

¹¹¹Cd(n,n'γ) **1987BaYW,1991NeZX**

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

E(n) neutron reactor and resonance neutron filtered with B₄C.

Enriched target 96%.

Measured: γ, γγ, γ(θ).

1991NeZX have reanalyzed the data of **1987BaYW**.

¹¹¹Cd Levels

E(level)	J ^π †	T _{1/2}	E(level)	J ^π †	E(level)	J ^π †
0	1/2 ⁺		1298.5 2	5/2 ⁺	1828.4	3/2 ⁺
245.4 1	5/2 ⁺		1321.6 2	1/2 ⁺	1842.5 2	1/2 ⁺ ,3/2
342.1 1	3/2 ⁺		1326.0 2	3/2 ⁺	1848.8 5	
396.16 11	11/2 ⁻	48.54 min 5	1326.6 2	5/2 ⁻	1895.0 3	
416.7 1	7/2 ⁺		1339.5 2	(13/2 ⁻)	1907.4 3	
620.1 1	5/2 ⁺		1340.3 5	1/2 ⁺ ,3/2 ⁺	1971.7 3	
680.4 1	(9/2 ⁻)		1341.3 2	5/2 ⁺	1974.8 3	
704.6 1	7/2 ⁺		1346.2 2	5/2 ⁺	1992.5 3	
752.9 1	5/2 ⁺		1391.8 2	3/2 ⁺	2016.0 5	3/2 ⁺
831.2 1	7/2 ⁻		1473.0 2	3/2 ⁺	2038.0 5	(3/2 ⁺)
854.0 1	7/2 ⁺		1506.0 2	(9/2 ⁻)	2044.4 3	3/2 ⁺
866.6 1	3/2 ⁺		1511.6 2	9/2	2097.2 3	
967.7 2	(15/2 ⁻)		1546.4 2	3/2 ⁺	2134.7 3	
985.9 5	9/2 ⁺		1551.9 2	(9/2 ⁺)	2154.2 3	
1016.8 1	3/2 ⁺		1552.2 2	(3/2 ⁺)	2196.2 2	
1046.8 2	7/2 ⁺		1565.4 2	(11/2 ⁻)	2236.3 3	
1057.5 2	(3/2 ⁺)		1613.3 2	7/2 ⁺	2242.7 3	
1078.3 2	3/2 ⁺		1666.2 2	7/2 ⁺	2280.9 3	1/2 ⁺ ,3/2
1115.6 2	3/2 ⁺ ,5/2 ⁺		1683.1 2	7/2	2325.6 6	1/2,3/2
1118.4 2	7/2 ⁺		1692.2 2	3/2 ⁺	2382.6 3	
1150.7 2	5/2 ⁺		1717.5 3	3/2 ⁺	2652.5 5	
1185.7 1	1/2 ⁺		1739.7 2	3/2 ⁺	2714.3 4	
1190.0 2	3/2 ⁺		1789.4 2	3/2 ⁺	2768.0 5	3/2,5/2
1256.5 2	11/2 ⁺ ‡		1801.5 9		2977.7 5	5/2,7/2
1274.7 2	5/2 ⁺		1826.8 3	3/2 ⁺		

† From derived multipolarity and Adopted Levels.

‡ Evaluator has adopted J^π=11/2⁺ from ¹¹¹Pd (³He,2nγ).

γ(¹¹¹Cd)

E _γ	I _γ	E _i (level)	J _i ^π	E _f	J _f ^π	Mult.†	δ	Comments
24.1		704.6	7/2 ⁺	680.4	(9/2 ⁻)			E _γ : not observed, but required by the level scheme (1991NeZX).
96.7 2	3.1 6	342.1	3/2 ⁺	245.4	5/2 ⁺			
150.77 20	22 2	396.16	11/2 ⁻	245.4	5/2 ⁺	E3@		
171.29 3	56 5	416.7	7/2 ⁺	245.4	5/2 ⁺	M1+E2	-0.17 5	
^x 199.86 25	0.68 20							
203.29 12	0.26 5	620.1	5/2 ⁺	416.7	7/2 ⁺			
^x 205.94 21	0.19 6							
211.7 3	0.19 8	1078.3	3/2 ⁺	866.6	3/2 ⁺			
235.3 3	0.23 8	1801.5		1565.4	(11/2 ⁻)			

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$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX (continued) $\gamma(^{111}\text{Cd})$ (continued)

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	δ	Comments
245.40 3	253 12	245.4	5/2 ⁺	0	1/2 ⁺	E2 [@]		
263.84 15	0.72 14	1016.8	3/2 ⁺	752.9	5/2 ⁺			
269.74 15	0.58 11	1256.5	11/2 ⁺	985.9	9/2 ⁺			
278.04 5	2.2 2	620.1	5/2 ⁺	342.1	3/2 ⁺	M1+E2		$\delta: \delta=-0.45 +25-13$ or $-1.2 +2-4$.
284.28 5	37 2	680.4	(9/2 ⁻)	396.16	11/2 ⁻	M1+E2	+0.16 1	
293.91 [‡] 8	0.27 5	1046.8	7/2 ⁺	752.9	5/2 ⁺			
304.4 3	0.08 3	1057.5	(3/2 ⁺)	752.9	5/2 ⁺			
^x 313.08 [#]	0.52 15							
323.41 ^{&} 25	0.24 ^{&} 7	1190.0	3/2 ⁺	866.6	3/2 ⁺			
323.41 ^{&} 25	0.24 ^{&} 7	1340.3	1/2 ⁺ ,3/2 ⁺	1016.8	3/2 ⁺			
336.16 10	1.9 5	752.9	5/2 ⁺	416.7	7/2 ⁺			
342.12 3	100 5	342.1	3/2 ⁺	0	1/2 ⁺	M1+E2	+0.39 2	
^x 354.2 5	0.14 5							
^x 362.7 3	0.19 5							
^x 363.6 3	0.12 5							
365.5 ^{‡#}	0.36 15	1118.4	7/2 ⁺	752.9	5/2 ⁺			
371.90 20	0.04 2	1339.5	(13/2 ⁻)	967.7	(15/2 ⁻)			
374.75 5	11.1 11	620.1	5/2 ⁺	245.4	5/2 ⁺	M1+E2	+2.8 5	
393.24 [‡] 20	0.57 10	1511.6	9/2	1118.4	7/2 ⁺			
395.88 25	0.10 4	1473.0	3/2 ⁺	1078.3	3/2 ⁺			
408.48 [‡] 25	0.26 5	1683.1	7/2	1274.7	5/2 ⁺			
410.77 10	5.2 5	752.9	5/2 ⁺	342.1	3/2 ⁺	M1+E2	-0.05 3	
420.70 [‡] 20	0.46 9	1274.7	5/2 ⁺	854.0	7/2 ⁺			
426.65 [‡] 15	0.61 12	1046.8	7/2 ⁺	620.1	5/2 ⁺			
^x 431.3 4	0.21 5							
435.06 [‡] 10	9 2	831.2	7/2 ⁻	396.16	11/2 ⁻			
437.21 [‡] 20	3.3 8	854.0	7/2 ⁺	416.7	7/2 ⁺			
446.13 5	10.5 5	1150.7	5/2 ⁺	704.6	7/2 ⁺	M1+E2		$\delta: \delta=-0.29 10$ or $-2.4 2$.
449.81 10	0.39 12	866.6	3/2 ⁺	416.7	7/2 ⁺			
455.01 [#] 15	0.23 6	1473.0	3/2 ⁺	1016.8	3/2 ⁺			
458.15 20	0.38 7	1078.3	3/2 ⁺	620.1	5/2 ⁺			
^x 462.93 20	0.14 5							
467.42 [‡] 25	0.20 6	1298.5	5/2 ⁺	831.2	7/2 ⁻			
^x 485.41 20	0.10 2							
495.38 15	1.6 2	1115.6	3/2 ⁺ ,5/2 ⁺	620.1	5/2 ⁺	D+Q		$\delta: \delta=+0.09 9$ or $-9 +60-4$.
498.30 [‡] 15	0.84 16	1118.4	7/2 ⁺	620.1	5/2 ⁺			
507.6 3	16 6	752.9	5/2 ⁺	245.4	5/2 ⁺	M1+E2		$\delta: \delta=-0.36 2$ or $+4.9 2$.
524.33 20	2.8 6	866.6	3/2 ⁺	342.1	3/2 ⁺	M1+E2	+2.4 4	
^x 541.40 25	0.15 4							
^x 553.50 25	0.16 5							
554.9 [‡] 4	0.07 3	1895.0		1340.3	1/2 ⁺ ,3/2 ⁺			
569.0 ^a	7.0 ^a 15	985.9	9/2 ⁺	416.7	7/2 ⁺			From I γ (569 from 980)/I γ (741)=2.58 24 in Adopted γ 's.
569.0 ^a	9 ^a 4	1190.0	3/2 ⁺	620.1	5/2 ⁺			From I γ =16 3 for doublet and I γ =7.3 16 for placement from 986.
571.6 5	1.5 6	967.7	(15/2 ⁻)	396.16	11/2 ⁻			
588.20 ^{&} 7	0.97 ^{&} 2	1340.3	1/2 ⁺ ,3/2 ⁺	752.9	5/2 ⁺			
588.20 ^{&#} 7	0.97 ^{&} 2	1341.3	5/2 ⁺	752.9	5/2 ⁺			
^x 592.60 25	0.50 11							

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$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX (continued) $\gamma(^{111}\text{Cd})$ (continued)

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	δ	Comments
$^{x}601.16$ 15	0.24 5							
608.58 ‡ 20	4.0 9	854.0	7/2 ⁺	245.4	5/2 ⁺			
620.31 20	36 5	620.1	5/2 ⁺	0	1/2 ⁺	E2 [@]		
621.2 4	8 2	866.6	3/2 ⁺	245.4	5/2 ⁺			
629.85 ‡ 20	0.47 8	1046.8	7/2 ⁺	416.7	7/2 ⁺			
638.91 15	0.26 7	1391.8	3/2 ⁺	752.9	5/2 ⁺			
646.13 ‡ 10	4.2 4	1326.6	5/2 ⁻	680.4	(9/2 ⁻)			
666.19 ‡ 20	0.70 21	1992.5		1326.0	3/2 ⁺			
679.65 20	0.84 3	1666.2	7/2 ⁺	985.9	9/2 ⁺	D+Q		δ : $\delta=+ 0.01$ 3 or - 10 +36-2.
701.6 ‡ 5	1.6 6	1118.4	7/2 ⁺	416.7	7/2 ⁺			
704.66 ‡ 15	4.2 9	1046.8	7/2 ⁺	342.1	3/2 ⁺			
715.65 15	3.7 7	1057.5	(3/2) ⁺	342.1	3/2 ⁺			
720.02 $\&$ 10	3.3 $\&$ 7	1340.3	1/2 ⁺ ,3/2 ⁺	620.1	5/2 ⁺			
720.02 $\&$ 10	3.3 $\&$ 7	1473.0	3/2 ⁺	752.9	5/2 ⁺			
$^{x}738.6$ 3	0.22 6							
741.03 10	2.7 5	985.9	9/2 ⁺	245.4	5/2 ⁺	E2		
746.6 ‡ 4	0.11 3	1613.3	7/2 ⁺	866.6	3/2 ⁺			
752.85 10	9.1 20	752.9	5/2 ⁺	0	1/2 ⁺	E2		I_γ : authors' uncertainty of 0.2 is probably a misprint.
$^{x}764.9$ 3	0.27 8							
$^{x}769.3$ 5	0.12 4							
771.2 5	0.65 18	1016.8	3/2 ⁺	245.4	5/2 ⁺			
773.40 20	3.1 10	1115.6	3/2 ⁺ ,5/2 ⁺	342.1	3/2 ⁺	M1+E2	+2.8 +6-4	
776.29 ‡ 10	3.1 7	1118.4	7/2 ⁺	342.1	3/2 ⁺			
779.95 15	0.34 12	1826.8	3/2 ⁺	1046.8	7/2 ⁺			
$^{x}784.69$ 25	0.11 3							
793.39 10	0.69 15	1546.4	3/2 ⁺	752.9	5/2 ⁺	D+Q		δ : $\delta=- 1.25$ 3 or -0.502.
801.43 ‡ 20	2.1 4	1046.8	7/2 ⁺	245.4	5/2 ⁺			
808.5 ‡ 3	0.23 11	2134.7		1326.0	3/2 ⁺			
811.95 15	0.94 18	1057.5	(3/2) ⁺	245.4	5/2 ⁺	D+Q		δ : $\delta=+ 0.06$ +12-10 or + 3.1 +16-9.
825.64 10	2.0 2	1506.0	(9/2) ⁻	680.4	(9/2 ⁻)	M1+E2		δ : $\delta=- 0.56$ 4 or - 4.0 5.
832.91 10	6.2 6	1078.3	3/2 ⁺	245.4	5/2 ⁺	M1+E2		δ : $\delta=+ 0.20$ 4 or <50 or >+10.
839.85 10	2.0 2	1256.5	11/2 ⁺	416.7	7/2 ⁺			
854.2 4	0.37 17	2044.4	3/2 ⁺	1190.0	3/2 ⁺			
$^{x}856.1$ 4	0.20 10							
858.0 ‡ 4	0.35 16	1274.7	5/2 ⁺	416.7	7/2 ⁺			
866.61 10	5.1 7	866.6	3/2 ⁺	0	1/2 ⁺	M1+E2	-1.42 7	δ : alternate value of -0.10 5 is ruled out since it leads via T _{1/2} to RUL(524.4 γ) greater than 740.
873.06 10	3.6 4	1739.7	3/2 ⁺	866.6	3/2 ⁺	D+Q		δ : $\delta=- 0.08$ 3 or + 6.3 +25-13.
$^{x}876.44$ 15	0.78 15							
881.63 ‡ 20	1.7 4	1298.5	5/2 ⁺	416.7	7/2 ⁺			
884.64 25	0.30 10	1565.4	(11/2) ⁻	680.4	(9/2 ⁻)			
891.25 ‡ 15	0.98 10	1511.6	9/2	620.1	5/2 ⁺			
$^{x}894.07$ 20	0.24 5							
900.9 3	0.34 9	2016.0	3/2 ⁺	1115.6	3/2 ⁺ ,5/2 ⁺			
907.02 ‡ 20	0.32 6	2097.2		1190.0	3/2 ⁺			
924.7 ‡ 4	1.8 9	1341.3	5/2 ⁺	416.7	7/2 ⁺			
926.3 4	0.58 17	1546.4	3/2 ⁺	620.1	5/2 ⁺			
929.43 ‡ 20	1.3 4	1346.2	5/2 ⁺	416.7	7/2 ⁺			
932.56 15	3.9 7	1551.9	(9/2 ⁺)	620.1	5/2 ⁺			

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$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX (continued) $\gamma(^{111}\text{Cd})$ (continued)

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	δ	Comments
943.42 15	1.2 2	1339.5	(13/2 ⁻)	396.16	11/2 ⁻	D+Q		$\delta: +0.72 < \delta < +1.84$.
^x 955.8 3	0.17 2							
958.17 [‡]	0.45 11	1974.8		1016.8	3/2 ⁺			
964.5 [‡] 5	0.40 12	1717.5	3/2 ⁺	752.9	5/2 ⁺			
969.66 20	1.06 11	1801.5		831.2	7/2 ⁻			
976.95 15	1.3 3	1842.5	1/2 ⁺ ,3/2	866.6	3/2 ⁺			
979.5 [‡] 5	0.15 6	1321.6	1/2 ⁺	342.1	3/2 ⁺			
984.55 [‡] 20	0.40 3	1326.6	5/2 ⁻	342.1	3/2 ⁺			
^x 987.56 20	0.08 3							
^x 991.2 3	0.16 5							
993.30 [‡] 20	0.22 6	1613.3	7/2 ⁺	620.1	5/2 ⁺			
999.18 [‡] 10	3.4 3	1341.3	5/2 ⁺	342.1	3/2 ⁺			
1004.14 [‡] 15	0.32 9	1346.2	5/2 ⁺	342.1	3/2 ⁺			
^x 1008.36 25	0.31 9							
1016.77 10	8.7 8	1016.8	3/2 ⁺	0	1/2 ⁺	M1+E2	-3.2 6	
^x 1023.60 20	0.37 7							
1029.35 [‡] 10	2.0 2	1274.7	5/2 ⁺	245.4	5/2 ⁺			
^x 1032.7	0.09 4							
^x 1036.20 ^a 15	1.2 ^a 3					M1+E2		
1036.20 ^a 15	0.25 ^a 7	1789.4	3/2 ⁺	752.9	5/2 ⁺	M1+E2		$\delta: \delta = +0.02 3 \text{ or } -5.4 +11-7$.
1038.7 [‡] 3	0.12 4	2154.2		1115.6	3/2 ⁺ ,5/2 ⁺			
1042.16 [‡] #	0.13 4	2382.6		1340.3	1/2 ⁺ ,3/2 ⁺			
1049.67 10	1.3 2	1391.8	3/2 ⁺	342.1	3/2 ⁺	D+Q		$\delta: \delta = +0.16 6 \text{ or } +2.3 +5-3$.
1054.14 ^{&} [‡] # 18	1.4 ^{&} 8	1298.5	5/2 ⁺	245.4	5/2 ⁺			$I_\gamma: \text{from } I_\gamma/I_\gamma(1490.7\gamma)=0.8$ 4 in (³ He,pn γ).
1054.14 ^{&} [‡] #	1.7 ^{&} 10	1907.4		854.0	7/2 ⁺			$I_\gamma: \text{from } I_\gamma=3.1 6 \text{ for the doubly placed } 1054\gamma \text{ and value deduced for placement from the } 1298 \text{ level.}$
1057.4 4	0.48 8	1057.5	(3/2) ⁺	0	1/2 ⁺			
^x 1059.6 5	0.16 7							
^x 1072.27 25	0.55 11							
1078.35 10	5.8 9	1078.3	3/2 ⁺	0	1/2 ⁺	M1+E2	+0.27 +5-3	
1091.0 3	0.21 6	2280.9	1/2 ⁺ ,3/2	1190.0	3/2 ⁺			
1094.8 2	0.50 15	1511.6	9/2	416.7	7/2 ⁺			
1097.3 [‡] 3	0.62 19	1717.5	3/2 ⁺	620.1	5/2 ⁺			
1100.83 [‡] 15	1.3 3	1346.2	5/2 ⁺	245.4	5/2 ⁺			
1109.55 20	1.1 2	1506.0	(9/2) ⁻	396.16	11/2 ⁻			
1115.57 15	6.2 12	1115.6	3/2 ⁺ ,5/2 ⁺	0	1/2 ⁺	M1+E2	-0.17 3	
1130.56 15	1.8 2	1473.0	3/2 ⁺	342.1	3/2 ⁺	D+Q		$\delta: \delta = -0.21 3 \text{ or } +64 22$.
1135.16 20	0.69 14	1551.9	(9/2 ⁺)	416.7	7/2 ⁺			
1140.53 [‡] 20	0.68 14	1971.7		831.2	7/2 ⁻			
1146.46 10	3.5 4	1391.8	3/2 ⁺	245.4	5/2 ⁺	M1+E2		$\delta: \delta = -0.16 2 \text{ or } +14 +30-5$.
1150.74 10	0.91 9	1150.7	5/2 ⁺	0	1/2 ⁺			
^x 1155.46 25	0.10 3							
1161.6 [‡] #	0.96 18	1992.5		831.2	7/2 ⁻			
1169.7 4	0.41 8	1565.4	(11/2 ⁻)	396.16	11/2 ⁻			$E_\gamma: 1987\text{BaYW place this } \gamma \text{ from } 1789 \text{ level.}$
^x 1172.2 4	0.15 3							
1185.72 10	5.9 6	1185.7	1/2 ⁺	0	1/2 ⁺			
1190.13 15	0.31 6	1190.0	3/2 ⁺	0	1/2 ⁺	D+Q		$\delta: \delta = +0.19 3 \text{ or } -2.9 3$.
^x 1207.5 5	0.40 8							

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$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX (continued) $\gamma(^{111}\text{Cd})$ (continued)

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. †	Comments
1209.9 4	1.2 3	1552.2	(3/2 ⁺)	342.1	3/2 ⁺		
1219.3 ‡ 3	0.24 6	2236.3		1016.8	3/2 ⁺		
1222.0 4	0.25 12	1842.5	1/2 ⁺ ,3/2	620.1	5/2 ⁺		
^x 1223.8 4	0.47 15						
1226.1 ‡ 3	1.7 5	2242.7		1016.8	3/2 ⁺		
^x 1233.3 4	0.16 6						
^x 1237.1 4	0.12 3						
^x 1240.4 3	0.37 12						
1243.30 ‡ 20	1.4 4	2097.2		854.0	7/2 ⁺		
1249.11 20	0.48 15	1666.2	7/2 ⁺	416.7	7/2 ⁺		
1263.6 5	0.05 2	2016.0	3/2 ⁺	752.9	5/2 ⁺		
1266.58 & ‡ 25	1.3 & 3	1511.6	9/2	245.4	5/2 ⁺		
1266.58 & 25	1.3 & 3	1683.1	7/2	416.7	7/2 ⁺		
1271.08 25	1.1 3	1613.3	7/2 ⁺	342.1	3/2 ⁺		
^x 1280.4 3	0.22 6						
1291.5 3	0.61 18	2044.4	3/2 ⁺	752.9	5/2 ⁺		
^x 1296.1 4	0.15 4						
1301.22 20	0.58 12	1546.4	3/2 ⁺	245.4	5/2 ⁺		
1306.87 20	0.67 13	1552.2	(3/2 ⁺)	245.4	5/2 ⁺		
1312.24 ‡ 15	1.2 3	1992.5		680.4	(9/2 ⁻)		
^x 1317.08 15	0.36 7						
1321.59 ‡ 10	3.6 4	1321.6	1/2 ⁺	0	1/2 ⁺		
1325.93 10	1.6 2	1326.0	3/2 ⁺	0	1/2 ⁺	D+Q	δ : $\delta=-0.05$ 5 or - 1.6 3.
^x 1333.57 15	0.33 6						
1340.27 20	3.2 6	1340.3	1/2 ⁺ ,3/2 ⁺	0	1/2 ⁺	D+Q,D	δ : $\delta=+0.21$ 9 or - 3.0 +7-14 for J=3/2.
1344.5 ‡ 5	0.53 25	2097.2		752.9	5/2 ⁺		
1354.80 ‡ 25	0.80 24	1974.8		620.1	5/2 ⁺		
^x 1357.0 4	0.20 9						
1365.2 4	0.71 21	2196.2		831.2	7/2 ⁻		
1367.87 ‡ 25	0.79 24	1613.3	7/2 ⁺	245.4	5/2 ⁺		
1375.1 ‡ 3	0.13 5	2714.3		1339.5	(13/2 ⁻)		
1391.77 25	0.54 11	1391.8	3/2 ⁺	0	1/2 ⁺		
^x 1395.5 3	0.58 12						
1404.68 20	0.56 11	1801.5		396.16	11/2 ⁻		
1414.67 25	0.19 5	2280.9	1/2 ⁺ ,3/2	866.6	3/2 ⁺		
1423.98 25	0.52 12	2044.4	3/2 ⁺	620.1	5/2 ⁺	D+Q	δ : $\delta=-0.18$ +16-12 or - 2.3 +14-6.
1437.60 ‡ 20	0.36 7	1683.1	7/2	245.4	5/2 ⁺		
^x 1447.36 25	0.50 14						
^x 1457.97 20	0.20 4						
1472.8 3	1.0 2	1473.0	3/2 ⁺	0	1/2 ⁺		
1483.4 ‡ 3	0.13 5	2236.3		752.9	5/2 ⁺		
1486.01 25	0.69 21	1828.4	3/2 ⁺	342.1	3/2 ⁺		
1490.7 3	0.51 25	1907.4		416.7	7/2 ⁺		
1494.60 20	1.5 4	1739.7	3/2 ⁺	245.4	5/2 ⁺	D+Q	δ : $\delta=-0.10$ +5-8 or - 3.0 7.
1498.80 ‡ 25	0.67 19	1895.0		396.16	11/2 ⁻		
1506.6 ‡ 4	0.61 19	1848.8		342.1	3/2 ⁺		
1511.4 ‡ 3	0.10 3	1511.6	9/2	0	1/2 ⁺		
1515.59 20	0.93 18	2196.2		680.4	(9/2 ⁻)		
1528.56 ‡ 20	0.62 12	2382.6		854.0	7/2 ⁺		
^x 1535.1 3	0.13 3						
1544.7 4	0.42 20	1789.4	3/2 ⁺	245.4	5/2 ⁺		
1547.0 4	0.52 26	1546.4	3/2 ⁺	0	1/2 ⁺		

Continued on next page (footnotes at end of table)

¹¹¹Cd(n,n'γ) 1987BaYW,1991NeZX (continued)

γ(¹¹¹Cd) (continued)

<u>E_γ</u>	<u>I_γ</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.[†]</u>	<u>Comments</u>
1552.09 10	1.02 15	1552.2	(3/2 ⁺)	0	1/2 ⁺	D+Q	δ: 1.0<δ<3.7.
^x 1556.5 3	0.10 2						
^x 1565.36 25	0.24 5						
^x 1571.61 25	0.23 6						
1575.52 [‡] 15	1.2 3	1971.7		396.16	11/2 ⁻		
^x 1584.68 [#]	0.20 9						
^x 1592.32 22	0.35 7						
1598.5 [#] 15	0.35 9	1842.5	1/2 ⁺ ,3/2	245.4	5/2 ⁺		
^x 1604.42 20	0.70 14						
^x 1619.3 4	0.10 3						
1622.46 [‡] 25	0.40 12	2242.7		620.1	5/2 ⁺		
1632.7 [‡] 2	1.7 3	1974.8		342.1	3/2 ⁺		
^x 1640.97 15	0.70 7						
^x 1650.61 15	0.77 22						
^x 1653.6 4	0.12 6						
^x 1657.2 4	0.10 5						
1660.6 3	0.43 15	2280.9	1/2 ⁺ ,3/2	620.1	5/2 ⁺		
^x 1664.2 3	0.09 4						
^x 1683.08 20	0.56 12						
1691.95 20	1.4 1	1692.2	3/2 ⁺	0	1/2 ⁺	D+Q	δ: δ=+ 0.34 +1-2 or - 5.0 2.
1696.2 [‡] 5	0.09 4	2038.0	(3/2) ⁺	342.1	3/2 ⁺		
^x 1699.83 [#]	0.74 22						
1717.65 [‡] [#]	0.60 12	1717.5	3/2 ⁺	0	1/2 ⁺		
^x 1730.62 [#]	0.25 7						
1737.36 [‡] 20	0.67 18	2154.2		416.7	7/2 ⁺		
^x 1744.5 4	0.12 6						
^x 1748.78 [#]	0.98 29						
^x 1753.4 3	0.34 17						
^x 1755.8 3	0.20 10						
^x 1759.6 4	0.12 6						
^x 1767.8 5	0.13 6						
^x 1785.2 4	0.06 2						
1789.59 25	0.28 6	1789.4	3/2 ⁺	0	1/2 ⁺		
1792.67 [‡] 20	0.56 17	2134.7		342.1	3/2 ⁺		
1801.9 3	0.20 10	1801.5		0	1/2 ⁺		
^x 1805.1 3	0.22 11						
1812.1 [‡] 4	0.12 6	2154.2		342.1	3/2 ⁺		
1828.0 3	0.51 20	1828.4	3/2 ⁺	0	1/2 ⁺		
^x 1834.2 3	0.18 5						
^x 1838.9 3	0.26 13						
1842.54 20	0.71 21	1842.5	1/2 ⁺ ,3/2	0	1/2 ⁺	D,D+Q	δ: δ=+ 0.30 10 or - 4.5 +3-15 for J=3/2.
1849.15 [‡] [#]	0.87 25	1848.8		0	1/2 ⁺		
1860.6 [‡] 3	0.12 4	2714.3		854.0	7/2 ⁺		
^x 1870.9 5	0.10 4						
^x 1881.5 3	0.17 5						
^x 1893.94 25	0.20 4						
1900.68 [‡] [#]	0.82 16	2242.7		342.1	3/2 ⁺		
1909.03 [‡] 25	0.21 4	2154.2		245.4	5/2 ⁺		
^x 1914.6 4	0.08 4						
^x 1922.24 25	0.26 5						
1929.44 [‡] [#] 20	0.50 15	2977.7	5/2,7/2	1046.8	7/2 ⁺		
1938.6 3	0.15 3	2280.9	1/2 ⁺ ,3/2	342.1	3/2 ⁺		

Continued on next page (footnotes at end of table)

$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX (continued) $\gamma(^{111}\text{Cd})$ (continued)

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
^x 1947.25 [#]	0.12 5					^x 2369.1 6	0.09 3				
^x 1952.9 3	0.06 2					^x 2374.2 5	0.09 2				
^x 1966.4 4	0.43 8					2383.8 [‡] 7	0.21 4	2382.6		0	1/2 ⁺
^x 1973.4 5	0.15 5					^x 2392.0 10	0.10 4				
1983.4 5	0.17 7	2325.6	1/2,3/2	342.1	3/2 ⁺	^x 2396.2 10	0.13 6				
1990.8 [‡] 5	0.16 8	2236.3		245.4	5/2 ⁺	^x 2415.5 7	0.10 4				
^x 1995.7 3	0.51 15					^x 2420.2 4	0.29 6				
^x 2026.9 3	0.13 4					2426.5 [‡] 6	0.05 2	2768.0	3/2,5/2	342.1	3/2 ⁺
2032.1 [‡] 4	0.11 3	2652.5		620.1	5/2 ⁺	^x 2449.8 [#]	0.26 13				
2037.9 [#] 6	0.18 6	2038.0	(3/2) ⁺	0	1/2 ⁺	^x 2490.2 5	0.08 2				
^x 2039.98	0.10 5					^x 2507.3 3	0.50 14				
2044.64 25	0.32 9	2044.4	3/2 ⁺	0	1/2 ⁺	^x 2519.2 7	0.13 4				
^x 2059.1 6	0.27 8					^x 2534.6 7	0.11 4				
^x 2066.0 8	0.12 5					^x 2538.6 7	0.07 5				
^x 2074.9 8	0.28 4					2560.7 [‡] 4	0.34 7	2977.7	5/2,7/2	416.7	7/2 ⁺
^x 2081.9 6	0.40 12					^x 2573.8 7	0.06 2				
2124.0 [‡] 3	0.34 9	2977.7	5/2,7/2	854.0	7/2 ⁺	^x 2577.7 7	0.12 3				
^x 2136.6 5	0.06 2					^x 2587.8 8	0.10 2				
^x 2143.2 4	0.13 3					^x 2623.3 5	0.13 3				
^x 2152.9 5	0.08 3					^x 2630.2 5	0.13 3				
^x 2157.4 5	0.09 4					^x 2670.0 [#]	0.21 6				
^x 2164.5 4	0.12 3					^x 2682.2 10	0.11 4				
^x 2168.7 5	0.30 12					^x 2708.8 5	0.12 2				
^x 2172.2 5	0.12 5					^x 2755.2 10	0.22 6				
^x 2196.04 25	0.74					2768.3 [‡] 8	0.12 3	2768.0	3/2,5/2	0	1/2 ⁺
^x 2204.3 4	0.12 6					^x 2776.9 8	0.16 3				
2236.4 [‡] 3	0.32 6	2236.3		0	1/2 ⁺	^x 2831.0 5	0.16 3				
^x 2238.9 4	0.36 7					^x 2839.3 8	0.10 3				
^x 2255.0 8	0.13 3					^x 2854.3 8	0.10 3				
2297.6 [‡] 4	0.26 5	2714.3		416.7	7/2 ⁺	^x 2906.7 10	0.06 2				
^x 2306.2 10	0.18 8					^x 2932.9 5	0.19 4				
2311.7 [‡] # 20	0.38 11	2652.5		342.1	3/2 ⁺	^x 2941.6 7	0.08 4				
^x 2329.3 [#]	0.23 6					^x 2947.3 7	0.09 4				
^x 2344.2 8	0.09 4					^x 3127.5 10	0.05 2				
2350.7 [‡] 6	0.09 3	2768.0	3/2,5/2	416.7	7/2 ⁺	^x 3135.4 7	0.23 5				
^x 2359.0 7	0.08 3					^x 3148.6 10	0.10 3				
^x 2363.5 7	0.09 3										

[†] From $\gamma(\theta)$ and linear polarization.

[‡] Placed by 1991NeZX.

[#] Complex peak.

[@] From adopted γ 's.

[&] Multiply placed with undivided intensity.

^a Multiply placed with intensity suitably divided.

^x γ ray not placed in level scheme.

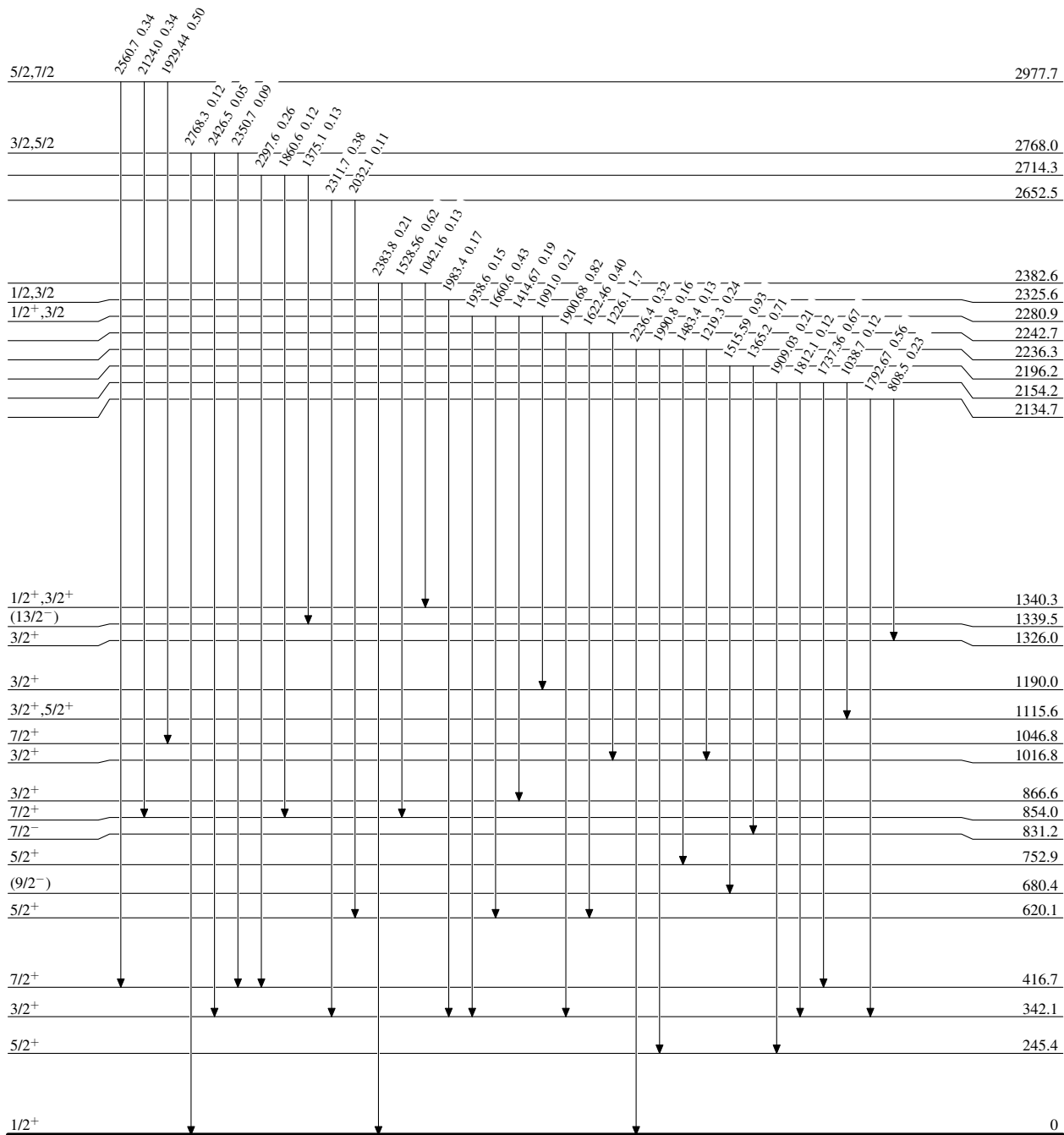
¹¹¹Cd(n,n' γ) 1987BaYW,1991NeZX

Level Scheme

Intensities: Type not specified

Legend

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



¹¹¹Cd₆₃

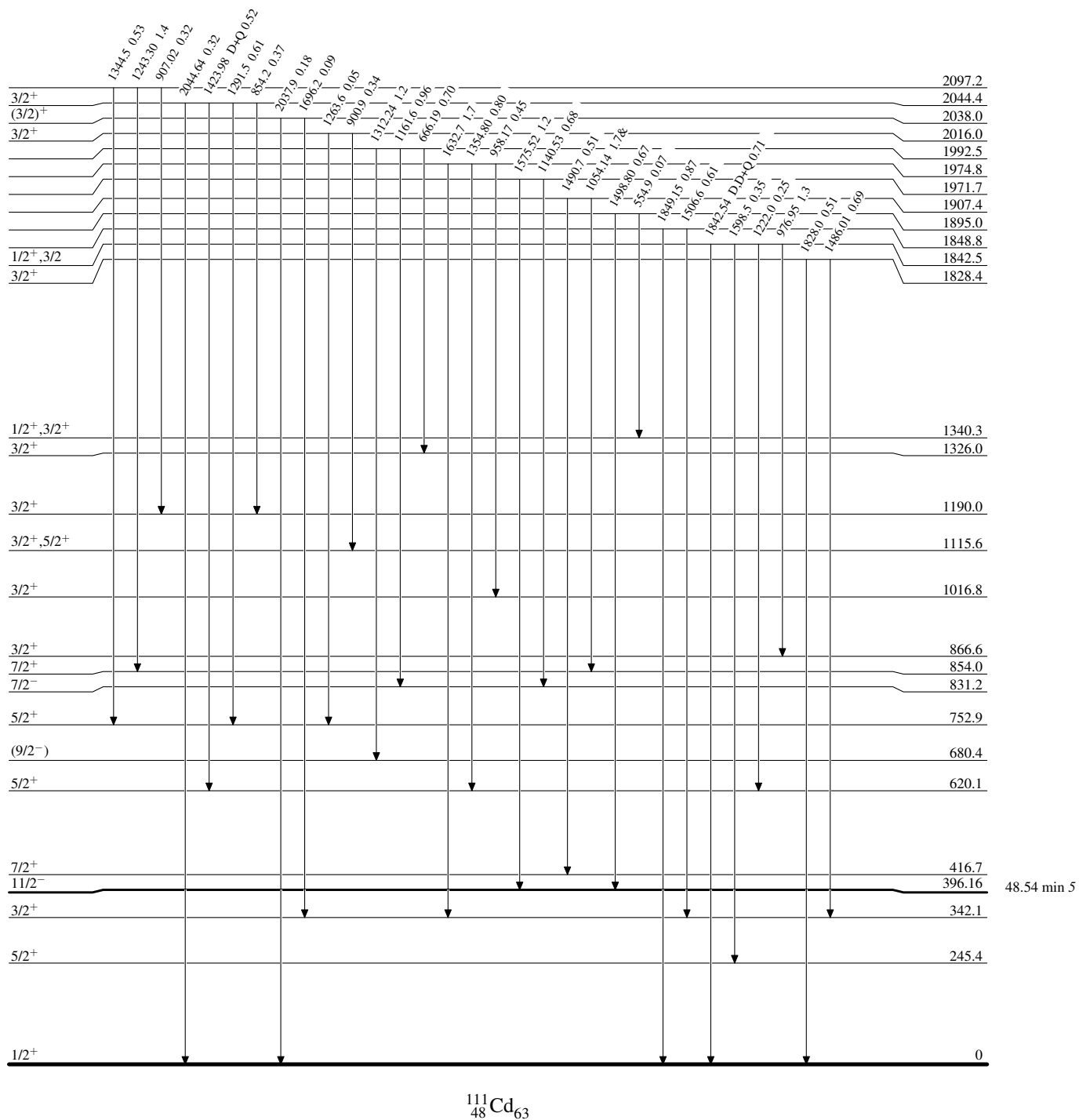
$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX

Level Scheme (continued)

Legend

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

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



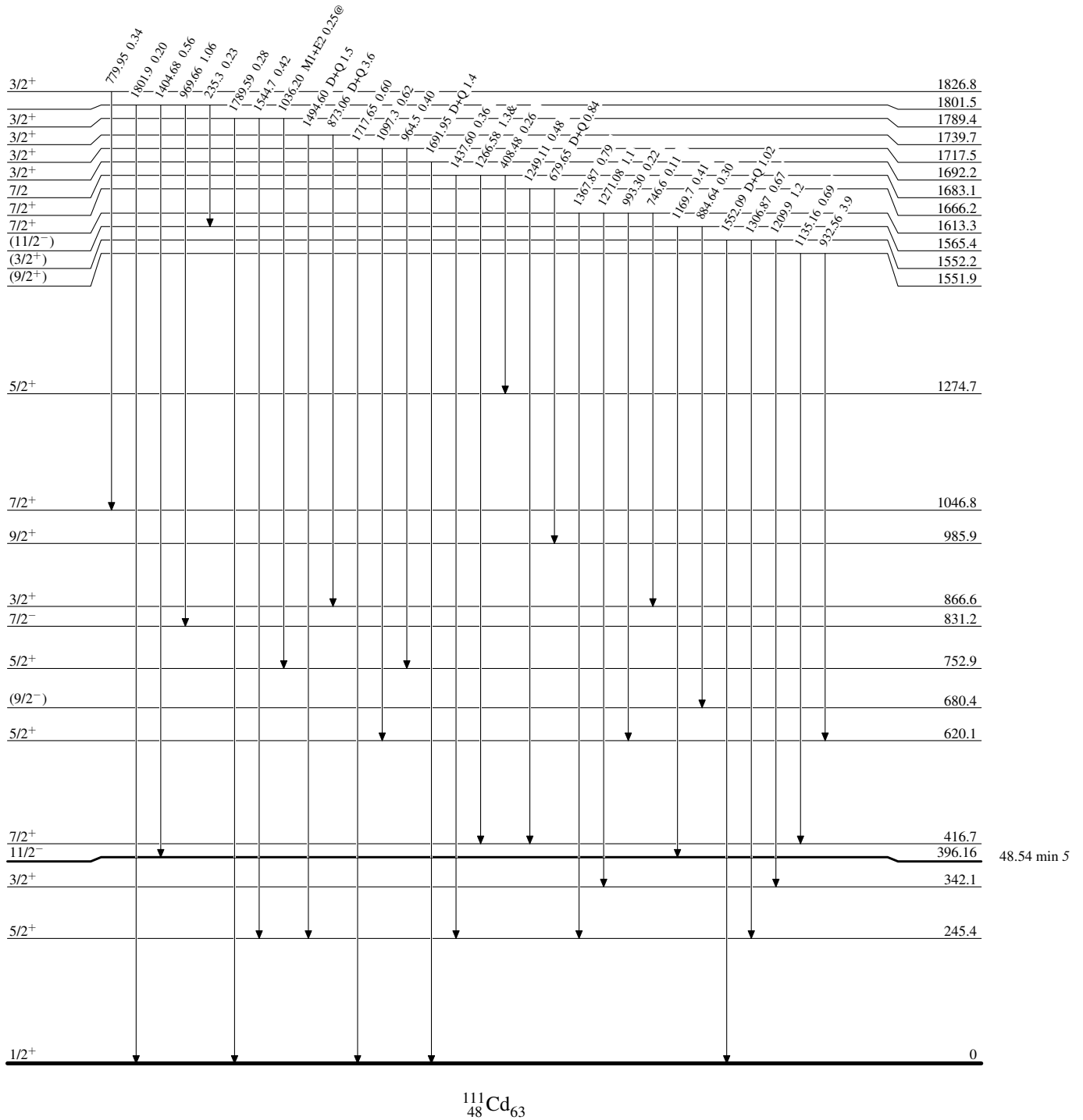
$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX

Level Scheme (continued)

Intensities: Type not specified
 & Multiply placed: undivided intensity given
 @ Multiply placed: intensity suitably divided

Legend

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



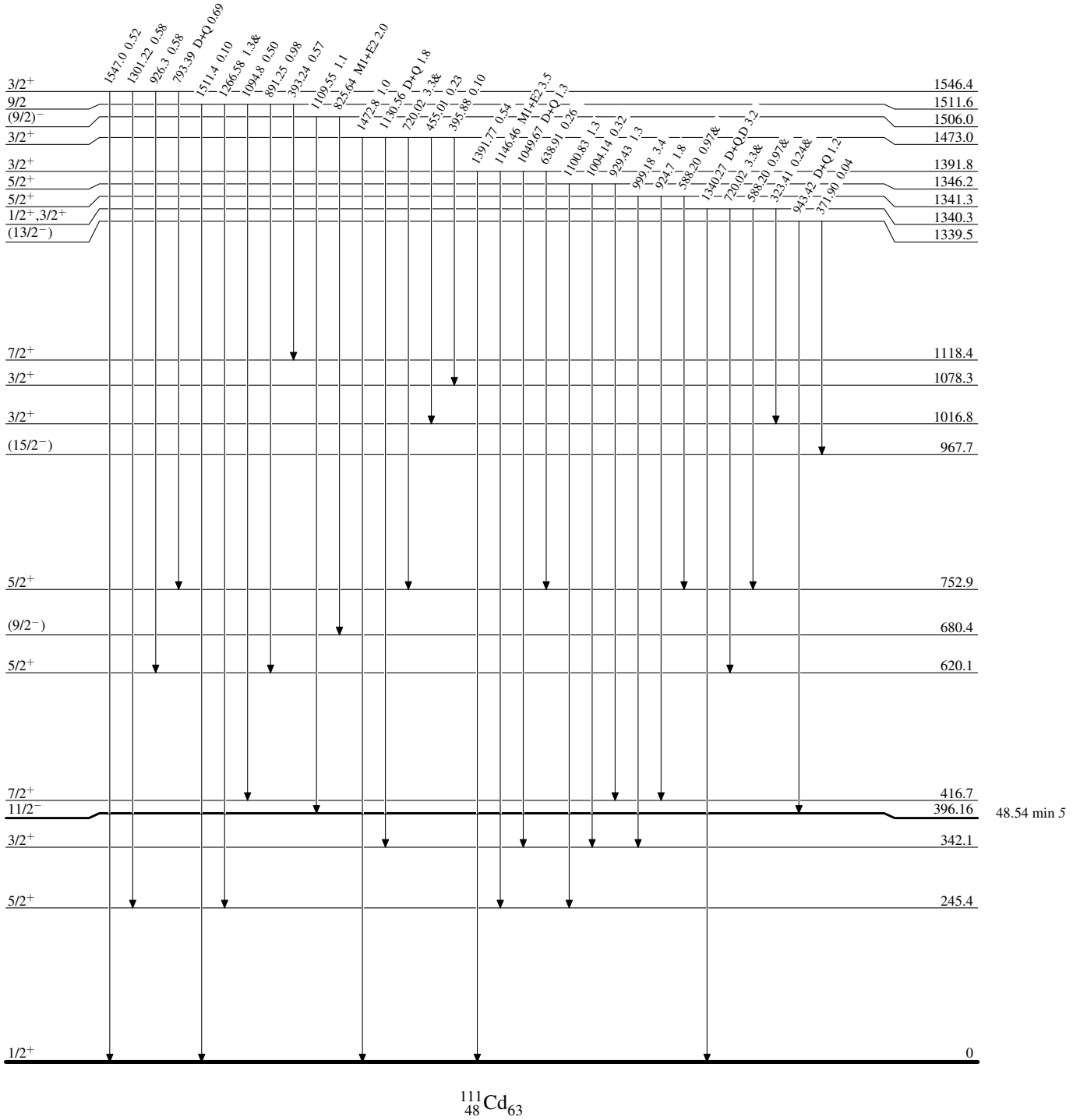
$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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



$^{111}_{48}\text{Cd}_{63}$

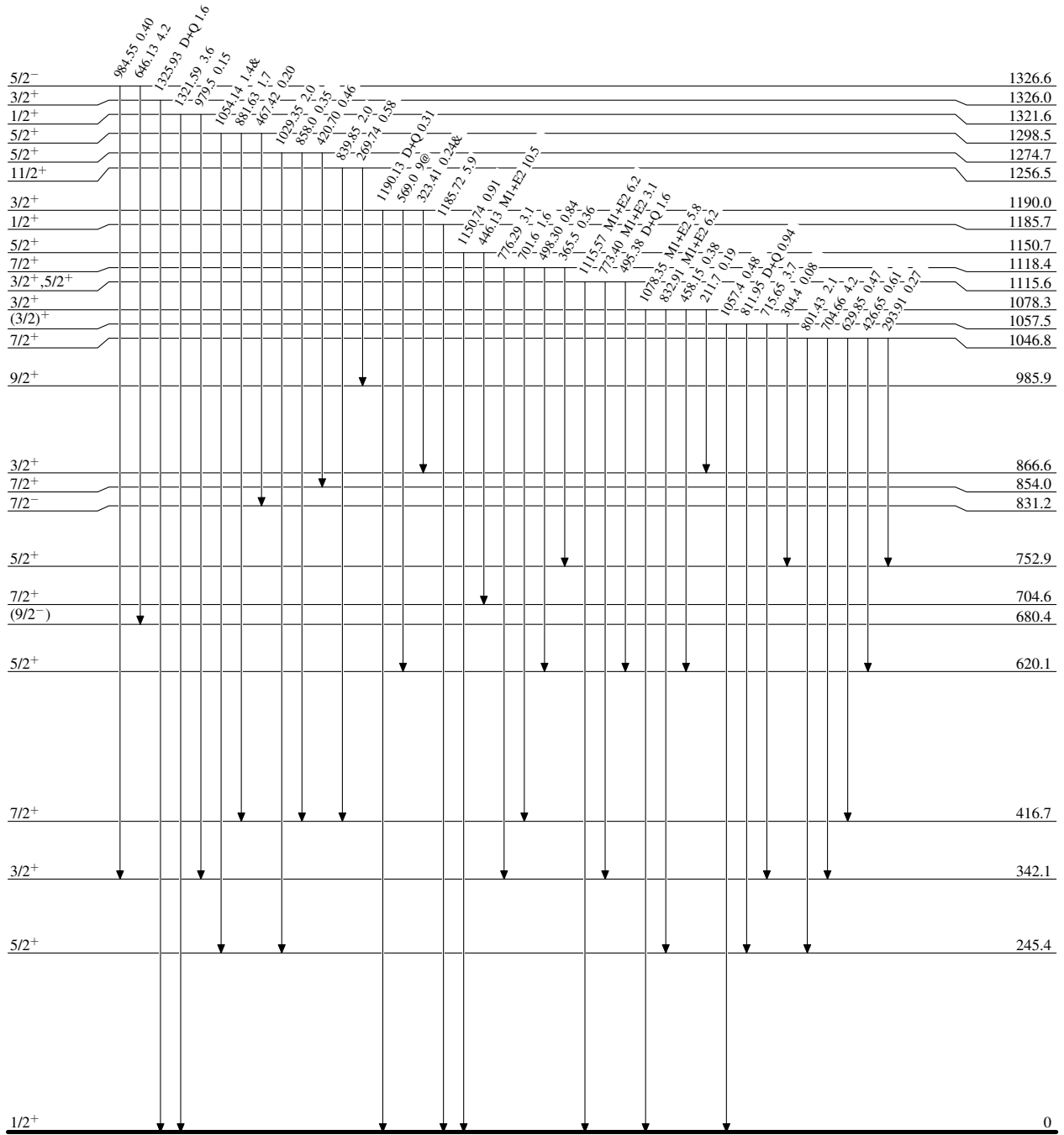
$^{111}\text{Cd}(n,n'\gamma)$ 1987BaYW,1991NeZX

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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



$^{111}_{48}\text{Cd}_{63}$

¹¹¹Cd(n,n'γ) 1987BaYW,1991NeZX

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}

