^{110}Pd(α,3nγ) 1979Oh02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 110, 1239 (2009)	1-Feb-2008

^{110}Pd(α,3nγ) E=35, 44 MeV (1977OhZS,1977OhZP,1979Oh02).
Measured photon-, ce-spectra; excit, angular distributions, $\gamma\gamma$-coin, γ(t) studied.

^{111}Cd Levels

E(level)	J$^\pi$[†]	E(level)	J$^\pi$[†]	E(level)	J$^\pi$[†]	E(level)	J$^\pi$[†]
0.0	1/2$^+$	1339.4 *4*	(13/2$^-$)	2236.7 *5*		3231.4 *6*	
245.40 *20*	5/2$^+$	1566.0 *4*	(11/2$^-$)	2331.2 *6*		3718.2 *11*	
396.1[‡] *3*	11/2$^-$	1665.9 *6*		2474.2 *5*		3760.9[‡] *6*	(27/2$^-$)
416.7 *3*	7/2$^+$	1851.0[‡] *4*	(19/2$^-$)	2739.3 *5*		4553.3 *7*	
967.8[‡] *4*	(15/2$^-$)	1921.0 *5*	(13/2$^+$)	2845.4[‡] *5*	(23/2$^-$)		
986.4 *3*	9/2$^+$	2147.0 *4*	(17/2$^-$)	2859.8 *6*			
1256.3 *4*	11/2$^+$	2195.4 *5*	(15/2$^+$)	3100.9 *6*			

[†] Author's assignment based on γ decay (mult).
[‡] Band(A): decoupled ΔJ=2 sequence built on $h_{11/2}$ state. Level spacing corresponds to ^{110}Cd g.s. band up to 8$^+$.

γ(^{111}Cd)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[†]	Comments
150.7 *2*		396.1	11/2$^-$	245.40	5/2$^+$		
171.3 *2*	31 *3*	416.7	7/2$^+$	245.40	5/2$^+$		
245.4 *2*		245.40	5/2$^+$	0.0	1/2$^+$		
269.9 *4*	1.3 *2*	1256.3	11/2$^+$	986.4	9/2$^+$		
[x]293.4 *3*	5.8 *7*						α(K)exp=0.0029 *5*
[x]358.2 *3*	7.0 *8*					[‡]	
361.6 *3*	8.3 *9*	3100.9		2739.3		[‡]	
492.0 *3*	3.5 *4*	3231.4		2739.3			
569.8 *2*	10.9 *12*	986.4	9/2$^+$	416.7	7/2$^+$	[#]	
571.7 *2*	100 *8*	967.8	(15/2$^-$)	396.1	11/2$^-$	[#]	
592.1 *2*	5.9 *8*	2739.3		2147.0	(17/2$^-$)		
598.3 *4*	2.3 *3*	1566.0	(11/2$^-$)	967.8	(15/2$^-$)		
617.3 *9*	3.2 *10*	3718.2		3100.9			
623.2 *3*	3.4 *7*	2474.2		1851.0	(19/2$^-$)		
664.4 *4*	2.4 *4*	2859.8		2195.4	(15/2$^+$)		
670.7 *3*	3.1 *5*	2236.7		1566.0	(11/2$^-$)	M1,E2	α(K)exp=0.0028 *6*
679.5 *4*	1.1 *2*	1665.9		986.4	9/2$^+$		
740.9 *3*	4.8 *7*	986.4	9/2$^+$	245.40	5/2$^+$		
792.4 *4*	2.4 *3*	4553.3		3760.9	(27/2$^-$)		
807.5 *4*	2.8 *3*	2147.0	(17/2$^-$)	1339.4	(13/2$^-$)		
839.6 *2*	14.8 *16*	1256.3	11/2$^+$	416.7	7/2$^+$		
883.3 *2*	60 *6*	1851.0	(19/2$^-$)	967.8	(15/2$^-$)	[@]	
888.0 *4*	7.3 *8*	2739.3		1851.0	(19/2$^-$)	[@]	
915.5 *3*	4.6 *6*	3760.9	(27/2$^-$)	2845.4	(23/2$^-$)		
934.6 *3*	5.9 *7*	1921.0	(13/2$^+$)	986.4	9/2$^+$		
939.1 *3*	6.7 *8*	2195.4	(15/2$^+$)	1256.3	11/2$^+$		
943.3 *3*	10.9 *12*	1339.4	(13/2$^-$)	396.1	11/2$^-$	M1,E2	α(K)exp=0.00106 *18*
991.8 *4*	1.8 *5*	2331.2		1339.4	(13/2$^-$)		
994.4 *2*	22.5 *25*	2845.4	(23/2$^-$)	1851.0	(19/2$^-$)	E2	α(K)exp=0.00091 *18*

Continued on next page (footnotes at end of table)

^{110}Pd(α,3nγ) 1979Oh02 (continued)

$\gamma(^{111}Cd)$ (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[†]	Comments
1169.8 *4*	3.7 *4*	1566.0	(11/2$^-$)	396.1	11/2$^-$		
1179.4 *3*	8.9 *10*	2147.0	(17/2$^-$)	967.8	(15/2$^-$)	M1,E2	α(K)exp=0.00081 *16*
[x]1442.1 *5*	5.3 *6*						
[x]1647.0 *5*	2.9 *4*						
[x]1655.0 *5*	1.0 *4*						

[†] α(K)exp are from Iγ and Ice(K) normalized to the 617 *2*+ to 0$^+$ in ^{112}Cd.
[‡] α(K)exp=0.0020 *6* for 358.2+361.6.
[#] α(K)exp=0.0045 *9* for 569.8+571.9.
[@] α(K)exp=0.0017 *3* for 883.3+888.0.
[x] γ ray not placed in level scheme.

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Level Scheme

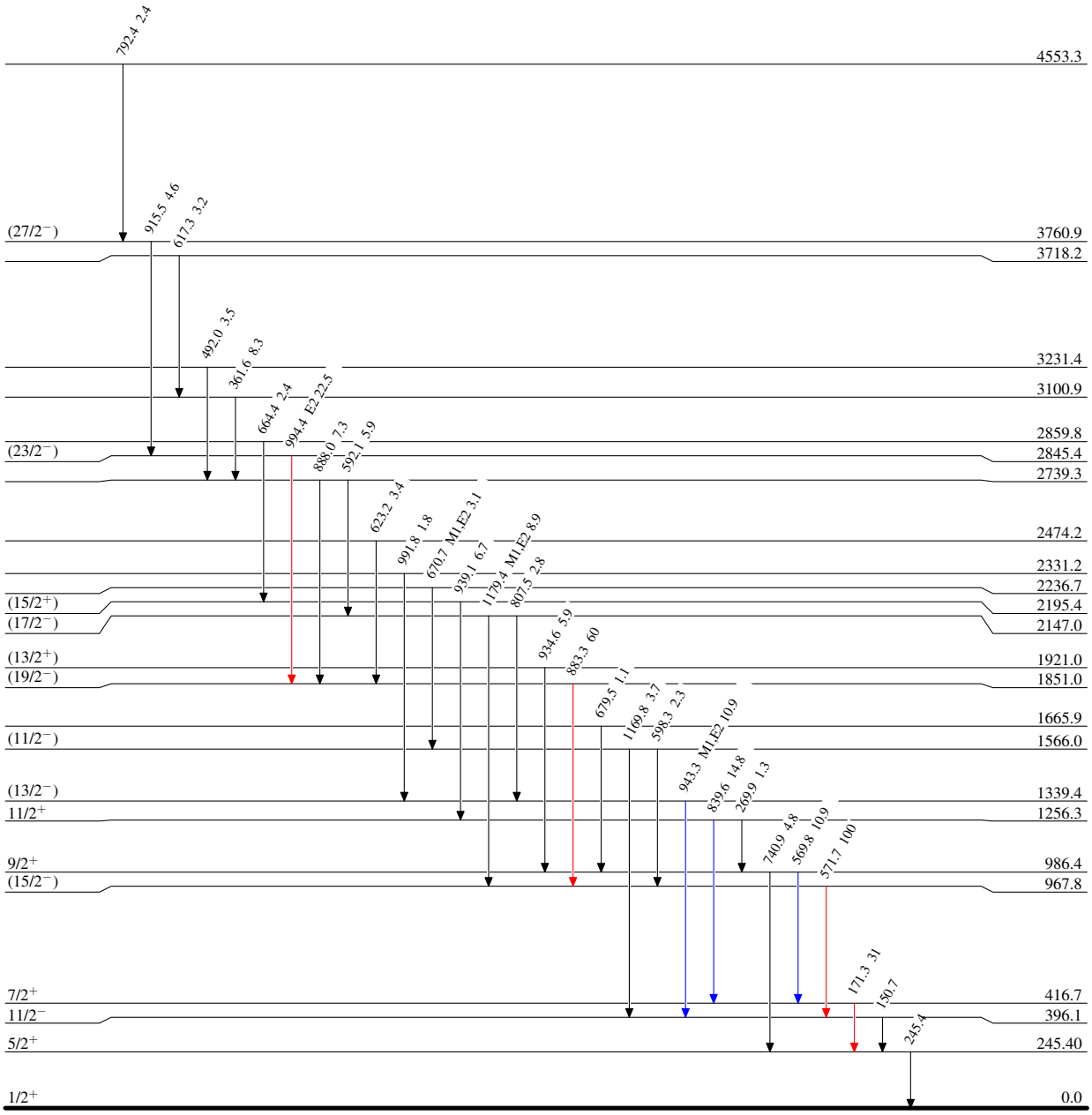
Intensities: Type not specified

Legend

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

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

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



$^{111}_{48}Cd_{63}$

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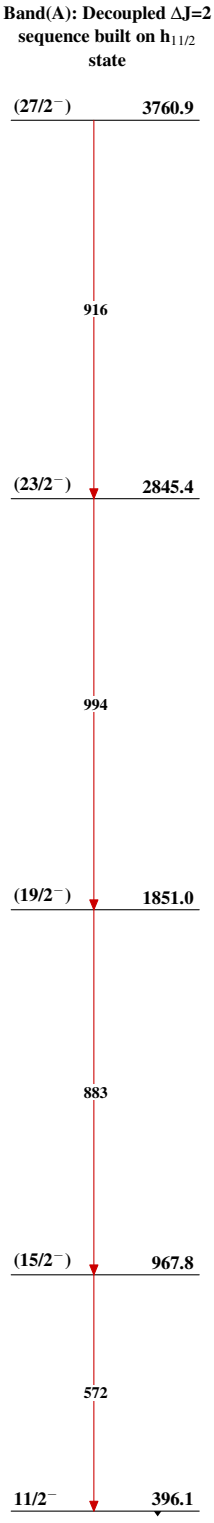

$^{111}_{48}Cd_{63}$