

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111,1471 (2010)	1-May-2009

Q(β^-)=322.6 8; S(n)=6538.8 6; S(p)=9748.5 25; Q(α)=-3861.5 12 [2012Wa38](#)
 Note: Current evaluation has used the following Q record 322 1 6540.1 6 9750 3 -3868 3 [2003Au03,2009AuZZ](#).
 Neutron resonance parameters can be found in [1981MuZQ](#).
 α : [Additional information 1](#).

¹¹³Cd Levels

Cross Reference (XREF) Flags

A	¹¹³ Ag β^- decay (5.37 h)	F	¹¹³ Cd(p,p'),(p,p' γ)	K	¹¹⁰ Pd(α ,n γ)
B	¹¹³ Ag β^- decay (68.7 s)	G	¹¹³ Cd(d,d')	L	¹⁷⁶ Yb(²⁸ Si,F γ)
C	¹¹³ Cd IT decay (14.1 y)	H	Coulomb excitation	M	¹⁷³ Yb(²⁴ Mg,F γ)
D	¹¹² Cd(n, γ) E=res	I	¹¹³ Cd(n,n' γ)	N	¹¹² Cd(pol d,p)
E	¹¹² Cd(d,p), ¹¹⁴ Cd(d,t)	J	¹¹³ Cd(γ , γ')	O	¹¹⁴ Cd(pol d,t)

E(level) [‡]	J ^{π}	T _{1/2}	XREF	Comments
0.0	1/2 ⁺	8.04×10 ¹⁵ y 5	ABCDEFGHIJKLMNO	% β^- =100 μ =-0.6223009 9 (1989Ra17) μ : optical pumping, NMR. J ^{π} : NMR and optical spectroscopy (1976Fu06), L(d,p)=0. T _{1/2} : From 2007Be61 Measured in CdWO ₄ crystal at Gran Sasso National Lab of INFN. Measured half-life of ¹¹³ Cd using the low-background CdWO ₄ crystal scintillator of mass 434g. Others: 7.7×10 ¹⁵ y 3 (1996Da11) using scintillation crystals of cdw04. 9.3×10 ¹⁵ y 19 (1970Gr20) from activity measurements on enriched and natural cadmium samples. Others: 1962Wa15 , 1994Al49 .
263.54 [#] 3	11/2 ⁻	14.1 y 5	A C E KLMNO	%IT=0.14; % β^- =99.86 (1969De25) Q=-0.71 7 μ : ; μ =-1.0877842 17 (1989Ra17) NMR. Q: optical double res, recalculated (1989Ra17). J ^{π} : optical double res (1976Fu06), 264 γ is E5. T _{1/2} : unweighted av of 13.6 y 2 (1965Fl02) and 14.6 y 5 (1972Wa11), β (t) for about one half-life.
298.597 10	3/2 ⁺	29 ps 9	AB E GHI K NO	μ =-0.39 80 (1988Be45,1989Ra17) T _{1/2} : from B(E2) in Coul. ex. J ^{π} : M1+E2 γ to 1/2 ⁺ , L(pol d,p)=2.
316.206 15	5/2 ⁺	10.8 ns 3	AB EF HI K NO	J ^{π} : L(d,p)(316)=2, L(d,p)(458)=4, and M1+E2 γ from 459 to 316 gives J ^{π} (316)=5/2 ⁺ and J ^{π} (458)=7/2 ⁺ . T _{1/2} : weighted av of 10.7 ns 4 (1980Oh01), 11.0 ns 6 (1972RaZM). Other: 4.9 ns 7 from B(E2) in Coul. ex.
458.633 17	7/2 ⁺		B E I K NO	J ^{π} : see 316 level, L(pol d,p)=4.
522.259 24	7/2 ⁻	0.322 ns 12	A I K NO	J ^{π} : E2 γ to 11/2 ⁻ and E1 γ to 5/2 ⁺ , L(pol d,p)=3. T _{1/2} : from $\gamma\gamma$ (t) (1980Oh01). J ^{π} : from L(d,p)=4.
530 10	7/2 ⁺ ,9/2 ⁺		E	J ^{π} : from L(d,p)=4.
583.962 24	5/2 ⁺	6.9 ps 14	AB E HI K NO	μ =+0.15 12 (1988Be45,1989Ra17) J ^{π} : γ (θ) in Coul. ex. for E2 γ to 1/2 ⁺ , L(pol d,p)=2. T _{1/2} : from B(E2) in Coul. ex.
626.6 12	(3/2 ⁺)		N	J ^{π} : L(pol d,p)=2.
638.19 3	9/2 ⁻		A F I K N	J ^{π} : M1+E2 γ to 11/2 ⁻ . γ to 5/2 ⁺ , L(pol d,p)=5.
680.526 20	3/2 ⁺	12 fs 3	A E HI K NO	T _{1/2} : from B(E2) in Coul. ex.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

¹¹³Cd Levels (continued)

E(level) [‡]	J ^π	XREF	Comments
708.571 19	5/2 ⁺	AB	J ^π : M1+E2 γ to 1/2 ⁺ and M1+E2 γ to 3/2 ⁺ , L(pol d,p)=2.
760 10	1/2 ⁺	E	J ^π : M1+E2 γ to 3/2 ⁺ and 7/2 ⁺ , L(pol d,p)=2. J ^π : L(d,p)=0.
815.34 [#] 3	15/2 ⁻		KLM
816.707 22	7/2 ⁺	E	J ^π : L(d,p)=4, and M1+E2 γ to 5/2 ⁺ , L(pol d,p)=4.
855.28 3	5/2 ⁻	A	J ^π : E2 γ to 9/2 ⁻ , M1+E2 γ to 7/2 ⁻ .
869.81 22	15/2 ⁻		J ^π : E2 γ to 11/2 ⁻ , no γ to low J.
878.54 6	(3/2 ⁺)		J ^π : γ's to 1/2 ⁺ , 5/2 ⁺ , 7/2 ⁺ , L(pol d,p)=(2).
883.62 6	1/2 ⁺	E	J ^π : L(d,p)=0.
897.53 4	3/2 ⁺	E	J ^π : L(d,p)=2, σ(d,p)/σ(d,t) favors 3/2 ⁺ .
939.788 19	9/2 ⁺		J ^π : E2 γ to 5/2 ⁺ and M1+E2 γ to 7/2 ⁺ .
960 10		E	
988.40 6	1/2 ⁺	A	J ^π : L(d,p)=0.
999.42 7			K
1002.87 4	3/2 ⁺	A	J ^π : M1+E2 γ's to 1/2 ⁺ and 5/2 ⁺ .
1007.20 5	(5/2 ⁺)	B	J ^π : log ft≈5.3 from 7/2 ⁺ , M1+E2 γ decay to 5/2 ⁺ , L(pol d,p)=2.
1034.09 6	(3/2 ⁺)		J ^π : M1+E2 γ's to 1/2 ⁺ and 5/2 ⁺ , L(pol d,p)=2.
1037.40 3	(7/2 ⁺)		J ^π : E2 γ to 3/2 ⁺ and M1+E2 γ to 5/2 ⁺ .
1047.65 4	7/2 ⁺	B	J ^π : log ft≈5.6 from 7/2 ⁺ , γ(θ) in (n,n'γ).
1049.66 9	(1/2 ⁺)		J ^π : M1 γ to 1/2 ⁺ , and av res in (n,γ), L(pol d,p)=(0).
1049.9 2	(3/2 ⁺)	A	
1051.248 22	5/2,7/2 ⁻		J ^π : M1+E2 γ to 9/2 ⁻ , γ to 5/2 ⁻ .
1109.32 3	13/2 ⁻		I K
1124.636 20	9/2 ⁺		I K N J ^π : L (Pol d,p)=(4).
1126.25 6	3/2 ⁺	A	J ^π : M1 γ to 1/2 ⁺ , and av res in (n,γ).
1170 20		E G	
1177.723 23	(9/2 ⁻)		K
1177.8 3	5/2 ⁺		I K NO J ^π : M1+E2 γ to 1/2 ⁺ , L(pol d,p)=2.
1181.35 4			K
1190.72 5			K
1192.09 4	-		K
1194.6 2	3/2 ⁻	A	J ^π : M1+E2 γ to (5/2 ⁻), av res.
1195.30 20	5/2 ⁺	B	XREF: E(1200). J ^π : log ft=5.3 from 7/2 ⁺ L(pol d,p)=2.
1209.53 15	13/2 ⁻		J ^π : M1+E2 γ to 11/2 ⁻ , γ to 15/2 ⁻ .
1214.674 24	11/2 ⁺		J ^π : E2 γ to 7/2 ⁺ and M1+E2 γ to 9/2 ⁺ .
1261.92 4	(7/2 ⁺)		K O J ^π : L(pol d,p)=4.
1268.21 5	3/2 ⁺		J ^π : M1+E γ's to 1/2 ⁺ and 5/2 ⁺ , L(pol d,p)=2.
1279.62 7	3/2 ⁺	E	J ^π : L(d,p)=2.
1301.07 7	3/2 ⁺		I O J ^π : L(pol d,t)=2.
1312.9 12	(11/2 ⁻)		N J ^π : L(pol d,p)=(5).
1313.75 3	(9/2 ⁺)		HI K O J ^π : L(pol d,t)=(4), 5/2 ⁺ in Coul. Ex.
1322.03 12	(7/2 ⁻ , 9/2 ⁻)	E	J ^π : γ's to 7/2 ⁻ , 11/2 ⁻ .
1327.6 4	(7/2 ⁺)		K NO J ^π : L(pol d,p)=4.
1346.53 4	11/2 ⁻		K NO E(level): 1991NeZX suggested a 1423-keV level with J ^π =11/2 ⁻ based on syst, not confirmed by 1997Wa20 in (α,nγ)but given by 2005Bu20. J ^π : L(pol d,p)=5.
1351.58 7	5/2,7/2		J ^π : γ's to 5/2 ⁺ , 7/2 ⁻ .
1364.76 7	5/2 ⁺		I K O J ^π : L(pol d,t)=2.
1367.569 24	7/2 ⁺		K
1387.47 8	5/2 ⁺ , 3/2 ⁺		I K J ^π : γ's to 1/2 ⁺ , 5/2 ⁺ .
1390.56 9	(1/2 ⁺ , 3/2 ⁺)	E	J ^π : γ's to 1/2 ⁺ , 3/2 ⁺ .
1395.83 3	9/2 ⁺		I K NO J ^π : L(pol d,p)=4.
1405.82 10	3/2 ⁺		I K N J ^π : γ's to 1/2 ⁺ , 3/2 ⁺ .
1407.5 3	9/2 ⁺		I NO J ^π : L(pol d,p)=4, analog to 1552 keV in ¹¹¹ Cd.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

¹¹³Cd Levels (continued)

E(level) [‡]	J ^π	XREF	Comments
1410.68 6		K	
1430 10	(3/2) ⁺	E	J ^π : L(d,p)=2, σ(d,p)/σ(d,t) favors 3/2 ⁺ .
1433.0 14	7/2 ⁺		J ^π : L(PoL d,t)=4.
1450.30 7	11/2 ⁻	A I K N	J ^π : L(pol d,p)=5.
1450.8 2	3/2 ⁺	H	
1461.67 4		K	
1479.08 5	11/2 ⁻	A E I N	J ^π : from L(d,p)=5.
1493.03 9	3/2 ⁺	I NO	J ^π : L(pol d,p)=2. J ^π : M1+E2 to 5/2 ⁺ and γ to 1/2 ⁺ .
1504.90 4	7/2 ⁺	K	
1513.72 4	-	K	J ^π : E2 to 9/2 ⁻ .
1542.28 9	(1/2 ⁺)	E I	J ^π : γ's to 1/2 ⁺ , 3/2 ⁺ .
1561.69 3	+	I K	
1575.66 14	7/2 ⁻	E I	J ^π : L(d,p)=(3).
1580.0 12	(3/2,5/2 ⁺)		J ^π : L(pol d,p)=2.
1607.21 10	5/2 ⁺	E I NO	J ^π : L(d,p)=2, σ(d,p)/σ(d,t) favors 5/2 ⁺ .
1620.43 3		K	
1626.41 4	+	K	J ^π : M1+E2 to 1/2 ⁺ .
1647.23 5		K	
1656.6 [#] 3	(19/2 ⁻)	L	
1657.41 5	11/2 ⁻	I KLM	
1658.51 7	3/2 ⁺	K NO	
1670.89 10	(11/2 ⁻)	K N	J ^π : L(pol d,p)=5.
1675.09 9	3/2 ⁺	E I	J ^π : L(d,p)=(2).
1700.1 14	(11/2 ⁻)		J ^π : L(pol d,t)=5.
1713.0 12	(3/2 ⁻)		J ^π : L(pol d,t)=(1).
1732.84 4	11/2 ⁺	I K	
1735.0 12	11/2 ⁻	N	J ^π : L(pol d,p)=5.
1737.53 7		K	
1743.56 21	(5/2 ⁺)	K O	J ^π : L(pol d,t)=(2).
1746.00 14	(3/2 ⁻)	I	J ^π : γ's to 1/2 ⁺ , 5/2 ⁻ .
1758 [†] 10	(5/2 ⁻ , 7/2 ⁻)	FG	J ^π : L(p,p')=3. π=+ is assigned in (d,d').
1769.1 12	(3/2 ⁺)	N	J ^π : L(pol d,p)=2.
1778.92 18	9/2 ⁻	I	J ^π : E2 γ to 13/2 ⁻ and M1+E2 γ to 11/2 ⁻ .
1781.4 14	(3/2 ⁺)		J ^π : L(pol d,t)=(2).
1786.5 14	(3/2 ⁺)		J ^π : L(pol d,t)=(2).
1788.9 12	(1/2 ⁺)	N	J ^π : L(pol d,p)=0.
1798.89 12	(1/2, 3/2)	I	J ^π : γ to 1/2 ⁺ .
1813.1 14	(7/2 ⁺)		J ^π : L(pol d,t)=(4).
1814.5 12	(3/2 ⁺)	E J N	J ^π : L(pol d,p)=2.
1823.24 4	(13/2 ⁻)	I K	
1825.1 14	5/2 ⁺		J ^π : L(pol d,t)=2.
1830.8 12	(3/2 ⁺)		J ^π : L(pol d,p)=2.
1833.5 14	5/2 ⁺		J ^π : L(pol d,t)=2.
1842.74 13	(3/2 ⁻)	E I	J ^π : γ's to 7/2 ⁻ , 3/2 ⁻ .
1848.6 12	(1/2 ⁺)		J ^π : L(pol d,p)=(0).
1852.3 14	1/2 ⁺		J ^π : L(pol d,t)=0.
1867.86 8	7/2 ⁻ , 9/2 ⁻	I	J ^π : γ's to 11/2 ⁻ , 5/2 ⁻ .
1871.7 3	5/2 ⁺	K O	J ^π : L(pol d,t)=2.
1890.1 12	5/2 ⁺		J ^π : L(pol d,p)=2.
1892.32 [†] 11	7/2 ⁻	F I K	J ^π : L(p,p')=3, E2 γ to 11/2 ⁻ .
1896.44 4	-	K	J ^π : E2 to 13/2 ⁻ .
1900 10	(1/2 ⁺)	E	J ^π : L(d,p)=(0).
1902.41 5	+	I K	J ^π : M1+E2 to 15/2 ⁺ .
1903.97 9	5/2 ⁺ , 7/2 ⁺	K	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{113}Cd Levels (continued)

E(level) [‡]	J ^π	T _{1/2}	XREF	Comments
1904.35 11	7/2 ⁻		I NO	J ^π : L(pol d,p)=2.
1911.4 3	(5/2 ⁺)		0	J ^π : L(pol d,t)=(2).
1923.3 3	5/2 ⁺		0	J ^π : L(pol d,t)=2.
1943.0 14	(3/2 ⁺)	607 fs +90-70	J 0	T _{1/2} : from (γ,γ').
1970.8 12	(7/2 ⁺)		NO	J ^π : L(pol d,p)=4.
1986 [†] 10	5/2 ⁻ ,7/2 ⁻		EF	J ^π : L(p,p')=3.
1998.8 3	(11/2 ⁻)		0	J ^π : L(pol d,t)=(5).
2015.6 25	1/2 ⁺		0	J ^π : L(pol d,t)=0.
2037.76 18	5/2 ⁻ ,7/2 ⁻		E I	J ^π : L(d,p)=3.
2042.06 6	1/2 ⁻		K NO	J ^π : L(d,p)=1.
2046.23 7	(15/2 ⁺)		K	
2072.7 25	5/2 ⁺		0	J ^π : L(pol d,t)=2.
2080 10	(1/2 ⁺)		E NO	J ^π : L(d,p)=(0).
2099.2 25	5/2 ⁺		0	J ^π : L(pol d,t)=2.
2113.04 22	7/2 ⁻		E I N	J ^π : L(d,p)=(3), preferred from shell-model syst.
2120 20			E	
2132.1 25	(1/2 ⁺)		NO	J ^π : L(pol d,p)=(0).
2140 20	(1/2 ⁺)		E	J ^π : L(d,p)=(0).
2146.81 5	(7/2 ⁻)		K NO	J ^π : L(pol d,t)=(3).
2155.7 25	5/2 ⁺		0	J ^π : L(pol d,t)=2.
2164.48 11			K	
2173.60 12	3/2 ⁻	90 fs 7	E IJ N	J ^π : L(d,p)=1, 3/2, preferred from shell-model syst. T _{1/2} : from (γ,γ').
2179.9 25	5/2 ⁺		0	J ^π : L(pol d,t)=2.
2195.8 25	1/2 ⁻ ,3/2 ⁻	228 fs +85-50	E J 0	J ^π : L(d,p)=1, 3/2, preferred from shell-model syst and pol. T _{1/2} : from (γ,γ').
2203.5 25	7/2 ⁺		0	J ^π : L(pol d,t)=4.
2214.6 25	7/2 ⁻		E NO	J ^π : L(pol (d,p)=3.
2219.64 4			K	
2229.0 25	(3/2 ⁺)		0	J ^π : L(pol d,t)=(2).
2241.1 25	5/2 ⁺		0	J ^π : L(pol d,t)=2.
2242.1 25	(7/2 ⁻)		E N	J ^π : L(pol (d,p)=(3).
2268.2 25	7/2 ⁻		E NO	J ^π : L(pol (d,p)=(3).
2278.3 25	1/2 ⁺		0	J ^π : L(pol d,t)=0.
2292.9 25	7/2 ⁺		0	J ^π : L(pol d,t)=4.
2313.0 25			0	J ^π : L(pol d,t)=(2).
2319.62 18	3/2 ⁻		E I N	J ^π : L(d,p)=(1), M1+E2 γ to 5/2 ⁻ .
2324.5 [@] 4	(21/2 ⁺)		L	
2327.4 25	7/2 ⁻		E N	J ^π : L(pol (d,p)=(3).
2352.0 25	3/2 ⁺		0	J ^π : L(pol d,t)=2.
2354		3.0×10 ² fs +16-6	J	T _{1/2} : from (γ,γ').
2361.9 25	5/2 ⁺		0	J ^π : L(pol d,t)=2.
2380.0 25	(3/2 ⁻)		E NO	J ^π : L(pol (d,p)=(1).
2396.6 25	5/2 ⁺		0	J ^π : L(pol d,t)=2.
2410 10	7/2 ⁺ ,9/2 ⁺		E	J ^π : L(d,p)=4.
2413.3 25	(3/2 ⁺)		NO	J ^π : L(pol d,t)=2.
2424.1 25	(3/2 ⁻)		E J N	J ^π : L(pol (d,p)=(1).
2438.9 25	(3/2 ⁺)		0	J ^π : L(pol d,t)=2.
2448.4 25	3/2 ⁺ ,5/2 ⁺		0	J ^π : L(pol d,t)=2.
2472.3 25	3/2 ⁺ ,5/2 ⁺		0	J ^π : L(pol d,t)=2.
2477.2 25	(3/2 ⁻)		E N	J ^π : L(pol (d,p)=(1).
2487.9 25	(3/2 ⁻)		E N	J ^π : L(pol (d,p)=(1).
2499.6 25	1/2 ⁺		0	J ^π : L(pol d,t)=0.
2533.7 25			0	J ^π : L(pol d,t)=(0).
2537.9 25	(7/2 ⁻)		E N	J ^π : L(d,p)=(3), preferred from shell-model syst.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{113}Cd Levels (continued)

E(level) [‡]	J ^π	XREF	Comments
2538.3& 4	(19/2 ⁺)	L	
2548.3 25	3/2 ⁺ ,5/2 ⁺	O	J ^π : L(pol d,t)=2.
2555.9 25	3/2 ⁻	N	J ^π : L(pol (d,p)=1.
2575.4 25		O	
2586.6 25	1/2 ⁺	O	J ^π : L(pol d,t)=0.
2591.7 25	(3/2 ⁻)	E J	J ^π : L(d,p)=(1), preferred from shell-model syst.
2599.1 25	(5/2 ⁺)	O	J ^π : L(pol d,t)=2.
2612.2 25	3/2 ⁺ ,5/2 ⁺	O	J ^π : L(pol d,t)=2.
2613.4# 4	(23/2 ⁻)	LM	
2627.1 25	1/2 ⁺	O	J ^π : L(pol d,t)=0.
2632.7 25	(5/2 ⁺)	E N	J ^π : L(d,p)=2.
2690 10		E	
2743 5		J	E(level): All energies not given in other reactions evaluator has assigned a ΔE=5.
2753 5		J	
2757.8@ 4	(25/2 ⁺)	L	
2759.33 13	(3/2 ⁺ ,5/2 ⁺)	E I	J ^π : γ's to 3/2 ⁺ ,7/2 ⁺ .
2770 10	(3/2 ⁻)	E	J ^π : from L(d,p)=(1), preferred from shell-model syst.
2773 5		J	
2796 5		J	
2810 10	1/2 ⁺	E	J ^π : L(d,p)=0.
2817 5		J	
2902 5		J	
2913 5		J	
2929 5		J	
2943 5		J	
2962.6& 4	(23/2 ⁺)	L	
3040 5		J	
3058 5		J	
3105 5		J	
3222 5		J	
3281 5		J	
3301 5		J	
3333 5		J	
3378 5		J	
3412 5		J	
3448.9# 4	(27/2 ⁻)	LM	
3473.9@ 5	(29/2 ⁺)	L	
3480 5		J	
3486 5		J	
3526 5		J	
3547 5		J	
3741 5		J	
3814 5		J	
3850 5		J	
3902 5		J	
4201.5# 5	(31/2 ⁻)	LM	

† From $^{113}\text{Cd}(p,p')$.‡ From least-squares fit to Γ energies.# Band(A): Member of $\Delta J=2$ band on 11/2⁻ band.@ Band(B): Band based on 23/2⁻.

& Band(C): Band based on (19/2).

Adopted Levels, Gammas (continued)

E _i (level)	J _i ^π	γ(¹¹³ Cd)		E _f	J _f ^π	Mult. ^{‡@}	δ [@]	α	Comments
		E _γ [†]	I _γ [†]						
263.54	11/2 ⁻	263.7 3	100	0.0	1/2 ⁺	E5		4.24 7	α(K)=2.18 4; α(L)=1.66 3; α(M)=0.349 6; α(N)=0.0570 10; α(O)=0.000462 7 α(N+..)=0.0574 10 B(E5)(W.u.)=0.0499 23 Mult.,E _γ : from ¹¹³ Cd IT decay (14.1 y).
298.597	3/2 ⁺	298.60 1	100	0.0	1/2 ⁺	M1+E2 [#]	+0.30 +3-1	0.0248	α(K)=0.0215 4; α(L)=0.00268 5; α(M)=0.000515 9; α(N)=9.15×10 ⁻⁵ 15; α(O)=5.16×10 ⁻⁶ 8 α(N+..)=9.67×10 ⁻⁵ 16 B(E2)(W.u.)=20 8; B(M1)(W.u.)=0.025 8 δ: δ from 1987BaYW in (n,n'γ) is discrepant with δ>1.1 in β ⁻ decay, but agrees with δ=0.29 1 (1958Mc02) in Coul. ex.
316.206	5/2 ⁺	17.78 9	3.1 4	298.597	3/2 ⁺	M1 [#]		9.75 21	α(L)=7.94 17; α(M)=1.53 4; α(N)=0.271 6; α(O)=0.0152 4; α(N+..)=0.286 6 B(M1)(W.u.)=0.0082 12
		316.21 2	100 4	0.0	1/2 ⁺	E2		0.0273	α(K)=0.0232 4; α(L)=0.00335 5; α(M)=0.000649 9; α(N)=0.0001128 16; α(O)=5.07×10 ⁻⁶ 8 α(N+..)=0.0001179 17 B(E2)(W.u.)=0.372 25
458.633	7/2 ⁺	142.42 1	100	316.206	5/2 ⁺	M1+E2	-0.04 3	0.173 3	α(K)=0.1502 22; α(L)=0.0187 3; α(M)=0.00360 6; α(N)=0.000641 11; α(O)=3.66×10 ⁻⁵ 6 α(N+..)=0.000678 11
522.259	7/2 ⁻	205.86 8	1.22 12	316.206	5/2 ⁺	E1		0.0216	α(K)=0.0188 3; α(L)=0.00226 4; α(M)=0.000431 6; α(N)=7.61×10 ⁻⁵ 11; α(O)=4.09×10 ⁻⁶ 6 α(N+..)=8.02×10 ⁻⁵ 12 B(E1)(W.u.)=1.19×10 ⁻⁶ 13
		258.72 2	100.0 19	263.54	11/2 ⁻	E2 [#]		0.0532	α(K)=0.0448 7; α(L)=0.00686 10; α(M)=0.001332 19; α(N)=0.000230 4; α(O)=9.57×10 ⁻⁶ 14 α(N+..)=0.000240 4 B(E2)(W.u.)=44.2 22 E _γ : not seen in ¹¹³ Cd(n,n'γ).
583.962	5/2 ⁺	126 1	<10	458.633	7/2 ⁺	M1,E2		0.033 6	α(K)=0.028 5; α(L)=0.0038 10; α(M)=0.00074 20; α(N)=0.00013 4; α(O)=6.4×10 ⁻⁶ 7 α(N+..)=0.00014 4
		267.77 6	2.5 2	316.206	5/2 ⁺				
		285.3 1	1.4 2	298.597	3/2 ⁺				
		583.93 7	100 1	0.0	1/2 ⁺	E2		0.00431 6	α(K)=0.00372 6; α(L)=0.000476 7; α(M)=9.16×10 ⁻⁵ 13; α(N)=1.617×10 ⁻⁵ 23; α(O)=8.54×10 ⁻⁷ 12 α(N+..)=1.702×10 ⁻⁵ 24 B(E2)(W.u.)=34 8 Mult.: see Coul. ex.
638.19	9/2 ⁻	115.6 2	12.5 19	522.259	7/2 ⁻	D			

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. ^{‡@}	$\delta^@$	α	Comments
638.19	9/2 ⁻	374.64 3	100	263.54	11/2 ⁻	M1+E2	-0.25 2	0.01370	$\alpha(\text{K})=0.01191$ 17; $\alpha(\text{L})=0.001453$ 21; $\alpha(\text{M})=0.000279$ 4; $\alpha(\text{N})=4.97 \times 10^{-5}$ 7; $\alpha(\text{O})=2.86 \times 10^{-6}$ 4 $\alpha(\text{N}+..)=5.25 \times 10^{-5}$ 8
680.526	3/2 ⁺	96.9 3	5.3 3	583.962	5/2 ⁺	[M1,E2]		1.1 6	$\alpha(\text{K})=0.8$ 4; $\alpha(\text{L})=0.20$ 15; $\alpha(\text{M})=0.04$ 3; $\alpha(\text{N})=0.007$ 5; $\alpha(\text{O})=0.00017$ 6; $\alpha(\text{N}+..)=0.007$ 5
		364.31 3	20.1 4	316.206	5/2 ⁺	M1+E2	-0.02 7	0.01455	$\alpha(\text{K})=0.01267$ 18; $\alpha(\text{L})=0.001531$ 22; $\alpha(\text{M})=0.000294$ 5; $\alpha(\text{N})=5.24 \times 10^{-5}$ 8; $\alpha(\text{O})=3.06 \times 10^{-6}$ 5 $\alpha(\text{N}+..)=5.55 \times 10^{-5}$ 8
		381.95 3	20.9 4	298.597	3/2 ⁺	M1+E2	+0.16 15	0.01297 23	B(E2)(W.u.)=12 +84-12; B(M1)(W.u.)=5.0 13 $\alpha(\text{K})=0.01129$ 19; $\alpha(\text{L})=0.00137$ 4; $\alpha(\text{M})=0.000262$ 7; $\alpha(\text{N})=4.68 \times 10^{-5}$ 11; $\alpha(\text{O})=2.72 \times 10^{-6}$ 4 $\alpha(\text{N}+..)=4.95 \times 10^{-5}$ 11
		680.6 1	100.0 23	0.0	1/2 ⁺	M1+E2	-1.8 1	0.00295 5	B(E2)(W.u.)=6.E+2 +12-6; B(M1)(W.u.)=4.4 12 $\alpha(\text{K})=0.00256$ 4; $\alpha(\text{L})=0.000316$ 5; $\alpha(\text{M})=6.07 \times 10^{-5}$ 9; $\alpha(\text{N})=1.076 \times 10^{-5}$ 16; $\alpha(\text{O})=5.96 \times 10^{-7}$ 9 $\alpha(\text{N}+..)=1.136 \times 10^{-5}$ 16
708.571	5/2 ⁺	249.95 2	11 1	458.633	7/2 ⁺	M1+E2	+0.34 8	0.0404 12	B(E2)(W.u.)=5.0 $\times 10^3$ 13; B(M1)(W.u.)=0.90 24 $\alpha(\text{K})=0.0350$ 10; $\alpha(\text{L})=0.00445$ 19; $\alpha(\text{M})=0.00086$ 4; $\alpha(\text{N})=0.000152$ 6; $\alpha(\text{O})=8.33 \times 10^{-6}$ 17 $\alpha(\text{N}+..)=0.000160$ 7
		392.36 2	100 2	316.206	5/2 ⁺	M1+E2	-0.24 4	0.01217 18	$\alpha(\text{K})=0.01059$ 15; $\alpha(\text{L})=0.001288$ 19; $\alpha(\text{M})=0.000247$ 4; $\alpha(\text{N})=4.40 \times 10^{-5}$ 7; $\alpha(\text{O})=2.54 \times 10^{-6}$ 4 $\alpha(\text{N}+..)=4.66 \times 10^{-5}$ 7
		410.11 9	11 2	298.597	3/2 ⁺	M1+E2	-0.10 4	0.01084	$\alpha(\text{K})=0.00944$ 14; $\alpha(\text{L})=0.001138$ 17; $\alpha(\text{M})=0.000218$ 3; $\alpha(\text{N})=3.90 \times 10^{-5}$ 6; $\alpha(\text{O})=2.27 \times 10^{-6}$ 4 $\alpha(\text{N}+..)=4.12 \times 10^{-5}$ 6
815.34	15/2 ⁻	708.52 5 551.79 1	100 2 100	0.0 263.54	1/2 ⁺ 11/2 ⁻	E2		0.00504 7	$\alpha(\text{K})=0.00435$ 6; $\alpha(\text{L})=0.000561$ 8; $\alpha(\text{M})=0.0001079$ 16; $\alpha(\text{N})=1.90 \times 10^{-5}$ 3; $\alpha(\text{O})=9.94 \times 10^{-7}$ 14 $\alpha(\text{N}+..)=2.00 \times 10^{-5}$ 3
816.707	7/2 ⁺	358.09 5 500.47 3	35 1 100 2	458.633 316.206	7/2 ⁺ 5/2 ⁺	M1+E2	-0.45 16	0.00664 10	$\alpha(\text{K})=0.00578$ 9; $\alpha(\text{L})=0.000703$ 12; $\alpha(\text{M})=0.0001348$ 23; $\alpha(\text{N})=2.40 \times 10^{-5}$ 4 $\alpha(\text{O})=1.377 \times 10^{-6}$ 22; $\alpha(\text{N}+..)=2.54 \times 10^{-5}$ 4
855.28	5/2 ⁻	517.67 15 217.08 3	3.2 2 4.7 3	298.597 638.19	3/2 ⁺ 9/2 ⁻	E2		0.0969	$\alpha(\text{K})=0.0807$ 12; $\alpha(\text{L})=0.01318$ 19; $\alpha(\text{M})=0.00257$ 4; $\alpha(\text{N})=0.000441$ 7; $\alpha(\text{O})=1.688 \times 10^{-5}$ 24 $\alpha(\text{N}+..)=0.000458$ 7
		332.99 3	100 2	522.259	7/2 ⁻	M1+E2#	-0.27 2	0.0186	$\alpha(\text{K})=0.01614$ 23; $\alpha(\text{L})=0.00199$ 3; $\alpha(\text{M})=0.000381$ 6;

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. ^{‡@}	$\delta^@$	α	Comments
855.28	5/2 ⁻	539.3 1	2.7 9	316.206	5/2 ⁺	E1		0.00179 3	$\alpha(\text{N})=6.79 \times 10^{-5}$ 10; $\alpha(\text{O})=3.87 \times 10^{-6}$ 6 $\alpha(\text{N}+..)=7.17 \times 10^{-5}$ 11 $\alpha(\text{K})=0.001561$ 22; $\alpha(\text{L})=0.000183$ 3; $\alpha(\text{M})=3.50 \times 10^{-5}$ 5; $\alpha(\text{N})=6.22 \times 10^{-6}$ 9; $\alpha(\text{O})=3.56 \times 10^{-7}$ 5
869.81	15/2 ⁻	606.3 3	100	263.54	11/2 ⁻	E2		0.00389 6	$\alpha(\text{N}+..)=6.58 \times 10^{-6}$ 10 $\alpha(\text{K})=0.00337$ 5; $\alpha(\text{L})=0.000428$ 6; $\alpha(\text{M})=8.23 \times 10^{-5}$ 12; $\alpha(\text{N})=1.454 \times 10^{-5}$ 21; $\alpha(\text{O})=7.73 \times 10^{-7}$ 11 $\alpha(\text{N}+..)=1.531 \times 10^{-5}$ 22
878.54	(3/2 ⁺)	294.52 & 21 419.8 3 562.26 9 878.62 9	48 & 14 9.2 23 100 15 100 15	583.962 458.633 316.206 0.0	5/2 ⁺ 7/2 ⁺ 5/2 ⁺ 1/2 ⁺				
883.62	1/2 ⁺	585 1 883.6 1	3.5 18 100.0 25	298.597 0.0	3/2 ⁺ 1/2 ⁺				
897.53	3/2 ⁺	313.48 6	12.4 4	583.962	5/2 ⁺	M1+E2	+0.41	0.0223	$\alpha(\text{K})=0.0193$ 3; $\alpha(\text{L})=0.00242$ 4; $\alpha(\text{M})=0.000466$ 7; $\alpha(\text{N})=8.27 \times 10^{-5}$ 12; $\alpha(\text{O})=4.59 \times 10^{-6}$ 7 $\alpha(\text{N}+..)=8.72 \times 10^{-5}$ 13
		439.7 5 581.26 9 598.95 5	22.4 7 9 4 100 2	458.633 316.206 298.597	7/2 ⁺ 5/2 ⁺ 3/2 ⁺	E2		0.00402 6	$\alpha(\text{K})=0.00348$ 5; $\alpha(\text{L})=0.000443$ 7; $\alpha(\text{M})=8.52 \times 10^{-5}$ 12; $\alpha(\text{N})=1.505 \times 10^{-5}$ 21; $\alpha(\text{O})=7.98 \times 10^{-7}$ 12 $\alpha(\text{N}+..)=1.584 \times 10^{-5}$ 23
939.788	9/2 ⁺	481.13 2	100 2	458.633	7/2 ⁺	M1		0.00731 11	$\alpha(\text{K})=0.00637$ 9; $\alpha(\text{L})=0.000763$ 11; $\alpha(\text{M})=0.0001464$ 21; $\alpha(\text{N})=2.61 \times 10^{-5}$ 4 $\alpha(\text{O})=1.533 \times 10^{-6}$ 22; $\alpha(\text{N}+..)=2.77 \times 10^{-5}$ 4
		623.58 & 2	51 & 2	316.206	5/2 ⁺	E2		0.00361 5	$\alpha(\text{K})=0.00312$ 5; $\alpha(\text{L})=0.000396$ 6; $\alpha(\text{M})=7.61 \times 10^{-5}$ 11; $\alpha(\text{N})=1.344 \times 10^{-5}$ 19; $\alpha(\text{O})=7.18 \times 10^{-7}$ 10 $\alpha(\text{N}+..)=1.416 \times 10^{-5}$ 20
988.40	1/2 ⁺	279.8 2 988.43 7	2.5 4 100 8	708.571 0.0	5/2 ⁺ 1/2 ⁺				
999.42		540.78 6	100	458.633	7/2 ⁺				
1002.87	3/2 ⁺	294.52 & 21 322.35 3	44 & 13 100 7	708.571 680.526	5/2 ⁺ 3/2 ⁺	M1+E2	-0.8 2	0.0221 8	$\alpha(\text{K})=0.0190$ 7; $\alpha(\text{L})=0.00250$ 14; $\alpha(\text{M})=0.00048$ 3; $\alpha(\text{N})=8.5 \times 10^{-5}$ 5; $\alpha(\text{O})=4.41 \times 10^{-6}$ 10 $\alpha(\text{N}+..)=8.9 \times 10^{-5}$ 5 Mult.: $\delta=-0.8$ 2 or -2.2 10.
		1002.76 9	59 11	0.0	1/2 ⁺	M1		0.001321 19	$\alpha(\text{K})=0.001155$ 17; $\alpha(\text{L})=0.0001355$ 19; $\alpha(\text{M})=2.59 \times 10^{-5}$ 4 $\alpha(\text{N})=4.63 \times 10^{-6}$ 7; $\alpha(\text{O})=2.75 \times 10^{-7}$ 4; $\alpha(\text{N}+..)=4.91 \times 10^{-6}$
1007.20	(5/2 ⁺)	423.3 2	6.5 12	583.962	5/2 ⁺	M1		0.01001	$\alpha(\text{K})=0.00872$ 13; $\alpha(\text{L})=0.001049$ 15; $\alpha(\text{M})=0.000201$ 3;

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. \ddagger @	δ @	α	Comments
1007.20	(5/2 ⁺)	548.54 5	35 7	458.633	7/2 ⁺	M1		0.00533 8	$\alpha(\text{N})=3.59\times 10^{-5}$ 5; $\alpha(\text{O})=2.10\times 10^{-6}$ 3 $\alpha(\text{N+..})=3.80\times 10^{-5}$ 6 $\alpha(\text{K})=0.00465$ 7; $\alpha(\text{L})=0.000554$ 8; $\alpha(\text{M})=0.0001062$ 15; $\alpha(\text{N})=1.90\times 10^{-5}$ 3 $\alpha(\text{O})=1.116\times 10^{-6}$ 16; $\alpha(\text{N+..})=2.01\times 10^{-5}$ 3
		691.00 8	100 15	316.206	5/2 ⁺	M1+E2	0.35 5	0.00305 5	$\alpha(\text{K})=0.00266$ 4; $\alpha(\text{L})=0.000317$ 5; $\alpha(\text{M})=6.07\times 10^{-5}$ 9; $\alpha(\text{N})=1.084\times 10^{-5}$ 16; $\alpha(\text{O})=6.35\times 10^{-7}$ 10 $\alpha(\text{N+..})=1.147\times 10^{-5}$ 17
1034.09	(3/2 ⁺)	449.9 3	4.8 10	583.962	5/2 ⁺	M1		0.00861 13	$\alpha(\text{K})=0.00751$ 11; $\alpha(\text{L})=0.000901$ 13; $\alpha(\text{M})=0.0001728$ 25; $\alpha(\text{N})=3.08\times 10^{-5}$ 5 $\alpha(\text{O})=1.81\times 10^{-6}$ 3; $\alpha(\text{N+..})=3.27\times 10^{-5}$
		735.1 3	68 18	298.597	3/2 ⁺	M1		0.00267 4	$\alpha(\text{K})=0.00233$ 4; $\alpha(\text{L})=0.000276$ 4; $\alpha(\text{M})=5.28\times 10^{-5}$ 8; $\alpha(\text{N})=9.44\times 10^{-6}$ 14; $\alpha(\text{O})=5.58\times 10^{-7}$ 8 $\alpha(\text{N+..})=1.000\times 10^{-5}$ 14
1037.40	(7/2 ⁺)	1033.80 12	100 20	0.0	1/2 ⁺	M1+E2	0.52 22	0.00120 3	$\alpha(\text{K})=0.00105$ 3; $\alpha(\text{L})=0.000123$ 3; $\alpha(\text{M})=2.36\times 10^{-5}$ 6; $\alpha(\text{N})=4.21\times 10^{-6}$ 10; $\alpha(\text{O})=2.48\times 10^{-7}$ 7 $\alpha(\text{N+..})=4.46\times 10^{-6}$ 11
		356.7 4	9 3	680.526	3/2 ⁺	E2		0.0185	$\alpha(\text{K})=0.01581$ 23; $\alpha(\text{L})=0.00222$ 4; $\alpha(\text{M})=0.000428$ 7; $\alpha(\text{N})=7.48\times 10^{-5}$ 11; $\alpha(\text{O})=3.50\times 10^{-6}$ 5 $\alpha(\text{N+..})=7.83\times 10^{-5}$ 12
		453.44 1	14 3	583.962	5/2 ⁺	M1		0.00845 12	$\alpha(\text{K})=0.00736$ 11; $\alpha(\text{L})=0.000884$ 13; $\alpha(\text{M})=0.0001695$ 24; $\alpha(\text{N})=3.03\times 10^{-5}$ 5 $\alpha(\text{O})=1.773\times 10^{-6}$ 25; $\alpha(\text{N+..})=3.20\times 10^{-5}$
		721.22 8	100 28	316.206	5/2 ⁺	M1+E2	0.29 1	0.00277 4	$\alpha(\text{K})=0.00242$ 4; $\alpha(\text{L})=0.000287$ 4; $\alpha(\text{M})=5.50\times 10^{-5}$ 8; $\alpha(\text{N})=9.81\times 10^{-6}$ 14; $\alpha(\text{O})=5.77\times 10^{-7}$ 8 $\alpha(\text{N+..})=1.039\times 10^{-5}$ 15
1047.65	7/2 ⁺	738.76 9	88 24	298.597	3/2 ⁺	E2		0.00233 4	$\alpha(\text{K})=0.00202$ 3; $\alpha(\text{L})=0.000251$ 4; $\alpha(\text{M})=4.82\times 10^{-5}$ 7; $\alpha(\text{N})=8.54\times 10^{-6}$ 12; $\alpha(\text{O})=4.68\times 10^{-7}$ 7 $\alpha(\text{N+..})=9.00\times 10^{-6}$ 13
		1037.2 1	55 5	0.0	1/2 ⁺				
		231.0 1	2.2 9	816.707	7/2 ⁺				
		463.69 13	16 2	583.962	5/2 ⁺	M1		0.00800 12	$\alpha(\text{K})=0.00697$ 10; $\alpha(\text{L})=0.000836$ 12; $\alpha(\text{M})=0.0001603$ 23; $\alpha(\text{N})=2.86\times 10^{-5}$ 4 $\alpha(\text{O})=1.678\times 10^{-6}$ 24; $\alpha(\text{N+..})=3.03\times 10^{-5}$
1047.65	7/2 ⁺	589.02 4	42 2	458.633	7/2 ⁺	M1+E2	+0.12 +17-7	0.00449 7	$\alpha(\text{K})=0.00392$ 6; $\alpha(\text{L})=0.000467$ 7; $\alpha(\text{M})=8.94\times 10^{-5}$ 13; $\alpha(\text{N})=1.597\times 10^{-5}$ 23; $\alpha(\text{O})=9.39\times 10^{-7}$ 15 $\alpha(\text{N+..})=1.691\times 10^{-5}$ 24
		731.3 4	100 4	316.206	5/2 ⁺	M1		0.00270 4	$\alpha(\text{K})=0.00236$ 4; $\alpha(\text{L})=0.000279$ 4; $\alpha(\text{M})=5.35\times 10^{-5}$ 8;

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult.‡@	$\delta^@$	α	Comments
1049.66	(1/2 ⁺)	369.1 1	18 4	680.526	3/2 ⁺	M1		0.01408	$\alpha(\text{N})=9.56\times 10^{-6}$ 14; $\alpha(\text{O})=5.65\times 10^{-7}$ 8 $\alpha(\text{N}+..)=1.012\times 10^{-5}$ 15 $\alpha(\text{K})=0.01226$ 18; $\alpha(\text{L})=0.001481$ 21; $\alpha(\text{M})=0.000284$ 4; $\alpha(\text{N})=5.07\times 10^{-5}$ 8; $\alpha(\text{O})=2.96\times 10^{-6}$ 5 $\alpha(\text{N}+..)=5.37\times 10^{-5}$ 8
		733.3 5 1049.75 16	22 11 100 7	316.206 0.0	5/2 ⁺ 1/2 ⁺	M1		0.001161 19	E_γ : not seen in $^{113}\text{Cd}(n,n'\gamma)$ and $(\alpha,n\gamma)$. $\alpha(\text{K})=0.001014$ 17; $\alpha(\text{L})=0.0001193$ 19; $\alpha(\text{M})=2.28\times 10^{-5}$ 4 $\alpha(\text{N})=4.08\times 10^{-6}$ 7; $\alpha(\text{O})=2.41\times 10^{-7}$ 4; $\alpha(\text{N}+..)=4.32\times 10^{-6}$
1051.248	5/2,7/2 ⁻	370.72 1	21 4	680.526	3/2 ⁺	M1+E2	-0.41 1	0.01080	$\alpha(\text{K})=0.00939$ 14; $\alpha(\text{L})=0.001152$ 17; $\alpha(\text{M})=0.000221$ 4; $\alpha(\text{N})=3.94\times 10^{-5}$ 6; $\alpha(\text{O})=2.24\times 10^{-6}$ 4 $\alpha(\text{N}+..)=4.16\times 10^{-5}$ 6
		412.90 6	100 2	638.19	9/2 ⁻				
1109.32	13/2 ⁻	528.81 8	49 2	522.259	7/2 ⁻	E2		0.00791 11	$\alpha(\text{K})=0.00680$ 10; $\alpha(\text{L})=0.000901$ 13; $\alpha(\text{M})=0.0001736$ 25; $\alpha(\text{N})=3.05\times 10^{-5}$ 5 $\alpha(\text{O})=1.540\times 10^{-6}$ 22; $\alpha(\text{N}+..)=3.20\times 10^{-5}$
		293.79 7 471.20 5	24.0 8 4.3 7	815.34 638.19	15/2 ⁻ 9/2 ⁻				
1124.636	9/2 ⁺	845.78 1	100 2	263.54	11/2 ⁻	D			
		184.83 2	6.3 8	939.788	9/2 ⁺	D			
		307.89 2	19.1 10	816.707	7/2 ⁺	D			
		416.09 4	23.9 10	708.571	5/2 ⁺	E2		0.01148	$\alpha(\text{K})=0.00984$ 14; $\alpha(\text{L})=0.001333$ 19; $\alpha(\text{M})=0.000257$ 4; $\alpha(\text{N})=4.51\times 10^{-5}$ 7; $\alpha(\text{O})=2.21\times 10^{-6}$ 3 $\alpha(\text{N}+..)=4.73\times 10^{-5}$ 7
1126.25	3/2 ⁺	666.1 1	100 3	458.633	7/2 ⁺	E2		0.00187 3	$\alpha(\text{K})=0.001624$ 23; $\alpha(\text{L})=0.000199$ 3; $\alpha(\text{M})=3.82\times 10^{-5}$ 6; $\alpha(\text{N})=6.78\times 10^{-6}$ 10; $\alpha(\text{O})=3.77\times 10^{-7}$ 6 $\alpha(\text{N}+..)=7.16\times 10^{-6}$ 10
		808.48 2	41 3	316.206	5/2 ⁺				
1126.25	3/2 ⁺	242.64 4	1.2 3	883.62	1/2 ⁺	M1		0.0413	$\alpha(\text{K})=0.0359$ 5; $\alpha(\text{L})=0.00440$ 7; $\alpha(\text{M})=0.000844$ 12; $\alpha(\text{N})=0.0001505$ 21; $\alpha(\text{O})=8.71\times 10^{-6}$ 13 $\alpha(\text{N}+..)=0.0001592$ 23
		827.6 3	12 4	298.597	3/2 ⁺	M1		0.00204 3	$\alpha(\text{K})=0.001778$ 25; $\alpha(\text{L})=0.000210$ 3; $\alpha(\text{M})=4.01\times 10^{-5}$ 6; $\alpha(\text{N})=7.17\times 10^{-6}$ 10; $\alpha(\text{O})=4.25\times 10^{-7}$ 6 $\alpha(\text{N}+..)=7.60\times 10^{-6}$ 11
		1126.20 8	100 6	0.0	1/2 ⁺	M1+E2	-0.02 3	0.001024 15	$\alpha(\text{K})=0.000894$ 13; $\alpha(\text{L})=0.0001046$ 15; $\alpha(\text{M})=2.00\times 10^{-5}$ 3 $\alpha(\text{N})=3.58\times 10^{-6}$ 5; $\alpha(\text{O})=2.13\times 10^{-7}$ 3; $\alpha(\text{N}+..)=4.81\times 10^{-6}$ Mult.: E2 is ruled out, $\Delta I=0$.

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. ^{‡@}	$\delta^@$	α	Comments
1177.723	(9/2 ⁻)	126.48 1	33 3	1051.248	5/2,7/2 ⁻	E2		0.648	$\alpha(\text{K})=0.509$ 8; $\alpha(\text{L})=0.1124$ 16; $\alpha(\text{M})=0.0222$ 4; $\alpha(\text{N})=0.00373$ 6; $\alpha(\text{O})=9.81 \times 10^{-5}$ 14 $\alpha(\text{N+..})=0.00383$ 6
		322.36 6 655.48 1	60.8 23 100 4	855.28 522.259	5/2 ⁻ 7/2 ⁻	M1+E2	-0.001 2	0.00349 5	$\alpha(\text{K})=0.00305$ 5; $\alpha(\text{L})=0.000362$ 5; $\alpha(\text{M})=6.93 \times 10^{-5}$ 10; $\alpha(\text{N})=1.237 \times 10^{-5}$ 18; $\alpha(\text{O})=7.30 \times 10^{-7}$ 11 $\alpha(\text{N+..})=1.310 \times 10^{-5}$ 19
1177.8	5/2 ⁺	879.2 3	100	298.597	3/2 ⁺				
1181.35		543.20 5 659.08 3	11 4 100 7	638.19 522.259	9/2 ⁻ 7/2 ⁻				
1190.72		892.12 5	100	298.597	3/2 ⁺				
1192.09	-	553.9 4	100 6	638.19	9/2 ⁻	M1+E2	0.0 1	0.00520 8	$\alpha(\text{K})=0.00454$ 7; $\alpha(\text{L})=0.000541$ 8; $\alpha(\text{M})=0.0001037$ 15; $\alpha(\text{N})=1.85 \times 10^{-5}$ 3 $\alpha(\text{O})=1.090 \times 10^{-6}$ 16; $\alpha(\text{N+..})=1.96 \times 10^{-5}$ 3 E _{γ} : placed as deexciting a 2094 level by 1991NeZX in (n,n' γ).
1194.6	3/2 ⁻	339.33 ^a 2	99 ^a 5	855.28	5/2 ⁻	M1+E2	-0.20 15	0.0176 4	$\alpha(\text{K})=0.0153$ 4; $\alpha(\text{L})=0.00187$ 7; $\alpha(\text{M})=0.000358$ 13; $\alpha(\text{N})=6.38 \times 10^{-5}$ 21; $\alpha(\text{O})=3.68 \times 10^{-6}$ 6 $\alpha(\text{N+..})=6.75 \times 10^{-5}$ 21
		670.2 5	37 3	522.259	7/2 ⁻				
		611.0 5	4.0 4	583.962	5/2 ⁺	E1		0.001344 19	$\alpha(\text{K})=0.001175$ 17; $\alpha(\text{L})=0.0001375$ 20; $\alpha(\text{M})=2.63 \times 10^{-5}$ 4 $\alpha(\text{N})=4.67 \times 10^{-6}$ 7; $\alpha(\text{O})=2.69 \times 10^{-7}$ 4; $\alpha(\text{N+..})=4.94 \times 10^{-6}$
		672.34 2	100 6	522.259	7/2 ⁻	E2		0.00296 5	$\alpha(\text{K})=0.00257$ 4; $\alpha(\text{L})=0.000322$ 5; $\alpha(\text{M})=6.19 \times 10^{-5}$ 9; $\alpha(\text{N})=1.095 \times 10^{-5}$ 16; $\alpha(\text{O})=5.92 \times 10^{-7}$ 9 $\alpha(\text{N+..})=1.154 \times 10^{-5}$ 17
		1194.4 1	12.9 13	0.0	1/2 ⁺	E1		0.000383 6	$\alpha(\text{K})=0.000306$ 5; $\alpha(\text{L})=3.52 \times 10^{-5}$ 5; $\alpha(\text{M})=6.72 \times 10^{-6}$ 10; $\alpha(\text{N})=1.200 \times 10^{-6}$ 17 $\alpha(\text{O})=7.07 \times 10^{-8}$ 10; $\alpha(\text{N+..})=3.43 \times 10^{-5}$ 5
1195.30	5/2 ⁺	896.7 2	100	298.597	3/2 ⁺				
1209.53	13/2 ⁻	945.96 15	100 18	263.54	11/2 ⁻	M1		0.001505 21	$\alpha(\text{K})=0.001315$ 19; $\alpha(\text{L})=0.0001545$ 22; $\alpha(\text{M})=2.96 \times 10^{-5}$ 5 $\alpha(\text{N})=5.28 \times 10^{-6}$ 8; $\alpha(\text{O})=3.14 \times 10^{-7}$ 5; $\alpha(\text{N+..})=5.60 \times 10^{-6}$
1214.674	11/2 ⁺	274.89 4	7 4	939.788	9/2 ⁺	M1		0.0298	$\alpha(\text{K})=0.0259$ 4; $\alpha(\text{L})=0.00316$ 5; $\alpha(\text{M})=0.000608$ 9; $\alpha(\text{N})=0.0001084$ 16; $\alpha(\text{O})=6.29 \times 10^{-6}$ 9 $\alpha(\text{N+..})=0.0001147$ 16
		756.03 2	100 3	458.633	7/2 ⁺	E2		0.00220 3	$\alpha(\text{K})=0.00191$ 3; $\alpha(\text{L})=0.000236$ 4; $\alpha(\text{M})=4.54 \times 10^{-5}$ 7; $\alpha(\text{N})=8.04 \times 10^{-6}$ 12; $\alpha(\text{O})=4.43 \times 10^{-7}$ 7 $\alpha(\text{N+..})=8.48 \times 10^{-6}$ 12

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. ^{‡@}	α	Comments
1261.92	(7/2 ⁺)	444.9 5 677.95 4 803.23 5 946.0 1	38 8 79 10 100 11 67 33	816.707 583.962 458.633 316.206	7/2 ⁺ 5/2 ⁺ 7/2 ⁺ 5/2 ⁺	D		
1268.21	3/2 ⁺	969.59 5 1268.5 2	58 8 100 10	298.597 0.0	3/2 ⁺ 1/2 ⁺	M1	0.000806 12	$\alpha(\text{K})=0.000691$ 10; $\alpha(\text{L})=8.06\times 10^{-5}$ 12; $\alpha(\text{M})=1.541\times 10^{-5}$ 22 $\alpha(\text{N})=2.76\times 10^{-6}$ 4; $\alpha(\text{O})=1.643\times 10^{-7}$ 23; $\alpha(\text{N+..})=1.83\times 10^{-5}$
1279.62	3/2 ⁺	232.6 3 291.54 25	0.8 6 1.7 5	1047.65 988.40	7/2 ⁺ 1/2 ⁺	M1	0.0256	$\alpha(\text{K})=0.0223$ 4; $\alpha(\text{L})=0.00271$ 4; $\alpha(\text{M})=0.000521$ 8; $\alpha(\text{N})=9.30\times 10^{-5}$ 14; $\alpha(\text{O})=5.40\times 10^{-6}$ 8 $\alpha(\text{N+..})=9.84\times 10^{-5}$ 14
		963.25 15	2.7 8	316.206	5/2 ⁺	M1	0.001445 21	$\alpha(\text{K})=0.001263$ 18; $\alpha(\text{L})=0.0001483$ 21; $\alpha(\text{M})=2.84\times 10^{-5}$ 4 $\alpha(\text{N})=5.07\times 10^{-6}$ 8; $\alpha(\text{O})=3.01\times 10^{-7}$ 5; $\alpha(\text{N+..})=5.37\times 10^{-6}$
		980.94 25	2.3 8	298.597	3/2 ⁺	M1	0.001388 20	$\alpha(\text{K})=0.001213$ 17; $\alpha(\text{L})=0.0001424$ 20; $\alpha(\text{M})=2.72\times 10^{-5}$ 4 $\alpha(\text{N})=4.87\times 10^{-6}$ 7; $\alpha(\text{O})=2.89\times 10^{-7}$ 4; $\alpha(\text{N+..})=5.16\times 10^{-6}$
		1279.84 10	100 10	0.0	1/2 ⁺	M1	0.000792 11	$\alpha(\text{K})=0.000678$ 10; $\alpha(\text{L})=7.91\times 10^{-5}$ 11; $\alpha(\text{M})=1.512\times 10^{-5}$ 22 $\alpha(\text{N})=2.70\times 10^{-6}$ 4; $\alpha(\text{O})=1.612\times 10^{-7}$ 23; $\alpha(\text{N+..})=2.01\times 10^{-5}$
1301.07	3/2 ⁺	174.79 9 717.13 11 1301.07 10	16 5 100 19 26 5	1126.25 583.962 0.0	3/2 ⁺ 5/2 ⁺ 1/2 ⁺			
1313.75	(9/2 ⁺)	729.79 2	100 4	583.962	5/2 ⁺	E2	0.00240 4	$\alpha(\text{K})=0.00209$ 3; $\alpha(\text{L})=0.000259$ 4; $\alpha(\text{M})=4.97\times 10^{-5}$ 7; $\alpha(\text{N})=8.81\times 10^{-6}$ 13; $\alpha(\text{O})=4.83\times 10^{-7}$ 7 $\alpha(\text{N+..})=9.29\times 10^{-6}$ 13
1322.03	(7/2 ⁻ ,9/2 ⁻)	855.10 6 799.9 6 1058.48 11	6.9 17 97 4 100 27	458.633 522.259 263.54	7/2 ⁺ 7/2 ⁻ 11/2 ⁻			
1327.6	(7/2 ⁺)	743.6 4	100	583.962	5/2 ⁺			
1346.53	11/2 ⁻	824.27 3	100	522.259	7/2 ⁻	E2	0.001784 25	$\alpha(\text{K})=0.001550$ 22; $\alpha(\text{L})=0.000190$ 3; $\alpha(\text{M})=3.64\times 10^{-5}$ 6; $\alpha(\text{N})=6.47\times 10^{-6}$ 9 $\alpha(\text{O})=3.60\times 10^{-7}$ 5; $\alpha(\text{N+..})=6.82\times 10^{-6}$ 10
1351.58	5/2,7/2	344.31 12 496.8 3 767.65 13 829.4 3 892.9 3 1052.95 12	6.7 16 22 7 100 17 61 21 8 3 39 11	1007.20 855.28 583.962 522.259 458.633 298.597	(5/2 ⁺) 5/2 ⁻ 5/2 ⁺ 7/2 ⁻ 7/2 ⁺ 3/2 ⁺			
1364.76	5/2 ⁺	780.81 11 906.1 3 1066.16 8	36 11 17.1 14 100 7	583.962 458.633 298.597	5/2 ⁺ 7/2 ⁺ 3/2 ⁺			
1367.569	7/2 ⁺	153.0 1	3.0 13	1214.674	11/2 ⁺			

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. ^{‡@}	$\delta^@$	α	Comments
1367.569	7/2 ⁺	427.71 16 469.5 5 550.86 1	50 3 1.5 15 100 15	939.788 897.53 816.707	9/2 ⁺ 3/2 ⁺ 7/2 ⁺	D M1+E2	-0.006 7	0.00527 8	$\alpha(\text{K})=0.00460$ 7; $\alpha(\text{L})=0.000549$ 8; $\alpha(\text{M})=0.0001051$ 15; $\alpha(\text{N})=1.88\times 10^{-5}$ 3 $\alpha(\text{O})=1.104\times 10^{-6}$ 16; $\alpha(\text{N+..})=1.99\times 10^{-5}$ 3
1387.47	5/2 ⁺ ,3/2 ⁺	909.5 8 928.77 18 1088.89 9	15 10 77 23 100 23	458.633 458.633 298.597	7/2 ⁺ 7/2 ⁺ 3/2 ⁺				
1390.56	(1/2 ⁺ ,3/2 ⁺)	1387.3 5 264.2 4 402.19 13 1092.18 21 1390.42 15	13 6 10 3 18 5 11 6 100 29	0.0 1126.25 988.40 298.597 0.0	1/2 ⁺ 3/2 ⁺ 1/2 ⁺ 3/2 ⁺ 1/2 ⁺				
1395.83	9/2 ⁺	937.19 3 1079.63 4	73 7 100 7	458.633 316.206	7/2 ⁺ 5/2 ⁺				
1405.82	3/2 ⁺	1107.11 18 1405.85 11	100 27 86 17	298.597 0.0	3/2 ⁺ 1/2 ⁺				
1407.5	9/2 ⁺	823.64 948.9 3	100 20 7 3	583.962 458.633	5/2 ⁺ 7/2 ⁺				
1410.68		952.04 5	100	458.633	7/2 ⁺				
1450.30	11/2 ⁻	171.07 12 770.42 16	46 13 100 30	1279.62 680.526	3/2 ⁺ 3/2 ⁺				E_γ : this γ is not seen in $(\alpha, n\gamma)$.
1461.67		606.39 3	100	855.28	5/2 ⁻	D			
1479.08	11/2 ⁻	623.59& 7 770.42 16 1180.8 3	100& 22 33 10 31 7	855.28 708.571 298.597	5/2 ⁻ 5/2 ⁺ 3/2 ⁺				
1493.03	3/2 ⁺	1479.2 1 224.69 25 784.6 3 812.7 4 909.12 13 1176.76 15	67 10 2.7 9 10 4 12 5 33 10 100 27	0.0 1268.21 708.571 680.526 583.962 316.206	1/2 ⁺ 3/2 ⁺ 5/2 ⁺ 3/2 ⁺ 5/2 ⁺ 5/2 ⁺	M1+E2	+0.23 17	0.000927 18	$\alpha(\text{K})=0.000807$ 16; $\alpha(\text{L})=9.44\times 10^{-5}$ 17; $\alpha(\text{M})=1.80\times 10^{-5}$ 4; $\alpha(\text{N})=3.23\times 10^{-6}$ 6 $\alpha(\text{O})=1.92\times 10^{-7}$ 4; $\alpha(\text{N+..})=7.29\times 10^{-6}$ 11
1504.90	7/2 ⁺	1492.88 25 920.94 3	5.5 18 100	0.0 583.962	1/2 ⁺ 5/2 ⁺	E2		0.001375 20	$\alpha(\text{K})=0.001197$ 17; $\alpha(\text{L})=0.0001450$ 21; $\alpha(\text{M})=2.78\times 10^{-5}$ 4 $\alpha(\text{N})=4.94\times 10^{-6}$ 7; $\alpha(\text{O})=2.78\times 10^{-7}$ 4; $\alpha(\text{N+..})=5.22\times 10^{-6}$
1513.72	-	335.98 9 875.54 3	100 100 5	1177.8 638.19	5/2 ⁺ 9/2 ⁻	E2		0.001546 22	$\alpha(\text{K})=0.001345$ 19; $\alpha(\text{L})=0.0001638$ 23;

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. ^{‡@}	$\delta^@$	α	Comments
									$\alpha(\text{M})=3.14\times 10^{-5}$ 5 $\alpha(\text{N})=5.58\times 10^{-6}$ 8; $\alpha(\text{O})=3.13\times 10^{-7}$ 5; $\alpha(\text{N+..})=5.89\times 10^{-6}$
1513.72	-	929.4 2	28 6	583.962	5/2 ⁺				
1542.28	(1/2 ⁺)	539.39 22	78 15	1002.87	3/2 ⁺				
		658.66 8	100 37	883.62	1/2 ⁺				
1561.69	+	621.5 2	21 6	939.788	9/2 ⁺				
		664.13 5	82 5	897.53	3/2 ⁺	E2		0.00306 5	$\alpha(\text{K})=0.00265$ 4; $\alpha(\text{L})=0.000333$ 5; $\alpha(\text{M})=6.40\times 10^{-5}$ 9; $\alpha(\text{N})=1.131\times 10^{-5}$ 16; $\alpha(\text{O})=6.11\times 10^{-7}$ 9 $\alpha(\text{N+..})=1.193\times 10^{-5}$ 17
		744.99 2	100 5	816.707	7/2 ⁺				
1575.66	7/2 ⁻	937.2 3	100 29	638.19	9/2 ⁻				
		1312.18 15	54 13	263.54	11/2 ⁻				
1607.21	5/2 ⁺	926.6 4	48 20	680.526	3/2 ⁺	M1		0.001576 23	$\alpha(\text{K})=0.001378$ 20; $\alpha(\text{L})=0.0001619$ 23; $\alpha(\text{M})=3.10\times 10^{-5}$ 5 $\alpha(\text{N})=5.54\times 10^{-6}$ 8; $\alpha(\text{O})=3.29\times 10^{-7}$ 5; $\alpha(\text{N+..})=5.87\times 10^{-6}$
		1023.0 3	100 40	583.962	5/2 ⁺	M1		0.001264 18	$\alpha(\text{K})=0.001105$ 16; $\alpha(\text{L})=0.0001296$ 19; $\alpha(\text{M})=2.48\times 10^{-5}$ 4 $\alpha(\text{N})=4.43\times 10^{-6}$ 7; $\alpha(\text{O})=2.63\times 10^{-7}$ 4; $\alpha(\text{N+..})=4.69\times 10^{-6}$
		1308.70 11	57 13	298.597	3/2 ⁺	M1		0.000761 11	$\alpha(\text{K})=0.000646$ 9; $\alpha(\text{L})=7.54\times 10^{-5}$ 11; $\alpha(\text{M})=1.441\times 10^{-5}$ 21 $\alpha(\text{N})=2.58\times 10^{-6}$ 4; $\alpha(\text{O})=1.536\times 10^{-7}$ 22; $\alpha(\text{N+..})=2.51\times 10^{-5}$ 4
		1606.96 22	13 3	0.0	1/2 ⁺	E2		0.000549 8	$\alpha(\text{K})=0.000373$ 6; $\alpha(\text{L})=4.36\times 10^{-5}$ 6; $\alpha(\text{M})=8.32\times 10^{-6}$ 12; $\alpha(\text{N})=1.485\times 10^{-6}$ 21 $\alpha(\text{O})=8.72\times 10^{-8}$ 13; $\alpha(\text{N+..})=0.0001245$ 18
1620.43		765.15 1	44 4	855.28	5/2 ⁻	D			
		1098.06 7	100 12	522.259	7/2 ⁻				
1626.41	+	501.77 3	100	1124.636	9/2 ⁺	M1+E2	0.00 3	0.00660 10	$\alpha(\text{K})=0.00576$ 8; $\alpha(\text{L})=0.000689$ 10; $\alpha(\text{M})=0.0001320$ 19; $\alpha(\text{N})=2.36\times 10^{-5}$ 4 $\alpha(\text{O})=1.384\times 10^{-6}$ 20; $\alpha(\text{N+..})=2.50\times 10^{-5}$ 4
1647.23		707.44 4	100	939.788	9/2 ⁺				
1656.6	(19/2 ⁻)	842.0 2	100	815.34	15/2 ⁻				
1657.41	11/2 ⁻	842.06 3	100	815.34	15/2 ⁻	E2		0.001695 24	$\alpha(\text{K})=0.001474$ 21; $\alpha(\text{L})=0.000180$ 3; $\alpha(\text{M})=3.46\times 10^{-5}$ 5; $\alpha(\text{N})=6.13\times 10^{-6}$ 9 $\alpha(\text{O})=3.42\times 10^{-7}$ 5; $\alpha(\text{N+..})=6.48\times 10^{-6}$ 9
1658.51	3/2 ⁺	1020.6 5	57 7	638.19	9/2 ⁻				
		1135.8 2	79 8	522.259	7/2 ⁻				
		1394.8 1	100 13	263.54	11/2 ⁻				
1670.89	(11/2 ⁻)	561.56 9	100	1109.32	13/2 ⁻				
1675.09	3/2 ⁺	791.49 15	100 29	883.62	1/2 ⁺	M1		0.00225 4	$\alpha(\text{K})=0.00197$ 3; $\alpha(\text{L})=0.000232$ 4; $\alpha(\text{M})=4.45\times 10^{-5}$ 7; $\alpha(\text{N})=7.95\times 10^{-6}$ 12; $\alpha(\text{O})=4.71\times 10^{-7}$ 7 $\alpha(\text{N+..})=8.42\times 10^{-6}$ 12
		994.53 11	95 19	680.526	3/2 ⁺	M1		0.001346 19	$\alpha(\text{K})=0.001176$ 17; $\alpha(\text{L})=0.0001380$ 20; $\alpha(\text{M})=2.64\times 10^{-5}$ 4 $\alpha(\text{N})=4.72\times 10^{-6}$ 7; $\alpha(\text{O})=2.80\times 10^{-7}$ 4; $\alpha(\text{N+..})=5.00\times 10^{-6}$

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. ^{‡@}	$\delta^@$	α	Comments
1675.09	3/2 ⁺	1376.64 25	66 26	298.597	3/2 ⁺	M1		0.000701 10	$\alpha(\text{K})=0.000580$ 9; $\alpha(\text{L})=6.76\times 10^{-5}$ 10; $\alpha(\text{M})=1.292\times 10^{-5}$ 18 $\alpha(\text{N})=2.31\times 10^{-6}$ 4; $\alpha(\text{O})=1.379\times 10^{-7}$ 20; $\alpha(\text{N+..})=3.98\times 10^{-5}$ 6
1732.84	11/2 ⁺	365.4 1 518.15 3 793.4 3	23 23 33 3 100 8	1367.569 1214.674 939.788	7/2 ⁺ 11/2 ⁺ 9/2 ⁺	D			
1737.53		1215.27 6	100	522.259	7/2 ⁻				
1743.56	(5/2 ⁺)	1221.3 2	100	522.259	7/2 ⁻				
1746.00	(3/2 ⁻)	890.84 22 1429.9 4 1746.0 5	62 19 50 15 100 35	855.28 316.206 0.0	5/2 ⁻ 5/2 ⁺ 1/2 ⁺				
1778.92	9/2 ⁻	569.3 3	21 5	1209.53	13/2 ⁻	E2		0.00462 7	$\alpha(\text{K})=0.00399$ 6; $\alpha(\text{L})=0.000512$ 8; $\alpha(\text{M})=9.85\times 10^{-5}$ 14; $\alpha(\text{N})=1.738\times 10^{-5}$ 25; $\alpha(\text{O})=9.14\times 10^{-7}$ 13 $\alpha(\text{N+..})=1.83\times 10^{-5}$ 3
1798.89	(1/2,3/2)	765.1 3 1214.8 2 1482.9 3 1798.7 3	14 6 100 14 11 4 3.6 7	1034.09 583.962 316.206 0.0	(3/2 ⁺) 5/2 ⁺ 5/2 ⁺ 1/2 ⁺				
1823.24	(13/2 ⁻)	713.91 5	64 7	1109.32	13/2 ⁻	M1+E2	-0.01 2	0.00286 4	$\alpha(\text{K})=0.00250$ 4; $\alpha(\text{L})=0.000296$ 5; $\alpha(\text{M})=5.66\times 10^{-5}$ 8; $\alpha(\text{N})=1.011\times 10^{-5}$ 15; $\alpha(\text{O})=5.98\times 10^{-7}$ 9 $\alpha(\text{N+..})=1.071\times 10^{-5}$ 15
1842.74	(3/2 ⁻)	1007.90 3 648.26 25 1320.43 15	100 7 87 34 100 17	815.34 1194.6 522.259	15/2 ⁻ 3/2 ⁻ 7/2 ⁻				
1867.86	7/2 ⁻ ,9/2 ⁻	1012.91 21 1345.56 8 1604.23 23	73 23 100 7 17 4	855.28 522.259 263.54	5/2 ⁻ 7/2 ⁻ 11/2 ⁻				
1871.7	5/2 ⁺	931.9 3	100	939.788	9/2 ⁺				
1892.32	7/2 ⁻	1036.87 15	100 30	855.28	5/2 ⁻	M1		0.001227 18	$\alpha(\text{K})=0.001072$ 15; $\alpha(\text{L})=0.0001257$ 18; $\alpha(\text{M})=2.40\times 10^{-5}$ 4 $\alpha(\text{N})=4.30\times 10^{-6}$ 6; $\alpha(\text{O})=2.56\times 10^{-7}$ 4; $\alpha(\text{N+..})=4.55\times 10^{-6}$
1896.44	-	1370.22 15 1628.8 4	67.8 7 26 7	522.259 263.54	7/2 ⁻ 11/2 ⁻	E2		0.000547 8	$\alpha(\text{K})=0.000363$ 5; $\alpha(\text{L})=4.24\times 10^{-5}$ 6; $\alpha(\text{M})=8.10\times 10^{-6}$ 12; $\alpha(\text{N})=1.446\times 10^{-6}$ 21 $\alpha(\text{O})=8.50\times 10^{-8}$ 12; $\alpha(\text{N+..})=0.0001335$ 19
1896.44	-	237.78 8 238.96 9 787.12 2	14 3 11 3 100 8	1658.51 1657.41 1109.32	3/2 ⁺ 11/2 ⁻ 13/2 ⁻	E2		0.00199 3	$\alpha(\text{K})=0.001732$ 25; $\alpha(\text{L})=0.000213$ 3; $\alpha(\text{M})=4.09\times 10^{-5}$ 6;

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. ^{‡@}	$\delta^@$	α	Comments
1896.44	-	1081.38 20	62 14	815.34	15/2 ⁻				$\alpha(\text{N})=7.26\times 10^{-6}$ 11; $\alpha(\text{O})=4.02\times 10^{-7}$ 6
1902.41	+	534.87 5	100 5	1367.569	7/2 ⁺	M1+E2	0.00 5	0.00566 8	$\alpha(\text{N}+..)=7.66\times 10^{-6}$ 11 $\alpha(\text{K})=0.00493$ 7; $\alpha(\text{L})=0.000589$ 9; $\alpha(\text{M})=0.0001129$ 16; $\alpha(\text{N})=2.02\times 10^{-5}$ 3 $\alpha(\text{O})=1.186\times 10^{-6}$ 17; $\alpha(\text{N}+..)=2.14\times 10^{-5}$ 3
1903.97	5/2 ⁺ , 7/2 ⁺	687.6 1	60 5	1214.674	11/2 ⁺				
1904.35	7/2 ⁻	1088.63 8	100	815.34	15/2 ⁻				
		856.73 25	7 3	1047.65	7/2 ⁺				
		1445.70 11	100 17	458.633	7/2 ⁺				
2037.76	5/2 ⁻ , 7/2 ⁻	1097.89 22	69 25	939.788	9/2 ⁺				
		1221.3 4	100 8	816.707	7/2 ⁺				
		1579.1 5	16 5	458.633	7/2 ⁺				
2042.06	1/2 ⁻	1226.71 5	100	815.34	15/2 ⁻				
2046.23	(15/2 ⁺)	831.55 6	100	1214.674	11/2 ⁺	E2		0.001747 25	$\alpha(\text{K})=0.001518$ 22; $\alpha(\text{L})=0.000186$ 3; $\alpha(\text{M})=3.56\times 10^{-5}$ 5; $\alpha(\text{N})=6.33\times 10^{-6}$ 9 $\alpha(\text{O})=3.53\times 10^{-7}$ 5; $\alpha(\text{N}+..)=6.68\times 10^{-6}$ 10
2113.04	7/2 ⁻	1474.8 3	57 28	638.19	9/2 ⁻	M1		0.000639 9	$\alpha(\text{K})=0.000502$ 7; $\alpha(\text{L})=5.83\times 10^{-5}$ 9; $\alpha(\text{M})=1.115\times 10^{-5}$ 16; $\alpha(\text{N})=1.99\times 10^{-6}$ 3 $\alpha(\text{O})=1.191\times 10^{-7}$ 17; $\alpha(\text{N}+..)=6.72\times 10^{-5}$ 10
		1590.8 3	100 26	522.259	7/2 ⁻	M1		0.000596 9	$\alpha(\text{K})=0.000429$ 6; $\alpha(\text{L})=4.97\times 10^{-5}$ 7; $\alpha(\text{M})=9.51\times 10^{-6}$ 14; $\alpha(\text{N})=1.700\times 10^{-6}$ 24 $\alpha(\text{O})=1.016\times 10^{-7}$ 15; $\alpha(\text{N}+..)=0.0001078$ 16
2146.81	(7/2 ⁻)	633.08 2	100	1513.72	-	(E2)		0.00347 5	$\alpha(\text{K})=0.00300$ 5; $\alpha(\text{L})=0.000380$ 6; $\alpha(\text{M})=7.30\times 10^{-5}$ 11; $\alpha(\text{N})=1.289\times 10^{-5}$ 18; $\alpha(\text{O})=6.91\times 10^{-7}$ 10 $\alpha(\text{N}+..)=1.359\times 10^{-5}$ 19
2164.48		949.8 1	100	1214.674	11/2 ⁺				
2173.60	3/2 ⁻	427.68 16	76 15	1746.00	(3/2 ⁻)	M1		0.00976 14	$\alpha(\text{K})=0.00850$ 12; $\alpha(\text{L})=0.001022$ 15; $\alpha(\text{M})=0.000196$ 3; $\alpha(\text{N})=3.50\times 10^{-5}$ 5; $\alpha(\text{O})=2.05\times 10^{-6}$ 3 $\alpha(\text{N}+..)=3.70\times 10^{-5}$ 6 B(M1)(W.u.)=0.87 21
		979.08 23	38 15	1194.6	3/2 ⁻	M1		0.001393 20	$\alpha(\text{K})=0.001218$ 17; $\alpha(\text{L})=0.0001430$ 20; $\alpha(\text{M})=2.74\times 10^{-5}$ 4 $\alpha(\text{N})=4.89\times 10^{-6}$ 7; $\alpha(\text{O})=2.90\times 10^{-7}$ 4; $\alpha(\text{N}+..)=5.18\times 10^{-6}$ B(M1)(W.u.)=0.036 16
		1289.4 3	59 15	883.62	1/2 ⁺	E1		0.000391 6	$\alpha(\text{K})=0.000267$ 4; $\alpha(\text{L})=3.07\times 10^{-5}$ 5; $\alpha(\text{M})=5.86\times 10^{-6}$ 9; $\alpha(\text{N})=1.046\times 10^{-6}$ 15 $\alpha(\text{O})=6.18\times 10^{-8}$ 9; $\alpha(\text{N}+..)=8.71\times 10^{-5}$ 13 B(E1)(W.u.)=0.00032 10
		2173.64 21	100 18	0.0	1/2 ⁺	E1		0.000858 12	$\alpha(\text{K})=0.0001144$ 16; $\alpha(\text{L})=1.301\times 10^{-5}$ 19; $\alpha(\text{M})=2.48\times 10^{-6}$

Adopted Levels, Gammas (continued)

$\gamma(^{113}\text{Cd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult.‡@	α	Comments
								4 $\alpha(\text{N})=4.43\times 10^{-7}$ 7; $\alpha(\text{O})=2.64\times 10^{-8}$ 4; $\alpha(\text{N}+..)=0.000728$ B(E1)(W.u.)=0.00011 3
2219.64		593.23 2	100 1	1626.41	+	E2	0.00413 6	$\alpha(\text{K})=0.00357$ 5; $\alpha(\text{L})=0.000455$ 7; $\alpha(\text{M})=8.76\times 10^{-5}$ 13; $\alpha(\text{N})=1.546\times 10^{-5}$ 22; $\alpha(\text{O})=8.19\times 10^{-7}$ 12 $\alpha(\text{N}+..)=1.628\times 10^{-5}$ 23
2319.62	3/2 ⁻	1464.32 18	22 6	855.28	5/2 ⁻	M1	0.000644 9	$\alpha(\text{K})=0.000509$ 8; $\alpha(\text{L})=5.92\times 10^{-5}$ 9; $\alpha(\text{M})=1.132\times 10^{-5}$ 16; $\alpha(\text{N})=2.02\times 10^{-6}$ 3 $\alpha(\text{O})=1.209\times 10^{-7}$ 17; $\alpha(\text{N}+..)=6.40\times 10^{-5}$ 9
		2319.7 6	100 41	0.0	1/2 ⁺	E1	0.000942 14	$\alpha(\text{K})=0.0001037$ 15; $\alpha(\text{L})=1.179\times 10^{-5}$ 17; $\alpha(\text{M})=2.25\times 10^{-6}$ 4 $\alpha(\text{N})=4.01\times 10^{-7}$ 6; $\alpha(\text{O})=2.40\times 10^{-8}$ 4; $\alpha(\text{N}+..)=0.000824$
2324.5	(21/2 ⁺)	667.9 2	100	1656.6	(19/2 ⁻)			
2538.3	(19/2 ⁺)	881.7 2	100	1656.6	(19/2 ⁻)			
2613.4	(23/2 ⁻)	956.8 2	100	1656.6	(19/2 ⁻)			
2757.8	(25/2 ⁺)	433.3		2324.5	(21/2 ⁺)			
2759.33	(3/2 ⁺ ,5/2 ⁺)	960.46 15	13 4	1798.89	(1/2,3/2)			
		1942.71 25	49 15	816.707	7/2 ⁺			
		2460.6 2	100 20	298.597	3/2 ⁺			
2962.6	(23/2 ⁺)	424.3 2	100	2538.3	(19/2 ⁺)			
3448.9	(27/2 ⁻)	835.5 2	100	2613.4	(23/2 ⁻)			
3473.9	(29/2 ⁺)	716.1 2	100	2757.8	(25/2 ⁺)			
4201.5	(31/2 ⁻)	752.6 2	100	3448.9	(27/2 ⁻)			

† From $^{113}\text{Cd}(n,n'\gamma)$ or $^{113}\text{Ag} \beta^-$ decay, except as noted. When the branching is discrepant between (n,n' γ) and decay evaluator has chosen (n,n' γ) because uncertainties are available.

‡ From $^{113}\text{Cd}(n,n'\gamma)$.

See $^{113}\text{Ag} \beta^-$ decay (5.37 h).

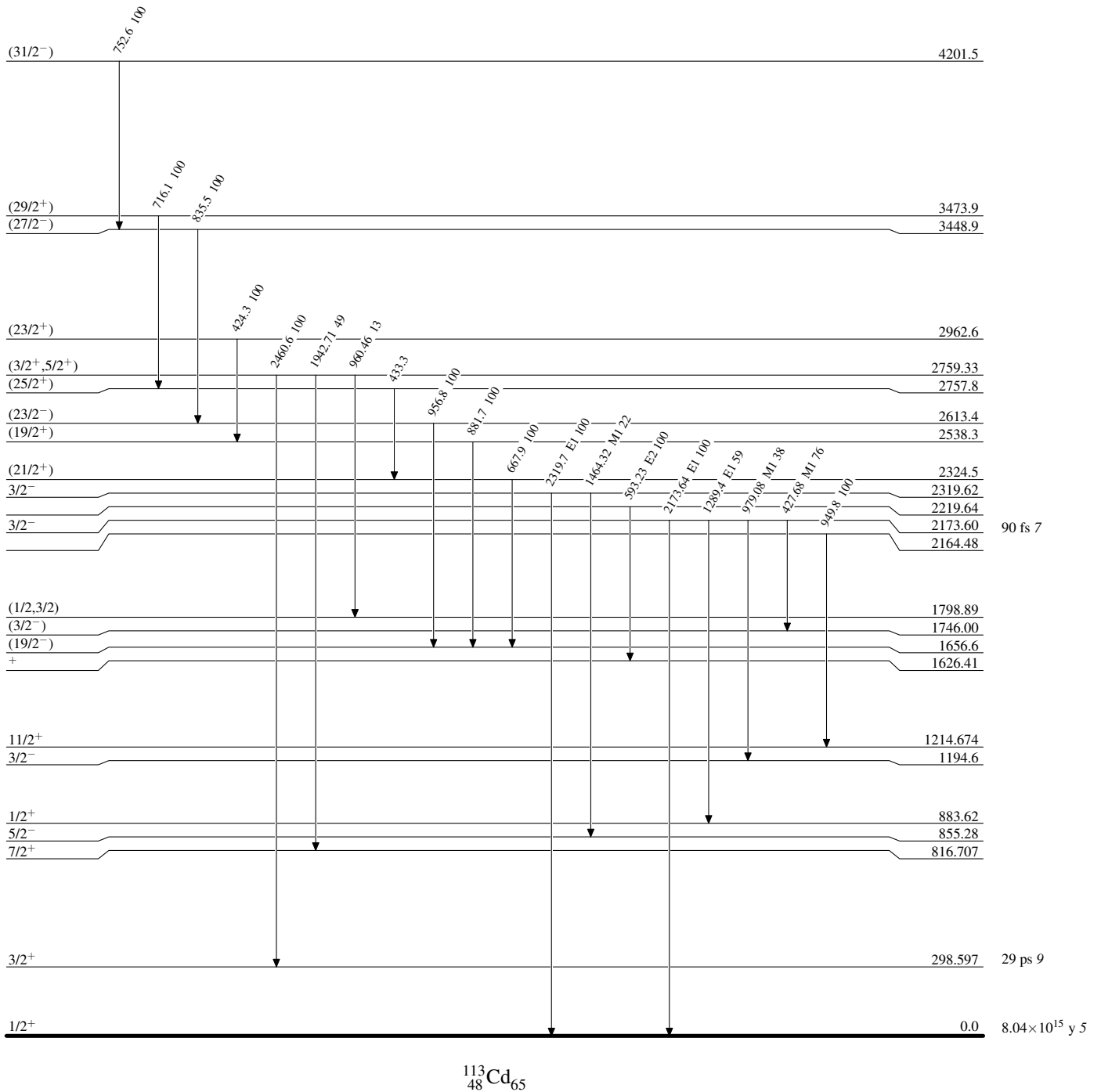
@ From $\gamma(\theta)$ and linear polarization in $^{113}\text{Cd}(n,n'\gamma)$ and in ($\alpha,n\gamma$), except as noted.

& Multiply placed with undivided intensity.

^a Multiply placed with intensity suitably divided.

Adopted Levels, GammasLevel Scheme

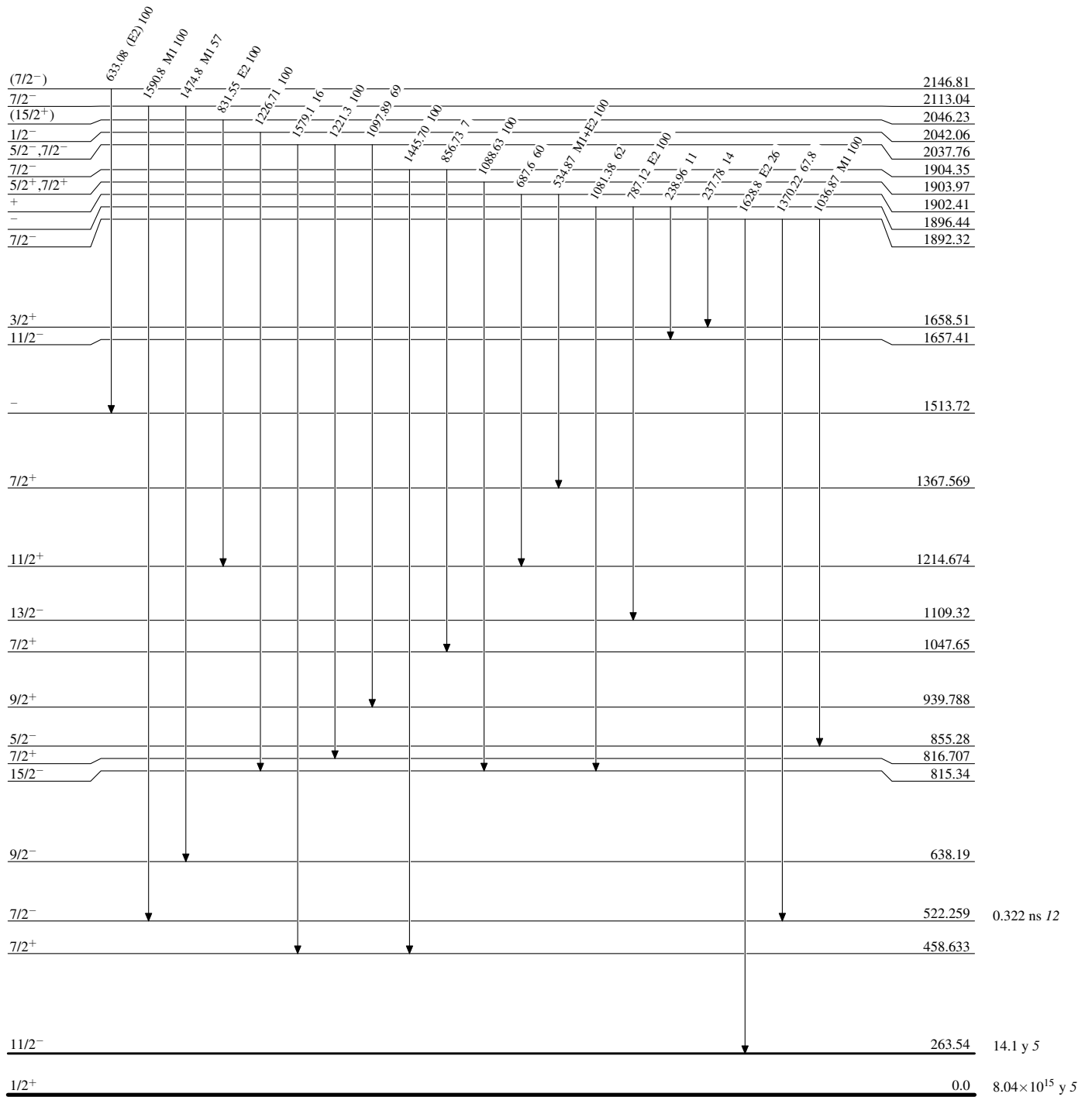
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

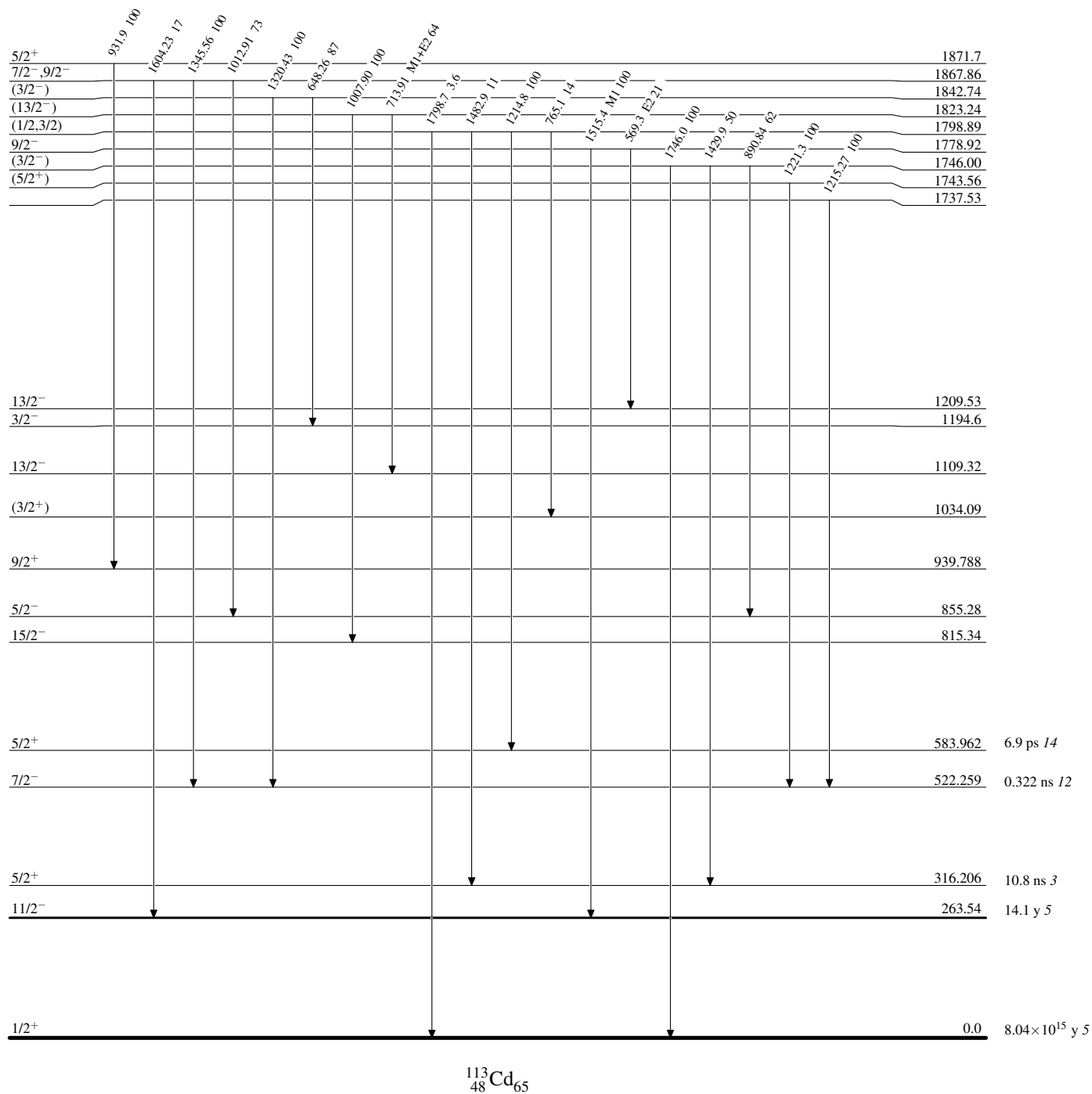
Level Scheme (continued)

Intensities: Relative photon branching from each level



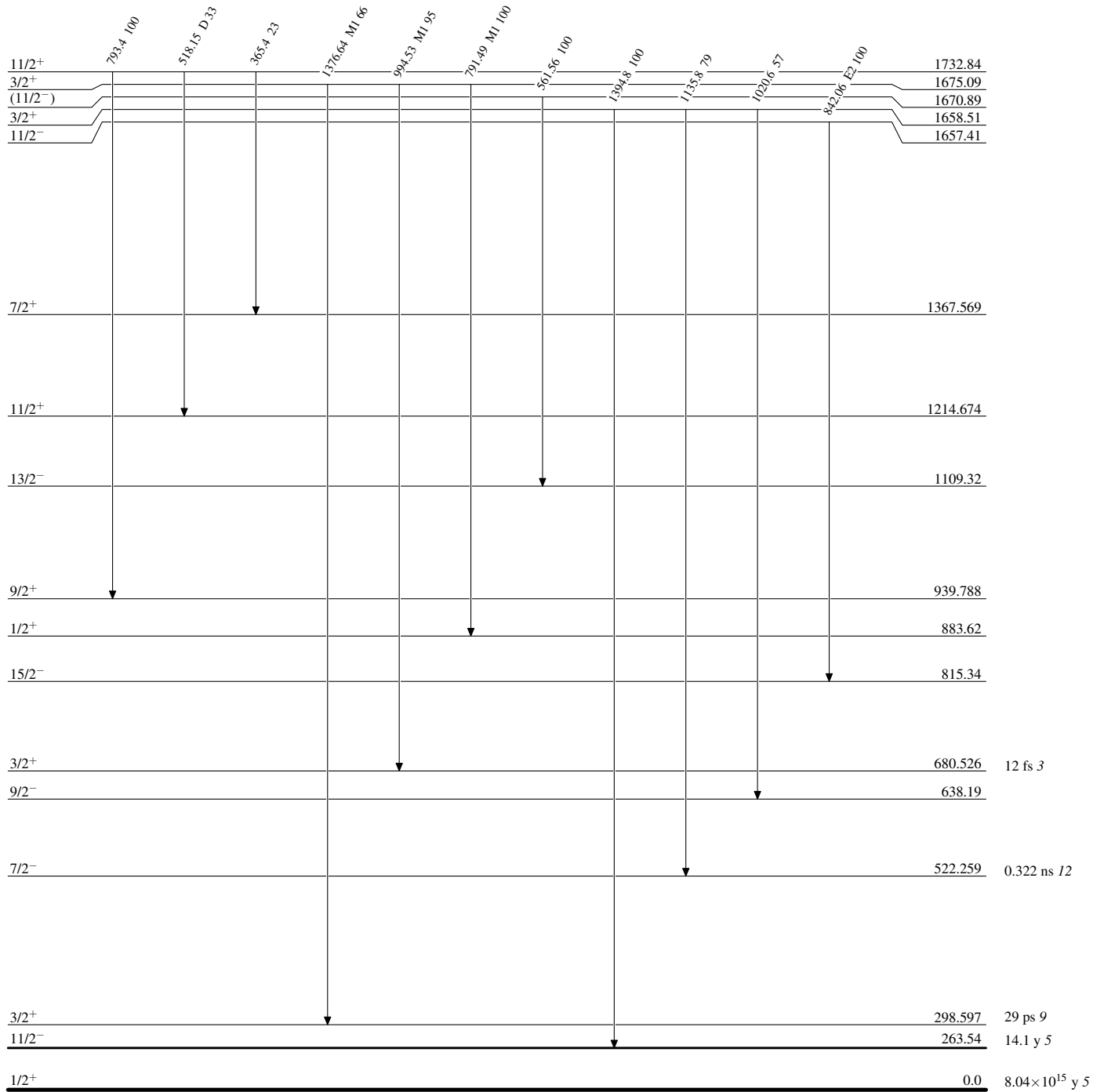
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level



Adopted Levels, Gammas**Level Scheme (continued)**

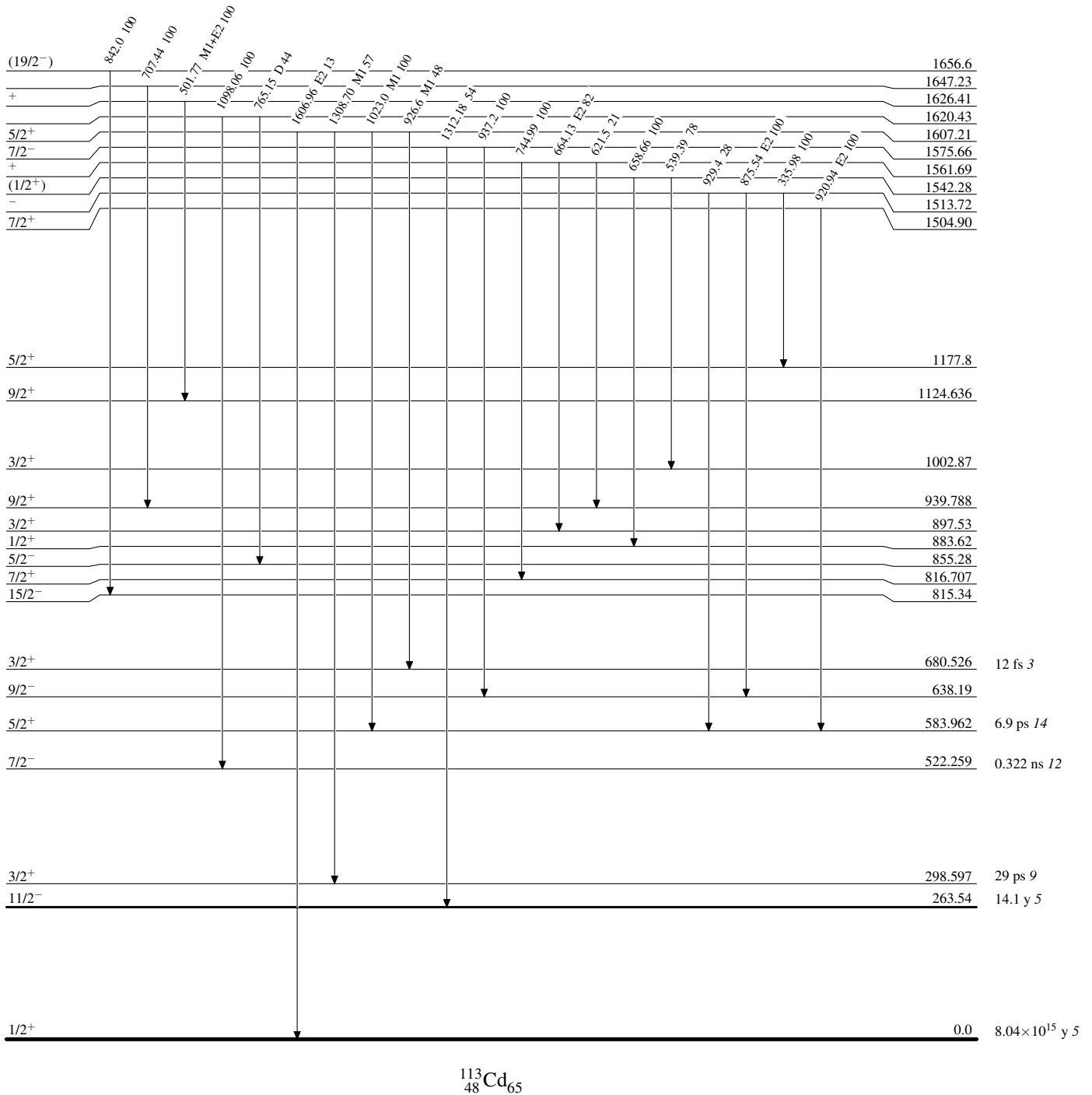
Intensities: Relative photon branching from each level

 $^{113}_{48}\text{Cd}_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

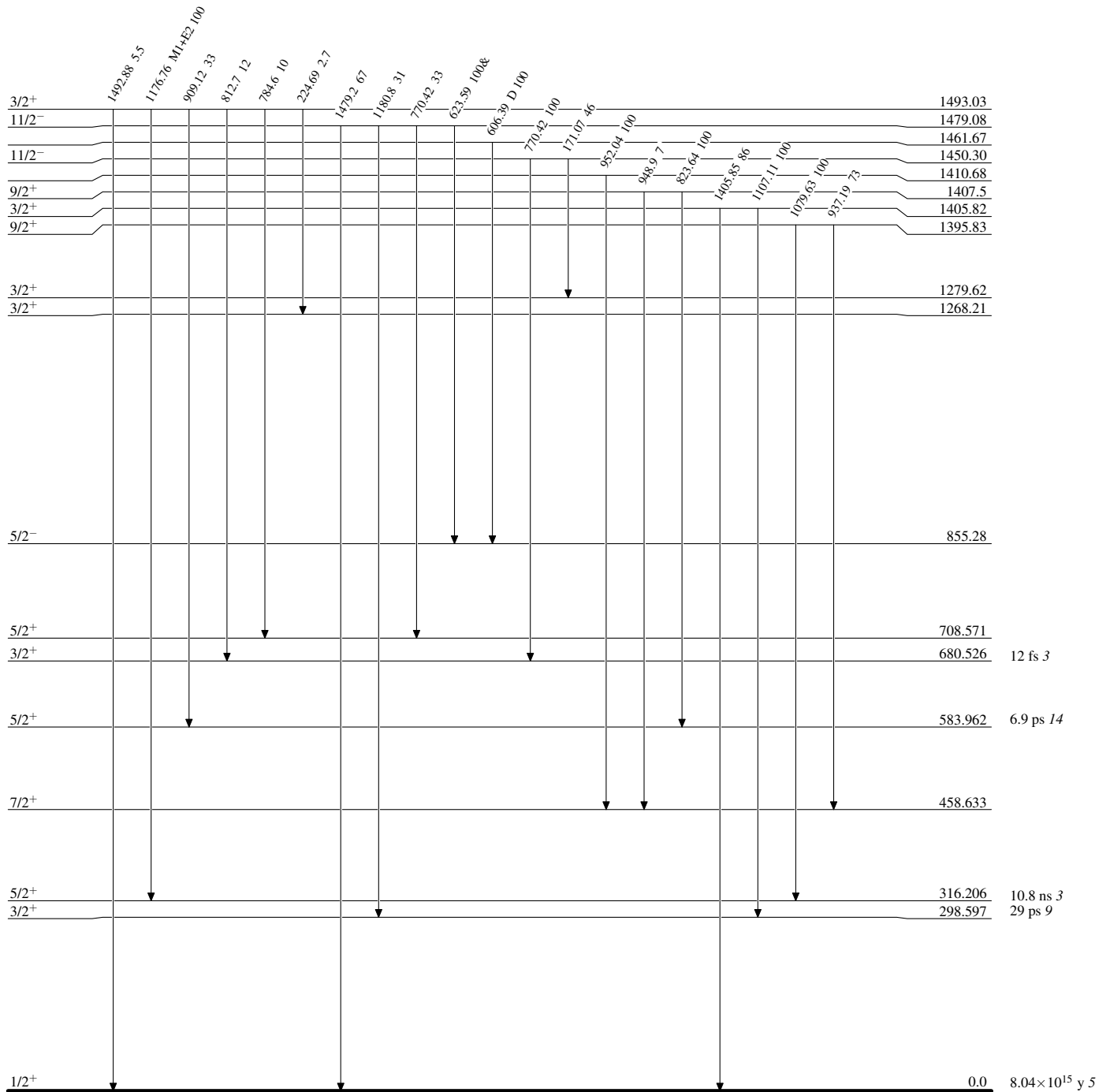
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

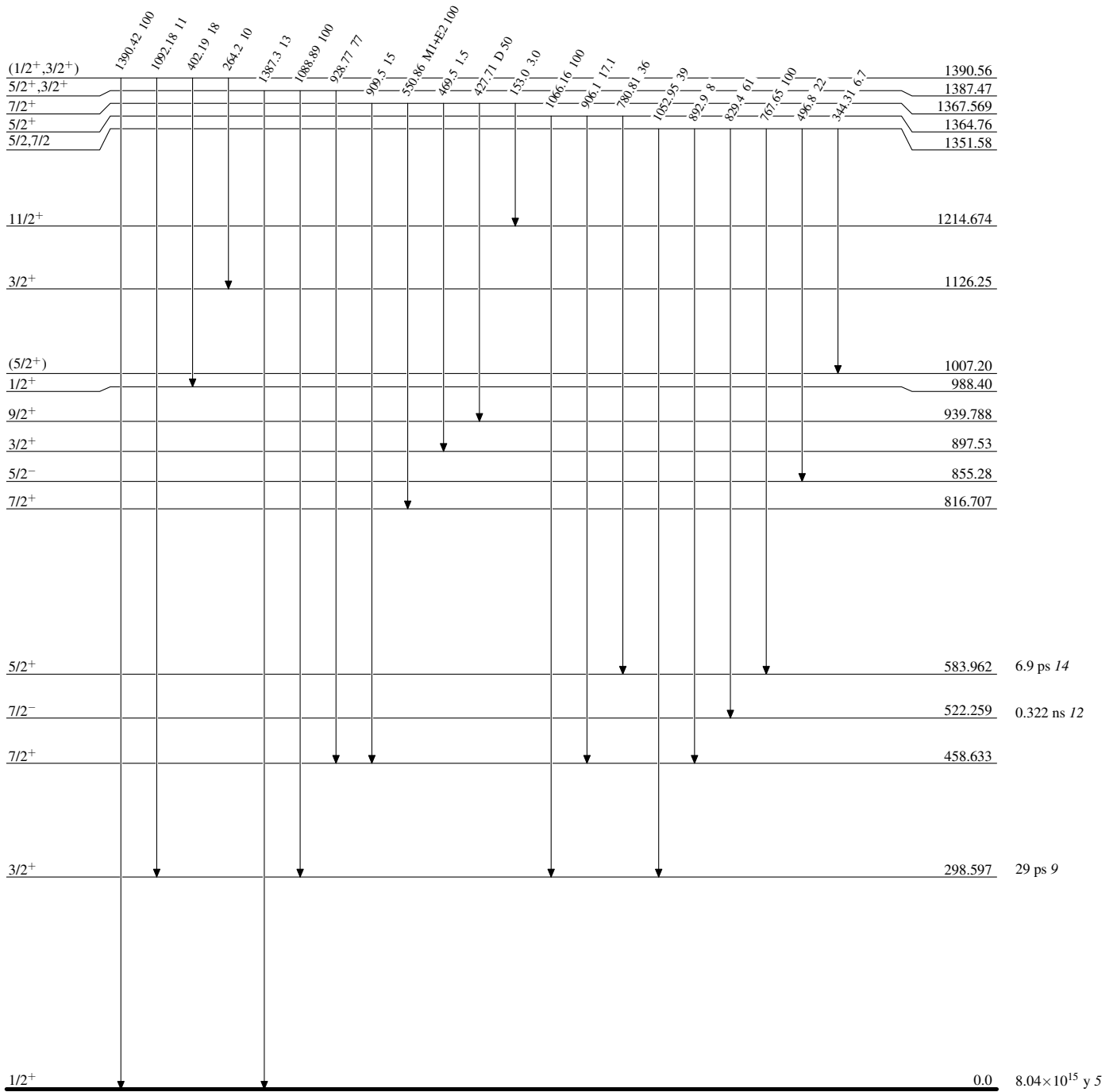


$^{113}_{48}\text{Cd}_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

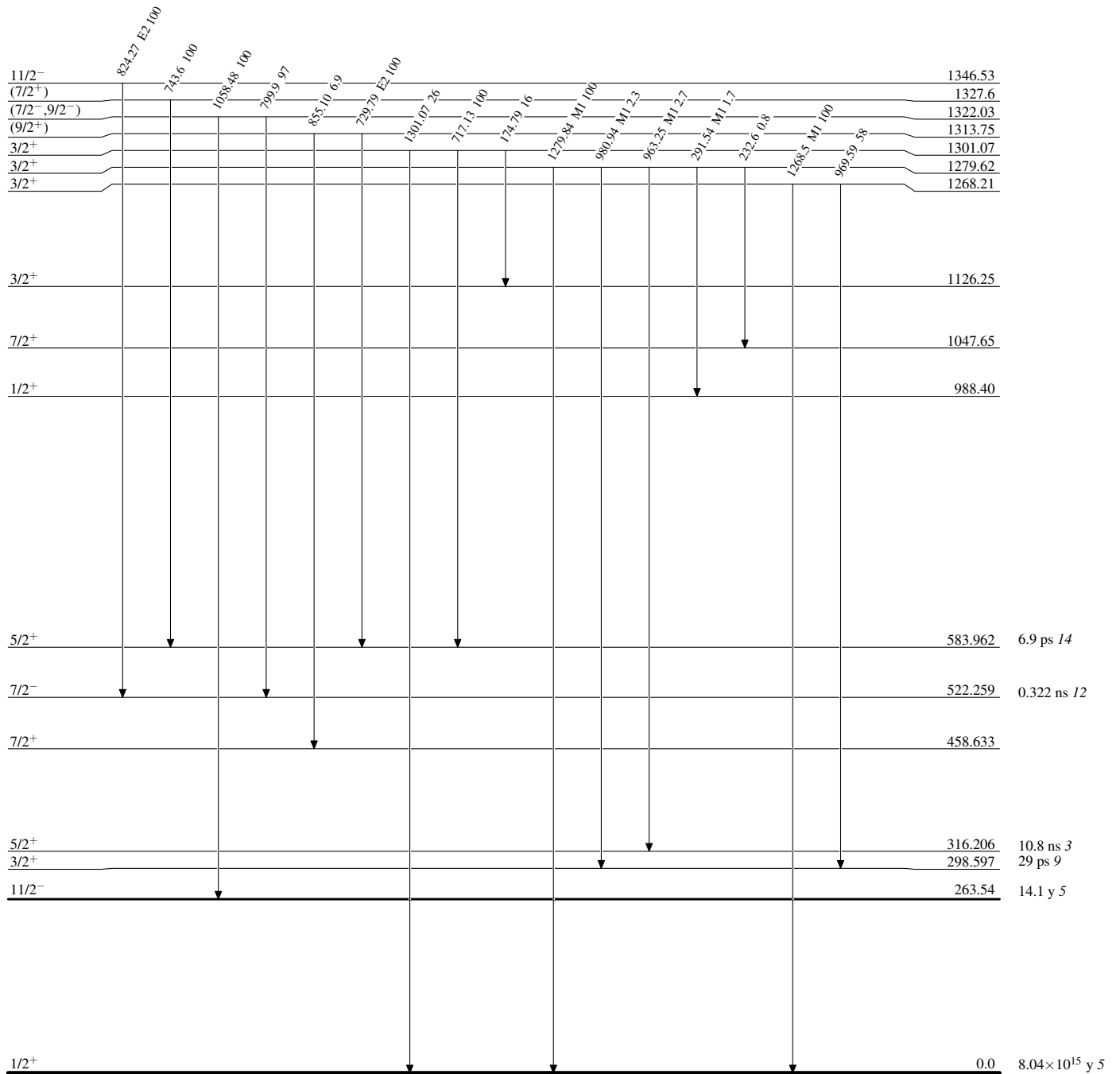


$^{113}_{48}\text{Cd}_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

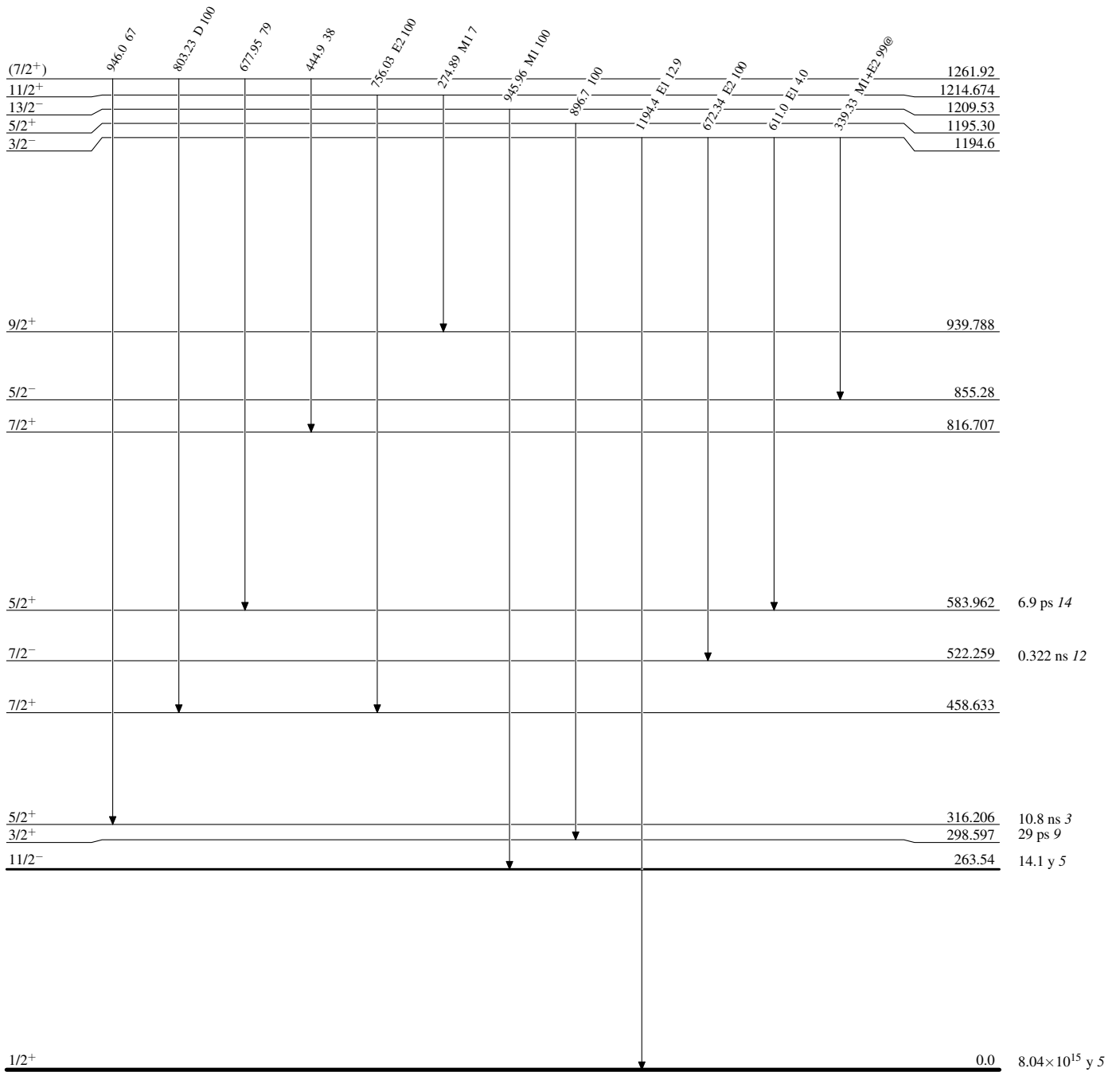


$^{113}_{48}\text{Cd}_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
 & Multiply placed: undivided intensity given
 @ Multiply placed: intensity suitably divided

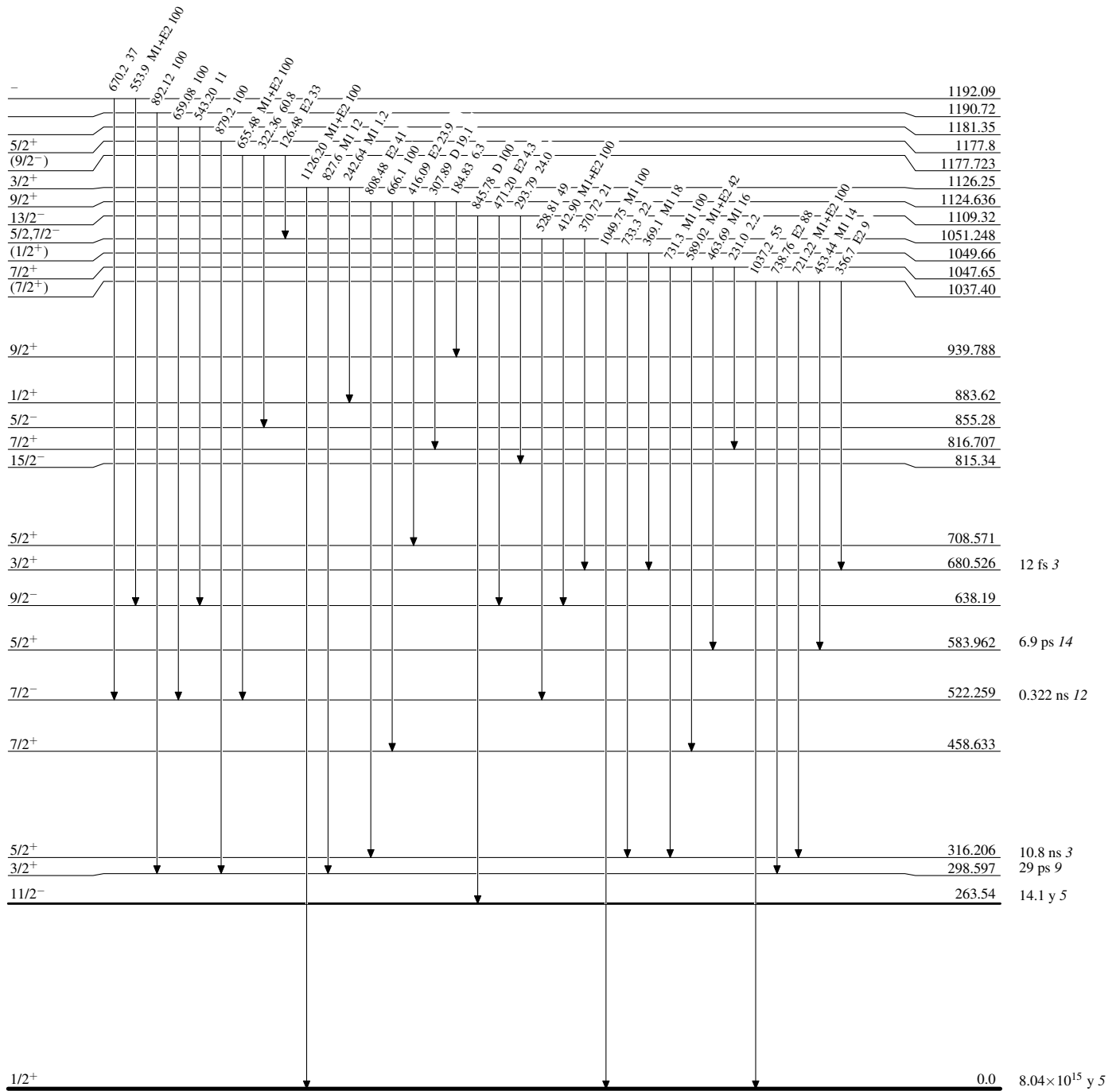


$^{113}_{48}\text{Cd}_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
 & Multiply placed: undivided intensity given
 @ Multiply placed: intensity suitably divided

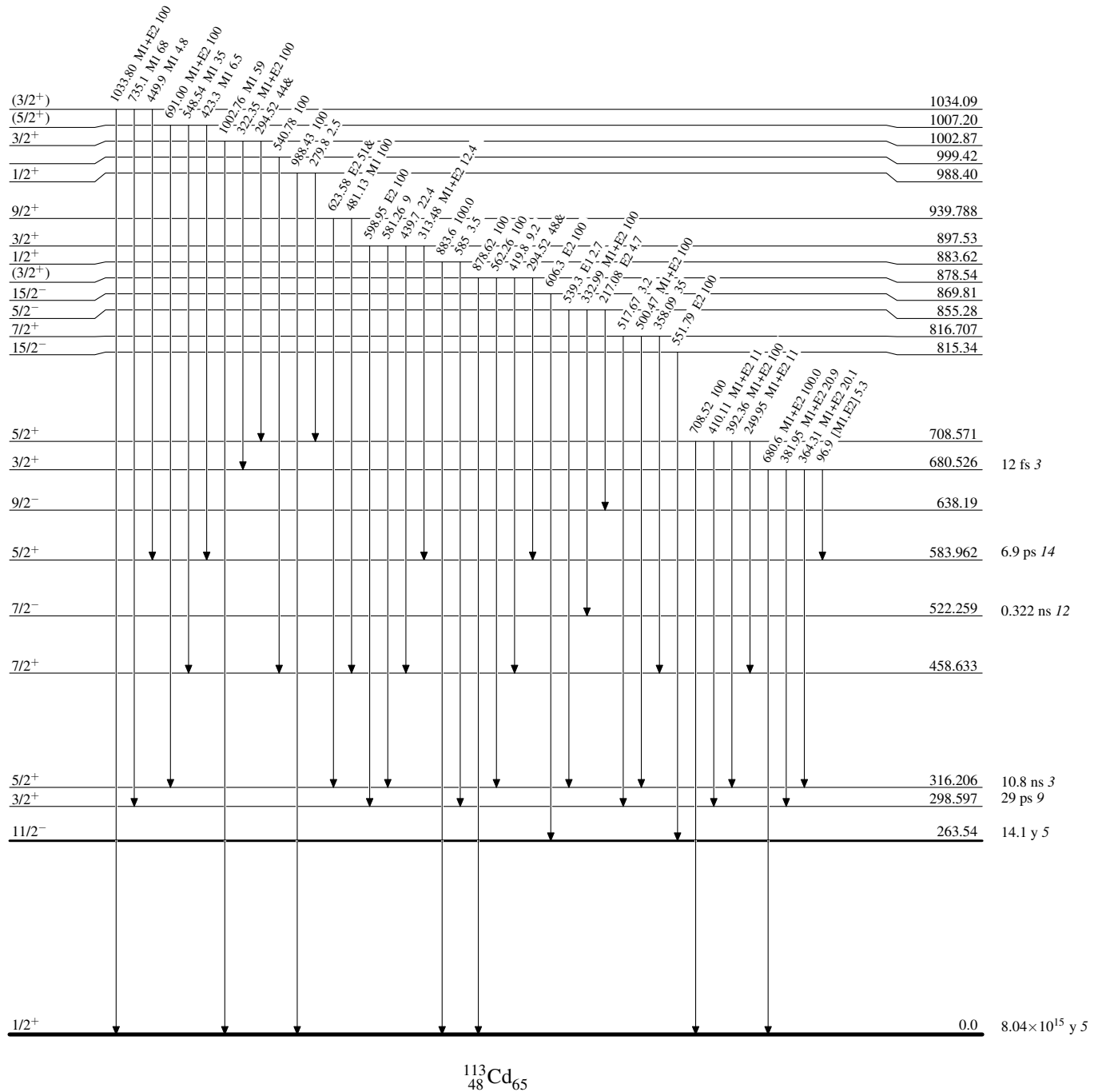


$^{113}_{48}\text{Cd}_{65}$

Adopted Levels, Gammas

Level Scheme (continued)

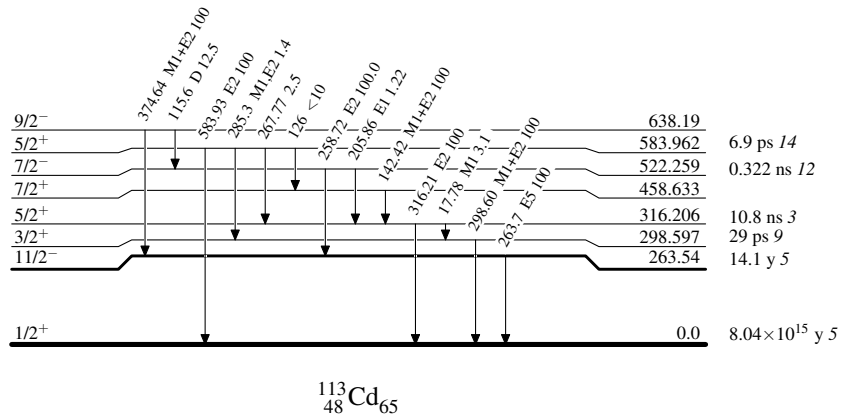
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



¹¹³Cd₄₈

Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level
 & Multiply placed: undivided intensity given
 @ Multiply placed: intensity suitably divided



Adopted Levels, Gammas

Band(A): Member of $\Delta J=2$
band on $11/2^-$ band

(31/2⁻) 4201.5

753

(27/2⁻) 3448.9

836

(23/2⁻) 2613.4

957

(19/2⁻) 1656.6

842

15/2⁻ 815.34

552

11/2⁻ 263.54

Band(B): Band based on
 $23/2^-$

(29/2⁺) 3473.9

716

(25/2⁺) 2757.8

433

(21/2⁺) 2324.5

Band(C): Band based on
(19/2)

(23/2⁺) 2962.6

424

(19/2⁺) 2538.3

$^{113}_{48}\text{Cd}_{65}$