^{194}Pt(p,d), (d,t) 1978Be09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 143, 1 (2017)	31-Mar-2017

1978Be09: Pt and ^{194}Pt (97.4%) targets. ^{194}Pt(p,d): E=26 MeV; measured: E(d) (mag spect), differential cross sections, $\sigma(\theta)$ (θ=5°, 9°, 15°, 30°, 45°, 55°). ^{194}Pt(t,d): E=26 MeV; measured E(t) (mag spect), differential cross sections at 15°.
1977Sm03: ^{194}Pt(p,d): E=27 MeV; measured: E(d), σ, $\sigma(\theta)$. FWHM 30 keV and 13 keV for long and short runs, respectively.
1965Mu05: ^{194}Pt(d,t): E=15 MeV; measured E(t), σ.
1990Bu26: calculated parameters for fits to single-neutron-transfer strengths in the U(6/12) scheme.

^{193}Pt Levels

Data are from 1978Be09 unless otherwise noted.

E(level)[†]	J$^\pi$[‡]	L	S[#]	Comments
0.0	(1/2)$^-$	1	1.08[&]	C^{2}S=1.15 in (d,t).
1.6[@]	(3/2)$^-$	1	1.10[&]	C^{2}S=1.20 in (d,t).
14.3[@]	(5/2)$^-$		[&]	C^{2}S=1.70 in (d,t).
114.2[@]	3/2$^-$	1[a]	0.07[b]	C^{2}S=0.03 in (d,t).
121.3[@]	3/2$^-$	1[a]	0.07[b]	C^{2}S=0.03 in (d,t).
148 *3*	13/2$^+$	6	4.24	C^{2}S=5.83 in (d,t).
189 *6*				
233 *6*	5/2$^-$	(3)	0.03	
271 *3*	3/2$^-$	1	0.02	
308 *3*	(9/2)	(4,5)	0.14	
340 *3*	(9/2)	(4,5)	0.16	
415[c] *3*	5/2$^-$[c]	3[c]	1.06[cd]	
425[c] *3*	5/2$^-$[c]	3[c]	0.042[cd]	
439.0[@]	3/2$^-$	1	0.033	Not resolved from 459 level.
459 *3*	5/2$^-$	(3)	0.18	C^{2}S=0.16 in (d,t).
491 *3*	5/2$^-$	(3)	0.18	C^{2}S=0.16 in (d,t).
530 *3*	3/2$^-$	1	0.03	C^{2}S=0.07 in (d,t).
544 *3*	(5/2$^-$)	(3)	0.17	C^{2}S=0.13 in (d,t).
563 *3*	3/2$^-$	1	0.02	
599 *3*	7/2$^-$	3	1.035	C^{2}S=0.85 in (d,t).
630 *5*	7/2$^-$	3	0.22	C^{2}S=0.17 in (d,t).
665[c] *3*	13/2$^+$[c]	6[c]	0.39[ce]	
692[c] *3*	(13/2$^+$)[c]	(6)[c]	0.55[ce]	
701 *5*	(5/2$^-$)	(3)	0.075	
718[c] *4*	(1/2$^+$)[c]	(0)[c]	0.006[c]	Part of a unresolved doublet with a stronger L=3, C^{2}S=0.11 level (probably the 728 level seen by 1978Be09).
728 *5*	7/2$^-$	3	0.16	C^{2}S=0.12 in (d,t).
755 *5*	7/2$^-$	3	0.315	C^{2}S=0.23 in (d,t).
830 *10*	(7/2$^-$)	(3)	0.10	
846 *5*	3/2$^-$	1	0.44	
923 *5*	3/2$^-$	1	0.11	
969 *10*				
1014 *5*	(9/2$^+$)	(4,5)	0.05	
1042 *5*	13/2$^+$	6	1.65	
1069 *10*	(7/2$^-$)	(3)	0.05	
1099 *5*	(7/2$^-$)	(3)	0.09	
1130 *10*	(7/2$^-$)	(3)	0.04	

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^{194}Pt(p,d), (d,t) 1978Be09 (continued)

^{193}Pt Levels (continued)

E(level)[†]	Jπ[‡]	L	S[#]	Comments
1168 *10*	(3/2⁻)	(1)	0.02	
1188 *5*	3/2⁻	1	0.13	Unresolved doublet.
1222[c] *5*	3/2⁻ & 5/2⁻[c]	1 + 3[c]	0.044+0.13[c]	
1245 *5*	(7/2⁻)	(3)	0.22	
1259? *10*				
1320[c] *5*	5/2⁻ & 3/2⁻[c]	3 + 1[c]	0.10+0.016[c]	
1359[c] *4*	13/2+[c]	6[c]	0.30[c]	

[†] The uncertainty is estimated to be 2.5 keV below≈600 keV and 5 keV above, except for the weak transitions (1978Be09) (the evaluator has doubled the uncertainty for transitions with $\pm\sigma$>10%).
[‡] Jπ assumed for the calculation of C^2S. From 1978Be09, unless otherwise noted.
[#] (dσ/dΩ)(exp)/N(dσ/dΩ)(DWBA), N=2.29. C^2S values for (d,t) (N=3.33) are given in comments; these were obtained from only one angle, corresponding to the maximum angular distribution for L=3, and values for other L transfers may be imprecise.
[@] Rounded-off value from Adopted Levels; level not well resolved in ^{194}Pt(p,d), (d,t).
[&] To extract C^2S for the unresolved 0.0, 1.6, and 14.3 levels, σ was divided equally between the 0.0 and 1.6 states (good L=1 fit to the triplet suggests small σ for the 14.3-keV, 5/2⁻ state).
[a] L=1 for 114.2+121.3 doublet.
[b] Total for unresolved 114 and 121 levels (3/2⁻ assumed for each).
[c] From 1977Sm03.
[d] 1978Be09 report C^2S=1.71 in (p,d) and C^2S=1.46 in (d,t) ($J^\pi=5/2^+$) for single state with E(level)=423 *3*, L=3.
[e] 1978Be09 report C^2S=0.76 in (p,d) ($J^\pi=13/2^+$) for single state with E(level)=675 *5*, L=6.