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**55 reference(s) found :**

**Keynumber:** [2001BE33](#)

**Reference:** Phys.Rev. C64, 015801 (2001)

**Authors:** J.Best, H.Stoll, C.Arlandini, S.Jaag, F.Kappeler, K.Wisshak, A.Mengoni, G.Reffo, T.Rauscher

**Title:** s-Process Branchings at  $^{151}\text{Sm}$ ,  $^{154}\text{Eu}$ , and  $^{163}\text{Dy}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{164}$ ,  $^{170}\text{Er}(n,\gamma)$ , E=spectrum; measured  $\sigma$ .  $^{151}$ ,  $^{152}$ ,  $^{153}$ ,  $^{154}$ ,  $^{155}\text{Eu}(n,\gamma)$ , E=1-2000 keV; calculated  $\sigma$ . Activation technique, comparisons with previous measurements. Astrophysical implications discussed.

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**Keynumber:** 2000OHZZ

**Reference:** BNL-NCS-67469 (2000)

**Authors:** S.-Y.Oh, J.Chang, S.Mughabghab

**Title:** Neutron Cross Section Evaluations of Fission Products Below the Fast Energy Region

**Keyword abstract:** NUCLEAR REACTIONS  $^{95}\text{Mo}$ ,  $^{99}\text{Tc}$ ,  $^{101}\text{Ru}$ ,  $^{103}\text{Rh}$ ,  $^{105}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{131}\text{Xe}$ ,  $^{133}\text{Cs}$ ,  $^{141}\text{Pr}$ ,  $^{143}$ ,  $^{145}\text{Nd}$ ,  $^{147}$ ,  $^{149}$ ,  $^{150}$ ,  $^{151}$ ,  $^{152}\text{Sm}$ ,  $^{153}\text{Eu}$ ,  $^{155}$ ,  $^{157}\text{Gd}(n,\gamma)$ , E <250 keV; compiled, analyzed capture  $\sigma$ , resonance parameters, related features. Comparison with data, previous evaluations.

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**Keynumber:** 1999HO33

**Reference:** Pure Appl.Chem. 71, 2309 (1999)

**Authors:** N.E.Holden

**Title:** Temperature Dependence of the Westcott g-Factor for Neutron Reactions in Activation Analysis (Technical Report)

**Keyword abstract:** NUCLEAR REACTIONS  $^{103}\text{Rh}$ ,  $^{113}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{135}\text{Xe}$ ,  $^{148}\text{Pm}$ ,  $^{149}$ ,  $^{151}\text{Sm}$ ,  $^{151}$ ,  $^{152}$ ,  $^{153}$ ,  $^{154}$ ,  $^{155}\text{Eu}$ ,  $^{155}$ ,  $^{157}\text{Gd}$ ,  $^{164}\text{Dy}$ ,  $^{175}$ ,  $^{176}\text{Lu}$ ,  $^{177}\text{Hf}$ ,  $^{182}\text{Ta}$ ,  $^{185}$ ,  $^{187}\text{Re}$ ,  $^{197}\text{Au}$ ,  $^{231}$ ,  $^{233}\text{Pa}$ ,  $^{235}$ ,  $^{238}\text{U}$  (n, $\gamma$ ), E=low; calculated Westcott g-factors vs temperature.

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**Keynumber:** 1999GEZY

**Reference:** INDC(CPR)-048/L, p.35 (1999)

**Authors:** Z.Ge

**Title:** Theoretical Calculations of All Reactions for n +  $^{151}\text{Eu}$ ,  $^{153}\text{Eu}$ ,  $^{154}\text{Eu}$  and  $^{155}\text{Eu}$  in  $E_n = 0.001$   $\vartheta$  20 MeV

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,n')$ , (n, $\gamma$ ), (n,2n), (n,3n), (n,p), (n,np), (n,d), (n,t), (n, $\alpha$ ), (n,n $\alpha$ ),  $^{153}\text{Eu}(n,\gamma)$ , (n,2n), (n, $\alpha$ ), E<0 MeV; calculated  $\sigma$ .  $^{151}$ ,  $^{155}\text{Eu}(n,n)$ , E=4.5-11.5 MeV; calculated  $\sigma(\theta)$ . Comparison to data.

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**Keynumber:** [1998TO24](#)

**Reference:** Phys.Rev. C58, 2851 (1998)

**Authors:** A.P.Tonchev, Yu.P.Gangrsky, A.G.Belov, V.E.Zhuchko

**Title:** Deformation on Isomeric Excitation of Eu Isotopes in ( $\gamma$ ,n) and (n, $\gamma$ ) Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ , E=thermal;  $^{151}$ ,  $^{153}\text{Eu}(\gamma,n)$ , E=12-22 MeV; measured yields, isomeric ratios; deduced deformation effect. Activation technique.

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**Keynumber:** 1997KA47

**Reference:** J.Radioanal.Nucl.Chem. 215, 193 (1997)

**Authors:** S.I.Kafala, T.D.MacMahon, S.B.Borzakov

**Title:** Neutron Activation for Precise Nuclear Data

**Keyword abstract:** NUCLEAR REACTIONS  $^{45}\text{Sc}$ ,  $^{50}\text{Cr}$ ,  $^{59}\text{Co}$ ,  $^{64}\text{Zn}$ ,  $^{75}\text{As}$ ,  $^{85}\text{Rb}$ ,  $^{113}\text{In}$ ,  $^{121}$ ,  $^{123}\text{Sb}$ ,  $^{130}\text{Ba}$ ,  $^{133}\text{Cs}$ ,  $^{139}\text{La}$ ,  $^{140}$ ,  $^{142}\text{Ce}$ ,  $^{146}\text{Nd}$ ,  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{152}\text{Gd}$ ,  $^{152}\text{Sm}$ ,  $^{159}\text{Tb}$ ,  $^{165}\text{Ho}$ ,  $^{174}\text{Yb}$ ,  $^{180}\text{Hf}$ ,  $^{181}\text{Ta}$ ,  $^{186}\text{W}$ ,  $^{232}\text{Pa}$ ,  $^{238}\text{Np}(n,\gamma)$ , E=reactor; measured  $E\gamma$ ,  $I\gamma$ ; deduced capture  $\sigma$ , resonance integral, least-squares fit parameters. Multi-element standard.

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**Keynumber:** 1997BE67

**Reference:** Yad.Fiz. 60, No 11, 1940 (1997); Phys.Atomic Nuclei 60, 1773 (1997)

**Authors:** A.G.Belov, Yu.P.Gangrsky, V.E.Zhuchko, A.P.Tonchev

**Title:** Excitation of Isomeric States in  $(\gamma,n)$  and  $(n,\gamma)$  Reactions on Eu Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ , E=thermal;  $^{151}$ ,  $^{153}\text{Eu}(\gamma,n)$ , E=13-22 MeV bremsstrahlung; measured  $E\gamma$ ,  $I\gamma$ , yields, isomeric ratios; deduced deformation effects. Activation technique.

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**Keynumber:** 1993YU04

**Reference:** Chin.J.Nucl.Phys. 15, No 1, 71 (1993)

**Authors:** W.Yu, H.Lu, W.Zhao

**Title:** Activation Cross Section Measurement for the  $\text{Eu}(n,\gamma)$  Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ , E=0.03-1.12 MeV; measured  $\sigma(E)$ . Activation technique,  $^{197}\text{Au}(n,\gamma)$  standard, comparison with evaluated data.

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**Keynumber:** 1992BE54

**Reference:** At.Energ. 72, 95 (1992); Sov.At.Energy 72, 91 (1992)

**Authors:** S.M.Bednyakov, G.N.Manturov

**Title:** Refining Fission-Product Capture Cross Sections in Reactivity-Perturbation Experiments

**Keyword abstract:** NUCLEAR REACTIONS  $^{95}$ ,  $^{97}$ ,  $^{98}$ ,  $^{100}\text{Mo}$ ,  $^{103}\text{Rh}$ ,  $^{109}\text{Ag}$ ,  $^{141}\text{Pr}$ ,  $^{143}$ ,  $^{145}\text{Nd}$ ,  $^{149}\text{Sm}$ ,  $^{153}\text{Eu}(n,\gamma)$ , E=reactor; analyzed fission product neutron capture  $\sigma$  data. Reactivity-perturbation experiments.

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**Keynumber:** 1991BA06

**Reference:** Nucl.Phys. A523, 261 (1991)

**Authors:** M.K.Balodis, N.D.Kramer, P.T.Prokofjev, A.V.Afanasiev, K.Schreckenbach, W.F.Davidson, D.D.Warner, J.A.Pinston, P.H.M.Van Assche, A.M.J.Spits

**Title:** Level Structure of the Odd-Odd Nucleus  $^{156}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}$ ,  $^{154}$ ,  $^{155}\text{Eu}(n,\gamma)$ , E=thermal; measured  $E\gamma$ ,  $I\gamma$ ,  $I(\text{ce})$ .  $^{156}\text{Eu}$  deduced levels,  $J,\pi$ , ICC,  $\gamma$ -multipolarity, Nilsson configurations. Magnetic electron spectrometer, curved crystal spectrometers, enriched targets. Nilsson model, Coriolis coupling, neutron-proton residual interaction.

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**Keynumber:** 1990XI01

**Reference:** Nucl.Sci.Eng. 104, 277 (1990)

**Authors:** Z.Xiang, H.Xu, Y.Li, Y.Mu, S.Wang, J.Liu

**Title:** Fast Neutron Capture Cross Sections of Europium

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ , E  $\approx$  0.5-1.5 MeV; measured capture  $\sigma$  (E). Optical model calculations. Gold standard.

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**Keynumber:** 1990PI19

**Reference:** J.Radioanal.Nucl.Chem. 141, 393 (1990)

**Authors:** A.E.Pillay, C.Mboweni

**Title:** The Determination of Eu and Sm by Application of X-Ray Spectrometry to Isotope-Source Activation Analysis

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}, ^{154}\text{Sm}$ ,  $^{151}, ^{153}\text{Eu}(n,\gamma)$ , E=thermal; measured delayed X-ray spectra. Thermalized beam from  $^{252}\text{Cf}$  source.

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**Keynumber:** 1987MA02

**Reference:** Nucl.Sci.Eng. 95, 189 (1987)

**Authors:** R.L.Macklin, P.G.Young

**Title:** Neutron Capture Cross Sections of  $^{151}\text{Eu}$  and  $^{153}\text{Eu}$  from 3 to 2200 keV

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}, ^{153}\text{Eu}(n,\gamma)$ , E=3-2200 keV; measured capture  $\langle\sigma(E)\rangle$  deduced optical model parameters, Maxwellian  $\sigma$  at kT=30 keV. Enriched targets.

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**Keynumber:** 1987BA52

**Reference:** Nucl.Phys. A472, 445 (1987)

**Authors:** M.K.Balodis, P.T.Prokofjev, N.D.Kramer, L.I.Simonova, K.Schreckenbach, W.F.Davidson, J.A.Pinston, P.Hungerford, H.H.Schmidt, H.J.Scheerer, T.von Egidy, P.H.M.van Assche, A.M.J.Spits, R.F.Casten, W.R.Kane, D.D.Warner, J.Kern

**Title:** Levels in  $^{154}\text{Eu}$  Populated by (n, $\gamma$ ) and (d,p) Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma, E(\text{ce})$ ;  $^{153}\text{Eu}(n,\gamma)$ , E=2,3 eV, 2 keV; measured  $E\gamma, I\gamma$ ;  $^{153}\text{Eu}(d,p)$ , E=14 MeV; measured  $E_p, \sigma(\theta)$ .  $^{154}\text{Eu}$  deduced levels, J, $\pi$ , ICC,  $\gamma$  multipolarity. Nilsson configurations. Magnetic electron spectrometer, curved crystal spectrometer, Ge(Li) detectors, Q3D spectrograph, enriched targets.

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**Keynumber:** 1986TA17

**Reference:** J.Nucl.Sci.Technol.(Tokyo) 23, 914 (1986)

**Authors:** K.Tasaka, S.Iijima

**Title:** Simplified Method for Calculation of Neutron Capture Transformation Effects of Fission Products on Decay Power

**Keyword abstract:** NUCLEAR REACTIONS  $^{102}\text{Ru}$ ,  $^{133}, ^{135}\text{Cs}$ ,  $^{147}\text{Pm}$ ,  $^{153}, ^{155}\text{Eu}(n,\gamma)$   $^{103}\text{Ru}/^{134}\text{Cs}/^{136}\text{Cs}/^{148}\text{Pm}/^{148m}\text{Pm}/^{154}\text{Eu}/^{156}\text{Eu}$ , E=fission spectrum; calculated neutron capture transformation effects from residual production; deduced mother nuclide cumulative fission yield. Comparison with  $^{235}\text{U}(n,F)$ , E=thermal,  $^{239}\text{Pu}(n,F)$ , E=fast.

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**Keynumber:** 1986PR03

**Reference:** Nucl.Phys. A455, 1 (1986)

**Authors:** P.T.Prokofjev, V.A.Bondarenko, T.V.Guseva, N.D.Kramer, L.I.Simonova, J.J.Tamberg, K.Schreckenbach, W.F.Davidson, J.A.Pinston, D.D.Warner, P.H.M.van Assche, A.M.J.Spits

**Title:** Levels of  $^{155}\text{Eu}$  from Thermal Neutron Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}, ^{154}\text{Eu}(n,\gamma)$ , E=thermal; measured  $E(\gamma), I(\gamma), I(\text{ce})$ .  $^{155}\text{Eu}$  deduced levels, transitions,  $\gamma$  multipolarity, J, $\pi$ , B( $\lambda$ ), Nilsson configurations, neutron binding energy. Ge(Li) pair spectrometer, curved crystal spectrometers, magnetic conversion electron spectrometer, enriched targets. Nilsson model, Coriolis coupling, odd rotational-vibrational model.

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**Keynumber:** 1985VOZV

**Reference:** Proc.AIP Conf.Capture Gamma-Ray Spectroscopy and Related Topics, Knoxville, Tenn., (1984), S.Raman, Ed., AIP, New York, p.305 (1985)

**Authors:** T.von Egidy, P.Hungerford, H.H.Schmidt, H.J.Scheerer, A.N.Behkami, G.Hlawatsch, B.Krusche, K.P.Lieb, H.G.Borner, S.A.Kerr, K.Schreckenbach

**Title:** Structural and Statistical Aspects of Extensive Level Schemes from (n, $\gamma$ ) and Transfer Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{19}\text{F}$ ,  $^{23}\text{Na}$ ,  $^{27}\text{Al}$ ,  $^{35}\text{Cl}$ ,  $^{39}$ ,  $^{40}$ ,  $^{41}\text{K}$ ,  $^{113}\text{Cd}$ ,  $^{133}\text{Cs}$ ,  $^{154}\text{Sm}$ ,  $^{153}\text{Eu}$ ,  $^{154}\text{Gd}$ ,  $^{160}$ ,  $^{162}\text{Dy}(n,\gamma)$ , (n,e),E not given; measured not given.  $^{20}\text{F}$ ,  $^{24}\text{Na}$ ,  $^{28}\text{Al}$ ,  $^{36}\text{Cl}$ ,  $^{40}$ ,  $^{41}$ ,  $^{42}\text{K}$ ,  $^{114}\text{Cd}$ ,  $^{134}\text{Cs}$ ,  $^{155}\text{Sm}$ ,  $^{154}\text{Eu}$ ,  $^{155}\text{Gd}$ ,  $^{161}$ ,  $^{163}\text{Dy}$  deduced levels, $\gamma$ -transition multipolarity,strength distribution.

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**Keynumber:** 1984RO06

**Reference:** Nucl.Phys. A417, 1 (1984)

**Authors:** H.Rotter, C.Heiser, K.D.Schilling, W.Andrejscheff, L.K.Kostov, M.K.Balodis

**Title:** Electromagnetic Transition Probabilities in the Doubly Odd N = 91 Nucleus  $^{154}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E=thermal; measured  $E\gamma$ , $I\gamma$ , $\gamma\gamma(t)$ .  $^{154}\text{Eu}$  levels deduced  $T_{1/2}$ , $B(\lambda)$ . Enriched target,plastic scintillator,Ge detector. Nilsson-plus-pairing-model calculations.

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**Keynumber:** 1981BAZE

**Reference:** Program and Thesis, Proc.31st Ann.Conf.Nucl.Spectrosc.Struct.At.Nuclei, Samarkand, p.113 (1981)

**Authors:** M.K.Balodis, P.T.Prokofev, N.D.Kramer, L.I.Simonova, K.Schreckenbach, A.Spits, P.Van Assche

**Title:**

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E=thermal; analyzed  $\gamma$ -spectra, $I(\text{ce})$ .  $^{154}\text{Eu}$  deduced levels, $J,\pi$ ,configurations.

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**Keynumber:** 1979MIZR

**Reference:** NEANDC(J)-61/U, p.2 (1979)

**Authors:** M.Mizumoto, A.Asami, Y.Nakajima, Y.Kawarasaki, T.Fuketa, H.Takekoshi

**Title:** Average Neutrons Capture Cross Sections of  $^{151}\text{Eu}$  and  $^{153}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ ,E=3-100 keV; measured  $\sigma$ . Liquid scintillation detector.

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**Keynumber:** 1979MI16

**Reference:** J.Nucl.Sci.Technol.(Tokyo) 16, 711 (1979)

**Authors:** M.Mizumoto, A.Asami, Y.Nakajima, Y.Kawarasaki, T.Fuketa, H.Takekoshi

**Title:** Average Neutron Capture Cross Sections of  $^{151}\text{Eu}$  and  $^{153}\text{Eu}$  from 3 to 100 keV

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ ,E=3-100 keV; measured average  $\sigma(E)$ . Strength function analysis.

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**Keynumber:** 1979HEZG

**Reference:** ZFK-385, p.50 (1979)

**Authors:** C.Heiser, H.Rotter, K.D.Schilling, W.Andrejscheff, L.K.Kostov, M.K.Balodis

**Title:** Nanosekunden-Isomere im Doppelt-Ungeraden N = 91-Nuklid  $^{154}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E=thermal; measured  $\gamma\gamma$ -coin.  $^{154}\text{Eu}$  deduced level, $T_{1/2}$ .

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**Keynumber:** 1979BAYI

**Reference:** Program and Thesis, Proc.29th Ann.Conf.Nucl.Spectrosc.Struct.At.Nuclei, Riga, p.100 (1979)

**Authors:** M.K.Balodis, N.D.Kramer, P.T.Prokofev, L.I.Simonova, K.Schreckenbach, V.Davidson, K.Penston, D.Bone, P.Van Assche

**Title:**

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E=thermal; measured  $E\gamma, I\gamma$ .  $^{154}\text{Eu}$  deduced levels, J,  $\pi$ , K,  $\gamma$ -multipolarity.

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**Keynumber:** 1978PRZY

**Reference:** LAFI-006 (1978)

**Authors:** P.T.Prokofev, M.Balodis, N.Kramer, L.Lokshina, L.Simonova, K.Schreckenbach, W.Davidson, J.Pinston, D.Warner, P.Van Assche

**Title:** The  $\gamma$ -Ray and Internal Conversion Electron Spectra of  $^{154}\text{Eu}$  Emitted by (n, $\gamma$ ) Reaction

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E=th; measured  $E\gamma, I\gamma, I(\text{ce})$ .  $^{154}\text{Eu}$  deduced levels, K, J,  $\pi$ ,  $\lambda$ .

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**Keynumber:** 1978PRZT

**Coden:** CONF BNL(Neutron Capt  $\gamma$ -Ray Spectr),Contrib,No64,Prokofjev

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E not given; measured  $E\gamma, I\gamma, I(\text{ce})$ .  $^{154}\text{Eu}$  deduced levels, J,  $\pi$ , K.

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**Keynumber:** 1978PRZK

**Reference:** Proc.Intern.Symp.Neutron Capture Gamma Ray Spectroscopy and Related Topics, 3rd, BNL, Upton, (1978), R.E.Chrien, W.R.Kane, eds., Plenum Press, New York, p.725 (1978)

**Authors:** P.T.Prokofjev, M.K.Balodis, N.D.Kramer, L.M.Lokshina, L.I.Simonova, K.Schreckenbach, W.F.Davidson, J.A.Pinston, D.D.Warner, A.M.J.Spits, P.H.M.van Assche

**Title:** Low-Lying Levels in  $^{154}\text{Eu}$  from Thermal Neutron Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E=thermal; measured  $E\gamma, I\gamma, I(\text{ce})$ .  $^{154}\text{Eu}$  deduced levels, J,  $\pi$ , Nilsson assignments.

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**Keynumber:** 1978PRZJ

**Reference:** Program and Theses, Proc.28th Ann.Conf.Nucl.Spectrosc.Struct.At.Nuclei, Alma-Ata, p.84 (1978)

**Authors:** P.T.Prokofev, M.K.Balodis, A.E.Kruminya, N.D.Kramer, M.N.Plate, D.I.Simonova, K.Schreckenbach, V.Davidson, Kh.Penston, D.Bone, Kh.Berner

**Title:** Level Scheme of Lowlying States of  $^{154}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E=reactor; measured  $E\gamma, I\gamma, I(\text{ce})$ .  $^{154}\text{Eu}$  deduced levels, J,  $\pi$ ,  $\gamma$ -multipolarity,  $\gamma$ -branching, Nilsson assignments.

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**Keynumber:** 1977ST14

**Reference:** Z.Phys. A282, 97 (1977)

**Authors:** W.Stoffl, D.Rabenstein, K.Schreckenbach, T.von Egidy

**Title:** Levels in  $^{154}\text{Eu}$  Populated by Thermal Neutron Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ,E=th; measured  $E\gamma, I\gamma, I(\text{ce}), \gamma\gamma\text{-coin}, \gamma(t)$ .  $^{154}\text{Eu}$  deduced levels,  $T_{1/2}, \lambda$ , hindrance factors.

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**Keynumber:** 1977PRZT

**Reference:** Proc.Int.Conf.Nucl.Struct., Tokyo, Japan, Int.Academic Printing Co.,Ltd.Japan, Vol.1,

p.390 (1977)

**Authors:** P.T.Prokofjev, M.K.Balodis, A.J.Krumina, N.D.Kramer, M.N.Plate, L.I.Simonova, K.Schreckenbach, W.F.Davidson, J.A.Pinston, D.D.Warner, H.G.Borner, P.H.M.Van Assche

**Title:** Low-K Rotational Bands in  $^{154}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ; measured  $\gamma$ ,ce spectra.  $^{154}\text{Eu}$  deduced levels,K,J, $\pi$ .

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**Keynumber:** 1977PRZS

**Coden:** CONF Tokyo (Nucl Structure),Proc,Vol1,P394,Prokofjev

**Keyword abstract:** NUCLEAR REACTIONS  $^{154}, ^{153}\text{Eu}(n,\gamma)$ ; measured  $\gamma$ ,ce spectra.  $^{155}\text{Eu}$  deduced levels. Double neutron capture.

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**Keynumber:** 1977KO40

**Reference:** Yad.Fiz. 26, 947 (1977); Sov.J.Nucl.Phys. 26, 500 (1977)

**Authors:** V.N.Kononov, B.D.Yurlov, E.D.Poletaev, V.M.Timokhov

**Title:** Fast-Neutron Capture Cross Sections for Indium, Tantalum, Gold, Samarium, and Europium

**Keyword abstract:** NUCLEAR REACTIONS  $^{115}\text{In}, ^{181}\text{Ta}, ^{197}\text{Au}, \text{Sm}, ^{147}, ^{149}\text{Sm}, \text{Eu}, ^{151}, ^{153}\text{Eu}$  (n, $\gamma$ ),E=5-350 keV; measured  $\sigma(E)$ .

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**Keynumber:** 1977II01

**Reference:** J.Nucl.Sci.Technol. 14, 161 (1977)

**Authors:** S.Iijima, T.Nakagawa, Y.Kikuchi, M.Kawai, H.Matsunobu, K.Maki, S.Igarasi

**Title:** Evaluation of Neutron Cross Section of 27 Fission Product Nuclides Important for Fast Reactor

**Keyword abstract:** NUCLEAR REACTIONS  $^{93}\text{Zr}, ^{95}, ^{97}\text{Mo}, ^{99}\text{Tc}, ^{101}, ^{102}, ^{104}, ^{106}\text{Ru}, ^{103}\text{Rh}, ^{105}, ^{107}\text{Pd}, ^{109}\text{Ag}, ^{129}\text{I}, ^{131}\text{Xe}, ^{133}, ^{135}, ^{137}\text{Cs}, ^{143}, ^{144}, ^{145}\text{Nd}, ^{144}\text{Ce}, ^{147}\text{Pm}, ^{147}, ^{149}, ^{151}\text{Sm}, ^{153}, ^{155}\text{Eu}$  (n,n), (n, $\gamma$ ), (n,n'), (n,X),E=th-15 MeV; calculated  $\sigma$ .

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**Keynumber:** 1976ZO01

**Reference:** Phys.Rev. C13, 2024 (1976)

**Authors:** W.H.Zoller, W.B.Walters, P.W.Gallagher, R.A.Meyer

**Title:** Radioactive Decay of 47-min  $^{154}\text{Eu-m}$

**Keyword abstract:** RADIOACTIVITY  $^{154\text{m}}\text{Eu}$ ; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin,  $T_{1/2}$ .  $^{154}\text{Eu}$  deduced levels,J, $\pi$ .

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n,\gamma)$ ; measured isomeric  $\sigma$  ratio.

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**Keynumber:** 1976WI06

**Reference:** Nucl.Sci.Eng. 60, 53 (1976)

**Authors:** J.F.Widder

**Title:** Neutron-Capture Cross Sections of the Europium and Lutetium Isotopes from 0.01 to 10 eV

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}, ^{153}\text{Eu}, ^{175}, ^{176}\text{Lu}(n,\gamma)$ ,E=0.01-10 eV; measured  $\sigma(E, E\gamma)$ .

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**Keynumber:** 1976MO36

**Reference:** Ann.Nucl.Energy 3, 399 (1976)

**Authors:** M.C.Moxon, D.A.J.Endacott, J.E.Jolly

**Title:** The Neutron Capture Cross-Section of  $^{151}\text{Eu}$  and  $^{153}\text{Eu}$  in the Energy Range 0.1 to 100 keV

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}, ^{153}\text{Eu}(n,\gamma)$ ,E=0.1-100 keV; measured  $\sigma(E)$ .

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**Keynumber:** 1975ZOYX

**Coden:** REPT UCRL-77097,W H Zoller

**Keyword abstract:** RADIOACTIVITY  $^{154m}\text{Eu}$ ; measured  $E\gamma, I\gamma, \gamma\gamma(t)$ ; deduced  $\beta$ -branching limits,  $J, \pi$ .  $^{154}\text{Eu}$  deduced transitions.

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n, \gamma)$ ; measured isomeric yield ratio.

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**Keynumber:** 1975STZU

**Coden:** REPT PTUM-E18

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n, \gamma)$ , E=thermal; measured  $E\gamma, I\gamma, E(\text{ce}), I(\text{ce})$ ; deduced ICC.  $^{154}\text{Eu}$  deduced levels,  $J, \pi, \lambda$ .

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**Keynumber:** 1975STZI

**Reference:** Proc.Int.Symp.Neutron Capture Gamma Ray Spectrosc.and Related Topics, 2nd, Petten, The Netherlands (1974), K.Abrahams, F.Stecher-Rasmussen, P.Van Assche, Eds., Reactor Centrum Nederland, p.572 (1975)

**Authors:** W.Stoffl, K.Schreckenbach, D.Rabenstein, T.von Egidy

**Title:** Level Scheme of  $^{154}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n, \gamma)$ , E=thermal; measured  $I(\text{ce}), E\gamma, I\gamma, \gamma(t), \gamma\gamma$ -coin.  $^{154}\text{Eu}$  deduced levels,  $T_{1/2}, J, \pi$ .

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**Keynumber:** 1975HOZV

**Coden:** JOUR BAPSA 20 172 IB14

**Keyword abstract:** NUCLEAR REACTIONS  $^{105}\text{Pd}, ^{103}\text{Rh}, ^{151}, ^{153}\text{Eu}(n, \gamma)$ , E=20 eV-90 keV; measured  $\sigma$ .

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**Keynumber:** 1975ANZV

**Coden:** JOUR BAPSA 20 173 IB15

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}, ^{153}\text{Eu}, ^{181}\text{Ta}(n, \gamma)$ ; measured  $\sigma$ .

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**Keynumber:** 1974STZD

**Coden:** CONF Petten(Neutron Capture Gamma Ray Spectroscopy),P383

**Keyword abstract:** NUCLEAR REACTIONS  $^{153}\text{Eu}(n, \gamma)$ , E=thermal; measured  $E\gamma, I\gamma, E(\text{ce}), I(\text{ce}), \gamma\gamma$ -coin,  $\gamma\gamma(t)$ .  $^{154}\text{Eu}$  deduced levels,  $T_{1/2}$ .

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**Keynumber:** 1974KNZR

**Coden:** REPT USNDC-11 P220

**Keyword abstract:** NUCLEAR REACTIONS  $^{105}\text{Pd}, ^{151}, ^{153}\text{Eu}(n, \gamma)$ ; measured  $\sigma$ .

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**Keynumber:** 1974KNZO

**Coden:** REPT COO-3058-50 P8

**Keyword abstract:** NUCLEAR REACTIONS  $^{105}\text{Pd}, ^{151}, ^{153}\text{Eu}(n, \gamma)$ , E=keV; measured  $\sigma$ .

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**Keynumber:** 1973RAXW

**Coden:** REPT COO-2176-20 P1

**Keyword abstract:** NUCLEAR REACTIONS Er,  $^{152}, ^{154}\text{Sm}, ^{151}, ^{153}\text{Eu}, ^{232}\text{U}, \text{Fe}, \text{La}, \text{In}, \text{Ta}, \text{F}, \text{Mg}, \text{Al}, \text{S}, \text{Cl}, \text{K}, \text{Ca}(n, \gamma)$ ; measured  $\sigma(E)$ .  $^{153}, ^{155}\text{Sm}, ^{152}, ^{154}\text{Eu}, ^{233}\text{U}$  deduced resonances.

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**Keynumber:** 1973LAYG

**Reference:** RCN-191 (1973)

**Authors:** G.Lautenbach

**Title:** Calculated Neutron Absorption Cross Sections of 75 Fission Products

**Keyword abstract:** NUCLEAR REACTIONS  $^{81}\text{Br}$ ,  $^{83}$ ,  $^{84}$ ,  $^{85}$ ,  $^{86}\text{Kr}$ ,  $^{85}$ ,  $^{87}\text{Rb}$ ,  $^{88}$ ,  $^{90}\text{Sr}$ ,  $^{89}\text{Y}$ ,  $^{91}$ ,  $^{92}$ ,  $^{93}$ ,  $^{94}$ ,  $^{95}$ ,  $^{96}\text{Zr}$ ,  $^{95}$ ,  $^{97}$ ,  $^{98}$ ,  $^{100}\text{Mo}$ ,  $^{99}\text{Tc}$ ,  $^{101}$ ,  $^{102}$ ,  $^{104}$ ,  $^{106}\text{Ru}$ ,  $^{103}\text{Rh}$ ,  $^{105}$ ,  $^{106}$ ,  $^{107}$ ,  $^{108}$ ,  $^{110}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{111}$ ,  $^{112}$ ,  $^{113}$ ,  $^{114}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{126}$ ,  $^{128}$ ,  $^{130}\text{Te}$ ,  $^{127}$ ,  $^{129}\text{I}$ ,  $^{131}$ ,  $^{132}$ ,  $^{134}$ ,  $^{136}\text{Xe}$ ,  $^{133}$ ,  $^{135}$ ,  $^{137}\text{Cs}$ ,  $^{138}\text{Ba}$ ,  $^{139}\text{La}$ ,  $^{140}$ ,  $^{142}\text{Ce}$ ,  $^{141}\text{Pr}$ ,  $^{143}$ ,  $^{144}$ ,  $^{145}$ ,  $^{146}$ ,  $^{148}$ ,  $^{150}\text{Nd}$ ,  $^{147}\text{Pm}$ ,  $^{147}$ ,  $^{148}$ ,  $^{149}$ ,  $^{150}$ ,  $^{151}$ ,  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{153}$ ,  $^{154}$ ,  $^{155}\text{Eu}$ ,  $^{155}$ ,  $^{156}$ ,  $^{157}$ ,  $^{158}\text{Gd}$ ,  $^{159}\text{Tb}(n,\gamma)$ ; calculated  $\sigma(E)$ .

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**Keynumber:** 1973KNZO

**Coden:** REPT COO-3058-38 P2

**Keyword abstract:** NUCLEAR REACTIONS  $^{103}\text{Rh}$ ,  $^{105}\text{Pd}$ ,  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ ; measured  $\sigma(E)$ .

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**Keynumber:** 1973KNZM

**Coden:** REPT COO-3058-44,P2

**Keyword abstract:** NUCLEAR REACTIONS  $^{105}\text{Pd}$ ,  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ , E=4-65 keV; measured  $\sigma$ .

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**Keynumber:** 1973KNZL

**Coden:** REPT COO-3058-39 P17 mf

**Keyword abstract:** NUCLEAR REACTIONS  $^{105}\text{Pd}$ ,  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{103}\text{Rh}(n,\gamma)$ , E=20-100 eV; measured  $\sigma$ .

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**Keynumber:** 1973HAYP

**Coden:** REPT EANDC(US)-186'U' P6

**Keyword abstract:** NUCLEAR REACTIONS  $^{98}$ ,  $^{100}\text{Mo}$ ,  $^{109}\text{Ag}$ ,  $^{127}$ ,  $^{129}\text{I}$ ,  $^{139}\text{La}$ ,  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{159}\text{Tb}$ ,  $^{169}\text{Tm}$ ,  $^{181}\text{Ta}(n,\gamma)$ ; measured integral  $\sigma$ .

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**Keynumber:** 1973BEYQ

**Coden:** REPT ANCR-1129 P6

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ , E=reactor spectrum; measured  $\sigma$ .

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**Keynumber:** 1972RA26

**Reference:** Nucl.Sci.Eng. 48, 219 (1972)

**Authors:** F.Rahn, H.S.Camarda, G.Hacken, W.W.Havens,Jr., H.I.Liou, J.Rainwater, M.Slagowitz, S.Wynchank

**Title:** Values of the Neutron Resonance Capture Integral for Some Rare Earth Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{153}\text{Eu}$ ,  $^{154}$ ,  $^{158}$ ,  $^{160}\text{Gd}$ ,  $^{166}$ ,  $^{167}$ ,  $^{168}$ ,  $^{170}\text{Er}$ ,  $^{168}$ ,  $^{170}$ ,  $^{171}$ ,  $^{172}$ ,  $^{174}$ ,  $^{176}\text{Yb}$ ,  $^{175}\text{Lu}$ ,  $^{182}$ ,  $^{183}$ ,  $^{184}$ ,  $^{186}\text{W}(n,\gamma)$ ; calculated resonance integrals.

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**Keynumber:** 1971HAXR

**Coden:** REPT NCSAC-42,P61,G Hacken,5/19/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}$ ,  $^{154}\text{Sm}$ ,  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{154}$ ,  $^{158}$ ,  $^{160}\text{Gd}$ ,  $^{166}$ ,  $^{167}$ ,  $^{168}$ ,  $^{170}\text{Er}$ ,  $^{168}$ ,  $^{170}$ ,  $^{171}$ ,  $^{172}$ ,  $^{174}$ ,  $^{176}\text{Yb}$ ,  $^{175}\text{Lu}$ ,  $^{182}$ ,  $^{183}$ ,  $^{184}$ ,  $^{186}\text{W}(n,\gamma)$ , measured capture resonance integrals.

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**Keynumber:** 1968KO16

**Reference:** Yadern.Fiz. 7, 493(1968); Soviet J.Nucl.Phys. 7, 310(1968)

**Authors:** V.A.Konks, Y.P.Popov, Y.I.Fenin

**Title:** Radiative Capture of Neutrons by Nuclei with A = 140-200



**Keyword abstract:** NUCLEAR REACTIONS Eu,  $^{153}\text{Eu}$ ,  $^{165}\text{Ho}$ ,  $^{175}\text{Lu}(n,\gamma)$ ,  $E < 50 \text{ keV}$ ; measured  $\sigma$ .

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**Keynumber:** 1967SI16

**Reference:** J.Inorg.Nucl.Chem. 29, 2671 (1967)

**Authors:** G.H.E.Sims, D.G.Juhnke

**Title:** The Thermal Neutron Cross-Sections and Resonance Integrals of the Europium Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ ,  $E=\text{thermal}$ ; measured  $\sigma$ ; deduced resonance integrals.

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**Keynumber:** 1967RA24

**Reference:** Proc.Intern.Conf.Atomic Masses, 3rd, Winnipeg, Canada, R.C.Barber, Ed., Univ.Manitoba Press, p.278(1967)

**Authors:** N.C.Rasmussen, V.J.Orphan, Y.Hukai

**Title:** Determination of  $(n,\gamma)$  Reaction Q Values from Capture  $\gamma$ -Ray Spectra

**Keyword abstract:** NUCLEAR REACTIONS  $^6\text{Li}$ ,  $^7\text{Li}$ ,  $^9\text{Be}$ ,  $^{10}\text{B}$ ,  $^{12}\text{C}$ ,  $^{14}\text{N}$ ,  $^{19}\text{F}$ ,  $^{23}\text{Na}$ ,  $^{24}\text{Mg}$ ,  $^{25}\text{Mg}$ ,  $^{26}\text{Mg}$ ,  $^{27}\text{Al}$ ,  $^{28}\text{Si}$ ,  $^{31}\text{P}$ ,  $^{32}\text{S}$ ,  $^{35}\text{Cl}$ ,  $^{40}\text{Ca}$ ,  $^{45}\text{Sc}$ ,  $^{48}\text{Ti}$ ,  $^{51}\text{V}$ ,  $^{55}\text{Mn}$ ,  $^{54}\text{Fe}$ ,  $^{56}\text{Fe}$ ,  $^{59}\text{Co}$ ,  $^{58}\text{Ni}$ ,  $^{60}\text{Ni}$ ,  $^{63}\text{Cu}$ ,  $^{65}\text{Cu}$ ,  $^{66}\text{Zn}$ ,  $^{67}\text{Zn}$ ,  $^{73}\text{Ge}$ ,  $^{76}\text{Se}$ ,  $^{85}\text{Rb}$ ,  $^{87}\text{Rb}$ ,  $^{89}\text{Y}$ ,  $^{93}\text{Nb}$ ,  $^{103}\text{Rh}$ ,  $^{113}\text{Cd}$ ,  $^{123}\text{Te}$ ,  $^{133}\text{Cs}$ ,  $^{139}\text{La}$ ,  $^{141}\text{Pr}$ ,  $^{149}\text{Sm}$ ,  $^{153}\text{Eu}$ ,  $^{157}\text{Gd}$ ,  $^{159}\text{Tb}$ ,  $^{165}\text{Ho}$ ,  $^{167}\text{Er}$ ,  $^{169}\text{Tm}$ ,  $^{181}\text{Ta}$ ,  $^{182}\text{W}$ ,  $^{195}\text{Pt}$ ,  $^{197}\text{Au}$ ,  $^{199}\text{Hg}$ ,  $^{203}\text{Tl}$ ,  $^{207}\text{Pb}(n,\gamma)$ ,  $E = \text{thermal}$ ; measured  $E\gamma$ ; deduced Q. Natural targets.