

$^{142}\text{Nd}(\text{p,d}), (\text{d,t})$ [1984Va33](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 187,1 (2023)	12-Oct-2022

E(p)=20.09, 28.06 MeV ([1984Va33](#)); 35 MeV ([1971Jo04](#)).

E(d)=10.07, 16.18 MeV ([1984Va33](#)); 17 MeV ([1977El02,1971Fo10](#)); 50 MeV ([1978VaZS](#)); 26 MeV ([1976Be10](#)).

Measured: $\sigma(E,\theta)$, DWBA analysis.

Resolution 15-20 keV for deuterons, 20-50 keV for tritons ([1984Va33](#)).

All data are from [1984Va33](#).

 ^{141}Nd Levels

E(level) [†]	J ^{π‡}	T _{1/2}	L	S	E(level) [†]	J ^{π‡}	L	S
0.0	3/2 ⁺		2	3.57	2643			
192	1/2 ⁺		0	1.51	2705			
759	11/2 ⁻	62.0 [#] s 8	5	7.48	2764			
1222	5/2 ⁺		2	2.57	2809	(5/2) ⁺	2	0.04
1343	7/2 ⁺		4	1.72	2838			
1401	(7/2 ⁻)		(3)	0.02	2887			
1565	(5/2) ⁺		2	0.24	2915	11/2 ⁻	5	0.68
1597	(3/2) ⁺		2	0.04	2939	(5/2) ⁺	2	0.24
1822	(5/2) ⁺		2	0.76	3007	(5/2 ⁺)	(2)	0.04
1888	1/2 ⁺		0	0.20	3042	7/2 ⁺	4	0.64
1968	7/2 ⁺		4	0.37	3093	(1/2 ⁺)	(0)	0.02
2011					3112	7/2 ⁺	4	1.22
2070	(5/2) ⁺		2	0.44	3163			
2111	(5/2) ⁺		2	0.13	3208			
2180	1/2 ⁺		0	0.06	3262			
2208	11/2 ⁻		5	1.69	3315			
2247	(7/2 ⁻)		(3)	0.03	3369	(5/2) ⁺	2	0.23
2310	7/2 ⁺		4 [@]	1.21	3407	(5/2) ⁺	2	0.37
2349	(11/2 ⁻)		(5)	0.44	3498	(5/2) ⁺	2	0.08
2384	7/2 ⁺		4	0.45	3578			
2512	(7/2 ⁺)		(4)	0.48	3618			
2536					3657			
2581	(7/2 ⁻)		(3)	0.20	3890? ^{&}			
2616	(11/2 ⁻)		(5)	0.12				

[†] ΔE≈3 to 11 from low energy to high energy levels.

[‡] Based on L, assumed for calculation of S.

[#] From Adopted Levels.

[@] From [1984Va33](#), [1977El02](#), [1976Be10](#); L=5 in [1978VaZS](#).

[&] From [1971Jo04](#).