

Adopted Levels, Gammas

Type	Author	History	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	Citation NDS 145, 25 (2017)	1-Jul-2017

$Q(\beta^-) = -8555$ SY; $S(n) = 10366$ 52; $S(p) = 4154$ 33; $Q(\alpha) = -2390.1$ 34 [2017Wa10](#)
 $\Delta Q(\beta^-) = 298$ syst ([2017Wa10](#)).

 ^{99}Cd LevelsCross Reference (XREF) Flags

A $^{50}\text{Cr}(^{58}\text{Ni}, 2\alpha n\gamma)$

E(level)	J^π [†]	$T_{1/2}$	XREF	Comments
0.0 [‡]	(5/2 ⁺)	16 s 3	A	$\% \epsilon + \% \beta^+ = 100$ $\% \beta^+ p = 0.17 \pm 11 - 5$; $\% \beta^+ \alpha < 1 \times 10^{-4}$ (1978El09) $\% \beta^+ p$: 1978El09 and 1982Ku15 used the statistical model to calculate the p and α branching ratios. In these calculations the spin and parity of ^{99}Cd were assumed to be 5/2 ⁺ in agreement with systematics for odd nuclei with N=51 (^{93}mMo , ^{95}Ru , ^{97}Pd , ^{110}Sn). $T_{1/2}$: from delayed-p activity (1978El09).
440.8 3	(7/2 ⁺)		A	
1224.3 [‡] 3	(9/2 ⁺)		A	
1674.9 4	(11/2 ⁺)		A	
1831.2 [‡] 3	(13/2 ⁺)		A	
2057.5 [‡] 4	(17/2 ⁺)	13.1 ns 5	A	$T_{1/2}$: from 1224 γ (t) (1996Li06).
2274.3 [‡] 5	(19/2 ⁺)		A	
2452.6 5	(19/2 ⁺)		A	
2700.4 [‡] 5	(21/2 ⁺)		A	
3450.8 6	(21/2)		A	
4041.1 6	(23/2)		A	
4877.4 [‡] 6	(25/2 ⁺)		A	
5958.7 6	(27/2)		A	
6105.6 [‡] 6	(29/2 ⁺)		A	
6575.7 [‡] 7	(31/2 ⁺)		A	
7099.8 [‡] 8			A	

[†] Based on syst for gs and comparison with theory based on shell model calculations ([2002Li45](#), [1997Pa20](#)).

[‡] Band(A): Yrast γ cascade based on g.s.

 $\gamma(^{99}\text{Cd})$

$E_i(\text{level})$	J^π_i	E_γ	I_γ	E_f	J^π_f
440.8	(7/2 ⁺)	440.7 3	100.0	0.0	(5/2 ⁺)
1224.3	(9/2 ⁺)	783.1 7	11.3 25	440.8	(7/2 ⁺)
		1224.4 3	100 4	0.0	(5/2 ⁺)
1674.9	(11/2 ⁺)	1234.1 4	100.0	440.8	(7/2 ⁺)
1831.2	(13/2 ⁺)	156.4 4	9.9 13	1674.9	(11/2 ⁺)
		606.9 2	100 4	1224.3	(9/2 ⁺)

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) $\gamma(^{99}\text{Cd})$ (continued)

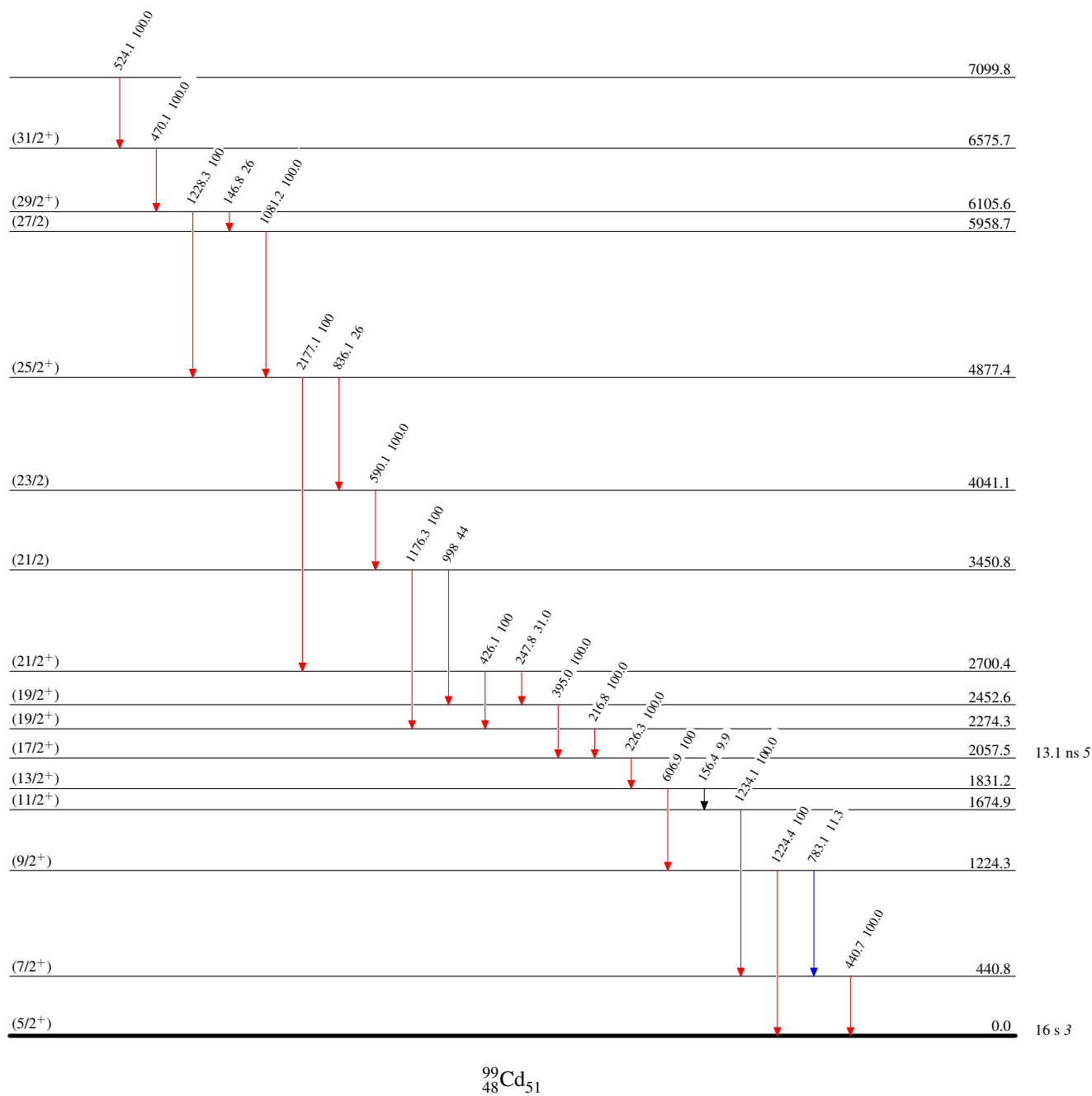
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π
2057.5	(17/2 ⁺)	226.3 2	100.0	1831.2	(13/2 ⁺)
2274.3	(19/2 ⁺)	216.8 3	100.0	2057.5	(17/2 ⁺)
2452.6	(19/2 ⁺)	395.0 3	100.0	2057.5	(17/2 ⁺)
2700.4	(21/2 ⁺)	247.8 3	31.0 24	2452.6	(19/2 ⁺)
		426.1 2	100 5	2274.3	(19/2 ⁺)
3450.8	(21/2)	998 1	44 23	2452.6	(19/2 ⁺)
		1176.3 4	100 12	2274.3	(19/2 ⁺)
4041.1	(23/2)	590.1 4	100.0	3450.8	(21/2)
4877.4	(25/2 ⁺)	836.1 4	26 5	4041.1	(23/2)
		2177.1 3	100 8	2700.4	(21/2 ⁺)
5958.7	(27/2)	1081.2 3	100.0	4877.4	(25/2 ⁺)
6105.6	(29/2 ⁺)	146.8 5	26 9	5958.7	(27/2)
		1228.3 3	100 9	4877.4	(25/2 ⁺)
6575.7	(31/2 ⁺)	470.1 3	100.0	6105.6	(29/2 ⁺)
7099.8		524.1 4	100.0	6575.7	(31/2 ⁺)

Adopted Levels, Gammas**Level Scheme**

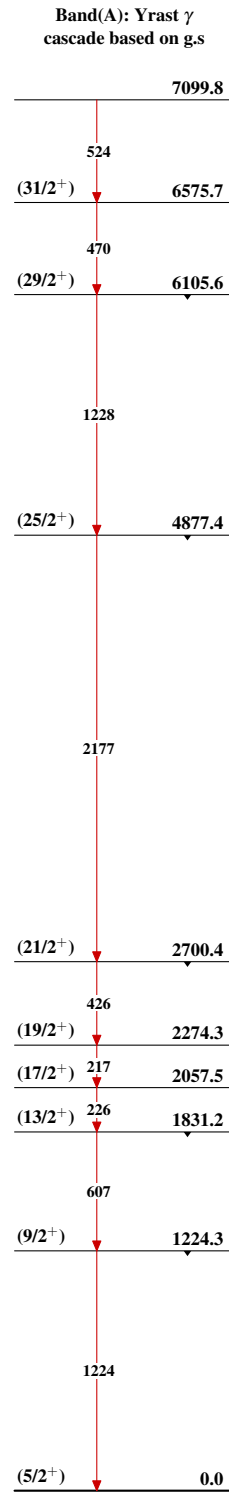
Intensities: Type not specified

Legend

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



Adopted Levels, Gammas



$^{99}_{48}\text{Cd}_{51}$