^{118}Sn(p,α) 1976Sm04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113, 2391 (2012)	1-Sep-2012

E=22 MeV.
Other: ^{118}Sn(pol p,α) E=20.4 MeV, θ=17°−80° (1978Va06).
Counter telescope 4-semi array; resolution FWHM≈50 keV.

^{115}In Levels

E(level)[†]	J$^\pi$	L[‡]	S[@]	Comments
0.0	9/2$^+$	4[#]	362	J$^\pi$: from Adopted Levels.
337 *6*		1[#]	182	
598 *5*		1[#]	300	
1040 *5*		3[#]	138	
1079 *8*		2	7	
1137 *11*		6	11	
1291 *4*		6	60	
1450 *5*		4[#]	25	
1489 *4*		4[#]	53	
1599 *11*				J$^\pi$: tentative J=5/2 from angular distribution shape.
1649 *9*		1	9	
1740 *13*				J$^\pi$: tentative J=3/2 from angular distribution shape.
1848 *11*				J$^\pi$: tentative J=1/2 from angular distribution shape.
≈1880				
1922 *14*				
≈1960				
1986 *6*				
2131 *7*				
2219 *7*		3	43	E(level): probably corresponds with 2230-keV L=3 (d,^{3}He) state.
≈2270				
2318 *10*				J$^\pi$: tentative J=13/2 from angular distribution shape.
2369 *16*				
2440 *6*				J$^\pi$: tentative J=9/2 from angular distribution shape; incompatible with L=1 (d,^{3}He) state at 2450 keV.
2489 *7*		3	45	E(level): probably corresponds with 2520-keV L=3 (d,^{3}He) state.
2549 *7*				
≈2700				
≈2750				

[†] 1976Sm04 compare (p,α) excitations with weak-coupling calc.
[‡] Based on angular distributions (θ=10°−60°) compared with DWBA; J$^\pi$ assignments follow other exp.
[#] Results supported by (pol p,α) angular distributions compared with DWBA (1978Va06).
[@] Reduced transition strength (ratio of cross sections exp/DWBA); for comparison with theory and with (d,^{3}He) reduced strengths, see 1974Sm05, 1976Sm04, 1977SmZX.