

Visit the [Isotope Explorer](#) home page!

22 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,γ) , (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 σ .

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: 1985GLZY

Reference: Priv.Comm. (April 1985)

Authors: M.D.Glascock, E.W.Schneider, W.B.Walters, R.A.Meyer, H.A.Smith,Jr., M.E.Bunker

Title: Structure of the Transitional Nucleus ${}^{151}\text{Pm}$

Keyword abstract: RADIOACTIVITY ${}^{151}\text{Nd}(\beta^-)$ [from ${}^{150}\text{Nd}(n,\gamma)$, $E=\text{thermal}$]; measured $E\gamma, I\gamma, \gamma\gamma$ -coin; deduced $\log ft, \beta\beta$. ${}^{151}\text{Pm}$ deduced levels, γ -branching, J, π .

Keyword abstract: NUCLEAR REACTIONS ${}^{150}\text{Nd}(n,\gamma)$, $E=\text{thermal}$; measured $E\gamma, I\gamma, \gamma\gamma$ -coin.

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 $\sigma(E)$.

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 γ ,ce spectra. 147 , 149 , ^{151}Nd deduced levels.

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}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}Nd deduced levels, J , π , λ , K . Systematics.

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

Keynumber: 1976PIZK

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

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

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 γ ,ce spectra. 147 , 149 , ^{151}Nd deduced levels.

Keynumber: 1976PI13

Reference: Nucl.Phys. A270, 61 (1976)

Authors: J.A.Pinston, R.Roussille, H.Borner, W.F.Davidson, P.Jeuch, H.R.Koch, K.Schreckenbach, D.Heck

Title: Rotational States in ^{151}Nd Populated Through Thermal Neutron Capture

Keyword abstract: NUCLEAR REACTIONS $^{150}\text{Nd}(n,\gamma)$, $E=\text{th}$; measured $E\gamma$, $I\gamma$, $E(\text{ce})$, $I(\text{ce})$. ^{151}Nd deduced levels, J , π ,neutron binding energy. Enriched target. Bent crystal,Ge(Li),electron spectrometers.

Keynumber: 1975SMZT

Reference: Priv.Comm. (October 1975)

Authors: H.A.Smith,Jr., M.E.Bunker, J.W.Starner

Title: Level Structure of ^{151}Nd

Keyword abstract: NUCLEAR REACTIONS $^{150}\text{Nd}(n,\gamma)$, $E=\text{thermal}$; measured $\sigma(E\gamma)$, $E\gamma$, $I\gamma$. ^{151}Nd deduced levels, K , J , π .

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}Nd , ^{148}Nd , and ^{150}Nd

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

Keynumber: 1973LAYG

Reference: RCN-191 (1973)

Authors: G.Lautenbach

Title: Calculated Neutron Absorption Cross Sections of 75 Fission Products

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

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

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}Kr , ^{110}Cd , ^{115}In , ^{130}Te , 146 , 148 , ^{150}Nd , ^{158}Gd , ^{160}Gd (n, γ), E=25 keV; measured σ .

Keynumber: 1972SMZS

Coden: JOUR BAPSA 17 674,H A Smith,5/15/72

Keyword abstract: NUCLEAR REACTIONS $^{150}\text{Nd}(n,\gamma)$, E not given; measured $E\gamma$, $I\gamma$. ^{151}Nd deduced levels, J, π .

Keynumber: 1972SMZD

Coden: REPT LA-DC-72-1243 P8

Keyword abstract: NUCLEAR REACTIONS $^{150}\text{Nd}(n,\gamma)$; measured $E\gamma$, $I\gamma$. ^{151}Nd deduced resonances.

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}Nd , ^{148}Nd , ^{150}Nd and ^{41}K

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

Keynumber: 1972HAWB

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

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

Keynumber: 1971HAXS

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

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

Keynumber: 1970RAZT

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

Keyword abstract: NUCLEAR REACTIONS $^{146, 148}\text{Nd}$, ^{150}Nd , $^{158}\text{Gd}(n,\gamma)$, $E=25$ MeV; measured average σ . $^{147, 149, 151}\text{Nd}$, ^{159}Gd resonances deduced p-wave strength functions.

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,γ) , $E < 10$ 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.