^{111}Cd(^{3}He,d) 1978EmZT

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, F. G. Kondev	NDS 124, 157 (2015)	1-Aug-2014

Beam: E(^{3}He)=33.6 MeV; Target: 50 μg/cm^{2}, enriched to 96.5% in ^{111}Cd and evaporated onto 40 μg/cm^{2} carbon foil;

Detectors: Colorado energy-loss spectrometer, FWHM=18 keV; Measured: $\sigma(\theta)$; Deduced: ^{112}In level scheme, L, S, DWBA.

$J^{\pi}(^{111}Cd)=1/2^{+}$.

^{112}In Levels

E(level)[†@]	L[‡]	(2J+1)C^{2}S[#]	Comments
0.0			
157	4	7.62, 3.88	E(level): large (2J+1)C^{2}S suggests possible doublet structure for this level.
725	2	0.20, 0.15	
915	1	0.43, 0.21	
955	2	0.24, 0.17	
1056	4	1.44, 0.74	
1212	1	0.21, 0.10	
1338	0	0.56, 0.56	
1398	2	0.27, 0.20	
1435	2	2.43, 1.78	
1473	2	1.51, 1.07	
1488	2,0+2		S=0.56,0.41 for L=2; S=0.05+0.45, 0.05+0.033 for L=0+2.
1529	2	0.33, 0.24	
1608	0	0.18	
1631	0+2, 0+4		S=0.04+0.11, 0.04+0.09 for L=0+2, 0.04+1.05, 0.04+0.62 for L=0+4.
1678	2	0.67, 0.50	
1708	2	0.45, 0.33	
1741	2	0.13, 0.10	
1777	2	0.18, 0.13	
1872	2	0.15, 0.11	
1955	2	0.44, 0.33	
2067	2	0.81, 0.60	
2172	2	0.46, 0.34	
2234	0+2		S=0.29+1.13, 0.29+0.93.

[†] From 1978EmZT.
[‡] From 1978EmZT, based on DWBA.
[#] Given for J=L−1/2 and J=L+1/2, respectively.
[@] ΔE≈5 keV estimated by the evaluators.