

¹²³Sb(p,d) 1982Em01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. Tamura	NDS 108, 455 (2007)	30-Sep-2006

$J^\pi(^{123}\text{Sb})=7/2^+$.

1982Em01: E(p)=26.2 MeV; magnetic spectrometer, d(θ);

DWBA analysis. FWHM=15-20 keV.

¹²²Sb Levels

E(level) [†]	L [#]	C ² S [#]	Comments
0.0 [‡]	5	0.20	
0+x [‡]	0	0.0041	
61 1	0+(4,5)	0.23	C ² S: for L=0; 0.30 for L=4, 0.46 for L=5.
136 2	2	0.38	
165 2	2+5	0.098+0.50	
205 2	0+(4,5)	0.30	C ² S: for L=0; 0.27 for L=4, 0.41 for L=5.
264 2	5	0.62	
329 2	0+2	0.009+0.072	
391 2	0+2	0.008+0.024	
416 2	0+2+(4,5)	0.002	C ² S: for L=0; 0.008 for L=2, 0.018 for L=4, 0.027 for L=5.
450 2	2+4	0.014+0.063	
474 2	0+2	0.0067+0.19	
584 3			
605 2	5	0.82	
641 3	2+4	0.024+0.29	
706 2	4	0.28	
748 2	4	0.54	
864 3	2+4	0.005+0.14	
883 3	2+5	0.007+0.02	
944 3	0+2	0.0031+0.035	
965 3	2	0.068	
993 4	2+4	0.01+0.091	
1028 3	2	0.18	
1044 3	2	0.084	
1113 3	0+2+(4,5)	0.0038	C ² S: for L=0; 0.096 for L=2, 0.05 for L=4, 0.07 for L=5.
1153 3	0+2+(4,5)	0.012	C ² S: for L=0; 0.33 for L=2, 0.17 for L=4, 0.25 for L=5.
1181 4	2	0.49	
1199 5	2+(4,5)	0.28	C ² S: for L=2; 0.17 for L=4, 0.25 for L=5.
1240 3	2	0.49	
1305 7			
1335 5	2	0.072	
1377 5	2	0.096	
1416 7	2	0.058	
1432 4	2	0.84	
1536 5	2	0.42	

[†] From 1982Em01.

[‡] These levels are observed as an L=0+5 doublet; L=5 corresponds to the 2⁻, odd-parity ground state; L=0 corresponds to 3⁺, 4⁺ states with unknown energy.

[#] Authors assumed 2d_{3/2}, 1g_{7/2}, 1h_{11/2} transfers for L=2, 4, 5, respectively; for 2d_{5/2} multiply by 1.5, for 1g_{9/2} multiply by 1.25 (1982Em01).