

$^{252}\text{Cf}$  SF decay 2002Hw01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ohya	NDS 111, 1619 (2010)	20-Jan-2009

Parent:  $^{252}\text{Cf}$ :  $E=0.0$ ;  $J^\pi=0^+$ ;  $T_{1/2}=2.645$  y 8; %SF decay=?

Measured  $E_\gamma$ ,  $I_\gamma$ ,  $\gamma\gamma$  using Gammasphere array with 102 Compton-suppressed HPGe detectors.

 $^{121}\text{Cd}$  Levels

E(level)	$J^\pi^\dagger$	$T_{1/2}^\dagger$	Comments
0.0	(3/2 <sup>+</sup> )	13.5 s 3	
214.86 <sup>‡</sup> 15	(11/2 <sup>-</sup> )	8.3 s 8	E(level): from Adopted Levels.
825.5 <sup>‡</sup> 4	(15/2 <sup>-</sup> )		
1627.7 <sup>‡</sup> 5	(19/2 <sup>-</sup> )		
2035.1 6	(21/2 <sup>-</sup> )		
2517.1 <sup>‡</sup> 6	(23/2 <sup>-</sup> )		
2780.0 9	(25/2 <sup>-</sup> )		
3390.2 <sup>‡</sup> 9	(27/2 <sup>-</sup> )		

<sup>†</sup> From Adopted Levels.

<sup>‡</sup> Band(A):  $\nu h_{11/2}$  band,  $\alpha=-1/2$ .

 $\gamma(^{121}\text{Cd})$ 

$E_\gamma^\dagger$	$I_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
262.9 7	8.2	2780.0	(25/2 <sup>-</sup> )	2517.1	(23/2 <sup>-</sup> )
407.4 3	27.2	2035.1	(21/2 <sup>-</sup> )	1627.7	(19/2 <sup>-</sup> )
482.0 <sup>‡</sup> 7		2517.1	(23/2 <sup>-</sup> )	2035.1	(21/2 <sup>-</sup> )
610.2 <sup>‡</sup> 7		3390.2	(27/2 <sup>-</sup> )	2780.0	(25/2 <sup>-</sup> )
610.6 3	100	825.5	(15/2 <sup>-</sup> )	214.86	(11/2 <sup>-</sup> )
802.2 3	50.5	1627.7	(19/2 <sup>-</sup> )	825.5	(15/2 <sup>-</sup> )
873.1 7	7.9	3390.2	(27/2 <sup>-</sup> )	2517.1	(23/2 <sup>-</sup> )
889.4 3	21.7	2517.1	(23/2 <sup>-</sup> )	1627.7	(19/2 <sup>-</sup> )

<sup>†</sup> Assigned by the evaluator based on the authors statement that the uncertainties are between 0.2 and 0.4 keV for the strong transitions and between 0.6 and 0.8 keV for the weak ones.

<sup>‡</sup> Placement of transition in the level scheme is uncertain.

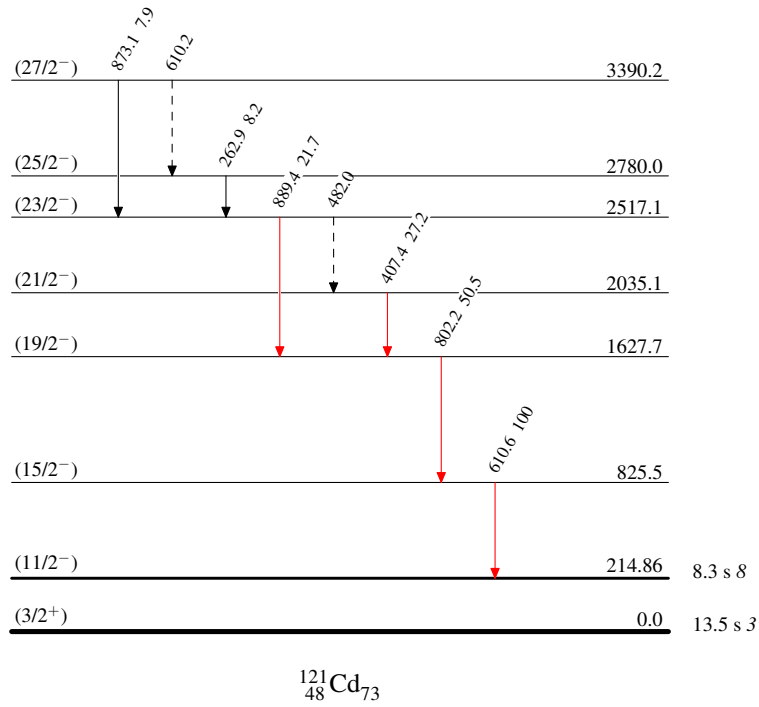
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## Legend

## Level Scheme

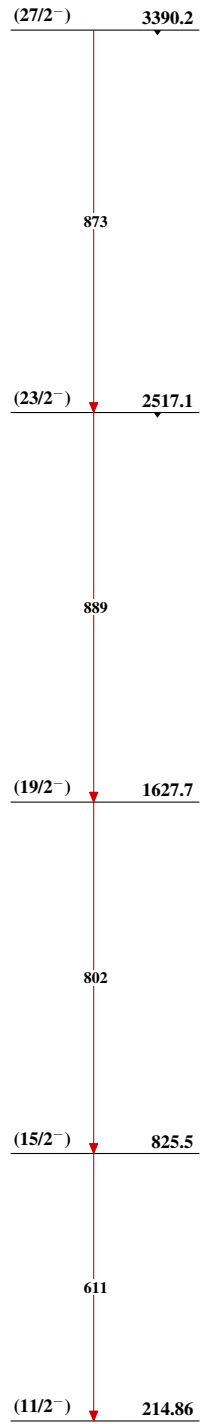
Intensities: Relative  $I_\gamma$ 

- ▶  $I_\gamma < 2\% \times I_\gamma^{max}$
- ▶  $I_\gamma < 10\% \times I_\gamma^{max}$
- ▶  $I_\gamma > 10\% \times I_\gamma^{max}$
- - - -▶  $\gamma$  Decay (Uncertain)



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Band(A):  $\nu_{h_{11/2}}$  band,  
 $\alpha=-1/2$

 $^{121}_{48}\text{Cd}_{73}$