

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. Katakura, Z. D. Wu		NDS 109,1655 (2008)	1-Apr-2008

Q(β⁻)=4.17×10³ 3; S(n)=7359 4; S(p)=1.444×10⁴ 3; Q(α)=-8846 4 [2012Wa38](#)
 Note: Current evaluation has used the following Q record 4170 407470 7014050 syst-8.99E3 14 [2003Au03](#).
 Uncertainty: 210 for S(p) ([2003Au03](#)).

¹²⁴Cd Levels

Cross Reference (XREF) Flags

- A ¹²⁴Ag β⁻ decay
- B ²³⁸U(α,Fγ)
- C Coulomb excitation
- D ¹²⁵Ag β⁻n decay

E(level) [†]	J ^π @	T _{1/2}	XREF	Comments
0.0 [‡]	0 ⁺	1.25 s 2	AB	%β ⁻ =100 T _{1/2} : weighted average of following values from γ multiscaling: 1.23 s 2 (1984Hi03), 1.26 s 6 (1986Go10) and 1.29 s 3 (1986Ma42); others: 0.9 s 2 (1974Fo23), 1.7 s 6 (β multiscaling) (1981Ru07), 1.2 s 1 (β multiscaling) (1983Re05).
612.8 [‡] 4	(2 ⁺)		AB	J ^π : systematics of even-even Cd isotopes in this region.
1385.1 [‡] 5	(4 ⁺)		AB	
1427.6 4	(2 ⁺)		A	J ^π : systematics of even-even Cd isotopes in this region.
1845.9 [#] 6	(5 ⁻)		AB	
1915.3 5	(2 ⁺ ,3 ⁺ ,4 ⁺)		A	J ^π : γ's to (2 ⁺) and (4 ⁺).
1924.5 5			A	
1978.2 4	(1,2 ⁺)		A	J ^π : γ's to (2 ⁺) and (0 ⁺).
2139.8 [‡] 6	(6 ⁺)		AB	
2384.5 [#] 6	(7 ⁻)		AB	
2560.1 6	(5 ⁻ ,6 ⁺)		A	J ^π : γ's to (4 ⁺) and (7 ⁻).
2674.2 [‡] 8	(8 ⁺)		AB	
2681.8 6	(3 ⁻ ,4,5,6 ⁺)		A	J ^π : γ's to (4 ⁺) and (5 ⁻).
2777.5 [#] 12	(9 ⁻)		B	
2937.6 [‡] 10	(10 ⁺)		A	
3663.6 [‡] 14	(12 ⁺)		B	

[†] From a least-squares fit to Eγ's assuming their uncertainties to be 0.5 keV for decimal numbers and 1 keV for integer numbers.

[‡] Band(A): g.s. band.

[#] Band(B): 5⁻ band.

@ From band structure, unless otherwise noted.

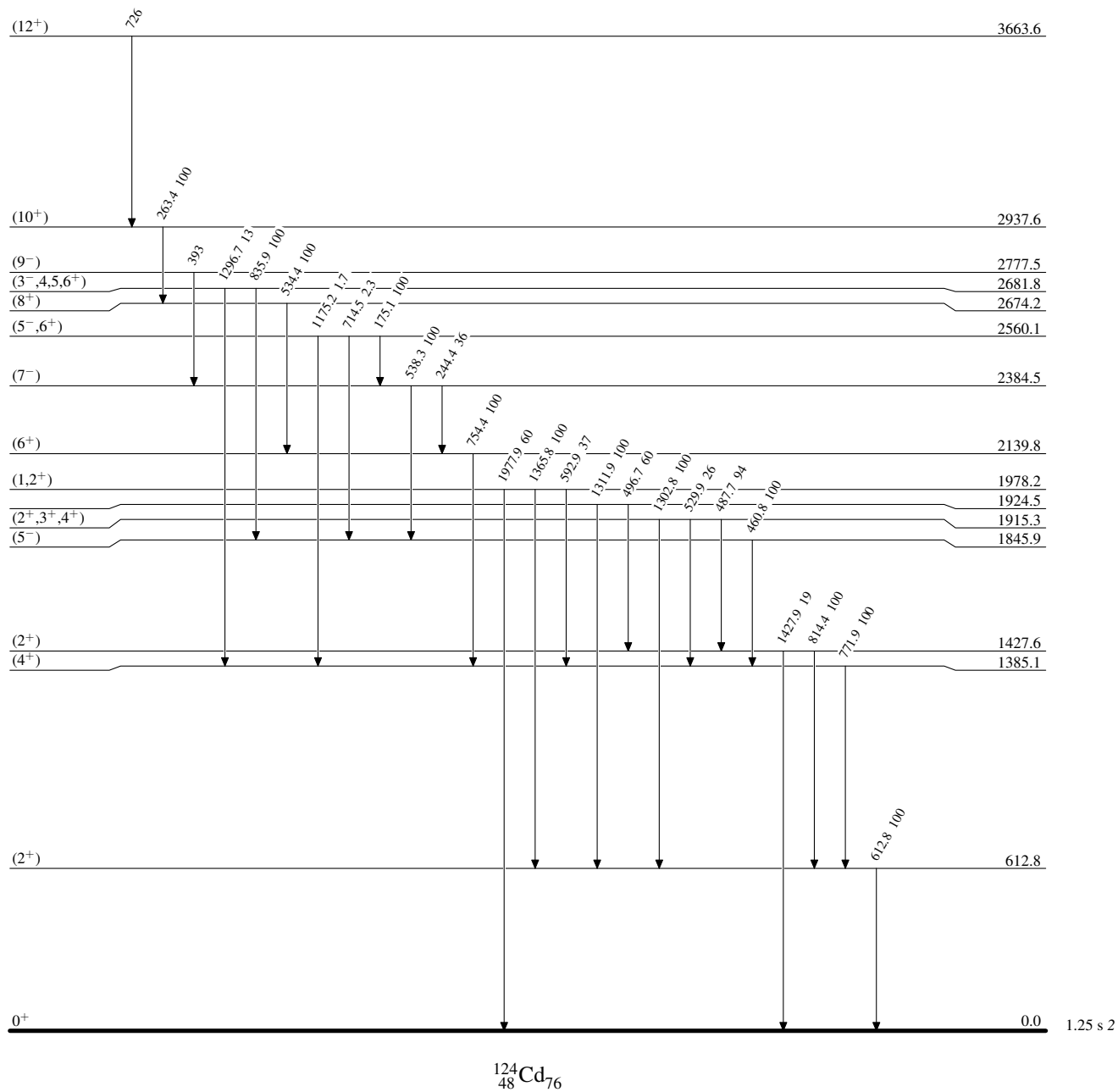
Adopted Levels, Gammas (continued) $\gamma(^{124}\text{Cd})$

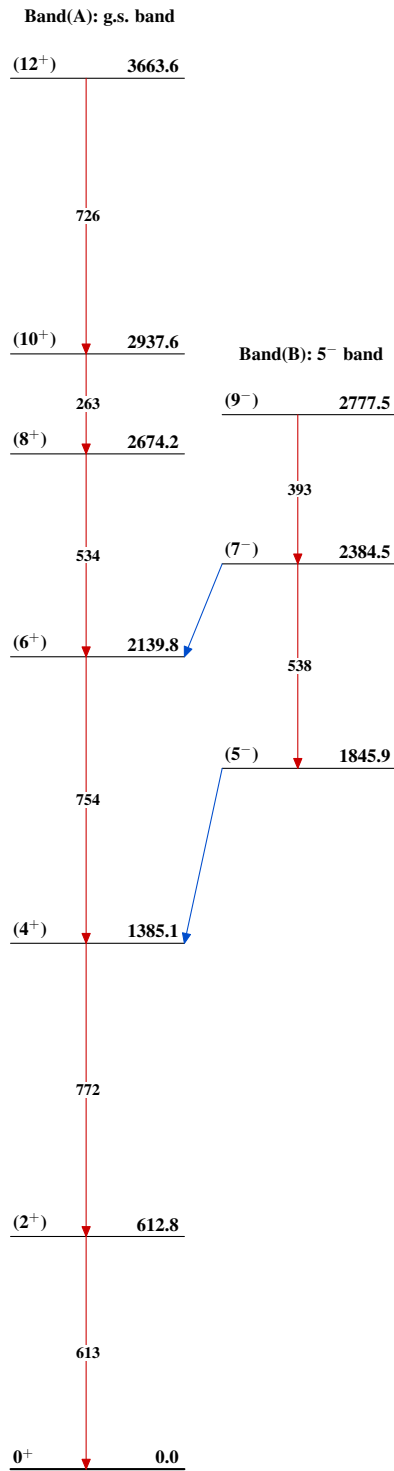
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π
612.8	(2 ⁺)	612.8	100	0.0	0 ⁺
1385.1	(4 ⁺)	771.9	100	612.8	(2 ⁺)
1427.6	(2 ⁺)	814.4	100 25	612.8	(2 ⁺)
		1427.9	19 6	0.0	0 ⁺
1845.9	(5 ⁻)	460.8	100	1385.1	(4 ⁺)
1915.3	(2 ⁺ ,3 ⁺ ,4 ⁺)	487.7	94 29	1427.6	(2 ⁺)
		529.9	26 9	1385.1	(4 ⁺)
		1302.8	100 29	612.8	(2 ⁺)
1924.5		496.7	60 13	1427.6	(2 ⁺)
		1311.9	100 30	612.8	(2 ⁺)
1978.2	(1,2 ⁺)	592.9	37 13	1385.1	(4 ⁺)
		1365.8	100 33	612.8	(2 ⁺)
		1977.9	60 19	0.0	0 ⁺
2139.8	(6 ⁺)	754.4	100	1385.1	(4 ⁺)
2384.5	(7 ⁻)	244.4	36 11	2139.8	(6 ⁺)
		538.3	100 28	1845.9	(5 ⁻)
2560.1	(5 ⁻ ,6 ⁺)	175.1	100 27	2384.5	(7 ⁻)
		714.5	2.3 9	1845.9	(5 ⁻)
		1175.2	1.7 7	1385.1	(4 ⁺)
2674.2	(8 ⁺)	534.4	100	2139.8	(6 ⁺)
2681.8	(3 ⁻ ,4,5,6 ⁺)	835.9	100 28	1845.9	(5 ⁻)
		1296.7	13 4	1385.1	(4 ⁺)
2777.5	(9 ⁻)	393		2384.5	(7 ⁻)
2937.6	(10 ⁺)	263.4 5	100	2674.2	(8 ⁺)
3663.6	(12 ⁺)	726		2937.6	(10 ⁺)

† From ^{124}Ag β^- decay.

Adopted Levels, Gammas**Level Scheme**

Intensities: Relative photon branching from each level



Adopted Levels, Gammas $^{124}_{48}\text{Cd}_{76}$