<sup>108</sup>Sn, <sup>108</sup>Sn'), E=113-142 MeV / nucleon; measured  $E\gamma$ ,  $I\gamma$  following projectile Coulomb excitation. <sup>84</sup>Kr, <sup>56</sup>Cr, <sup>108</sup>Sn deduced transitions. <sup>9</sup>Be(<sup>55</sup>Ni, X)<sup>54</sup>Co / <sup>52</sup>Fe / <sup>50</sup>Cr, E=171 MeV / nucleon; measured  $E\gamma$ ,  $I\gamma$ , (particle) $\gamma$ -coin. JOUR NIMAE 537 637
- <sup>197</sup>Hg 2003MB03 NUCLEAR REACTIONS <sup>198</sup>Pt, <sup>198</sup>Hg( $\gamma$ , n), E=8-17 MeV; measured  $E\gamma$ ,  $I\gamma$ , isomer yield ratios. Comparison with model predictions. JOUR UKPJA 48 403
- <sup>197</sup>Pb 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR NIMAE 479 631

**A=197 (continued)**

- <sup>197</sup>Bi      2004KE15      NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- 2005DE01      RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243
- <sup>197</sup>Po      2002DU22      RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR NIMAE 479 631
- <sup>197</sup>At      2005DE01      RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243
- 2005UU02      RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnyp $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnyp $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>197</sup>Rn      2005UU02      RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnyp $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnyp $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=198**

- <sup>198</sup>Ir      2005CA02      RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $T_{1/2}$ . <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ . JOUR ZAANE 23 201
- <sup>198</sup>Au      2004ADZW      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16,Adam
- 2005AD01      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61

**A=198 (continued)**

- <sup>198</sup>Bi 2004KE15 NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- <sup>198</sup>Po 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR NIMAE 479 631
- 2005J003 NUCLEAR REACTIONS <sup>174</sup>Yb(<sup>29</sup>Si, 5n), E=148 MeV; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin. <sup>198</sup>Po deduced spin-energy entry distributions for superdeformed and normal-deformed rotational bands. Gammasphere array. JOUR PRVCA 71 024317
- <sup>198</sup>At 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ )], <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>198</sup>Rn 2005UU02 NUCLEAR REACTIONS <sup>141</sup>Pr(<sup>65</sup>Cu, xnypz $\alpha$ ), E=283-293 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>199,200,201</sup>Rn, <sup>202,203,204</sup>Fr, <sup>203,204</sup>Ra. <sup>141</sup>Pr(<sup>63</sup>Cu, xnypz $\alpha$ ), E=278-288 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>198,199,200,201,202</sup>Rn, <sup>201,202</sup>Fr, <sup>201,202</sup>Ra. <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), E=180-185 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>201</sup>Fr, <sup>203</sup>Ra. Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ )], <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=199**

- <sup>199</sup>Ir 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $T_{1/2}$ . <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured  $E\gamma$ ,  $I\gamma$ . JOUR ZAANE 23 201
- <sup>199</sup>Bi 2004KE15 NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608

**A=199 (continued)**

- <sup>199</sup>Po 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631
- <sup>199</sup>At 2005DE01 RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243
- 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>199</sup>Rn 2005UU02 NUCLEAR REACTIONS <sup>141</sup>Pr(<sup>65</sup>Cu, xnypz $\alpha$ ), E=283-293 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>199,200,201</sup>Rn, <sup>202,203,204</sup>Fr, <sup>203,204</sup>Ra. <sup>141</sup>Pr(<sup>63</sup>Cu, xnypz $\alpha$ ), E=278-288 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>198,199,200,201,202</sup>Rn, <sup>201,202</sup>Fr, <sup>201,202</sup>Ra. <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), E=180-185 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>201</sup>Fr, <sup>203</sup>Ra. Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=200**

- <sup>200</sup>Pt 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201
- <sup>200</sup>Bi 2004KE15 NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- <sup>200</sup>Po 2002DU22 RADIOACTIVITY <sup>197,197m,198,199m,200,201m</sup>Po( $\alpha$ ); <sup>172,173</sup>Os( $\alpha$ ) [from <sup>156</sup>Dy(<sup>22</sup>Ne, xn)]; <sup>183,184,185</sup>Hg( $\alpha$ ) [from <sup>168</sup>Yb(<sup>22</sup>Ne, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR NIMAE 479 631

**A=200 (continued)**

- <sup>200</sup>At      2005UU02      RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>200</sup>Rn      2005UU02      NUCLEAR REACTIONS <sup>141</sup>Pr(<sup>65</sup>Cu, xnypz $\alpha$ ), E=283-293 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>199,200,201</sup>Rn, <sup>202,203,204</sup>Fr, <sup>203,204</sup>Ra. <sup>141</sup>Pr(<sup>63</sup>Cu, xnypz $\alpha$ ), E=278-288 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>198,199,200,201,202</sup>Rn, <sup>201,202</sup>Fr, <sup>201,202</sup>Ra. <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), E=180-185 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for <sup>201</sup>Fr, <sup>203</sup>Ra. Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02      RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At( $\alpha$ ) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypz $\alpha$ ), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypz $\alpha$ ), and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>,  $\alpha\alpha$ -coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- <sup>200</sup>Fr      2005DE01      RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi( $\alpha$ ) [from Th(p, X) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J,  $\pi$ . JOUR ZAANE 23 243

**A=201**

- <sup>201</sup>Pt      2005CA02      RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J,  $\pi$ . <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured E $\gamma$ , I $\gamma$ . JOUR ZAANE 23 201
- <sup>201</sup>Bi      2004ADZW      NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16,Adam
- 2004KE15      NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608



A=201 (*continued*)

- 2005AD01 NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, p)$ ,  $(n, 6n2p)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ , E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- $^{201}\text{Po}$  2002DU22 RADIOACTIVITY  $^{197,197m,198,199m,200,201m}\text{Po}(\alpha)$ ;  $^{172,173}\text{Os}(\alpha)$  [from  $^{156}\text{Dy}(^{22}\text{Ne}, xn)$ ];  $^{183,184,185}\text{Hg}(\alpha)$  [from  $^{168}\text{Yb}(^{22}\text{Ne}, xn)$ ]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR NIMAE 479 631
- $^{201}\text{At}$  2005DE01 RADIOACTIVITY  $^{200,201,203,205}\text{Fr}$ ,  $^{196,197,199,201}\text{At}$ ,  $^{193}\text{Bi}(\alpha)$  [from  $\text{Th}(p, X)$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ .  $^{201}\text{Fr}$ ,  $^{197}\text{At}$ ,  $^{193}\text{Bi}$ ,  $^{189}\text{Tl}$  deduced levels,  $J$ ,  $\pi$ . JOUR ZAANE 23 243
- $^{201}\text{Rn}$  2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, xnypz\alpha)$ ,  $E=283\text{-}293$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, xnypz\alpha)$ ,  $E=278\text{-}288$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, xnypz\alpha)$ ,  $E=180\text{-}185$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306
- $^{201}\text{Fr}$  2005DE01 RADIOACTIVITY  $^{200,201,203,205}\text{Fr}$ ,  $^{196,197,199,201}\text{At}$ ,  $^{193}\text{Bi}(\alpha)$  [from  $\text{Th}(p, X)$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ .  $^{201}\text{Fr}$ ,  $^{197}\text{At}$ ,  $^{193}\text{Bi}$ ,  $^{189}\text{Tl}$  deduced levels,  $J$ ,  $\pi$ . JOUR ZAANE 23 243
- 2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, xnypz\alpha)$ ,  $E=283\text{-}293$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, xnypz\alpha)$ ,  $E=278\text{-}288$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, xnypz\alpha)$ ,  $E=180\text{-}185$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY  $^{201,202,203,204}\text{Ra}$ ,  $^{197,198,199,200}\text{Rn}$ ,  $^{193,194,195,196}\text{Po}$ ,  $^{201,202,203,204}\text{Fr}$ ,  $^{197,198,199,200}\text{At}(\alpha)$  [from  $^{141}\text{Pr}(^{63,65}\text{Cu}, xnypz\alpha)$ ,  $^{170}\text{Yb}(^{36}\text{Ar}, xnypz\alpha)$ , and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha^-$ -coin for ground and metastable state decay.  $^{193,195}\text{Bi}$ ,  $^{197,199}\text{At}$ ,  $^{201,203}\text{Fr}$  deduced levels,  $J$ ,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- $^{201}\text{Ra}$  2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, xnypz\alpha)$ ,  $E=283\text{-}293$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, xnypz\alpha)$ ,  $E=278\text{-}288$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, xnypz\alpha)$ ,  $E=180\text{-}185$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306

**A=201 (continued)**

2005UU02 RADIOACTIVITY  $^{201,202,203,204}\text{Ra}$ ,  $^{197,198,199,200}\text{Rn}$ ,  $^{193,194,195,196}\text{Po}$ ,  $^{201,202,203,204}\text{Fr}$ ,  $^{197,198,199,200}\text{At}(\alpha)$  [from  $^{141}\text{Pr}(^{63,65}\text{Cu}, \text{xnypz}\alpha)$ ,  $^{170}\text{Yb}(^{36}\text{Ar}, \text{xnypz}\alpha)$ , and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay.  $^{193,195}\text{Bi}$ ,  $^{197,199}\text{At}$ ,  $^{201,203}\text{Fr}$  deduced levels,  $J$ ,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=202**

- $^{202}\text{Pt}$  2005CA02 RADIOACTIVITY  $^{188}\text{Ta}$ ,  $^{190}\text{W}$ ,  $^{192,193}\text{Re}$ ,  $^{195}\text{Os}$ ,  $^{197,198}\text{Ir}$ ,  $^{200,201,202}\text{Pt}$ ,  $^{203}\text{Au}(\text{IT})$  [from  $\text{Be}(^{208}\text{Pb}, \text{X})$ ]; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $T_{1/2}$ .  $^{188}\text{Ta}$ ,  $^{190}\text{W}$ ,  $^{192,193}\text{Re}$ ,  $^{195}\text{Os}$ ,  $^{197,198}\text{Ir}$ ,  $^{200,201,202}\text{Pt}$ ,  $^{203}\text{Au}$  deduced transitions.  $^{190}\text{W}$ ,  $^{200,201,202}\text{Pt}$  deduced levels,  $J$ ,  $\pi$ .  $^{174,175}\text{Er}$ ,  $^{185}\text{Hf}$ ,  $^{191,194}\text{Re}$ ,  $^{199}\text{Ir}(\text{IT})$  [from  $\text{Be}(^{208}\text{Pb}, \text{X})$ ]; measured  $E\gamma$ ,  $I\gamma$ . JOUR ZAANE 23 201
- $^{202}\text{Bi}$  2004KE15 NUCLEAR REACTIONS  $^{1,2}\text{H}$ ,  $\text{Ti}(^{208}\text{Pb}, \text{X})^{193}\text{Bi} / ^{194}\text{Bi} / ^{195}\text{Bi} / ^{196}\text{Bi} / ^{197}\text{Bi} / ^{198}\text{Bi} / ^{199}\text{Bi} / ^{200}\text{Bi} / ^{201}\text{Bi} / ^{202}\text{Bi} / ^{203}\text{Bi} / ^{204}\text{Bi} / ^{205}\text{Bi} / ^{206}\text{Bi} / ^{207}\text{Bi} / ^{208}\text{Bi}$ ,  $E=1$  GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- $^{202}\text{Rn}$  2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, \text{xnypz}\alpha)$ ,  $E=283\text{-}293$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, \text{xnypz}\alpha)$ ,  $E=278\text{-}288$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, \text{xnypz}\alpha)$ ,  $E=180\text{-}185$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306
- $^{202}\text{Fr}$  2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, \text{xnypz}\alpha)$ ,  $E=283\text{-}293$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, \text{xnypz}\alpha)$ ,  $E=278\text{-}288$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, \text{xnypz}\alpha)$ ,  $E=180\text{-}185$  MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY  $^{201,202,203,204}\text{Ra}$ ,  $^{197,198,199,200}\text{Rn}$ ,  $^{193,194,195,196}\text{Po}$ ,  $^{201,202,203,204}\text{Fr}$ ,  $^{197,198,199,200}\text{At}(\alpha)$  [from  $^{141}\text{Pr}(^{63,65}\text{Cu}, \text{xnypz}\alpha)$ ,  $^{170}\text{Yb}(^{36}\text{Ar}, \text{xnypz}\alpha)$ , and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay.  $^{193,195}\text{Bi}$ ,  $^{197,199}\text{At}$ ,  $^{201,203}\text{Fr}$  deduced levels,  $J$ ,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=202 (continued)**

- <sup>202</sup>Ra 2005UU02 NUCLEAR REACTIONS <sup>141</sup>Pr(<sup>65</sup>Cu, xnypzα), E=283-293 MeV; measured delayed Eα, Iα, αα-, (recoil)α-coin; deduced evidence for <sup>199,200,201</sup>Rn, <sup>202,203,204</sup>Fr, <sup>203,204</sup>Ra. <sup>141</sup>Pr(<sup>63</sup>Cu, xnypzα), E=278-288 MeV; measured delayed Eα, Iα, αα-, (recoil)α-coin; deduced evidence for <sup>198,199,200,201,202</sup>Rn, <sup>201,202</sup>Fr, <sup>201,202</sup>Ra. <sup>170</sup>Yb(<sup>36</sup>Ar, xnypzα), E=180-185 MeV; measured delayed Eα, Iα, αα-, (recoil)α-coin; deduced evidence for <sup>201</sup>Fr, <sup>203</sup>Ra. Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY <sup>201,202,203,204</sup>Ra, <sup>197,198,199,200</sup>Rn, <sup>193,194,195,196</sup>Po, <sup>201,202,203,204</sup>Fr, <sup>197,198,199,200</sup>At(α) [from <sup>141</sup>Pr(<sup>63,65</sup>Cu, xnypzα), <sup>170</sup>Yb(<sup>36</sup>Ar, xnypzα), and subsequent decay]; measured Eα, T<sub>1/2</sub>, αα-coin for ground and metastable state decay. <sup>193,195</sup>Bi, <sup>197,199</sup>At, <sup>201,203</sup>Fr deduced levels, J, π. Comparisons with previous results. JOUR PRVCA 71 024306

**A=203**

- <sup>203</sup>Au 2005CA02 RADIOACTIVITY <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au(IT) [from Be(<sup>208</sup>Pb, X)]; measured Eγ, Iγ, γγ-coin, T<sub>1/2</sub>. <sup>188</sup>Ta, <sup>190</sup>W, <sup>192,193</sup>Re, <sup>195</sup>Os, <sup>197,198</sup>Ir, <sup>200,201,202</sup>Pt, <sup>203</sup>Au deduced transitions. <sup>190</sup>W, <sup>200,201,202</sup>Pt deduced levels, J, π. <sup>174,175</sup>Er, <sup>185</sup>Hf, <sup>191,194</sup>Re, <sup>199</sup>Ir(IT) [from Be(<sup>208</sup>Pb, X)]; measured Eγ, Iγ. JOUR ZAANE 23 201
- <sup>203</sup>Tl 2004MB03 NUCLEAR MOMENTS <sup>113,115</sup>In, <sup>153,155</sup>Eu, <sup>185,187</sup>Re, <sup>203,205</sup>Tl, <sup>209,211</sup>Fr; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPE 68 157
- <sup>203</sup>Bi 2004ADZW NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n, γ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, γ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, γ), (n, p), (n, 6n2p), E=spectrum; measured Eγ, Iγ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16,Adam
- 2004KE15 NUCLEAR REACTIONS <sup>1,2</sup>H, Ti(<sup>208</sup>Pb, X)<sup>193</sup>Bi / <sup>194</sup>Bi / <sup>195</sup>Bi / <sup>196</sup>Bi / <sup>197</sup>Bi / <sup>198</sup>Bi / <sup>199</sup>Bi / <sup>200</sup>Bi / <sup>201</sup>Bi / <sup>202</sup>Bi / <sup>203</sup>Bi / <sup>204</sup>Bi / <sup>205</sup>Bi / <sup>206</sup>Bi / <sup>207</sup>Bi / <sup>208</sup>Bi, E=1 GeV / nucleon; measured charge-pickup σ, velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- 2005AD01 NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n, γ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n, γ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured Eγ, Iγ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- <sup>203</sup>Fr 2005DE01 RADIOACTIVITY <sup>200,201,203,205</sup>Fr, <sup>196,197,199,201</sup>At, <sup>193</sup>Bi(α) [from Th(p, X) and subsequent decay]; measured Eα, T<sub>1/2</sub>. <sup>201</sup>Fr, <sup>197</sup>At, <sup>193</sup>Bi, <sup>189</sup>Tl deduced levels, J, π. JOUR ZAANE 23 243

**A=203 (continued)**

- 2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, \text{xnypz}\alpha)$ , E=283-293 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, \text{xnypz}\alpha)$ , E=278-288 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, \text{xnypz}\alpha)$ , E=180-185 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY  $^{201,202,203,204}\text{Ra}$ ,  $^{197,198,199,200}\text{Rn}$ ,  $^{193,194,195,196}\text{Po}$ ,  $^{201,202,203,204}\text{Fr}$ ,  $^{197,198,199,200}\text{At}(\alpha)$  [from  $^{141}\text{Pr}(^{63,65}\text{Cu}, \text{xnypz}\alpha)$ ,  $^{170}\text{Yb}(^{36}\text{Ar}, \text{xnypz}\alpha)$ , and subsequent decay]; measured E $\alpha$ , T $_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay.  $^{193,195}\text{Bi}$ ,  $^{197,199}\text{At}$ ,  $^{201,203}\text{Fr}$  deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- $^{203}\text{Ra}$  2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, \text{xnypz}\alpha)$ , E=283-293 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, \text{xnypz}\alpha)$ , E=278-288 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, \text{xnypz}\alpha)$ , E=180-185 MeV; measured delayed E $\alpha$ , I $\alpha$ ,  $\alpha\alpha$ -, (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY  $^{201,202,203,204}\text{Ra}$ ,  $^{197,198,199,200}\text{Rn}$ ,  $^{193,194,195,196}\text{Po}$ ,  $^{201,202,203,204}\text{Fr}$ ,  $^{197,198,199,200}\text{At}(\alpha)$  [from  $^{141}\text{Pr}(^{63,65}\text{Cu}, \text{xnypz}\alpha)$ ,  $^{170}\text{Yb}(^{36}\text{Ar}, \text{xnypz}\alpha)$ , and subsequent decay]; measured E $\alpha$ , T $_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay.  $^{193,195}\text{Bi}$ ,  $^{197,199}\text{At}$ ,  $^{201,203}\text{Fr}$  deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=204**

- $^{204}\text{Bi}$  2004ADZW NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, \gamma)$ ,  $(n, p)$ ,  $(n, 6n2p)$ , E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2004KE15 NUCLEAR REACTIONS  $^1\text{H}$ , Ti( $^{208}\text{Pb}$ , X) $^{193}\text{Bi}$  /  $^{194}\text{Bi}$  /  $^{195}\text{Bi}$  /  $^{196}\text{Bi}$  /  $^{197}\text{Bi}$  /  $^{198}\text{Bi}$  /  $^{199}\text{Bi}$  /  $^{200}\text{Bi}$  /  $^{201}\text{Bi}$  /  $^{202}\text{Bi}$  /  $^{203}\text{Bi}$  /  $^{204}\text{Bi}$  /  $^{205}\text{Bi}$  /  $^{206}\text{Bi}$  /  $^{207}\text{Bi}$  /  $^{208}\text{Bi}$ , E=1 GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608

**A=204 (continued)**

- 2005AD01 NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, p)$ ,  $(n, 6n2p)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ , E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- $^{204}\text{Fr}$  2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, xnypz\alpha)$ , E=283-293 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, xnypz\alpha)$ , E=278-288 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, xnypz\alpha)$ , E=180-185 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY  $^{201,202,203,204}\text{Ra}$ ,  $^{197,198,199,200}\text{Rn}$ ,  $^{193,194,195,196}\text{Po}$ ,  $^{201,202,203,204}\text{Fr}$ ,  $^{197,198,199,200}\text{At}(\alpha)$  [from  $^{141}\text{Pr}(^{63,65}\text{Cu}, xnypz\alpha)$ ,  $^{170}\text{Yb}(^{36}\text{Ar}, xnypz\alpha)$ , and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay.  $^{193,195}\text{Bi}$ ,  $^{197,199}\text{At}$ ,  $^{201,203}\text{Fr}$  deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306
- $^{204}\text{Ra}$  2005UU02 NUCLEAR REACTIONS  $^{141}\text{Pr}(^{65}\text{Cu}, xnypz\alpha)$ , E=283-293 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{199,200,201}\text{Rn}$ ,  $^{202,203,204}\text{Fr}$ ,  $^{203,204}\text{Ra}$ .  $^{141}\text{Pr}(^{63}\text{Cu}, xnypz\alpha)$ , E=278-288 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{198,199,200,201,202}\text{Rn}$ ,  $^{201,202}\text{Fr}$ ,  $^{201,202}\text{Ra}$ .  $^{170}\text{Yb}(^{36}\text{Ar}, xnypz\alpha)$ , E=180-185 MeV; measured delayed  $E\alpha$ ,  $I\alpha$ ,  $\alpha\alpha^-$ , (recoil) $\alpha$ -coin; deduced evidence for  $^{201}\text{Fr}$ ,  $^{203}\text{Ra}$ . Gas-filled recoil separator. JOUR PRVCA 71 024306
- 2005UU02 RADIOACTIVITY  $^{201,202,203,204}\text{Ra}$ ,  $^{197,198,199,200}\text{Rn}$ ,  $^{193,194,195,196}\text{Po}$ ,  $^{201,202,203,204}\text{Fr}$ ,  $^{197,198,199,200}\text{At}(\alpha)$  [from  $^{141}\text{Pr}(^{63,65}\text{Cu}, xnypz\alpha)$ ,  $^{170}\text{Yb}(^{36}\text{Ar}, xnypz\alpha)$ , and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ,  $\alpha\alpha$ -coin for ground and metastable state decay.  $^{193,195}\text{Bi}$ ,  $^{197,199}\text{At}$ ,  $^{201,203}\text{Fr}$  deduced levels, J,  $\pi$ . Comparisons with previous results. JOUR PRVCA 71 024306

**A=205**

- $^{205}\text{Tl}$  2004MB03 NUCLEAR MOMENTS  $^{113,115}\text{In}$ ,  $^{153,155}\text{Eu}$ ,  $^{185,187}\text{Re}$ ,  $^{203,205}\text{Tl}$ ,  $^{209,211}\text{Fr}$ ; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPE 68 157
- $^{205}\text{Bi}$  2004ADZW NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, \gamma)$ ,  $(n, p)$ ,  $(n, 6n2p)$ , E=spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam

**A=205 (continued)**

- 2004KE15 NUCLEAR REACTIONS  $^1,2\text{H}$ ,  $\text{Ti}(^{208}\text{Pb}, \text{X})^{193}\text{Bi}$  /  $^{194}\text{Bi}$  /  $^{195}\text{Bi}$  /  $^{196}\text{Bi}$  /  $^{197}\text{Bi}$  /  $^{198}\text{Bi}$  /  $^{199}\text{Bi}$  /  $^{200}\text{Bi}$  /  $^{201}\text{Bi}$  /  $^{202}\text{Bi}$  /  $^{203}\text{Bi}$  /  $^{204}\text{Bi}$  /  $^{205}\text{Bi}$  /  $^{206}\text{Bi}$  /  $^{207}\text{Bi}$  /  $^{208}\text{Bi}$ ,  $E=1$  GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- 2004MIZS NUCLEAR REACTIONS  $\text{Fe}(p, \text{X})^{52}\text{Mn}$ ,  $E < 2.6$  GeV;  $\text{Pb}(p, \text{X})^{10}\text{Be}$ ,  $E < 2.6$  GeV;  $^{209}\text{Bi}(p, 4np)$ ,  $E < 2.6$  GeV;  $\text{Pb}(n, \text{X})^{196}\text{Au}$  /  $^{95}\text{Zr}$ ,  $E \approx 70$ -180 MeV; measured excitation functions. Comparison with model predictions. REPT NEA/NSC/DOC(2004)14,P28,Michel
- 2005AD01 NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, p)$ ,  $(n, 6n2p)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $E$ =spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- $^{205}\text{Fr}$  2005DE01 RADIOACTIVITY  $^{200,201,203,205}\text{Fr}$ ,  $^{196,197,199,201}\text{At}$ ,  $^{193}\text{Bi}(\alpha)$  [from  $\text{Th}(p, \text{X})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ .  $^{201}\text{Fr}$ ,  $^{197}\text{At}$ ,  $^{193}\text{Bi}$ ,  $^{189}\text{Tl}$  deduced levels,  $J$ ,  $\pi$ . JOUR ZAANE 23 243

**A=206**

- $^{206}\text{Bi}$  2004ADZW NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, \gamma)$ ,  $(n, p)$ ,  $(n, 6n2p)$ ,  $E$ =spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates.  $\text{Pb}(p, n\text{X})$ ,  $E=1$  GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16,Adam
- 2004KE15 NUCLEAR REACTIONS  $^1,2\text{H}$ ,  $\text{Ti}(^{208}\text{Pb}, \text{X})^{193}\text{Bi}$  /  $^{194}\text{Bi}$  /  $^{195}\text{Bi}$  /  $^{196}\text{Bi}$  /  $^{197}\text{Bi}$  /  $^{198}\text{Bi}$  /  $^{199}\text{Bi}$  /  $^{200}\text{Bi}$  /  $^{201}\text{Bi}$  /  $^{202}\text{Bi}$  /  $^{203}\text{Bi}$  /  $^{204}\text{Bi}$  /  $^{205}\text{Bi}$  /  $^{206}\text{Bi}$  /  $^{207}\text{Bi}$  /  $^{208}\text{Bi}$ ,  $E=1$  GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- 2005AD01 NUCLEAR REACTIONS  $^{209}\text{Bi}(n, 4n)$ ,  $(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, 9n)$ ,  $^{232}\text{Th}(n, \gamma)$ ,  $^{197}\text{Au}(n, 2n)$ ,  $(n, 4n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $(n, \gamma)$ ,  $^{59}\text{Co}(n, 2n)$ ,  $(n, 3n)$ ,  $(n, 4n)$ ,  $(n, 5n)$ ,  $(n, p)$ ,  $(n, 6n2p)$ ,  $^{115}\text{In}(n, 5n)$ ,  $(n, 6n)$ ,  $(n, 7n)$ ,  $E$ =spectrum; measured  $E\gamma$ ,  $I\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- $^{206}\text{At}$  2005KU06 RADIOACTIVITY  $^{210,211,212,213,214}\text{Fr}(\alpha)$  [from  $^{209}\text{Bi}(^{12}\text{C}, xn)$  and subsequent decay]; measured  $E\alpha$ ,  $I\alpha$ ,  $E\gamma$ ,  $I\gamma$ ,  $\alpha\gamma$ -coin,  $T_{1/2}$ ; deduced hindrance factors.  $^{206,207,208,209,210}\text{At}$  deduced levels,  $J$ ,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417

## A=207

- $^{207}\text{Pb}$  2005WA06 NUCLEAR MOMENTS  $^{207}\text{Pb}$ ; measured hfs. Comparison with previous results and model predictions. JOUR PHSTB 71 274
- $^{207}\text{Bi}$  2004KE15 NUCLEAR REACTIONS  $^{1,2}\text{H}$ ,  $\text{Ti}(^{208}\text{Pb}, \text{X})^{193}\text{Bi}$  /  $^{194}\text{Bi}$  /  $^{195}\text{Bi}$  /  $^{196}\text{Bi}$  /  $^{197}\text{Bi}$  /  $^{198}\text{Bi}$  /  $^{199}\text{Bi}$  /  $^{200}\text{Bi}$  /  $^{201}\text{Bi}$  /  $^{202}\text{Bi}$  /  $^{203}\text{Bi}$  /  $^{204}\text{Bi}$  /  $^{205}\text{Bi}$  /  $^{206}\text{Bi}$  /  $^{207}\text{Bi}$  /  $^{208}\text{Bi}$ ,  $E=1$  GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- $^{207}\text{At}$  2005KU06 RADIOACTIVITY  $^{210,211,212,213,214}\text{Fr}(\alpha)$  [from  $^{209}\text{Bi}(^{12}\text{C}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $I\alpha$ ,  $E\gamma$ ,  $I\gamma$ ,  $\alpha\gamma$ -coin,  $T_{1/2}$ ; deduced hindrance factors.  $^{206,207,208,209,210}\text{At}$  deduced levels,  $J$ ,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417

## A=208

- $^{208}\text{Pb}$  2002LI68 NUCLEAR REACTIONS  $^{208}\text{Pb}(^{19}\text{F}, ^{19}\text{F})$ ,  $E=88-102$  MeV; measured  $\sigma(\theta)$ ; deduced parameters, role of deformation in fusion reactions, threshold anomaly. JOUR JNRS 3, No 1, 27
- 2005T0ZZ NUCLEAR REACTIONS  $^{208}\text{Pb}(^{27}\text{P}, \text{p}^{26}\text{Si})$ ,  $E=57$  MeV / nucleon; measured relative energy spectrum,  $\sigma(E)$ .  $^{27}\text{P}$  deduced gamma decay width of first excited state. CONF Riken(Origin of Matter) Proc, P549, Togano
- $^{208}\text{Bi}$  2004KE15 NUCLEAR REACTIONS  $^{1,2}\text{H}$ ,  $\text{Ti}(^{208}\text{Pb}, \text{X})^{193}\text{Bi}$  /  $^{194}\text{Bi}$  /  $^{195}\text{Bi}$  /  $^{196}\text{Bi}$  /  $^{197}\text{Bi}$  /  $^{198}\text{Bi}$  /  $^{199}\text{Bi}$  /  $^{200}\text{Bi}$  /  $^{201}\text{Bi}$  /  $^{202}\text{Bi}$  /  $^{203}\text{Bi}$  /  $^{204}\text{Bi}$  /  $^{205}\text{Bi}$  /  $^{206}\text{Bi}$  /  $^{207}\text{Bi}$  /  $^{208}\text{Bi}$ ,  $E=1$  GeV / nucleon; measured charge-pickup  $\sigma$ , velocity distributions; deduced reaction mechanism features. Comparison with model predictions and previous results. JOUR PRVCA 70 064608
- $^{208}\text{At}$  2005KU06 RADIOACTIVITY  $^{210,211,212,213,214}\text{Fr}(\alpha)$  [from  $^{209}\text{Bi}(^{12}\text{C}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $I\alpha$ ,  $E\gamma$ ,  $I\gamma$ ,  $\alpha\gamma$ -coin,  $T_{1/2}$ ; deduced hindrance factors.  $^{206,207,208,209,210}\text{At}$  deduced levels,  $J$ ,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417
- $^{208}\text{Fr}$  2005C002 NUCLEAR REACTIONS  $^{197}\text{Au}(^{18}\text{O}, 4\text{n})$ ,  $(^{18}\text{O}, 5\text{n})$ ,  $(^{18}\text{O}, 6\text{n})$ ,  $(^{18}\text{O}, 7\text{n})$ ,  $E=75-130$  MeV; measured delayed  $E\alpha$ , excitation functions. Comparison with model predictions. JOUR PRVCA 71 014609
- $^{208}\text{Ra}$  2005RE02 NUCLEAR REACTIONS  $^{182}\text{W}(^{30}\text{Si}, 4\text{n})$ ,  $E=151$  MeV; measured delayed  $E\gamma$ ,  $I\gamma$ , (recoil) $\gamma$ -coin.  $^{208}\text{Ra}$  deduced levels,  $J$ ,  $\pi$ , isomeric state  $T_{1/2}$ .  $^{182,183,184,186}\text{W}(^{30}\text{Si}, \text{X})^{210}\text{Ra}$  /  $^{209}\text{Ra}$  /  $^{208}\text{Ra}$  /  $^{209}\text{Fr}$ ,  $E=151$  MeV; measured delayed  $E\gamma$ ,  $I\gamma$ , (recoil) $\gamma$ -coin.  $^{209}\text{Fr}$ ,  $^{209,210}\text{Ra}$  deduced transitions. Level systematics in neighboring nuclides discussed. JOUR PRVCA 71 014302

**A=209**

- <sup>209</sup>At 2005KU06 RADIOACTIVITY <sup>210,211,212,213,214</sup>Fr( $\alpha$ ) [from <sup>209</sup>Bi(<sup>12</sup>C, xn) and subsequent decay]; measured E $\alpha$ , I $\alpha$ , E $\gamma$ , I $\gamma$ ,  $\alpha\gamma$ -coin, T<sub>1/2</sub>; deduced hindrance factors. <sup>206,207,208,209,210</sup>At deduced levels, J,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417
- <sup>209</sup>Fr 2004MB03 NUCLEAR MOMENTS <sup>113,115</sup>In, <sup>153,155</sup>Eu, <sup>185,187</sup>Re, <sup>203,205</sup>Tl, <sup>209,211</sup>Fr; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPE 68 157
- 2005C002 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>18</sup>O, 4n), (<sup>18</sup>O, 5n), (<sup>18</sup>O, 6n), (<sup>18</sup>O, 7n), E=75-130 MeV; measured delayed E $\alpha$ , excitation functions. Comparison with model predictions. JOUR PRVCA 71 014609
- 2005RE02 NUCLEAR REACTIONS <sup>182</sup>W(<sup>30</sup>Si, 4n), E=151 MeV; measured delayed E $\gamma$ , I $\gamma$ , (recoil) $\gamma$ -coin. <sup>208</sup>Ra deduced levels, J,  $\pi$ , isomeric state T<sub>1/2</sub>. <sup>182,183,184,186</sup>W(<sup>30</sup>Si, X)<sup>210</sup>Ra / <sup>209</sup>Ra / <sup>208</sup>Ra / <sup>209</sup>Fr, E=151 MeV; measured delayed E $\gamma$ , I $\gamma$ , (recoil) $\gamma$ -coin. <sup>209</sup>Fr, <sup>209,210</sup>Ra deduced transitions. Level systematics in neighboring nuclides discussed. JOUR PRVCA 71 014302
- <sup>209</sup>Ra 2005RE02 NUCLEAR REACTIONS <sup>182</sup>W(<sup>30</sup>Si, 4n), E=151 MeV; measured delayed E $\gamma$ , I $\gamma$ , (recoil) $\gamma$ -coin. <sup>208</sup>Ra deduced levels, J,  $\pi$ , isomeric state T<sub>1/2</sub>. <sup>182,183,184,186</sup>W(<sup>30</sup>Si, X)<sup>210</sup>Ra / <sup>209</sup>Ra / <sup>208</sup>Ra / <sup>209</sup>Fr, E=151 MeV; measured delayed E $\gamma$ , I $\gamma$ , (recoil) $\gamma$ -coin. <sup>209</sup>Fr, <sup>209,210</sup>Ra deduced transitions. Level systematics in neighboring nuclides discussed. JOUR PRVCA 71 014302

**A=210**

- <sup>210</sup>Bi 2004RA29 NUCLEAR REACTIONS <sup>208</sup>Pb, <sup>209</sup>Bi(n,  $\gamma$ ), E=spectrum; measured  $\sigma$ . Astrophysical implications discussed. Activation technique. JOUR PRVCA 70 065803
- <sup>210</sup>At 2005KU06 RADIOACTIVITY <sup>210,211,212,213,214</sup>Fr( $\alpha$ ) [from <sup>209</sup>Bi(<sup>12</sup>C, xn) and subsequent decay]; measured E $\alpha$ , I $\alpha$ , E $\gamma$ , I $\gamma$ ,  $\alpha\gamma$ -coin, T<sub>1/2</sub>; deduced hindrance factors. <sup>206,207,208,209,210</sup>At deduced levels, J,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417
- <sup>210</sup>Fr 2005C002 NUCLEAR REACTIONS <sup>197</sup>Au(<sup>18</sup>O, 4n), (<sup>18</sup>O, 5n), (<sup>18</sup>O, 6n), (<sup>18</sup>O, 7n), E=75-130 MeV; measured delayed E $\alpha$ , excitation functions. Comparison with model predictions. JOUR PRVCA 71 014609
- 2005KU06 RADIOACTIVITY <sup>210,211,212,213,214</sup>Fr( $\alpha$ ) [from <sup>209</sup>Bi(<sup>12</sup>C, xn) and subsequent decay]; measured E $\alpha$ , I $\alpha$ , E $\gamma$ , I $\gamma$ ,  $\alpha\gamma$ -coin, T<sub>1/2</sub>; deduced hindrance factors. <sup>206,207,208,209,210</sup>At deduced levels, J,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417
- <sup>210</sup>Ra 2005RE02 NUCLEAR REACTIONS <sup>182</sup>W(<sup>30</sup>Si, 4n), E=151 MeV; measured delayed E $\gamma$ , I $\gamma$ , (recoil) $\gamma$ -coin. <sup>208</sup>Ra deduced levels, J,  $\pi$ , isomeric state T<sub>1/2</sub>. <sup>182,183,184,186</sup>W(<sup>30</sup>Si, X)<sup>210</sup>Ra / <sup>209</sup>Ra / <sup>208</sup>Ra / <sup>209</sup>Fr, E=151 MeV; measured delayed E $\gamma$ , I $\gamma$ , (recoil) $\gamma$ -coin. <sup>209</sup>Fr, <sup>209,210</sup>Ra deduced transitions. Level systematics in neighboring nuclides discussed. JOUR PRVCA 71 014302



**A=211**

- $^{211}\text{Pb}$  2004LAZV NUCLEAR REACTIONS  $^{238}\text{U}(^{208}\text{Pb}, \text{X})^{211}\text{Pb}$ , E=1360 MeV; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin.  $^{211}\text{Pb}$  deduced high-spin levels, J,  $\pi$ , configurations, isomeric states T $_{1/2}$ . Gammasphere array. PREPRINT ANU-P/1637,Lane
- 2005LA01 NUCLEAR REACTIONS  $^{238}\text{U}(^{208}\text{Pb}, \text{X})^{211}\text{Pb}$ , E=1360 MeV; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin.  $^{211}\text{Pb}$  deduced high-spin levels, J,  $\pi$ , configurations, isomeric states T $_{1/2}$ . Gammasphere array. JOUR PYLBB 606 34
- $^{211}\text{Fr}$  2004MB03 NUCLEAR MOMENTS  $^{113,115}\text{In}$ ,  $^{153,155}\text{Eu}$ ,  $^{185,187}\text{Re}$ ,  $^{203,205}\text{Tl}$ ,  $^{209,211}\text{Fr}$ ; measured hfs; deduced hyperfine magnetic anomaly, relative radii. Laser resonance fluorescence. JOUR BRSPE 68 157
- 2005C002 NUCLEAR REACTIONS  $^{197}\text{Au}(^{18}\text{O}, 4\text{n})$ ,  $(^{18}\text{O}, 5\text{n})$ ,  $(^{18}\text{O}, 6\text{n})$ ,  $(^{18}\text{O}, 7\text{n})$ , E=75-130 MeV; measured delayed E $\alpha$ , excitation functions. Comparison with model predictions. JOUR PRVCA 71 014609
- 2005KU06 RADIOACTIVITY  $^{210,211,212,213,214}\text{Fr}(\alpha)$  [from  $^{209}\text{Bi}(^{12}\text{C}, \text{xn})$  and subsequent decay]; measured E $\alpha$ , I $\alpha$ , E $\gamma$ , I $\gamma$ ,  $\alpha\gamma$ -coin, T $_{1/2}$ ; deduced hindrance factors.  $^{206,207,208,209,210}\text{At}$  deduced levels, J,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417

**A=212**

- $^{212}\text{Fr}$  2005KU06 RADIOACTIVITY  $^{210,211,212,213,214}\text{Fr}(\alpha)$  [from  $^{209}\text{Bi}(^{12}\text{C}, \text{xn})$  and subsequent decay]; measured E $\alpha$ , I $\alpha$ , E $\gamma$ , I $\gamma$ ,  $\alpha\gamma$ -coin, T $_{1/2}$ ; deduced hindrance factors.  $^{206,207,208,209,210}\text{At}$  deduced levels, J,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417

**A=213**

- $^{213}\text{Fr}$  2005KU06 RADIOACTIVITY  $^{210,211,212,213,214}\text{Fr}(\alpha)$  [from  $^{209}\text{Bi}(^{12}\text{C}, \text{xn})$  and subsequent decay]; measured E $\alpha$ , I $\alpha$ , E $\gamma$ , I $\gamma$ ,  $\alpha\gamma$ -coin, T $_{1/2}$ ; deduced hindrance factors.  $^{206,207,208,209,210}\text{At}$  deduced levels, J,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417

**A=214**

- $^{214}\text{Fr}$  2005KU06 RADIOACTIVITY  $^{210,211,212,213,214}\text{Fr}(\alpha)$  [from  $^{209}\text{Bi}(^{12}\text{C}, \text{xn})$  and subsequent decay]; measured E $\alpha$ , I $\alpha$ , E $\gamma$ , I $\gamma$ ,  $\alpha\gamma$ -coin, T $_{1/2}$ ; deduced hindrance factors.  $^{206,207,208,209,210}\text{At}$  deduced levels, J,  $\pi$ . Comparison with previous results. JOUR ZAANE 23 417

**A=215**

No references found

**A=216**

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|-------------------|----------|---|
| $^{216}\text{Rn}$ | 2004KM01 | NUCLEAR REACTIONS $^{198}\text{Pt}(^{18}\text{O}, \text{X})$ , E=96 MeV; measured prompt and delayed E $\gamma$ , I $\gamma$ , $\gamma\gamma$ -coin. $^{216}\text{Rn}$ deduced GDR energy, width, deformation features. Hector array, comparison with model predictions. JOUR PRVCA 70 064317 |
| $^{216}\text{Th}$ | 2002SU35 | NUCLEAR REACTIONS $^{206}\text{Pb}(^{48}\text{Ca}, 2\text{n})$ , $^{186}\text{W}(^{34}\text{S}, 4\text{n})$ , E not given; measured yields, focal-plane position spectra in recoil separator. JOUR NIMAE 481 71   |

**A=217**

No references found

**A=218**

No references found

**A=219**

No references found

**A=220**

No references found

**A=221**

No references found

**A=222**

No references found

**A=223**

No references found

**A=224**

<sup>224</sup>Th 2005SE03 NUCLEAR REACTIONS <sup>176</sup>Yb(<sup>48</sup>Ca, X), E=206, 219, 256, 259 MeV; measured E $\gamma$ , I $\gamma$ , (evaporation residue) $\gamma$ -coin,  $\gamma$ -ray multiplicity and sum energy, fusion and evaporation residue  $\sigma$ . <sup>224</sup>Th deduced GDR parameters. Comparison with model predictions. JOUR NUPAB 750 245

**A=225**

No references found

**A=226**

No references found

**A=227**

No references found

**A=228**

No references found

**A=229**

<sup>229</sup>Np 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS A 3, No 1, 187

**A=230**

<sup>230</sup>Th 2005P002 RADIOACTIVITY <sup>234,235,238</sup>U( $\alpha$ ); measured E $\alpha$ , I $\alpha$  from thick source. Comparison with model predictions. JOUR RMEAE 39 565

<sup>230</sup>Np 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS A 3, No 1, 187

**A=231**

- <sup>231</sup>Th 2005P002 RADIOACTIVITY <sup>234,235,238</sup>U( $\alpha$ ); measured E $\alpha$ , I $\alpha$  from thick source. Comparison with model predictions. JOUR RMEAE 39 565
- <sup>231</sup>Np 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS A 3, No 1, 187

**A=232**

- <sup>232</sup>Np 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS A 3, No 1, 187

**A=233**

- <sup>233</sup>Th 2004ADZW NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n,  $\gamma$ ), (n, p), (n, 6n2p), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Pb(p, nX), E=1 GeV; deduced spallation neutron spectrum. REPT JINR-E1-2004-16, Adam
- 2005AD01 NUCLEAR REACTIONS <sup>209</sup>Bi(n, 4n), (n, 5n), (n, 6n), (n, 7n), (n, 9n), <sup>232</sup>Th(n,  $\gamma$ ), <sup>197</sup>Au(n, 2n), (n, 4n), (n, 6n), (n, 7n), (n,  $\gamma$ ), <sup>59</sup>Co(n, 2n), (n, 3n), (n, 4n), (n, 5n), (n, p), (n, 6n2p), <sup>115</sup>In(n, 5n), (n, 6n), (n, 7n), E=spectrum; measured E $\gamma$ , I $\gamma$ ; deduced reaction rates. Activation technique, spallation neutrons from 1 GeV proton beam, comparison with model predictions. JOUR ZAANE 23 61
- <sup>233</sup>Pu 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS A 3, No 1, 187
- <sup>233</sup>Am 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS A 3, No 1, 187

**A=234**

- <sup>234</sup>Th 2005P002 RADIOACTIVITY <sup>234,235,238</sup>U( $\alpha$ ); measured E $\alpha$ , I $\alpha$  from thick source. Comparison with model predictions. JOUR RMEAE 39 565

**A=234 (continued)**

- <sup>234</sup>U 2005P002 RADIOACTIVITY <sup>234,235,238</sup>U( $\alpha$ ); measured E $\alpha$ , I $\alpha$  from thick source. Comparison with model predictions. JOUR RMEAE 39 565
- <sup>234</sup>Pu 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS 3, No 1,187
- <sup>234</sup>Am 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS 3, No 1,187

**A=235**

- <sup>235</sup>U 2005P002 RADIOACTIVITY <sup>234,235,238</sup>U( $\alpha$ ); measured E $\alpha$ , I $\alpha$  from thick source. Comparison with model predictions. JOUR RMEAE 39 565
- <sup>235</sup>Pu 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS 3, No 1,187
- <sup>235</sup>Am 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS 3, No 1,187

**A=236**

- <sup>236</sup>Pu 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS 3, No 1,187
- 2005AS01 RADIOACTIVITY <sup>236,236m</sup>Am(EC) [from <sup>235</sup>U(<sup>6</sup>Li, 5n)]; measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -, (X-ray) $\gamma$ -coin, T<sub>1/2</sub>; deduced log ft. <sup>236</sup>Pu deduced levels, J,  $\pi$ , configurations,  $\beta$ -feeding intensities, B(E1), B(M1). <sup>236</sup>Am deduced isomeric state J,  $\pi$ , configuration. JOUR ZAANE 23 395
- <sup>236</sup>Am 2002AS08 RADIOACTIVITY <sup>235,236</sup>Am(EC) [from <sup>233,235</sup>U(<sup>6</sup>Li, xn)]; measured prompt and delayed E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft. <sup>235,236</sup>Pu deduced levels, J,  $\pi$ , configurations. <sup>233,234,235,236</sup>Am, <sup>237,238</sup>Cm( $\alpha$ ) [from <sup>233,235</sup>U, <sup>237</sup>Np(<sup>6</sup>Li, xn)]; measured E $\alpha$ , T<sub>1/2</sub>. Isotope separator. JOUR JNRS 3, No 1,187

**A=236 (continued)**

- 2005AS01 RADIOACTIVITY  $^{236,236m}\text{Am}(\text{EC})$  [from  $^{235}\text{U}(^6\text{Li}, 5\text{n})$ ]; measured  $\text{E}\gamma$ ,  $\text{I}\gamma$ ,  $\gamma\gamma$ -, (X-ray) $\gamma$ -coin,  $\text{T}_{1/2}$ ; deduced log ft.  $^{236}\text{Pu}$  deduced levels, J,  $\pi$ , configurations,  $\beta$ -feeding intensities, B(E1), B(M1).  $^{236}\text{Am}$  deduced isomeric state J,  $\pi$ , configuration. JOUR ZAANE 23 395

**A=237**

- $^{237}\text{Cm}$  2002AS08 RADIOACTIVITY  $^{235,236}\text{Am}(\text{EC})$  [from  $^{233,235}\text{U}(^6\text{Li}, \text{xn})$ ]; measured prompt and delayed  $\text{E}\gamma$ ,  $\text{I}\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft.  $^{235,236}\text{Pu}$  deduced levels, J,  $\pi$ , configurations.  $^{233,234,235,236}\text{Am}$ ,  $^{237,238}\text{Cm}(\alpha)$  [from  $^{233,235}\text{U}$ ,  $^{237}\text{Np}(^6\text{Li}, \text{xn})$ ]; measured  $\text{E}\alpha$ ,  $\text{T}_{1/2}$ . Isotope separator. JOUR JNRS A 3, No 1, 187

**A=238**

- $^{238}\text{U}$  2005P002 RADIOACTIVITY  $^{234,235,238}\text{U}(\alpha)$ ; measured  $\text{E}\alpha$ ,  $\text{I}\alpha$  from thick source. Comparison with model predictions. JOUR RMEAE 39 565
- $^{238}\text{Np}$  2004KRZX NUCLEAR REACTIONS  $^{27}\text{Al}(\text{n}, \text{n}3\text{p})$ ,  $^{59}\text{Co}$ ,  $^{139}\text{La}$ ,  $^{129}\text{I}$ ,  $^{197}\text{Au}$ ,  $^{237}\text{Np}(\text{n}, \gamma)$ ,  $^{59}\text{Co}$ ,  $^{127,129}\text{I}$ ,  $^{197}\text{Au}$ ,  $^{209}\text{Bi}(\text{n}, \text{xn})$ ,  $^{235,238}\text{U}(\text{n}, \text{F})$ ,  $\text{E}=\text{spectrum}$ ; measured yields; deduced reaction rates.  $\text{Pb}(\text{p}, \text{nX})$ ,  $\text{E}=1.5\text{ GeV}$ ; deduced neutron spectrum. REPT JINR-E1-2004-79, Krivopustov
- $^{238}\text{Cm}$  2002AS08 RADIOACTIVITY  $^{235,236}\text{Am}(\text{EC})$  [from  $^{233,235}\text{U}(^6\text{Li}, \text{xn})$ ]; measured prompt and delayed  $\text{E}\gamma$ ,  $\text{I}\gamma$ ,  $\gamma\gamma$ -coin; deduced log ft.  $^{235,236}\text{Pu}$  deduced levels, J,  $\pi$ , configurations.  $^{233,234,235,236}\text{Am}$ ,  $^{237,238}\text{Cm}(\alpha)$  [from  $^{233,235}\text{U}$ ,  $^{237}\text{Np}(^6\text{Li}, \text{xn})$ ]; measured  $\text{E}\alpha$ ,  $\text{T}_{1/2}$ . Isotope separator. JOUR JNRS A 3, No 1, 187

**A=239**

No references found

**A=240**

No references found

**A=241**

- $^{241}\text{Cm}$  2003ASZY RADIOACTIVITY  $^{241}\text{Bk}(\text{EC})$  [from  $^{239}\text{Pu}(^6\text{Li}, 4\text{n})$ ]; measured  $\text{E}\gamma$ ,  $\text{I}\gamma$ , (X-ray) $\gamma$ -coin,  $\text{T}_{1/2}$ ; deduced log ft.  $^{241}\text{Bk}$  deduced ground-state configuration.  $^{241}\text{Cm}$  deduced levels, J,  $\pi$ . REPT JAERI-TV 2002 Annual, P29, Asai

**A=241 (continued)**

|                   |          |  |
|-------------------|----------|--|
| $^{241}\text{Bk}$ | 2003ASZY | NUCLEAR REACTIONS $^{239}\text{Pu}(^6\text{Li}, 4\text{n})$ , E=34-42 MeV; measured prompt and delayed $E\gamma$ , $I\gamma$ , (X-ray) $\gamma$ -, (recoil) $\gamma$ -coin; deduced evidence for $^{241}\text{Bk}$ . Isotope separator. REPT JAERI-TV 2002 Annual,P29,Asai   |
|                   | 2003ASZY | RADIOACTIVITY $^{241}\text{Bk}(\text{EC})$ [from $^{239}\text{Pu}(^6\text{Li}, 4\text{n})$ ]; measured $E\gamma$ , $I\gamma$ , (X-ray) $\gamma$ -coin, $T_{1/2}$ ; deduced log ft. $^{241}\text{Bk}$ deduced ground-state configuration. $^{241}\text{Cm}$ deduced levels, J, $\pi$ . REPT JAERI-TV 2002 Annual,P29,Asai |

**A=242**

No references found

**A=243**

No references found

**A=244**

|                   |          |   |
|-------------------|----------|---|
| $^{244}\text{Cm}$ | 2005RE06 | RADIOACTIVITY $^{244}\text{Cm}$ , $^{252}\text{Cf}(\text{SF})$ ; measured $E\gamma$ , $I\gamma$ ; deduced fission fragments isotopic yields. JOUR JRNCD 264 243 |
|-------------------|----------|---|

**A=245**

No references found

**A=246**

No references found

**A=247**

No references found

**A=248**

No references found

**A=249**

- <sup>249</sup>Cm 2004AHZY RADIOACTIVITY <sup>253</sup>Es( $\alpha$ ); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>249</sup>Cm( $\beta^-$ ) [from <sup>248</sup>Cm(n,  $\gamma$ )]; measured E $\gamma$ , I $\gamma$ . <sup>249</sup>Bk deduced transitions, proton single-particle states J,  $\pi$ , configurations. REPT ANL-04/22,P45,Ahmad
- <sup>249</sup>Bk 2002AH06 RADIOACTIVITY <sup>255</sup>Fm, <sup>253</sup>Es( $\alpha$ ); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>251</sup>Cf, <sup>249</sup>Bk deduced levels, J,  $\pi$ , single-particle states. JOUR JNRS 3,No 1,179
- 2004AHZY RADIOACTIVITY <sup>253</sup>Es( $\alpha$ ); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>249</sup>Cm( $\beta^-$ ) [from <sup>248</sup>Cm(n,  $\gamma$ )]; measured E $\gamma$ , I $\gamma$ . <sup>249</sup>Bk deduced transitions, proton single-particle states J,  $\pi$ , configurations. REPT ANL-04/22,P45,Ahmad

**A=250**

No references found

**A=251**

- <sup>251</sup>Cf 2002AH06 RADIOACTIVITY <sup>255</sup>Fm, <sup>253</sup>Es( $\alpha$ ); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>251</sup>Cf, <sup>249</sup>Bk deduced levels, J,  $\pi$ , single-particle states. JOUR JNRS 3,No 1,179
- <sup>251</sup>Md 2002GU33 RADIOACTIVITY <sup>259</sup>Db, <sup>255</sup>Lr( $\alpha$ ) [from <sup>241</sup>Am(<sup>22</sup>Ne, 4n) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR JNRS 3,No 1,183

**A=252**

- <sup>252</sup>Cf 2004PYZZ RADIOACTIVITY <sup>252</sup>Cf(SF); measured fission fragment mass distributions, neutron multiplicity; deduced ternary decay mode. REPT JINR-E15-2004-65,Pyatkov
- 2005BI02 RADIOACTIVITY <sup>252</sup>Cf(SF); measured Doppler-shifted E $\gamma$ , I $\gamma$ , (particle) $\gamma$ -,  $\gamma\gamma$ -coin. <sup>142,144</sup>Ba levels deduced T<sub>1/2</sub>, transition quadrupole moments. Euroball, Saphir arrays, differential Doppler shift method. JOUR PRVCA 71 011301
- 2005RE06 RADIOACTIVITY <sup>244</sup>Cm, <sup>252</sup>Cf(SF); measured E $\gamma$ , I $\gamma$ ; deduced fission fragments isotopic yields. JOUR JRNCD 264 243
- <sup>252</sup>No 2002SU35 NUCLEAR REACTIONS <sup>206</sup>Pb(<sup>48</sup>Ca, 2n), <sup>186</sup>W(<sup>34</sup>S, 4n), E not given; measured yields, focal-plane position spectra in recoil separator. JOUR NIMAE 481 71
- 2005YE02 RADIOACTIVITY <sup>252</sup>No(SF) [from <sup>206</sup>Pb(<sup>48</sup>Ca, 2n)]; measured fission fragments spectra, prompt neutron multiplicity. Recoil separator. JOUR NIMAE 539 441



**A=253**

- <sup>253</sup>Es      2002AH06      RADIOACTIVITY <sup>255</sup>Fm, <sup>253</sup>Es( $\alpha$ ); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>251</sup>Cf, <sup>249</sup>Bk deduced levels, J,  $\pi$ , single-particle states. JOUR JNRSa 3, No 1,179
- 2004AHZY      RADIOACTIVITY <sup>253</sup>Es( $\alpha$ ); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>249</sup>Cm( $\beta^-$ ) [from <sup>248</sup>Cm(n,  $\gamma$ )]; measured E $\gamma$ , I $\gamma$ . <sup>249</sup>Bk deduced transitions, proton single-particle states J,  $\pi$ , configurations. REPT ANL-04/22,P45,Ahmad
- <sup>253</sup>Fm      2004V024      RADIOACTIVITY <sup>269,270</sup>Hs, <sup>265,266</sup>Sg, <sup>257</sup>No( $\alpha$ ); <sup>261,262</sup>Rf(SF) [from <sup>248</sup>Cm(<sup>26</sup>Mg, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR RAACA 92 855

**A=254**

- <sup>254</sup>No      2004KHZY      RADIOACTIVITY <sup>254m</sup>No(IT) [from <sup>208</sup>Pb(<sup>48</sup>Ca, 2n)]; measured E(ce), I(ce) following decay of high-spin isomer. <sup>254</sup>No level deduced J,  $\pi$ , configuration. REPT ANL-04/22,P47,Khoo

**A=255**

- <sup>255</sup>Fm      2002AH06      RADIOACTIVITY <sup>255</sup>Fm, <sup>253</sup>Es( $\alpha$ ); measured E $\gamma$ , I $\gamma$ ,  $\gamma\gamma$ -coin. <sup>251</sup>Cf, <sup>249</sup>Bk deduced levels, J,  $\pi$ , single-particle states. JOUR JNRSa 3, No 1,179
- <sup>255</sup>Lr      2002GU33      RADIOACTIVITY <sup>259</sup>Db, <sup>255</sup>Lr( $\alpha$ ) [from <sup>241</sup>Am(<sup>22</sup>Ne, 4n) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR JNRSa 3, No 1,183

**A=256**

No references found

**A=257**

- <sup>257</sup>No      2004V024      RADIOACTIVITY <sup>269,270</sup>Hs, <sup>265,266</sup>Sg, <sup>257</sup>No( $\alpha$ ); <sup>261,262</sup>Rf(SF) [from <sup>248</sup>Cm(<sup>26</sup>Mg, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR RAACA 92 855

**A=258**

No references found

**A=259**

- <sup>259</sup>Db    2002GU33    NUCLEAR REACTIONS <sup>241</sup>Am(<sup>22</sup>Ne, 4n), E=118 MeV; measured delayed E $\alpha$ ,  $\alpha\alpha$ -coin; deduced evidence for <sup>259</sup>Db. JOUR JNRS A 3, No 1, 183
- 2002GU33    RADIOACTIVITY <sup>259</sup>Db, <sup>255</sup>Lr( $\alpha$ ) [from <sup>241</sup>Am(<sup>22</sup>Ne, 4n) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR JNRS A 3, No 1, 183

**A=260**

No references found

**A=261**

- <sup>261</sup>Rf    2002NA37    NUCLEAR REACTIONS <sup>248</sup>Cm(<sup>18</sup>O, 5n), E=91, 94, 99 MeV; <sup>248</sup>Cm(<sup>19</sup>F, 5n), E=106 MeV; measured delayed E $\alpha$ ,  $\alpha\alpha$ -coin; deduced production  $\sigma$ . JOUR JNRS A 3, No 1, 85
- 2004V024    RADIOACTIVITY <sup>269,270</sup>Hs, <sup>265,266</sup>Sg, <sup>257</sup>No( $\alpha$ ); <sup>261,262</sup>Rf(SF) [from <sup>248</sup>Cm(<sup>26</sup>Mg, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR RAACA 92 855

**A=262**

- <sup>262</sup>Rf    2004V024    RADIOACTIVITY <sup>269,270</sup>Hs, <sup>265,266</sup>Sg, <sup>257</sup>No( $\alpha$ ); <sup>261,262</sup>Rf(SF) [from <sup>248</sup>Cm(<sup>26</sup>Mg, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR RAACA 92 855
- <sup>262</sup>Db    2002NA37    NUCLEAR REACTIONS <sup>248</sup>Cm(<sup>18</sup>O, 5n), E=91, 94, 99 MeV; <sup>248</sup>Cm(<sup>19</sup>F, 5n), E=106 MeV; measured delayed E $\alpha$ ,  $\alpha\alpha$ -coin; deduced production  $\sigma$ . JOUR JNRS A 3, No 1, 85

**A=263**

No references found

**A=264**

No references found

**A=265**

- <sup>265</sup>Sg    2004V024    RADIOACTIVITY <sup>269,270</sup>Hs, <sup>265,266</sup>Sg, <sup>257</sup>No( $\alpha$ ); <sup>261,262</sup>Rf(SF) [from <sup>248</sup>Cm(<sup>26</sup>Mg, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR RAACA 92 855

**A=266**

<sup>266</sup>Sg 2004V024 RADIOACTIVITY <sup>269,270</sup>Hs, <sup>265,266</sup>Sg, <sup>257</sup>No( $\alpha$ ); <sup>261,262</sup>Rf(SF) [from <sup>248</sup>Cm(<sup>26</sup>Mg, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR RAACA 92 855

**A=267**

<sup>267</sup>Rf 20040G12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>.  
Comparison with model predictions. JOUR PRVCA 70 064609

20040GZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>.  
Comparison with model predictions. REPT

<sup>267</sup>Db 20030GZY JINR-E7-2004-160,Oganessian  
RADIOACTIVITY <sup>287,288</sup>115, <sup>283,284</sup>113, <sup>279,280</sup>Rg, <sup>275,276</sup>Mt, <sup>272</sup>Bh( $\alpha$ ) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>; deduced Q $\alpha$ . <sup>267,268</sup>Db(SF) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

**A=268**

<sup>268</sup>Db 20030GZY RADIOACTIVITY <sup>287,288</sup>115, <sup>283,284</sup>113, <sup>279,280</sup>Rg, <sup>275,276</sup>Mt, <sup>272</sup>Bh( $\alpha$ ) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>; deduced Q $\alpha$ . <sup>267,268</sup>Db(SF) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

2004DMZZ RADIOACTIVITY <sup>268</sup>Db(SF) [from <sup>243</sup>Am(<sup>48</sup>Ca, 3n) and subsequent decay]; measured T<sub>1/2</sub>. REPT JINR-E12-2004-157,Dmitriev

**A=269**

<sup>269</sup>Hs 2004V024 NUCLEAR REACTIONS <sup>248</sup>Cm(<sup>26</sup>Mg, xn), E=144-149 MeV; measured delayed  $\alpha\alpha$ -coin; deduced evidence for <sup>269,270</sup>Hs.  
Radiochemical analysis. JOUR RAACA 92 855

2004V024 RADIOACTIVITY <sup>269,270</sup>Hs, <sup>265,266</sup>Sg, <sup>257</sup>No( $\alpha$ ); <sup>261,262</sup>Rf(SF) [from <sup>248</sup>Cm(<sup>26</sup>Mg, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. JOUR RAACA 92 855

**A=270**

<sup>270</sup>Hs 2004V024 NUCLEAR REACTIONS <sup>248</sup>Cm(<sup>26</sup>Mg, xn), E=144-149 MeV; measured delayed  $\alpha\alpha$ -coin; deduced evidence for <sup>269,270</sup>Hs.  
Radiochemical analysis. JOUR RAACA 92 855

**A=270 (continued)**

2004V024 RADIOACTIVITY  $^{269,270}\text{Hs}$ ,  $^{265,266}\text{Sg}$ ,  $^{257}\text{No}(\alpha)$ ;  $^{261,262}\text{Rf}(\text{SF})$  [from  $^{248}\text{Cm}(\text{Mg}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . JOUR RAACA 92 855

**A=271**

$^{271}\text{Sg}$  20040G12 RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}\text{112}$ ,  $^{286,287,288,289}\text{114}$ ,  $^{292,293}\text{116}(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}\text{112}$ ,  $^{286}\text{114}(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. JOUR PRVCA 70 064609

20040GZZ RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}\text{112}$ ,  $^{286,287,288,289}\text{114}$ ,  $^{292,293}\text{116}(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}\text{112}$ ,  $^{286}\text{114}(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2004-160, Oganessian

$^{271}\text{Bh}$  20030GZY RADIOACTIVITY  $^{287,288}\text{115}$ ,  $^{283,284}\text{113}$ ,  $^{279,280}\text{Rg}$ ,  $^{275,276}\text{Mt}$ ,  $^{272}\text{Bh}(\alpha)$  [from  $^{243}\text{Am}(\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $Q\alpha$ .  $^{267,268}\text{Db}(\text{SF})$  [from  $^{243}\text{Am}(\text{Ca}, \text{xn})$  and subsequent decay]; measured  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2003-178, Oganessian

**A=272**

$^{272}\text{Bh}$  20030GZY RADIOACTIVITY  $^{287,288}\text{115}$ ,  $^{283,284}\text{113}$ ,  $^{279,280}\text{Rg}$ ,  $^{275,276}\text{Mt}$ ,  $^{272}\text{Bh}(\alpha)$  [from  $^{243}\text{Am}(\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $Q\alpha$ .  $^{267,268}\text{Db}(\text{SF})$  [from  $^{243}\text{Am}(\text{Ca}, \text{xn})$  and subsequent decay]; measured  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2003-178, Oganessian

**A=273**

No references found

**A=274**

No references found

**A=275**

$^{275}\text{Hs}$  20040G12 RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}\text{112}$ ,  $^{286,287,288,289}\text{114}$ ,  $^{292,293}\text{116}(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}\text{112}$ ,  $^{286}\text{114}(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. JOUR PRVCA 70 064609

**A=275 (continued)**

- 20040GZZ RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}$ ( $^{48}\text{Ca}$ , xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ .  
Comparison with model predictions. REPT  
JINR-E7-2004-160,Oganessian
- $^{275}\text{Mt}$  20030GZY RADIOACTIVITY  $^{287,288}115$ ,  $^{283,284}113$ ,  $^{279,280}\text{Rg}$ ,  $^{275,276}\text{Mt}$ ,  $^{272}\text{Bh}(\alpha)$  [from  $^{243}\text{Am}$ ( $^{48}\text{Ca}$ , xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $Q\alpha$ .  $^{267,268}\text{Db}(\text{SF})$  [from  $^{243}\text{Am}$ ( $^{48}\text{Ca}$ , xn) and subsequent decay]; measured  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

**A=276**

- $^{276}\text{Mt}$  20030GZY RADIOACTIVITY  $^{287,288}115$ ,  $^{283,284}113$ ,  $^{279,280}\text{Rg}$ ,  $^{275,276}\text{Mt}$ ,  $^{272}\text{Bh}(\alpha)$  [from  $^{243}\text{Am}$ ( $^{48}\text{Ca}$ , xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $Q\alpha$ .  $^{267,268}\text{Db}(\text{SF})$  [from  $^{243}\text{Am}$ ( $^{48}\text{Ca}$ , xn) and subsequent decay]; measured  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

**A=277**

No references found

**A=278**

- $^{278}\text{Ds}$  20040G12 RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}$ ( $^{48}\text{Ca}$ , xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ .  
Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}$ ( $^{48}\text{Ca}$ , xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ .  
Comparison with model predictions. REPT  
JINR-E7-2004-160,Oganessian

**A=279**

- $^{279}\text{Ds}$  20040G12 RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}$ ( $^{48}\text{Ca}$ , xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ .  
Comparison with model predictions. JOUR PRVCA 70 064609

**A=279 (continued)**

- 20040GZZ RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian
- $^{279}\text{Rg}$  20030GZY RADIOACTIVITY  $^{287,288}115$ ,  $^{283,284}113$ ,  $^{279,280}\text{Rg}$ ,  $^{275,276}\text{Mt}$ ,  $^{272}\text{Bh}(\alpha)$  [from  $^{243}\text{Am}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $Q\alpha$ .  $^{267,268}\text{Db}(\text{SF})$  [from  $^{243}\text{Am}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

**A=280**

- $^{280}\text{Rg}$  20030GZY RADIOACTIVITY  $^{287,288}115$ ,  $^{283,284}113$ ,  $^{279,280}\text{Rg}$ ,  $^{275,276}\text{Mt}$ ,  $^{272}\text{Bh}(\alpha)$  [from  $^{243}\text{Am}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $Q\alpha$ .  $^{267,268}\text{Db}(\text{SF})$  [from  $^{243}\text{Am}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

**A=281**

- $^{281}\text{Ds}$  20040G12 RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian

**A=282**

- $^{282}112$  20030GZZ RADIOACTIVITY  $^{294}118$ ,  $^{290}116(\alpha)$ ,  $^{286}114(\alpha)$ , (SF) [from  $^{249}\text{Cf}(^{48}\text{Ca}, 3\text{n})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ , fission fragment spectra. Comparison with model predictions. REPT UCRL-ID-151619,Oganessian
- 20040G12 RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ RADIOACTIVITY  $^{271}\text{Sg}$ ,  $^{275}\text{Hs}$ ,  $^{279}\text{Ds}$ ,  $^{282,283,285}112$ ,  $^{286,287,288,289}114$ ,  $^{292,293}116(\alpha)$ ;  $^{267}\text{Rf}$ ,  $^{271}\text{Sg}$ ,  $^{279,281}\text{Ds}$ ,  $^{284}112$ ,  $^{286}114(\text{SF})$  [from  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(^{48}\text{Ca}, \text{xn})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian

**A=283**

- <sup>283</sup>112 2003YA22 NUCLEAR REACTIONS <sup>238</sup>U(<sup>48</sup>Ca, 3n), E ≈ 233 MeV; measured radiochemical yield; deduced chemical properties. JOUR RAACA 91 433
- 2004OG12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>. Comparison with model predictions. JOUR PRVCA 70 064609
- 2004OGZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian
- <sup>283</sup>113 2003OGZY RADIOACTIVITY <sup>287,288</sup>115, <sup>283,284</sup>113, <sup>279,280</sup>Rg, <sup>275,276</sup>Mt, <sup>272</sup>Bh(α) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>; deduced Q<sub>α</sub>. <sup>267,268</sup>Db(SF) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

**A=284**

- <sup>284</sup>112 2004OG12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>. Comparison with model predictions. JOUR PRVCA 70 064609
- 2004OGZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian
- <sup>284</sup>113 2003OGZY RADIOACTIVITY <sup>287,288</sup>115, <sup>283,284</sup>113, <sup>279,280</sup>Rg, <sup>275,276</sup>Mt, <sup>272</sup>Bh(α) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>; deduced Q<sub>α</sub>. <sup>267,268</sup>Db(SF) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

**A=285**

- <sup>285</sup>112 2004OG12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>. Comparison with model predictions. JOUR PRVCA 70 064609
- 2004OGZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E<sub>α</sub>, T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian

**A=286**

- <sup>286</sup>114 20030GZZ RADIOACTIVITY <sup>294</sup>118, <sup>290</sup>116( $\alpha$ ), <sup>286</sup>114( $\alpha$ ), (SF) [from <sup>249</sup>Cf(<sup>48</sup>Ca, 3n) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ , fission fragment spectra. Comparison with model predictions. REPT UCRL-ID-151619,Oganessian
- 20040G12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian

**A=287**

- <sup>287</sup>114 20040G12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian
- <sup>287</sup>115 20030GZY NUCLEAR REACTIONS <sup>243</sup>Am(<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), E=253 MeV; measured (recoil) $\alpha$ -,  $\alpha\alpha$ -coin following residual nucleus decay; deduced production  $\sigma$ . REPT JINR-E7-2003-178,Oganessian
- 20030GZY RADIOACTIVITY <sup>287,288</sup>115, <sup>283,284</sup>113, <sup>279,280</sup>Rg, <sup>275,276</sup>Mt, <sup>272</sup>Bh( $\alpha$ ) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ ; deduced  $Q\alpha$ . <sup>267,268</sup>Db(SF) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian

**A=288**

- <sup>288</sup>114 20040G12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ . Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian



**A=288 (continued)**

- <sup>288</sup>115    20030GZY    NUCLEAR REACTIONS <sup>243</sup>Am(<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), E=253 MeV; measured (recoil) $\alpha$ -,  $\alpha\alpha$ -coin following residual nucleus decay; deduced production  $\sigma$ . REPT JINR-E7-2003-178,Oganessian
- 20030GZY    RADIOACTIVITY <sup>287,288</sup>115, <sup>283,284</sup>113, <sup>279,280</sup>Rg, <sup>275,276</sup>Mt, <sup>272</sup>Bh( $\alpha$ ) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>; deduced Q $\alpha$ . <sup>267,268</sup>Db(SF) [from <sup>243</sup>Am(<sup>48</sup>Ca, xn) and subsequent decay]; measured T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2003-178,Oganessian
- 2004DMZZ    NUCLEAR REACTIONS <sup>243</sup>Am(<sup>48</sup>Ca, 3n), E=247 MeV; measured delayed fission fragment and neutron spectra following radiochemical separation; deduced  $\sigma$ , evidence for Z=115 and Z=113 production. REPT JINR-E12-2004-157,Dmitriev

**A=289**

- <sup>289</sup>114    20040G12    RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ    RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116( $\alpha$ ); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>. Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian

**A=290**

- <sup>290</sup>116    20030GZZ    RADIOACTIVITY <sup>294</sup>118, <sup>290</sup>116( $\alpha$ ), <sup>286</sup>114( $\alpha$ ), (SF) [from <sup>249</sup>Cf(<sup>48</sup>Ca, 3n) and subsequent decay]; measured E $\alpha$ , T<sub>1/2</sub>, fission fragment spectra. Comparison with model predictions. REPT UCRL-ID-151619,Oganessian

**A=291**

- <sup>291</sup>116    20040G12    NUCLEAR REACTIONS <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, 2n), (<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E\*  $\approx$  25-55 MeV; measured excitation functions. Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ    NUCLEAR REACTIONS <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, 2n), (<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E\*  $\approx$  25-55 MeV; measured excitation functions. Comparison with model predictions. REPT JINR-E7-2004-160,Oganessian

**A=292**

- <sup>292</sup>116 20040G12 NUCLEAR REACTIONS <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, 2n), (<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E\* ≈ 25-55 MeV; measured excitation functions. Comparison with model predictions. JOUR PRVCA 70 064609
- 20040G12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured Eα, T<sub>1/2</sub>. Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ NUCLEAR REACTIONS <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, 2n), (<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E\* ≈ 25-55 MeV; measured excitation functions. Comparison with model predictions. REPT  
JINR-E7-2004-160,Oganessian
- 20040GZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured Eα, T<sub>1/2</sub>. Comparison with model predictions. REPT  
JINR-E7-2004-160,Oganessian

**A=293**

- <sup>293</sup>116 20040G12 NUCLEAR REACTIONS <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, 2n), (<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E\* ≈ 25-55 MeV; measured excitation functions. Comparison with model predictions. JOUR PRVCA 70 064609
- 20040G12 RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured Eα, T<sub>1/2</sub>. Comparison with model predictions. JOUR PRVCA 70 064609
- 20040GZZ NUCLEAR REACTIONS <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, 2n), (<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E\* ≈ 25-55 MeV; measured excitation functions. Comparison with model predictions. REPT  
JINR-E7-2004-160,Oganessian
- 20040GZZ RADIOACTIVITY <sup>271</sup>Sg, <sup>275</sup>Hs, <sup>279</sup>Ds, <sup>282,283,285</sup>112, <sup>286,287,288,289</sup>114, <sup>292,293</sup>116(α); <sup>267</sup>Rf, <sup>271</sup>Sg, <sup>279,281</sup>Ds, <sup>284</sup>112, <sup>286</sup>114(SF) [from <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, xn) and subsequent decay]; measured Eα, T<sub>1/2</sub>. Comparison with model predictions. REPT  
JINR-E7-2004-160,Oganessian

**A=294**

- <sup>294</sup>116 20040G12 NUCLEAR REACTIONS <sup>233,238</sup>U, <sup>242</sup>Pu, <sup>248</sup>Cm(<sup>48</sup>Ca, 2n), (<sup>48</sup>Ca, 3n), (<sup>48</sup>Ca, 4n), (<sup>48</sup>Ca, 5n), E\* ≈ 25-55 MeV; measured excitation functions. Comparison with model predictions. JOUR PRVCA 70 064609

**A=294 (continued)**

- 20040GZZ NUCLEAR REACTIONS  $^{233,238}\text{U}$ ,  $^{242}\text{Pu}$ ,  $^{248}\text{Cm}(^{48}\text{Ca}, 2\text{n})$ ,  $(^{48}\text{Ca}, 3\text{n})$ ,  $(^{48}\text{Ca}, 4\text{n})$ ,  $(^{48}\text{Ca}, 5\text{n})$ ,  $E^* \approx 25\text{-}55\text{ MeV}$ ; measured excitation functions. Comparison with model predictions. REPT  
JINR-E7-2004-160,Oganessian
- $^{294}\text{118}$  20030GZZ NUCLEAR REACTIONS  $^{249}\text{Cf}(^{48}\text{Ca}, 3\text{n})$ ,  $E=245\text{ MeV}$ ; measured  $E\alpha$ , fission fragment spectra following residual nucleus decay; deduced evidence for  $^{294}\text{118}$ . Gas-filled recoil separator. REPT  
UCRL-ID-151619,Oganessian
- 20030GZZ RADIOACTIVITY  $^{294}\text{118}$ ,  $^{290}\text{116}(\alpha)$ ,  $^{286}\text{114}(\alpha)$ , (SF) [from  $^{249}\text{Cf}(^{48}\text{Ca}, 3\text{n})$  and subsequent decay]; measured  $E\alpha$ ,  $T_{1/2}$ , fission fragment spectra. Comparison with model predictions. REPT  
UCRL-ID-151619,Oganessian

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