

$^{111}\text{Cd}(\text{d,p}\gamma)$ 1980Ju05,1979Lu10

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

Facility: Jyvaskyla 90 cm cyclotron; Beam: pulsed, ED=9 MeV; Target: 0.8 mg/cm² ^{111}Cd ; Detectors: magnetic lens, Si(Li), Si(Au), planar Ge; Measured: γ , ce, E(p), γ -P coinc., E γ , I γ , Ce(t); Deduced: levels, T_{1/2}, E0/E2 ratios; ρ^2 and B(E2)(W.u.).

 ^{112}Cd Levels

E(level) [†]	J π [‡]	T _{1/2}	Comments
0.0	0 ⁺		
617.2 4	2 ⁺		
1223.9 4	0 ⁺		
1311.9 5	2 ⁺		
1415.0 6	4 ⁺		
1432.8 4	0 ⁺	1.9 ns <i>I</i>	T _{1/2} : from RF-Ce(t) (1979Lu10,1980Ju05). Ice(K)(1432):Ice(K)(815 γ):Ice(K)(209):Ice(K)(120)=0.79 8:0.10 3:2.5 4:11 2.
1468.4 6	2 ⁺		

[†] From a least-squares fit to E γ .

[‡] From the Adopted Levels.

 $\gamma(^{112}\text{Cd})$

E γ [†]	I γ	E _i (level)	J π _i [‡]	E _f	J π _f [‡]	Mult. [‡]	Comments
120.9 5	30 <i>I0</i>	1432.8	0 ⁺	1311.9	2 ⁺	E2	I γ : from I γ (120 γ)/I γ (815 γ)=0.3 <i>I</i> (1980Ju05). B(E2)(W.u.): 66 20 (1980Ju05).
208.9 5		1432.8	0 ⁺	1223.9	0 ⁺	E0	ρ^2 =0.0081 <i>I9</i> (1980Ju05).
606.7 5		1223.9	0 ⁺	617.2	2 ⁺	E2	B(E2)(W.u.): 51 <i>I3</i> (1980Ju05).
617.2 5		617.2	2 ⁺	0.0	0 ⁺		
694.7 5		1311.9	2 ⁺	617.2	2 ⁺		
797.8 5		1415.0	4 ⁺	617.2	2 ⁺		
815.6 5	100	1432.8	0 ⁺	617.2	2 ⁺	E2	I γ : from I γ (120 γ)/I γ (815 γ)=0.3 <i>I</i> (1980Ju05). B(E2)(W.u.): 0.017 4 (1980Ju05).
851.2 5		1468.4	2 ⁺	617.2	2 ⁺		
1223.9 5		1223.9	0 ⁺	0.0	0 ⁺	E0	ρ^2 =0.037 (11) (1980Ju05).
1432.8 5		1432.8	0 ⁺	0.0	0 ⁺	E0	ρ^2 =0.00048 <i>II</i> (1980Ju05).

[†] From 1980Ju05. $\Delta E\gamma = 0.5$ keV assumed by the evaluators.




[‡] From α measurements in 1980Ju05.

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Level Scheme

Intensities: Type not specified

Legend

-  $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
-  $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
-  $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

