^{146}Nd(d,t),(pol d,t) 1982Ar13

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 110, 507 (2009)	1-Oct-2008

E=16 MeV, vector polarized deutrons, FWHM=10 keV (1982Ar13). Others: E(d)=12.1 MeV, FWHM≈12-15 keV (1980Ja15), 75 MeV, FWHM≈70 keV (1978VaZS).
Measured: σ(E,θ) (1982Ar13,1980Ja15,1978VaZS), vector analyzing power (1982Ar13); DWBA analysis.

^{145}Nd Levels

E(level)[#]	J$^\pi$[‡]	L[#]	S[#]	Comments
0.0	7/2$^-$	3	1.37	
67 *2*	5/2$^-$,3/2$^-$	3+1	0.06+0.13	E(level): unresolved doublet with L=1 and L=3.
657 *2*		5	0.35	
748[†] *2*		5[†]	0.37[†]	
780 *2*	3/2$^-$	1	0.17	
919 *2*	1/2$^-$	1	0.07	
936 *2*	5/2$^-$	3	0.15	
1083 *2*	3/2$^+$	2	0.13	
1100[†] *6*	13/2$^+$	6[†]	0.07[†]	L=6 also in 1976BjZY.
1212 *2*	(1/2)$^-$	1	0.002	
1242[†] *6*		3[†]	0.02[†]	S: calculated for J=5/2$^-$.
1315 *2*	(3/2)$^-$	1	0.04	
1331 *2*	1/2$^+$	0	0.24	
1528 *2*	3/2$^+$	2	1.73	
1591 *2*		1	0.011	S: calculated for J=1/2$^-$. L: doublet with L=1 and L=3 (1980Ja15).
1711 *2*	1/2$^+$	0	0.63	
1801 *2*	11/2$^-$	(5)	1.73	L: $\sigma(\theta)$ is consistent with large L (1982Ar13).
1820 *2*	5/2$^+$,3/2$^+$	2	0.063	S: calculated for J=5/2$^+$.
1940[†] *6*		[†]	[†]	
1953[†] *6*	11/2$^-$,9/2$^-$	5[†]	0.37[†]	S: calculated for J=11/2$^-$.
1960 *2*	1/2$^+$	0	0.026	
2054 *2*	(5/2)$^+$	2	0.17	
2117[†] *6*		(2)[†]	0.05[†]	E(level): not observed by 1982Ar13. S: calculated for J=3/2$^+$.
2175[†] *6*		[†]	[†]	
2204 *2*	(5/2)$^+$	2	0.085	
2647 *2*	5/2$^+$	2	0.13	
2717 *2*	(5/2)$^+$	2	0.49	
2752 *2*	(5/2)$^+$	2	0.049	
2799 *2*	5/2$^+$	2	0.075	
2826 *2*	1/2$^+$	0	0.033	

[†] From 1980Ja15.
[‡] From vector analyzing power analysis and L values.
[#] From 1982Ar13, except where noted otherwise.