^{110}Pd(^{3}He,2nγ) 1988Wa03

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

E(^{3}He)=12,13,14,15,16,18 MeV.
Enriched target 97%. 5.1 mg/CM**2.
Measured: γ, $\gamma\gamma$, $\gamma(\theta)$, A_{22}, σ(e*).
The authors compare their results with a calculation assuming the $1/2^+$ g.s. has a deformation Δ=0.1.
They have established a rotational band based on the $1/2^+$ g.s. and identified rotational multiplets of g7/2,d5/2,h11/2 parentage.

^{111}Cd Levels

E(level)	J$^\pi$†	E(level)	J$^\pi$†	E(level)	J$^\pi$†	E(level)	J$^\pi$†
0.0		853.8 *2*	$7/2^+$	1298.4 *3*	$(9/2^+)$	1851.3 *5*	$(19/2^-)$
245.27 *10*	$5/2^+$	864.6 *5*		1339.6 *5*	$(13/2^-)$	1907.0 *5*	
342.12 *10*	$3/2^+$	967.9 *2*	$(15/2^-)$	1341.2 *3*		1921.2 *3*	$(13/2^+)$
396.22 *10*	$11/2^-$	986.4 *5*	$9/2^+$	1511.4 *5*		2147.6 *5*	$(17/2^-)$
416.55 *10*	$7/2^+$	1046.8 *5*	$(7/2^+)$	1552.0 *5*	$(9/2^+)$	2195.4 *5*	$(15/2^+)$
620.2 *5*	$5/2^+$	1115.6 *5*	$3/2^+$,$5/2^+$	1565.7 *5*	$(11/2^-)$	2225.5 *5*	
753.3 *5*	$5/2^+$	1256.5 *2*	$11/2^+$	1666.2 *3*			
754.9 *5*	$3/2^+$,$5/2^+$	1273.9 *5*	$(5/2^+)$	1826.3 *3*	9/2,11/2		

† From already adopted values, excitation function analysis, and angular distribution measurements.

γ(^{111}Cd)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
150.95 *10*	71 *5*	396.22	$11/2^-$	245.27	$5/2^+$
171.28 *10*	180 *3*	416.55	$7/2^+$	245.27	$5/2^+$
245.27 *10*	1000	245.27	$5/2^+$	0.0	
270.14 *10*	6 *1*	1256.5	$11/2^+$	986.4	$9/2^+$
278.1 *5*	5 *3*	620.2	$5/2^+$	342.12	$3/2^+$
342.12 *10*	183 *3*	342.12	$3/2^+$	0.0	
371.8 *5*	13 *7*	1339.6	$(13/2^-)$	967.9	$(15/2^-)$
374.2 *5*	10 *3*	2225.5		1851.3	$(19/2^-)$
374.9 *5*	22 *4*	620.2	$5/2^+$	245.27	$5/2^+$
411.2 *5*	22 *5*	753.3	$5/2^+$	342.12	$3/2^+$
437.01 *10*	37 *3*	853.8	$7/2^+$	416.55	$7/2^+$
507.7 *5*	59 *3*	753.3	$5/2^+$	245.27	$5/2^+$
509.4 *5*	81 *45*	754.9	$3/2^+$,$5/2^+$	245.27	$5/2^+$
569.8 *5*	107 *10*	986.4	$9/2^+$	416.55	$7/2^+$
571.64 *10*	170 *10*	967.9	$(15/2^-)$	396.22	$11/2^-$
597.8 *5*	8 *4*	1565.7	$(11/2^-)$	967.9	$(15/2^-)$
608.71 *10*	122 *5*	853.8	$7/2^+$	245.27	$5/2^+$
619.5 *5*	4 *2*	864.6		245.27	$5/2^+$
620.2 *5*	90 *15*	620.2	$5/2^+$	0.0	
679.76 *10*	14 *1*	1666.2		986.4	$9/2^+$
704.7 *5*	102 *10*	1046.8	$(7/2^+)$	342.12	$3/2^+$
741.16 *10*	39 *2*	986.4	$9/2^+$	245.27	$5/2^+$
753.0 *5*	26 *5*	753.3	$5/2^+$	0.0	
754.9 *5*	8 *1*	754.9	$3/2^+$,$5/2^+$	0.0	
773.5 *5*	3 *1*	1115.6	$3/2^+$,$5/2^+$	342.12	$3/2^+$
779.40 *10*	11 *1*	1826.3	9/2,11/2	1046.8	$(7/2^+)$
801.6 *5*	10 *8*	1046.8	$(7/2^+)$	245.27	$5/2^+$

Continued on next page (footnotes at end of table)

^{110}Pd(^{3}He,2nγ) 1988Wa03 (continued)

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

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
808.0 *5*	4 *1*	2147.6	(17/2$^-$)	1339.6	(13/2$^-$)
840.02 *10*	107 *4*	1256.5	11/2$^+$	416.55	7/2$^+$
864.8 *5*	11 *2*	864.6		0.0	
881.90 *10*	24 *3*	1298.4	(9/2$^+$)	416.55	7/2$^+$
883.4 *5*	24 *4*	1851.3	(19/2$^-$)	967.9	(15/2$^-$)
891.3 *5*	18 *5*	1511.4		620.2	5/2$^+$
931.8† *5*	15† *3*	1273.9	(5/2$^+$)	342.12	3/2$^+$
931.8† *5*	15† *3*	1552.0	(9/2$^+$)	620.2	5/2$^+$
934.75 *10*	23 *3*	1921.2	(13/2$^+$)	986.4	9/2$^+$
938.8 *5*	10 *3*	2195.4	(15/2$^+$)	1256.5	11/2$^+$
943.42 *10*	56 *2*	1339.6	(13/2$^-$)	396.22	11/2$^-$
999.09 *10*	11 *3*	1341.2		342.12	3/2$^+$
1053.2 *5*	20 *10*	1298.4	(9/2$^+$)	245.27	5/2$^+$
1053.4 *5*	6 *2*	1907.0		853.8	7/2$^+$
1094.8 *5*	7 *2*	1511.4		416.55	7/2$^+$
1115.6 *5*	40 *10*	1115.6	3/2$^+$,5/2$^+$	0.0	
1169.48 *10*	18 *4*	1565.7	(11/2$^-$)	396.22	11/2$^-$
1179.73 *10*	12 *1*	2147.6	(17/2$^-$)	967.9	(15/2$^-$)

† Multiply placed with undivided intensity.

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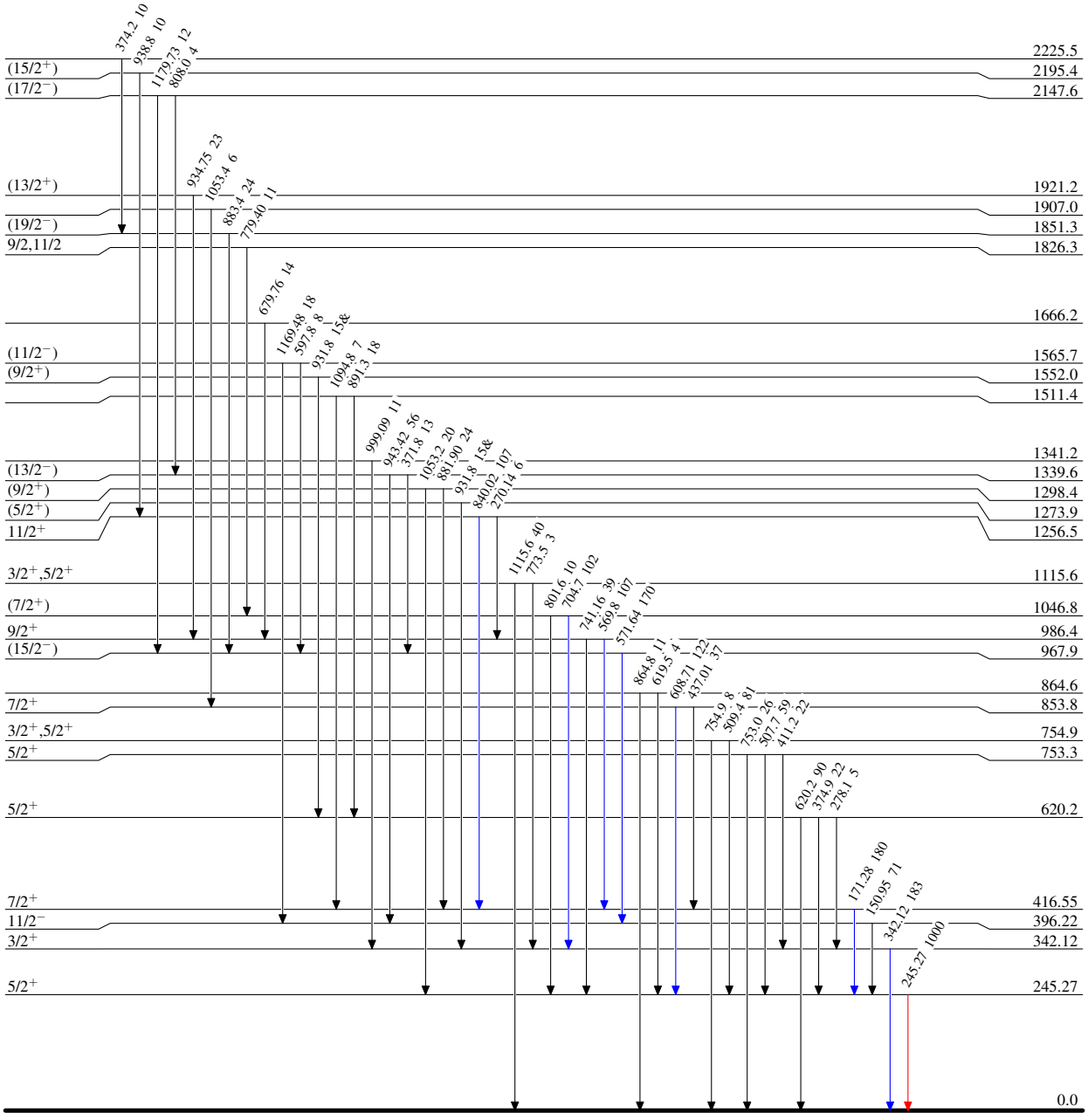
Level Scheme

Intensities: Type not specified
& Multiply placed: undivided intensity given

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



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