

$^{146}\text{Nd}(\text{d,p})$ 1982Ja09

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	N. Nica and B. Singh		NDS 181, 1 (2022)	9-Mar-2022

$E=12.1$ MeV. FWHM \approx 12-15 keV.

Spectra were recorded for $\theta=60^\circ, 90^\circ, 125^\circ$ in a magnetic spectrograph with photographic plate recording. Absolute cross sections were derived by normalization to the cross section for elastic deuteron scattering. Spectroscopic factors were extracted by fits with DWBA cross sections obtained by use of the computer code DWUCK.

 ^{147}Nd Levels

<u>E(level)[†]</u>	<u>L[‡]</u>	<u>(2J+1)S[‡]</u>	<u>E(level)[†]</u>	<u>L[‡]</u>	<u>(2J+1)S[‡]</u>	<u>E(level)[†]</u>	<u>L[‡]</u>	<u>(2J+1)S[‡]</u>
0.0	3	0.06	1293	3	0.16	2087	1	0.02
52	3	3.01	1334	1	0.02	2110	(3)	0.18
130	3	0.66	1355	3	0.16	2189	(1)	0.10
192	5	1.46	1386	1	0.08	2226	(3)	0.16
218	1	0.14	1503	3	0.12	2276	(5)	0.40
319	1	0.04	1531	1	0.06	2301	1	0.04
469	1	0.60	1558	1	0.12	2366	(3)	0.24
520	3	0.12	1610	3	0.14	2392	1	0.04
580	3	0.13	1660	1	0.08	2425	(1)	0.02
610	1	0.22	1694	3	0.12	2447	3	0.06
637	1	0.74	1711	3	0.16	2486	3	0.07
665	5	0.50	1739	3	0.10	2524	(1)	0.08
778	2	0.06	1758	(1)	0.04	2562		
862	1	0.07	1791	3	0.42	2591	1	0.09
938	6	4.44	1817	3	0.26	2641	(1)	0.04
963	1	0.12	1851	1	0.20	2676	1	0.05
993	3	0.20	1881	3	0.16	2724	(1)	0.06
1048	1	0.26	1936	1	0.10	2754	1	0.04
1125	2	0.18	1953			2805	1	0.10
1156	3	0.24	1987	(1)	0.04	2865	3	0.16
1212	3	0.40	2010	1	0.03	2900	3	0.08
1269	2	0.04	2042	(3)	0.08	2928	(1)	0.02

[†] $\Delta E(\text{level})$ varies from 3 keV to 6 keV for strong and weak lines, respectively.

[‡] Deduced from exp angular distributions, DWBA fits.