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**27 reference(s) found :**

**Keynumber:** 2001SHZW

**Reference:** INDC(CPR)-053/L, p.29 (2001)

**Authors:** Q.Shen, Y.Zhuang, Q.Liang

**Title:** Calculation and Recommendation of  $n + {}^{142-148,150}\text{Nd}$  Reactions in the Energy Region up to 20 MeV

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{142, 143, 144, 145, 146, 147, 148, 150}\text{Nd}(n,n)$ ,  $(n,\gamma)$ ,  $(n,X)$ ,  $E < 20$  MeV; calculated  $\sigma, \sigma(\theta)$ . Comparisons with data.

**Keynumber:** 1999AN02

**Reference:** Ann.Nucl.Energy 26, 553 (1999)

**Authors:** M.A.Ansari, R.K.Y.Singh, R.P.Gautam, S.Kailas

**Title:** Fast Neutron Radiative Capture Cross-Sections in Fission Product Isotopes of Neodymium

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{148, 150}\text{Nd}(n,\gamma)$ ,  $E=0.46-3.44$  MeV; measured  $\sigma$ .

**Keynumber:** 1997WI13

**Reference:** Nucl.Phys. A621, 270c (1997)

**Authors:** K.Wisshak, F.Voss, F.Kappeler, L.Kazakov

**Title:** Neutron Capture in Neodymium Isotopes: Implications for the s-process

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{142, 143, 144, 145, 146, 148}\text{Nd}(n,\gamma)$ ,  $E=10,30$  keV; measured capture  $\sigma$ . Other data compared, astrophysical s-process implications.

**Keynumber:** 1997KAZR

**Reference:** Proc.Intern.on Nuclear Data for Science and Technology, Trieste, Italy, 19-24 May, 1997, G.Reffo, A.Ventura, C.Grandi, Eds., Editrice Compositori, Italy, Pt.2, p.1576 (1997)

**Authors:** F.Kappeler, K.Wisshak, F.Voss, G.Reffo

**Title:** Improved  $(n,\gamma)$  Cross Sections in the Rare Earth Region: Implications for s- and r-Process Nucleosynthesis

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{141}\text{Pr}$ ,  ${}^{142, 143, 144, 145, 146, 148}\text{Nd}$ ,  ${}^{160, 161, 162, 163, 164}\text{Dy}$ ,  ${}^{164, 170}\text{Er}(n,\gamma)$ ,  $E$  not given; measured Maxwellian averaged  $\sigma$  at  $kT=30$  keV. Activation technique.

**Keynumber:** [1995TO01](#)

**Reference:** Phys.Rev. C51, 1540 (1995)

**Authors:** K.A.Toukan, K.DeBus, F.Kappeler, G.Reffo

**Title:** Stellar Neutron Capture Cross Sections of Nd, Pm, and Sm Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  ${}^{146, 148, 150}\text{Nd}(n,\gamma)$ ,  $E=25,30$  keV; measured  $E\gamma, I\gamma$ ; deduced stellar capture  $\sigma(E)$ , s-, r-, p-process abundances from  ${}^{142}\text{Nd}$ - ${}^{150}\text{Sm}$ .  ${}^{147}\text{Nd}$ ,  ${}^{147, 148, 149}\text{Pm}$ ,  ${}^{147, 148, 149, 150, 151}\text{Sm}(n,\gamma)$ ,  $E=1-600$  keV;  ${}^{146, 147, 148}\text{Nd}$ ,  ${}^{147, 148, 149}\text{Pm}$ ,  ${}^{151}\text{Sm}(n,\gamma)$ ,  $E=12-52$  keV; calculated  $\sigma(E)$ .  ${}^{148}\text{Nd}$ ,  ${}^{147, 148, 149, 150}\text{Pm}$ ,  ${}^{147, 148, 149, 150, 151, 152, 153}\text{Sm}$  deduced level density parameters,  $\Gamma\gamma$ .

**Keynumber:** 1979SC12

**Reference:** Z.Phys. A291, 77 (1979)

**Authors:** E.W.Schneider, M.D.Glascock, W.B.Walters, R.A.Meyer

**Title:** Radioactive Decay of 1.7-h  $^{149}\text{Nd}$  to Levels of Transitional  $^{149}\text{Pm}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{148}\text{Nd}(n,\gamma)$ , E=thermal; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{149}\text{Nd}$  deduced levels, J,  $\pi$ . Compton suppression Ge(Li) detector. Enriched targets. Core-coupling model interpretation.

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**Keynumber:** 1979NAZZ

**Reference:** NEANDC(J)-61/U, p.1 (1979)

**Authors:** Y.Nakajima, A.Asami, Y.Kawarasaki, Y.Furuta, T.Yamamoto, Y.Kanda

**Title:** Neutron Capture Cross Section Measurements of Nd-143, Nd-145, Nd-146 and Nd-148

**Keyword abstract:** NUCLEAR REACTIONS  $^{143}, ^{145}, ^{146}, ^{148}\text{Nd}(n,\gamma)$ , E=5-400 keV; measured  $\sigma$ . Liquid scintillation detector.

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**Keynumber:** 1978NAZU

**Coden:** REPT NEANDC(J)-56/U,P7,Nakajima

**Keyword abstract:** NUCLEAR REACTIONS  $^{143}, ^{145}, ^{146}, ^{148}\text{Nd}(n,\gamma)$ , E<00 keV; measured  $\sigma$ . Enriched target.

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**Keynumber:** 1978KO04

**Reference:** Yad.Fiz. 27, 10 (1978); Sov.J.Nucl.Phys. 27, 5 (1978)

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

**Title:** Fast-Neutron Capture Cross Sections for Even-Even Isotopes of Neodymium, Samarium, Gadolinium, and Erbium

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{144}, ^{146}, ^{148}, ^{150}\text{Nd}, ^{144}, ^{148}, ^{150}, ^{152}, ^{154}\text{Sm}, ^{156}, ^{158}, ^{160}\text{Gd}, ^{166}, ^{168}, ^{170}\text{Er}(n,\gamma)$ , E=5-350 keV; measured  $\sigma(E)$ .

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**Keynumber:** 1977PIZU

**Coden:** REPT KFA-IKP-10/77,P53,Pinston

**Keyword abstract:** RADIOACTIVITY  $^{147}, ^{149}\text{Pr}$ ; measured not given.  $^{147}, ^{149}\text{Nd}$  deduced levels.

**Keyword abstract:** NUCLEAR REACTIONS  $^{146}, ^{148}, ^{150}\text{Nd}(n,\gamma)$ ; measured  $\gamma$ , ce spectra.  $^{147}, ^{149}, ^{151}\text{Nd}$  deduced levels.

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**Keynumber:** 1976ROYT

**Reference:** Thesis Univ.Grenoble (1976)

**Authors:** R.Roussille

**Title:** Etude des Niveaux Excites de Trois Isotopes de Neodyme de Masse Impaire  $^{147}, ^{149}, ^{151}\text{Nd}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{146}, ^{148}, ^{150}\text{Nd}(n,\gamma)$ ; measured  $\sigma(E), E\gamma, I\gamma, I(\text{ce})$ ; deduced Q.  $^{147}, ^{149}, ^{151}\text{Nd}$  deduced levels, J,  $\pi, \lambda, K$ . Systematics.

**Keyword abstract:** RADIOACTIVITY  $^{147}, ^{149}\text{Pr}$ ; measured  $E\gamma$ , absolute  $I\gamma$ ; deduced log ft,  $\beta$ -branching.  $^{147}, ^{149}\text{Nd}$  deduced levels.

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**Keynumber:** 1976PIZK

**Coden:** CONF Dubna(Selected Topics in Nucl Structure)Vol1,P61

**Keyword abstract:** NUCLEAR REACTIONS  $^{146}, ^{148}, ^{150}\text{Nd}(n,\gamma)$ , E=th; measured  $\gamma$ , ce spectra.  $^{147}, ^{149}, ^{151}\text{Nd}$  deduced levels, K.

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**Keynumber:** 1976PIZI

**Coden:** CONF Lowell(Interactions of Neutrons), CONF-760715-P2, Vol2 P1300

**Keyword abstract:** NUCLEAR REACTIONS  $^{146}, ^{148}, ^{150}\text{Nd}(n,\gamma), E=\text{th}$ ; measured  $\gamma, \text{ce}$  spectra.  $^{147}, ^{149}, ^{151}\text{Nd}$  deduced levels.

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**Keynumber:** 1976PI04

**Reference:** Nucl.Phys. A264, 1 (1976)

**Authors:** J.A.Pinston, R.Roussille, H.Borner, H.R.Koch

**Title:** Level Structure of  $^{149}\text{Nd}$  (I). The  $^{148}\text{Nd}(n,\gamma)$  Reaction

**Keyword abstract:** NUCLEAR REACTIONS  $^{148}\text{Nd}(n,\gamma), E=\text{th}$ ; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{149}\text{Nd}$  deduced levels,  $J, \pi$ , neutron binding energy. Enriched target. Bent crystal, Ge(Li) spectrometers.

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**Keynumber:** 1975BOZF

**Reference:** KFA/IKP-10/75, p.133 (1975)

**Authors:** H.Borner, W.F.Davidson, Do Huu Phuoc, P.Gottel, D.Heck, H.R.Koch, J.A.Pinston, R.Roussille, P.Van Assche

**Title:** Measurements with the Curved Crystal Spectrometers at the Grenoble High-Flux Reactor

**Keyword abstract:** NUCLEAR REACTIONS  $^{146}, ^{148}\text{Nd}, ^{99}\text{Tc}, ^{238}\text{U}(n,\gamma), E=\text{thermal}$ ; measured  $E\gamma, I\gamma, \gamma\gamma$ -coin.  $^{147}, ^{149}\text{Nd}, ^{100}\text{Tc}, ^{239}\text{U}$  deduced levels.

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**Keynumber:** 1975BOYU

**Coden:** CONF Petten(Neutron Capture  $\gamma$ -ray Spect), Proc P691

**Keyword abstract:** NUCLEAR REACTIONS  $^{99}\text{Tc}, ^{183}\text{W}, ^{146}, ^{148}\text{Nd}(n,\gamma), E=\text{thermal}$ ; measured  $\sigma(E\gamma)$ .  $^{100}\text{Tc}, ^{184}\text{W}, ^{147}, ^{149}\text{Nd}$  deduced transitions.

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**Keynumber:** 1974SI11

**Reference:** Ann.Phys.(New York) 83, 355 (1974)

**Authors:** K.Siddappa, M.S.Murty, J.R.Rao

**Title:** Neutron Strength Functions of Nuclei in the Deformed Region

**Keyword abstract:** NUCLEAR REACTIONS  $^{138}\text{Ba}, ^{140}, ^{142}\text{Ce}, ^{146}, ^{148}\text{Nd}, ^{152}, ^{154}\text{Sm}, ^{158}, ^{160}\text{Gd}, ^{159}\text{Tb}, ^{169}\text{Tm}, ^{170}\text{Er}, ^{174}, ^{176}\text{Yb}, ^{180}\text{Hf}, ^{181}\text{Ta}, ^{186}\text{W}, ^{190}, ^{192}\text{Os}, ^{197}\text{Au}, ^{202}\text{Hg}(n,\gamma), E=18-28 \text{ keV}$ ; measured  $\sigma$ ; deduced p-wave strength functions.

**Reference:** Can.J.Phys. 52, 1160 (1974)

**Authors:** B.Singh, M.W.Johns

**Title:** Spin Determinations in Low Lying States of  $^{151}\text{Sm}$

**Keyword abstract:** RADIOACTIVITY  $^{151}\text{Pm}$ ; measured  $\gamma\gamma(\theta), I\gamma$ .  $^{151}\text{Sm}$  levels deduced  $J, \pi, \gamma$ -mixing,  $\lambda$ .

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**Keynumber:** 1973SI45

**Reference:** Nuovo Cim. 18A, 48 (1973)

**Authors:** K.Siddappa, M.Sriramachandra Murty, J.Rama Rao

**Title:** Neutron Activation Cross-Sections in Rare Earths and Heavier Nuclei

**Keyword abstract:** NUCLEAR REACTIONS  $^{138}\text{Ba}, ^{140}, ^{142}\text{Ce}, ^{146}, ^{148}\text{Nd}, ^{160}\text{Gd}, ^{165}\text{Ho}, ^{180}\text{Hf}, ^{181}\text{Ta}, ^{190}\text{Os}, ^{197}\text{Au}, ^{202}\text{Hg}(n,\gamma), E=23 \text{ keV}$ ; measured  $\sigma$ .

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**Keynumber:** 1973RI08

**Reference:** Can.J.Phys. 51, 1454 (1973)

**Authors:** M.D.Ricabarra, R.Turjanski, G.H.Ricabarra

**Title:** Measurement and Evaluation of the Activation Resonance Integral of  $^{146}\text{Nd}, ^{148}\text{Nd}$ , and  $^{150}\text{Nd}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{146, 148, 150}\text{Nd}(n,\gamma)$ , E not given; measured  $\sigma$ . Deduced resonance integral.

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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:** 1973HAYX

**Reference:** ANCR-1129, p.3 (1973)

**Authors:** Y.D.Harker, R.G.Nisle, E.H.Turk, J.R.Berreth

**Title:** Integral Capture Cross Section Measurements of Fission Product Isotopes (CFRMF)

**Keyword abstract:** NUCLEAR REACTIONS  $^{87}\text{Rb}$ ,  $^{99}\text{Tc}$ ,  $^{102, 104}\text{Ru}$ ,  $^{115}\text{In}$ ,  $^{121, 123}\text{Sb}$ ,  $^{127}\text{I}$ ,  $^{132, 134}\text{Xe}$ ,  $^{133}\text{Cs}$ ,  $^{141}\text{Pr}$ ,  $^{147}\text{Pm}$ ,  $^{148, 150}\text{Nd}$ ,  $^{152, 154}\text{Sm}(n,\gamma)$ , E=reactor spectrum; measured  $\sigma$ .

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**Keynumber:** 1972TH03

**Reference:** J.Phys.(London) A5, 468 (1972)

**Authors:** B.V.Thirumala Rao, J.Rama Rao, E.Kondaiah

**Title:** Neutron Capture Cross Sections at 25 keV

**Keyword abstract:** NUCLEAR REACTIONS  $^{84}\text{Kr}$ ,  $^{110}\text{Cd}$ ,  $^{115}\text{In}$ ,  $^{130}\text{Te}$ ,  $^{146, 148, 150}\text{Nd}$ ,  $^{158}\text{Gd}$ ,  $^{160}\text{Gd}(n,\gamma)$ , E=25 keV; measured  $\sigma$ .

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**Keynumber:** 1972KI24

**Reference:** Radiochim.Acta 17, 191 (1972)

**Authors:** J.I.Kim, E.Gryntakis

**Title:** The Thermal Neutron Cross Section and the Resonance Integral of  $^{146}\text{Nd}$ ,  $^{148}\text{Nd}$ ,  $^{150}\text{Nd}$  and  $^{41}\text{K}$

**Keyword abstract:** NUCLEAR REACTIONS  $^{146, 148, 150}\text{Nd}$ ,  $^{41}\text{K}(n,\gamma)$ ; E=thermal; measured  $I\gamma$ , deduced  $\sigma$ , resonance integral.

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**Keynumber:** 1972HAWB

**Coden:** REPT ANCR-1088,P3, Y Harker, 12/11/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{99}\text{Tc}$ ,  $^{103}\text{Rh}$ ,  $^{133}\text{Cs}$ ,  $^{102}\text{Ru}$ ,  $^{147}\text{Pm}$ ,  $^{109}\text{Ag}$ ,  $^{104}\text{Ru}$ ,  $^{98}\text{Mo}$ ,  $^{141}\text{Pr}$ ,  $^{148}\text{Nd}$ ,  $^{150}\text{Nd}$ ,  $^{127}\text{I}$ ,  $^{107}\text{Ag}$ ,  $^{140, 142}\text{Ce}$ ,  $^{159}\text{Tb}$ ,  $^{121, 123}\text{Sb}$ ,  $^{158}\text{Gd}(n,\gamma)$ ; measured  $\sigma$ .

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**Keynumber:** 1971HAXS

**Coden:** REPT V D Harker, NCSAC-42, P5, 5/19/72

**Keyword abstract:** NUCLEAR REACTIONS  $^{87}\text{Rb}$ ,  $^{102, 104}\text{Ru}$ ,  $^{121, 123}\text{Sb}$ ,  $^{127}\text{I}$ ,  $^{148, 150}\text{Nd}(n,\gamma)$ , E=pile; measured integral  $\sigma$ .

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**Keynumber:** 1970RAZT

**Coden:** CONF Madurai(Nucl,Solid State Phys), Vol2,P25

**Keyword abstract:** NUCLEAR REACTIONS  $^{146, 148}\text{Nd}$ ,  $^{150}\text{Nd}$ ,  $^{158}\text{Gd}(n,\gamma)$ , E=25 MeV; measured

average  $\sigma$ .  $^{147}, ^{149}, ^{151}\text{Nd}$ ,  $^{159}\text{Gd}$  resonances deduced p-wave strength functions.

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**Keynumber:** 1968KA28

**Reference:** Yadern.Fiz. 8, 639 (1968); Soviet J.Nucl.Phys. 8, 371 (1969)

**Authors:** E.N.Karzhavina, N.N.Fong, A.B.Popov, A.I.Taskaev

**Title:** Neutron Resonances of Nd Isotopes

**Keyword abstract:** NUCLEAR REACTIONS  $^{142}, ^{143}, ^{144}, ^{145}, ^{146}, ^{148}, ^{150}\text{Nd}(n,X)$ ,  $(n,\gamma)$ ,  $E < 10$  keV; measured  $\sigma(E;E\gamma)$ , transmission.  $^{143}, ^{144}, ^{145}, ^{146}, ^{147}, ^{149}, ^{151}\text{Nd}$  deduced resonances, level-width, strength functions, average level spacings.