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**67 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:** 2000KA30

**Reference:** Appl.Radiat.Isot. 53, 825 (2000)

**Authors:** Ye.A.Karelin, V.N.Efimov, V.T.Filimonov, R.A.Kuznetsov, Yu.L.Revyakin, O.I.Andreev, I.Yu.Zhemkov, V.G.Bukh, V.M.Lebedev, Ye.N.Spiridonov

**Title:** Radionuclide Production using a Fast Flux Reactor

**Keyword abstract:** NUCLEAR REACTIONS  $^{89}\text{Y}$ ,  $^{32}$ ,  $^{33}\text{S}$ ,  $^{35}\text{Cl}(n,p)$ ,  $^{116}\text{Sn}$ ,  $^{151}\text{Eu}$ ,  $^{152}\text{Gd}(n,\gamma)$ , E=reactor; measured yields; deduced irradiation parameters for isotope production in fast flux reactor.

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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  $E_n = 0.001 \text{ } \vartheta$  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:** 1998GR02

**Reference:** Yad.Fiz. 61, No 1, 29 (1998); Phys.Atomic Nuclei 61, 24 (1998)

**Authors:** O.T.Grudzevich

**Title:** Isomeric Ratios for Radiative Neutron Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{59}\text{Co}$ ,  $^{80}\text{Se}$ ,  $^{89}\text{Y}$ ,  $^{79}\text{Br}$ ,  $^{85}\text{Rb}$ ,  $^{103}\text{Rh}$ ,  $^{151}\text{Eu}$ ,  $^{115}\text{In}$ ,  $^{187}\text{Re}$  (n, $\gamma$ ),E=0-14 MeV; analyzed isomer production ratios. Cascade-evaporation model analysis.

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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:** 1994YA25

**Reference:** Nucl.Sci.Eng. 118, 249 (1994)

**Authors:** N.Yamamuro

**Title:** Activation Cross-Section Calculations on the Production of Long-Lived Radionuclides

**Keyword abstract:** NUCLEAR REACTIONS  $^{59}\text{Co}$ ,  $^{58}$ ,  $^{62}\text{Ni}$ ,  $^{93}\text{Nb}$ ,  $^{92}$ ,  $^{98}\text{Mo}$ ,  $^{107}\text{Ag}$ ,  $^{151}\text{Eu}$ ,  $^{185}\text{Re}$  (n, $\gamma$ ),  $^{60}\text{Ni}$ ,  $^{63}\text{Cu}$ ,  $^{94}\text{Mo}$ ,  $^{158}\text{Dy}$ (n,p),  $^{61}\text{Ni}$ ,  $^{92}\text{Mo}$ (n,np),  $^{63}\text{Cu}$ ,  $^{66}\text{Zn}$ (n, $\alpha$ ),  $^{60}$ ,  $^{64}\text{Ni}$ ,  $^{95}$ ,  $^{93}\text{Nb}$ ,  $^{94}$ ,  $^{100}\text{Mo}$ ,  $^{109}\text{Ag}$ ,  $^{151}$ ,  $^{153}\text{Eu}$ ,  $^{159}\text{Tb}$ ,  $^{187}\text{Re}$ (n,2n),  $^{95}\text{Mo}$ (n,3n),E  $\leq$  20 MeV; calculated activation  $\sigma$ (E).

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**Keynumber:** 1994VI08

**Reference:** Bull.Rus.Acad.Sci.Phys. 58, 749 (1994)

**Authors:** I.N.Vishnevsky, V.A.Zheltonozhsky, S.V.Reshitko

**Title:** On Nature of  $\gamma$ -Radiation in (n $\gamma$ ) Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{197}\text{Au}$ ,  $^{181}\text{Ta}$ ,  $^{151}\text{Eu}$ (n, $\gamma$ ),E=thermal,resonance; measured isomeric yield ratios. Activation techniques.

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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 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:** 1993VIZU

**Reference:** Program and Thesis, Proc.43rd Ann.Conf.Nucl.Spectrosc.Struct.At.Nuclei, Dubna, p.75 (1993)

**Authors:** I.N.Vishnevsky, V.A.Zheltonozhsky, S.V.Reshitko

**Title:** On Character of  $\gamma$ -Radiation in (n, $\gamma$ ) Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}$ ,  $^{181}\text{Ta}$ ,  $^{197}\text{Au}$ (n, $\gamma$ ),E=thermal; measured isomeric ratios, $\gamma$ -spectra.  $^{152}\text{Eu}$ ,  $^{182}\text{Ta}$ ,  $^{198}\text{Au}$  deduced transition feature.

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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:** 1990GA29

**Reference:** Izv.Akad.Nauk SSSR, Ser.Fiz. 54, 1006 (1990); Bull.Acad.Sci.USSR, Phys.Ser. 54, No.5, 190 (1990)

**Authors:** V.I.Gavrilyuk, V.A.Zheltonozhsky, S.V.Reshitko, V.B.Kharlanov

**Title:** Measurement of the Isomeric Ratios for Nuclei with A >150

**Keyword abstract:** NUCLEAR REACTIONS,ICPND  $^{151}\text{Eu}$ (n, $\gamma$ ),E=reactor;  $^{151}\text{Eu}$ ( $\alpha$ ,n),E=15.6-26.3 MeV;  $^{184}\text{W}$ (p,n),E=3.8-6.7 MeV;  $^{193}\text{Ir}$ ( $\alpha$ ,n),E=16.4-23.5 MeV; measured residuals isomeric production  $\sigma$  ratios. Activation technique. Cascade-evaporation model.

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**Keynumber:** 1989BA37

**Reference:** J.Radioanal.Nucl.Chem. 131, 457 (1989)

**Authors:** A.M.Barouni, L.Bakos, E.Papp Zemplen, G.Keomley

**Title:** Reactor Neutron Activation Analysis followed by Characteristic X-Ray Spectrometry

**Keyword abstract:** NUCLEAR REACTIONS  $^{74}\text{Se}$ (n,p),  $^{114}\text{Cd}$ ,  $^{151}\text{Eu}$ (n, $\gamma$ ),E=reactor; measured X-ray spectra following residue decay.

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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:** 1985VO15

**Reference:** Z.Phys. A322, 669 (1985)

**Authors:** T.von Egidy, H.G.Borner, F.Hoyler

**Title:** Cross Sections and  $\gamma$ -Rays from Multiple Neutron Capture in  $^{151}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{152}$ ,  $^{151}\text{Eu}$ (n, $\gamma$ ),E=thermal; measured capture  $E\gamma$ , $I\gamma$ .

$^{151}\text{Eu}$  deduced capture  $\sigma$ , Westcott (g-factors).  $^{153}$ ,  $^{152}\text{Eu}$  deduced levels,  $J, \pi$ , capture  $\sigma$ , Westcott (g-factors), neutron binding energies.  $^{152}$ ,  $^{153}\text{Gd}(n, \gamma)$ ,  $E$ =thermal; measured  $E\gamma, I\gamma$ .  $^{153}$ ,  $^{154}\text{Gd}$  deduced neutron binding energies.

**Keyword abstract:** RADIOACTIVITY  $^{152}$ ,  $^{152\text{m}}\text{Eu}(\text{EC})$ ,  $(\beta^+)$ ,  $(\beta^-)$  [from  $^{151}\text{Eu}(n, \gamma)$ ,  $E$ =thermal]; measured  $E\gamma, I\gamma$ .

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**Keynumber:** 1984WA22

**Reference:** Chin.J.Nucl.Phys. 6, 286 (1984)

**Authors:** Wang Xinlin, Li Xiaodi, Du Hongshan

**Title:** Measurement of Relative Intensities of Gamma-Rays from the Decay of  $^{152}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n, \gamma)$ ,  $E$  not given; measured  $E\gamma, I\gamma$ .

**Keyword abstract:** RADIOACTIVITY  $^{152}\text{Eu}(\beta^-)$ ,  $(\beta^+)$ ,  $(\text{EC})$  [from  $^{151}\text{Eu}(n, \gamma)$ ]; measured  $E\gamma, I\gamma$ .

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**Keynumber:** 1981BEZC

**Reference:** NEANDC(E)-222U, Vol.V, p.5 (1981)

**Authors:** H.Beer, F.Kappeler, G.Reffo

**Title:** Capture Cross Section Measurements on Xe, Sm, Eu and Gd-Isotopes with the Activation Method

**Keyword abstract:** NUCLEAR REACTIONS  $^{124}$ ,  $^{132}$ ,  $^{134}\text{Xe}$ ,  $^{152}\text{Sm}$ ,  $^{151}\text{Eu}$ ,  $^{152}$ ,  $^{158}$ ,  $^{160}\text{Gd}(n, \gamma)$ ,  $E=25$  keV; measured  $\sigma(\text{capture})$ . Activation technique.  $^{197}\text{Au}$  standard.

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**Keynumber:** 1981AR22

**Reference:** Yad.Fiz. 34, 1028 (1981)

**Authors:** L.Ya.Arifov, B.S.Mazitov, V.G.Ulanov

**Title:** Relative Probability of Isomer Population in Radiative Capture

**Keyword abstract:** NUCLEAR REACTIONS  $^{45}\text{Sc}$ ,  $^{59}\text{Co}$ ,  $^{68}$ ,  $^{70}\text{Zn}$ ,  $^{74}$ ,  $^{76}\text{Ge}$ ,  $^{80}$ ,  $^{82}\text{Se}$ ,  $^{84}\text{Kr}$ ,  $^{85}\text{Rb}$ ,  $^{84}\text{Sr}$ ,  $^{89}\text{Y}$ ,  $^{103}\text{Rh}$ ,  $^{108}$ ,  $^{110}\text{Pd}$ ,  $^{109}\text{Ag}$ ,  $^{114}\text{Cd}$ ,  $^{113}$ ,  $^{115}\text{In}$ ,  $^{112}$ ,  $^{120}$ ,  $^{122}$ ,  $^{124}\text{Sn}$ ,  $^{121}\text{Sb}$ ,  $^{120}$ ,  $^{126}$ ,  $^{128}$ ,  $^{130}\text{Te}$ ,  $^{133}\text{Cs}$ ,  $^{132}\text{Ba}$ ,  $^{136}$ ,  $^{138}\text{Ce}$ ,  $^{151}\text{Eu}$ ,  $^{164}\text{Dy}$ ,  $^{181}\text{Ta}$ ,  $^{184}\text{W}$ ,  $^{187}\text{Re}$ ,  $^{190}\text{Os}$ ,  $^{191}\text{Ir}$ ,  $^{196}\text{Pt}$ ,  $^{196}\text{Hg}$

$(n, \gamma)$ ,  $E$ =thermal, 0.2-2.8 MeV;  $^{92}\text{Mo}(p, \gamma)$ ,  $E=1.8-7.4$  MeV; analyzed  $\sigma(\text{capture})$  isomer ratio vs  $E$ . Statistical theory.

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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:** 1979AN19

**Reference:** Nucl.Phys. A325, 317 (1979)

**Authors:** W.Andrejscheff, K.D.Schilling

**Title:** Transition Probabilities and Deformations in the Doubly Odd Nucleus  $^{152}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ , E=thermal; measured  $\gamma\gamma(t)$ .  $^{152}\text{Eu}$  levels deduced  $T_{1/2}$ ,  $B(\lambda)$ ,  $\beta$ . Enriched target. Plastic scintillator, Ge(Li) detector.

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**Keynumber:** 1978VOZP

**Reference:** ZAED-M-14 (1978)

**Authors:** T.von Egidy, W.Kaiser, W.Mampe, C.Hillenbrand, W.Stoffl, R.G.Lanier, K.Muhlbauer, O.W.B.Schult, H.R.Koch, H.A.Baader, R.L.Mlekodaj, R.K.Sheline, E.B.Shera, J.Ungrin, P.T.Prokofjev, L.I.Simonova, M.K.Balodis, H.Seyfarth, B.Kardon, W.Delang, P.Gottel, D.Breitig, W.R.Kane, R.F.Casten, H.J.Scheerer, P.Glassl, E.Huenges, M.Loffler, H.Rosler, H.K.Vonach

**Title:** Nuclear Levels in  $^{152}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ , E=thermal, resonance; measured  $E\gamma$ ,  $I\gamma$ ,  $I(\text{ce})$ ,  $\gamma\gamma$ -coin.  $^{153}\text{Eu}(d,t)$ , E=12 MeV;  $^{153}\text{Eu}(p,d)$ , E=18 MeV; measured  $\sigma$ .  $^{152}\text{Eu}$  deduced levels,  $J, \pi, T_{1/2}$ , ICC, Nilsson configurations. Magnetic electron spectrometer, curved crystal spectrometer, Ge(Li), Si(Li) detectors, magnetic spectrographs. Enriched targets.

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**Keynumber:** 1978SIZT

**Coden:** CONF BNL(Neutron Capt  $\gamma$ -Ray Spectr), Contrib, No72, Simic

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ , E=50-150 keV; measured  $I\gamma$ ,  $\gamma\gamma$ -coin.  $^{152}\text{Eu}$  deduced levels,  $\gamma$ -branching.

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**Keynumber:** 1978SIZJ

**Coden:** CONF Brookhaven(Neutron Capt  $\gamma$ -Ray Spectr), Proc, P751, Simic

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ , E=thermal; measured  $\gamma\gamma(t)$ ,  $E\gamma$ ,  $I\gamma$ .  $^{152}\text{Eu}$  deduced levels.

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

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**Keynumber:** 1977ANZD

**Coden:** CONF Tokyo (Nucl Structure), Proc, Vol1, P388, Andrejtscheff

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ ; measured  $\gamma\gamma(t)$ .  $^{152}\text{Eu}$  levels deduced  $T_{1/2}$ .

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**Keynumber:** 1977ANZC

**Reference:** Intern.Symp.High-Spin States and Nuclear Structure, Dresden, p.35 (1977); ZFK-336 (1977)

**Authors:** W.Andrejtscheff, K.D.Schilling

**Title:** Nonosecond Isomers in the Doubly-Odd N = 89 Nucleus  $^{152}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ ; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin,  $\gamma\gamma(t)$ .  $^{152}\text{Eu}$  deduced levels,  $T_{1/2}$ .

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**Keynumber:** 1977ANZA

**Coden:** REPT INDC(SEC)-61/LN, P33, Andrejtscheff

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ ; measured  $E\gamma, I\gamma(t)$ .  $^{152}\text{Eu}$  deduced levels,  $T_{1/2}$ .

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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:** 1976VOZR

**Coden:** CONF Baku p102

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma), (d,p), ^{153}\text{Eu}(p,d), (d,t), E$  not given; measured  $E\gamma, I\gamma, \sigma$ .  $^{152}\text{Eu}$  deduced levels,  $J, \pi, \gamma$ -multipolarity, state structure.

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**Keynumber:** 1976SEZF

**Coden:** REPT KFA 1975 Ann,P97,Seyfarth

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ ; measured  $\gamma\gamma$ -coin.  $^{152}\text{Eu}$  deduced levels.

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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:** 1975VOZV

**Coden:** CONF Petten(Neutron Capture  $\gamma$ -ray Spect), Proc P532

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma), ^{153}\text{Eu}(d,t), (p,d), ^{151}\text{Eu}(d,p)$ ; measured  $\sigma, E\gamma, I\gamma, \gamma\gamma$ -coin,  $\gamma(t)$ .  $^{152}\text{Eu}$  deduced levels,  $K, J, \pi, T_{1/2}$ .

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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:** 1974VOZR

**Reference:** Contrib.Int.Conf.Neutron Capture Gamma Ray Spectroscopy and Related Topics, 2nd, Petten, p.241 (1974)

**Authors:** T.von Egidy, W.Kaiser, W.Mampe, R.G.Lanier, K.Muhlbauer, O.W.B.Schult, H.R.Koch, H.A.Baader, R.L.Mlekodaj, R.K.Sheline, E.B.Shera, J.Ungrin, P.T.Prokofjev, L.I.Simonova, H.Seyfarth, B.Kardon, W.Delang, P.Gottel, D.Breitig, W.R.Kane, R.F.Kasten, H.-J.Scheerer, P.Glassl, E.Huenges, M.Loffler, H.Rosler, H.K.Vonach, D.Rabenstein

**Title:** The Transitional Nucleus  $^{152}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ ,  $(d,p)$ ,  $^{153}\text{Eu}(d,t)$ ,  $(p,d)$ ; measured not given.  
 $^{152}\text{Eu}$  deduced isomer, levels,  $T_{1/2}$ ,  $J$ ,  $\pi$ ,  $\lambda$ .

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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  $^{105}\text{Pd}$ ,  $^{151}$ ,  $^{153}\text{Eu}(n,\gamma)$ ,  $E=\text{keV}$ ; measured  $\sigma$ .

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**Keynumber:** 1974ERZW

**Reference:** KFA-IKP-10/74, p.299 (1974)

**Authors:** R.Ermer, W.Delang, P.Gottel, H.H.Guven, B.Hrastnik, O.W.B.Schult, H.Seyfarth

**Title:** Gamma Spectroscopic Investigations on Nuclear Structure after Thermal Neutron Capture

**Keyword abstract:** RADIOACTIVITY  $^{182}\text{Re}$ ; measured  $\gamma\gamma(\theta)$ .  $^{182}\text{W}$  deduced levels.

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}$ ,  $^{98}\text{Mo}(n,\gamma)$ ,  $E=\text{thermal}$ ; measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin.  
 $^{152}\text{Eu}$ ,  $^{99}\text{Mo}$  deduced levels.

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**Keynumber:** 1973RAXW

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

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

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**Keynumber:** 1973KOYM

**Reference:** INDC(SEC)-35/L, p.195 (1973)

**Authors:** S.Koicki, V.Ajdacic, B.Lalovic, I.Slavic

**Title:** Gamma Rays from Thermal Neutron Capture on  $\text{Eu}^{151}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ ; measured  $E\gamma$ ,  $\gamma(t)$ .  $^{152}\text{Eu}$  deduced transitions.

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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  $\sigma$ .

**Keynumber:** 1973BRZY

**Coden:** JOUR BAPSA 18 36,D Breitig,1/15/73

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ ,E=resonance; measured  $E\gamma$ , $I\gamma$ .  $^{152}\text{Eu}$  deduced resonances,levels, $J,\pi$ .

**Keynumber:** 1973BEYQ

**Coden:** REPT ANCR-1129 P6

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

**Keynumber:** 1972SCYT

**Coden:** CONF Teddington(Atomic Masses, Fund Constants),P123

**Keyword abstract:** NUCLEAR REACTIONS  $^{107},^{109}\text{Ag},^{139}\text{La},^{150}\text{Sm},^{151},^{152}\text{Eu},^{155},^{157}\text{Gd},^{159}\text{Tb},^{168},^{171},^{174}\text{Yb},^{178}\text{Hf},^{181},^{182}\text{Ta},^{197},^{198}\text{Au},^{199}\text{Hg},^{232}\text{Th}(n,\gamma)$ ; measured  $E\gamma$ .  $^{108},^{110}\text{Ag},^{140}\text{La},^{151}\text{Sm},^{152},^{153}\text{Eu},^{156},^{158}\text{Gd},^{160}\text{Tb},^{169},^{172},^{175}\text{Yb},^{179}\text{Hg},^{182},^{183}\text{Ta},^{198},^{199}\text{Au},^{200}\text{Hg},^{233}\text{Th}$  deduced transitions.

**Keynumber:** 1972LA26

**Reference:** J.Phys.(London) A5, 1262 (1972)

**Authors:** A.Lakshmana Rao, J.Rama Rao

**Title:** Cross Sections and Isomer Ratios for Some Neutron Capture Reactions

**Keyword abstract:** NUCLEAR REACTIONS  $^{116}\text{Cd},^{151}\text{Eu}(n,\gamma)$ ,E=25 keV; measured  $\sigma$ ,isomeric  $\sigma$  ratio; deduced spin cut-off parameters.

**Keynumber:** 1972LA15

**Reference:** Phys.Rev. C6, 572 (1972)

**Authors:** A.Lakshmana Rao, J.Rama Rao

**Title:** Isomer Ratios in  $(n,\gamma)$  Reactions at 25 keV

**Keyword abstract:** NUCLEAR REACTIONS  $^{74}\text{Ge},^{79}\text{Br},^{80}\text{Se},^{85}\text{Rb},^{103}\text{Rh},^{121}\text{Sb},^{151}\text{Eu},^{164}\text{Dy}$   $(n,\gamma)$ ,E=25 keV; measured  $\sigma$ ,isomeric ratio.

**Keynumber:** 1972DEXR

**Coden:** REPT NP-19666P46,W Delang

**Keyword abstract:** NUCLEAR REACTIONS  $^{102},^{104}\text{Ru},^{151}\text{Eu}(n,\gamma)$ ; measured  $E\gamma$ .  $^{103},^{105}\text{Ru},^{152}\text{Eu}$  deduced levels.

**Keynumber:** 1971VOZP

**Coden:** CONF IPN(Orsay),Transition Nuclei,P235

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ ; measured  $E\gamma$ , $I\gamma$ , $I(\text{ce})$ .  $^{151}\text{Eu}(d,p)$ , measured  $\sigma(E_p,\theta)$ .  $^{153}\text{Eu}(d,t)$ , measured  $\sigma(E_t,\theta)$ .  $^{152}\text{Eu}$  deduced levels, $J,\pi,\gamma$ -branching.

**Keynumber:** 1971RYZZ

**Reference:** Proc.Int.Conf.Chemical Nuclear Data, Measurements and Applications, Canterbury, England, M.L.Hurrell, Ed., Institution of Civil Engineers, London, p.139 (1971)

**Authors:** T.B.Ryves

**Title:** Thermal Neutron Capture Cross Section Measurements at the NPL

**Keyword abstract:** NUCLEAR REACTIONS  $^{23}\text{Na},^{26}\text{Mg},^{27}\text{Al},^{30}\text{Si},^{37}\text{Cl},^{41}\text{K},^{50}\text{Ti},^{51}\text{V},^{58}\text{Fe},^{64}\text{Ni},^{63},^{65}\text{Cu},^{69},^{71}\text{Ga},^{75}\text{As},^{79},^{81}\text{Br},^{89}\text{Y},^{107},^{109}\text{Ag},^{115}\text{In},^{121},^{123}\text{Sb},^{127}\text{I},^{139}\text{La},^{151}\text{Eu},^{196},^{198}\text{Pt}$   $(n,\gamma)$ ,E=thermal; measured  $\sigma$ .



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**Keynumber:** 1971RYZX

**Coden:** CONF Canterbury(Chem Nucl Data),P139,12/10/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{23}\text{Na}$ ,  $^{26}\text{Mg}$ ,  $^{27}\text{Al}$ ,  $^{30}\text{Si}$ ,  $^{37}\text{Cl}$ ,  $^{41}\text{K}$ ,  $^{50}\text{Ti}$ ,  $^{51}\text{V}$ ,  $^{58}\text{Fe}$ ,  $^{64}\text{Ni}$ ,  $^{63}\text{Cu}$ ,  $^{69}\text{Ga}$ ,  $^{71}\text{Ga}$ ,  $^{75}\text{As}$ ,  $^{79}\text{Br}$ ,  $^{81}\text{Br}$ ,  $^{89}\text{Y}$ ,  $^{107}\text{Ag}$ ,  $^{109}\text{Ag}$ ,  $^{115}\text{In}$ ,  $^{121}\text{Sb}$ ,  $^{123}\text{Sb}$ ,  $^{127}\text{I}$ ,  $^{139}\text{La}$ ,  $^{151}\text{Eu}$ ,  $^{196}\text{Pt}$  (n, $\gamma$ ),E=thermal; measured  $\sigma$ ; deduced resonance integrals.

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**Keynumber:** 1971PRZW

**Coden:** CONF Moscow(NuclSpectros,Structure) Abstr P98

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}$ (n, $\gamma$ ),E=th; measured  $E\gamma$ ,I(ce).  $^{152}\text{Eu}$  transitions deduced subshell ratios.

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**Keynumber:** 1971PO08

**Reference:** Nucl.Phys. A172, 489 (1971)

**Authors:** F.Poortmans, I.Garlea, A.Fabry

**Title:** Neutron Cross Sections for  $^{151}\text{Eu}$  below 1 eV

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}$ (n, $\gamma$ ), $^{152}\text{Eu}$ ,  $^{152\text{m}}\text{Eu}$ ;En=0.02 eV-0.75 eV, thermal; measured  $\sigma$ (nt), $\sigma$ (act); deduced isomer yield ratios,Westcott g-factor.  $^{152}\text{Eu}$  deduced negative energy resonance parameters. Natural targets.

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**Keynumber:** 1971ORZZ

**Reference:** Proc.Conf.Neutron Cross Sections and Technology, Knoxville, Tenn., 3rd, R.L.Macklin, Ed., Vol.1, p.127 (1971); CONF-710301 (1971)

**Authors:** F.V.Orestano, F.Pistella

**Title:** Cross Section Evaluations by Integral Measurements

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}$ ,  $^{175}\text{Lu}$ (n, $\gamma$ ),E <0.63 eV; measured activation  $\sigma$ ,resonance integral.  $^{152}\text{Eu}$  deduced resonance parameters.

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**Keynumber:** 1971HAXR

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

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

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**Keynumber:** 1970RAZU

**Coden:** CONF Madurai(Nucl,Solid State Phys),Vol2,P19

**Keyword abstract:** NUCLEAR REACTIONS  $^{74}\text{Ge}$ ,  $^{85}\text{Rb}$ ,  $^{110}\text{Pd}$ ,  $^{116}\text{Cd}$ ,  $^{121}\text{Sb}$ ,  $^{124}\text{Sn}$ ,  $^{151}\text{Eu}$ ,  $^{196}\text{Pt}$  (n, $\gamma$ ),E=25 keV; measured  $\sigma$ ,isomeric  $\sigma$  ratios.

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**Keynumber:** 1970MI11

**Reference:** Nucl.Phys. A155, 21 (1970)

**Authors:** W.Michaelis

**Title:** Thermal Neutron Capture in  $^{151}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}$ (n, $\gamma$ ),E=th; measured  $E\gamma$ ,I $\gamma$ .  $^{152}\text{Eu}$  deduced transitions. Enriched target. Ge(Li) detector.

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**Keynumber:** 1970KA15

**Reference:** Z.Naturforsch. 25a, 602 (1970)

**Authors:** W.Kaiser

**Title:** Untersuchungen Zum Niveauschema von  $^{152}\text{Eu}$  mit Konversionselektronen nach Neutroneneinfang

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ , E='slow'; measured  $E\gamma$ , I(ce).  $^{152}\text{Eu}$  deduced levels, J,  $\pi$ ,  $\gamma$ -mixing.

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**Keynumber:** 1970GE05

**Reference:** Z.Phys. 235, 263 (1970)

**Authors:** A.Gerl, K.E.G.Lobner

**Title:** Half-Life of the 89.83 keV Level in  $^{152}\text{Eu}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ , E=thermal; measured  $\gamma\gamma$ -delay.  $^{152}\text{Eu}$  level deduced  $T_{1/2}$ , hindrance factors.

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**Keynumber:** 1968BO49

**Reference:** Yadern.Fiz. 7, 1161 (1968); Soviet J.Nucl.Phys. 7, 694 (1968)

**Authors:** A.V.Borovikov, V.S.Gvozdev, G.D.Porsev

**Title:** Low-Lying Excited States of  $\text{Eu}^{152}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{151}\text{Eu}(n,\gamma)$ , E=thermal; measured I(ce), cece-coin, cece-delay.  $^{152}\text{Eu}$  deduced levels,  $\gamma$ -multipolarity.

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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=thermal; measured  $\sigma$ ; deduced resonance integrals.