

^{101}Cd ϵ decay **1980Ka05**

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2006

Parent: ^{101}Cd : $E=0$; $J^\pi=(5/2^+)$; $T_{1/2}=1.36$ min 5; $Q(\epsilon)=5.48\times 10^3$ 11; $\% \epsilon + \% \beta^+$ decay=100.0

Activity: Sn(p,3pxn) on-line isotopic separation (**1980Ka05,1970Hn03**).

J^π from log ft for levels >1859 have not been adopted by the evaluator.

Measured: γ , $\gamma\gamma$, $\gamma\gamma(t)$, ce, Ge(Li), Si(Li) detectors. **1980Ka05** supersedes **1970Hn03** which was done at the same facility (ISOLDE).

 ^{101}Ag Levels

E(level)	J^π^\dagger	$T_{1/2}$	E(level)	J^π^\dagger
0	9/2 ⁺	11.1 min 3	2130.0 3	(5/2 ⁺ ,7/2 ⁺)
98.1 2	7/2 ⁺		2153.5 6	
274.0 2	1/2 ⁻	3.10 s	2154.9 4	
750.4 3	(3/2 ⁻)		2243.5 4	
797.4 3	(5/2 ⁻)		2269.9 6	
961.0 4	(3/2,5/2) ⁻		2308.0 6	
1022.6 2	(5/2,7/2) ⁺		2386.7 6	
1196.0 4	(5/2 ⁺ ,7/2)		2391.2 3	(5/2 ⁺ ,7/2 ⁺)
1285.2 3	(3/2 ⁺)		2429.7 3	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1301.1 2	(5/2 ⁺ ,7/2 ⁺)		2455.0 5	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1324.6 4	(5/2 ⁺ ,7/2)		2679.6 4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1357.4 3	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		2787.7 4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1417.5 2	(5/2 ⁺ ,7/2 ⁺)		2875.7 3	(5/2 ⁺ ,7/2 ⁺)
1473.8 5	(3/2,5/2,7/2)		2909.1 6	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1502.6 5			2940.4 4	(5/2 ⁺)
1599.1 6	(1/2 to 7/2) ⁺		2943.5 5	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1690.9 3	(5/2,7/2) ⁺		3006.1 6	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1783.4 4	(5/2 ⁺ ,7/2 ⁺)		3162.4 4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1794.8 3	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		3229.2 6	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1820.6 3	(5/2 ⁺ ,7/2 ⁺)		3259.1 6	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1859.7 4	(5/2 ⁺ ,7/2 ⁺)		3380.0 6	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1894.7 6	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		3400.7 8	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
1990.2 3	(5/2 ⁺ ,7/2 ⁺)		3430.0 6	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)
2059.0 3	(5/2 ⁺ ,7/2 ⁺)			

[†] From Adopted Levels for levels below 1820.6. From log ft and γ decay for the rest.

 ϵ, β^+ radiations

E(decay)	E(level)	$I\beta^+$ [†]	$I\epsilon$ [†]	Log ft	$I(\epsilon + \beta^+)$ [†]	Comments
(2.05×10 ³ 11)	3430.0		0.4 5	5.3 6	0.4 5	
(2.08×10 ³ 11)	3400.7	0.087 15	0.51 9	5.14 8	0.6 1	av $E\beta=$ 435.4 4; $\epsilon K=$ 0.7388; $\epsilon L=$ 0.09368; $\epsilon M+=$ 0.023175
(2.10×10 ³ 11)	3380.0	0.061 16	0.34 9	5.33 11	0.4 1	av $E\beta=$ 444.5 3; $\epsilon K=$ 0.7310; $\epsilon L=$ 0.09267; $\epsilon M+=$ 0.022925
(2.22×10 ³ 11)	3259.1	0.105 21	0.39 8	5.31 9	0.5 1	av $E\beta=$ 497.8 3; $\epsilon K=$ 0.6820; $\epsilon L=$ 0.08635; $\epsilon M+=$ 0.021357
(2.25×10 ³ 11)	3229.2	0.045 23	0.15 8	5.73 22	0.2 1	av $E\beta=$ 511.0 3; $\epsilon K=$ 0.6691; $\epsilon L=$ 0.08469; $\epsilon M+=$ 0.020945
(2.32×10 ³ 11)	3162.4	0.16 3	0.44 8	5.30 8	0.6 1	av $E\beta=$ 540.68 18; $\epsilon K=$ 0.6394; $\epsilon L=$ 0.08089; $\epsilon M+=$ 0.020003

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^{101}Cd ε decay **1980Ka05** (continued) ε, β^+ radiations (continued)

E(decay)	E(level)	$I\beta^+$ †	$I\varepsilon$ †	Log ft	$I(\varepsilon + \beta^+)$ †	Comments
(2.47×10^3 11)	3006.1	0.14 4	0.26 7	5.59 11	0.4 1	av $E\beta = 610.4$ 3; $\varepsilon K = 0.5678$; $\varepsilon L = 0.07173$; $\varepsilon M = 0.017736$
(2.54×10^3 11)	2943.5	0.68 4	1.12 7	4.98 3	1.8 1	av $E\beta = 638.39$ 23; $\varepsilon K = 0.5390$; $\varepsilon L = 0.06807$; $\varepsilon M = 0.016830$
(2.54×10^3 11)	2940.4	0.79 19	1.3 4	4.91 11	2.1 5	av $E\beta = 639.78$ 18; $\varepsilon K = 0.5376$; $\varepsilon L = 0.06789$; $\varepsilon M = 0.016785$
(2.57×10^3 11)	2909.1	0.20 4	0.30 6	5.56 9	0.5 1	av $E\beta = 653.8$ 3; $\varepsilon K = 0.5234$; $\varepsilon L = 0.06608$; $\varepsilon M = 0.016337$
(2.60×10^3 11)	2875.7	0.62 21	0.9 3	5.11 15	1.5 5	av $E\beta = 668.84$ 14; $\varepsilon K = 0.5084$; $\varepsilon L = 0.06417$; $\varepsilon M = 0.015864$
(2.69×10^3 11)	2787.7	1.19 23	1.4 3	4.93 9	2.6 5	av $E\beta = 708.47$ 18; $\varepsilon K = 0.4698$; $\varepsilon L = 0.05926$; $\varepsilon M = 0.014649$
(2.80×10^3 11)	2679.6	0.36 5	0.34 5	5.58 7	0.7 1	av $E\beta = 757.34$ 19; $\varepsilon K = 0.4247$; $\varepsilon L = 0.05354$; $\varepsilon M = 0.013234$
(3.03×10^3 11)	2455.0	0.79 6	0.51 4	5.48 4	1.3 1	av $E\beta = 859.46$ 23; $\varepsilon K = 0.3417$; $\varepsilon L = 0.04302$; $\varepsilon M = 0.010633$
(3.05×10^3 11)	2429.7	2.76 19	1.74 12	4.96 4	4.5 3	av $E\beta = 871.01$ 14; $\varepsilon K = 0.3333$; $\varepsilon L = 0.04196$; $\varepsilon M = 0.010370$
(3.09×10^3 11)	2391.2	1.1 4	0.67 19	5.38 13	1.8 5	av $E\beta = 888.60$ 14; $\varepsilon K = 0.3209$; $\varepsilon L = 0.04039$; $\varepsilon M = 0.009982$
(3.09×10^3 11)	2386.7	0.25 7	0.15 4	6.04 11	0.4 1	av $E\beta = 890.7$ 3; $\varepsilon K = 0.3195$; $\varepsilon L = 0.04021$; $\varepsilon M = 0.009938$
(3.17×10^3 11)	2308.0	0.39 7	0.21 4	5.92 8	0.6 1	av $E\beta = 926.7$ 3; $\varepsilon K = 0.2957$; $\varepsilon L = 0.03720$; $\varepsilon M = 0.009192$
(3.21×10^3 11)	2269.9	0.27 7	0.13 4	6.12 11	0.4 1	av $E\beta = 944.2$ 3; $\varepsilon K = 0.2848$; $\varepsilon L = 0.03582$; $\varepsilon M = 0.008852$
(3.24×10^3 11)	2243.5	0.41 7	0.19 4	5.96 8	0.6 1	av $E\beta = 956.29$ 19; $\varepsilon K = 0.2775$; $\varepsilon L = 0.03490$; $\varepsilon M = 0.008624$
(3.33×10^3 11)	2154.9	0.5 4	0.21 15	6.0 4	0.7 5	av $E\beta = 997.04$ 19; $\varepsilon K = 0.2544$; $\varepsilon L = 0.03198$; $\varepsilon M = 0.007903$
(3.33×10^3 11)	2153.5	0.42 5	0.176 18	6.03 5	0.6	av $E\beta = 997.7$ 3; $\varepsilon K = 0.2540$; $\varepsilon L = 0.03194$; $\varepsilon M = 0.007892$
(3.35×10^3 11)	2130.0	5.6 3	2.27 12	4.92 3	7.9 4	av $E\beta = 1008.51$ 14; $\varepsilon K = 0.24826$; $\varepsilon L = 0.03121$; $\varepsilon M = 0.007712$
(3.42×10^3 11)	2059.0	1.83 22	0.67 8	5.47 6	2.5 3	av $E\beta = 1041.25$ 14; $\varepsilon K = 0.23170$; $\varepsilon L = 0.02912$; $\varepsilon M = 0.007195$
(3.49×10^3 11)	1990.2	1.5 3	0.50 10	5.62 9	2.0 4	av $E\beta = 1073.04$ 14; $\varepsilon K = 0.21683$; $\varepsilon L = 0.02724$; $\varepsilon M = 0.006731$
(3.59×10^3 11)	1894.7	1.4 4	0.41 12	5.72 13	1.8 5	av $E\beta = 1117.3$ 3; $\varepsilon K = 0.19795$; $\varepsilon L = 0.024863$; $\varepsilon M = 0.006143$
(3.62×10^3 11)	1859.7	4.1 4	1.17 12	5.28 5	5.3 5	av $E\beta = 1133.48$ 19; $\varepsilon K = 0.19151$; $\varepsilon L = 0.024052$; $\varepsilon M = 0.005942$
(3.66×10^3 11)	1820.6	6.21 24	1.69 7	5.131 23	7.9 3	av $E\beta = 1151.63$ 14; $\varepsilon K = 0.18461$; $\varepsilon L = 0.023182$; $\varepsilon M = 0.005727$
(3.69×10^3 11)	1794.8	3.2 4	0.83 11	5.44 6	4.0 5	av $E\beta = 1163.61$ 14; $\varepsilon K = 0.18021$; $\varepsilon L = 0.022628$; $\varepsilon M = 0.005590$
(3.70×10^3 11)	1783.4	0.79 8	0.206 21	6.05 5	1.0 1	av $E\beta = 1168.91$ 19; $\varepsilon K = 0.17831$; $\varepsilon L = 0.022388$; $\varepsilon M = 0.005531$
(3.79×10^3 11)	1690.9	4.5 4	1.04 10	5.37 5	5.5 5	av $E\beta = 1211.95$ 14; $\varepsilon K = 0.16372$; $\varepsilon L = 0.020551$; $\varepsilon M = 0.005077$
(3.88×10^3 11)	1599.1	1.5 5	0.31 9	5.91 13	1.8 5	av $E\beta = 1254.7$ 3; $\varepsilon K = 0.15064$; $\varepsilon L = 0.018904$; $\varepsilon M = 0.004670$
(3.98×10^3 11)	1502.6	0.4 4		6.6 5	0.4 4	av $E\beta = 1299.81$ 24; $\varepsilon K = 0.13824$; $\varepsilon L = 0.017342$; $\varepsilon M = 0.004284$
(4.01×10^3 11)	1473.8	0.4 5		6.6 6	0.4 5	av $E\beta = 1313.28$ 24; $\varepsilon K = 0.13479$; $\varepsilon L = 0.016907$;

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^{101}Cd ε decay **1980Ka05** (continued) ε, β^+ radiations (continued)

E(decay)	E(level)	$I\beta^+$ †	$I\varepsilon$ †	Log <i>ft</i>	$I(\varepsilon + \beta^+)$ †	Comments
(4.06×10^3 <i>11</i>)	1417.5	5.5 3	0.96 5	5.47 3	6.5 3	$\varepsilon M^+ = 0.004176$ av $E\beta = 1339.63$ 10; $\varepsilon K = 0.12833$; $\varepsilon L = 0.016095$; $\varepsilon M^+ = 0.003976$
(4.12×10^3 <i>11</i>)	1357.4	3.0 5	0.49 7	5.77 7	3.5 5	av $E\beta = 1367.80$ 14; $\varepsilon K = 0.12186$; $\varepsilon L = 0.015281$; $\varepsilon M^+ = 0.003774$
(4.16×10^3 <i>11</i>)	1324.6	2.0 3	0.32 5	5.97 6	2.3 3	av $E\beta = 1383.18$ 19; $\varepsilon K = 0.11850$; $\varepsilon L = 0.014859$; $\varepsilon M^+ = 0.003670$
(4.18×10^3 <i>11</i>)	1301.1	2.6 5	0.40 7	5.87 8	3.0 5	av $E\beta = 1394.21$ 10; $\varepsilon K = 0.11616$; $\varepsilon L = 0.014565$; $\varepsilon M^+ = 0.003597$
(4.19×10^3 <i>11</i>)	1285.2	1.6 5	0.24 7	6.10 13	1.8 5	av $E\beta = 1401.67$ 14; $\varepsilon K = 0.11462$; $\varepsilon L = 0.014370$; $\varepsilon M^+ = 0.003549$
(4.28×10^3 <i>11</i>)	1196.0	1.6 5		6.20 14	1.6 5	av $E\beta = 1443.58$ 19; $\varepsilon K = 0.10640$; $\varepsilon L = 0.013336$; $\varepsilon M^+ = 0.003294$
(4.46×10^3 <i>11</i>)	1022.6	3.9 4	0.47 5	5.86 5	4.4 4	av $E\beta = 1525.25$ 10; $\varepsilon K = 0.09244$; $\varepsilon L = 0.011582$; $\varepsilon M^+ = 0.002860$
(4.52×10^3 <i>11</i>)	961.0	1.4 3	0.16 3	6.33 9	1.6 3	av $E\beta = 1554.31$ 19; $\varepsilon K = 0.08805$; $\varepsilon L = 0.011030$; $\varepsilon M^+ = 0.002724$
(4.68×10^3 <i>11</i>)	797.4	1.09 11	0.108 11	6.55 5	1.2	av $E\beta = 1631.64$ 15; $\varepsilon K = 0.07761$; $\varepsilon L = 0.009719$
(5.21×10^3 <i>11</i>)	274.0	0.4 8		7.3 9	0.4 8	av $E\beta = 1880.25$ 10; $\varepsilon K = 0.05335$; $\varepsilon L = 0.006675$
(5.38×10^3 <i>11</i>)	98.1	8.6 9	0.50 5	6.00 5	9.1	av $E\beta = 1964.17$ 10; $\varepsilon K = 0.04746$; $\varepsilon L = 0.005936$

† Absolute intensity per 100 decays.

¹⁰¹Cd ε decay **1980Ka05** (continued)

γ(¹⁰¹Ag)

I_γ normalization: from ΣI_γ to g.s.=100, and assumed no Iβ to g.s.

E _γ [‡]	I _γ ^{‡#}	E _i (level)	J _i ^π	E _f	J _f ^π	Mult. [†]	δ	α [@]	Comments
46.1 2	0.9	797.4	(5/2 ⁻)	750.4	(3/2 ⁻)	D			Mult.: From intensity balance at the 750 level, α≤1.8, Compared with theory of 1.44 for E1, 3.44 for M1, this suggests E1, The author suggest π(750)=-, which requires mult=M1,so d is adopted.
98.1 2	100	98.1	7/2 ⁺	0	9/2 ⁺	M1+E2	0.52 18	0.68 13	α(K)exp=0.56 9
163.3 5	0.3	961.0	(3/2 ⁺ ,5/2 ⁻)	797.4	(5/2 ⁻)				
176.2 2	12.0	274.0	1/2 ⁻	98.1	7/2 ⁺	E3		1.11	α(K)= 0.776; α(L)= 0.274; α(M)= 0.0543; α(N+..)=0.00992 α(K)exp=0.805 12; K/L=2.4 2 B(E3)(W.u.)=0.0581 11
210.4 5	0.3	961.0	(3/2 ⁺ ,5/2 ⁻)	750.4	(3/2 ⁻)				
234.6 5	0.3	1196.0	(5/2 ⁺ ,7/2)	961.0	(3/2 ⁺ ,5/2 ⁻)				
278.2 5	0.9	1301.1	(5/2 ⁺ ,7/2 ⁺)	1022.6	(5/2 ⁺ ,7/2 ⁺)				
308.9 5	4.3	2130.0	(5/2 ⁺ ,7/2 ⁺)	1820.6	(5/2 ⁺ ,7/2 ⁺)				
334.7 5	1.3	2130.0	(5/2 ⁺ ,7/2 ⁺)	1794.8	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)				
366.3 5	0.3	1690.9	(5/2 ⁺ ,7/2 ⁺)	1324.6	(5/2 ⁺ ,7/2)				
394.6 5	0.8	1417.5	(5/2 ⁺ ,7/2 ⁺)	1022.6	(5/2 ⁺ ,7/2 ⁺)				
403.5 5	0.4	1820.6	(5/2 ⁺ ,7/2 ⁺)	1417.5	(5/2 ⁺ ,7/2 ⁺)				
405.2 5	1.3	1690.9	(5/2 ⁺ ,7/2 ⁺)	1285.2	(3/2 ⁺)				
446.3 7	0.7	2875.7	(5/2 ⁺ ,7/2 ⁺)	2429.7	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)				
476.5 2	3.8	750.4	(3/2 ⁻)	274.0	1/2 ⁻				
487.7 5	0.3	1285.2	(3/2 ⁺)	797.4	(5/2 ⁻)				
493.8 5	0.9	1794.8	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1301.1	(5/2 ⁺ ,7/2 ⁺)				
523.4 2	10.7	797.4	(5/2 ⁻)	274.0	1/2 ⁻	E2			α(K)=0.00479 7; α(L)=0.000613 9; α(M)=0.0001167 17; α(N+..)=2.08×10 ⁻⁵ 3 α(N)=2.00×10 ⁻⁵ 3; α(O)=8.42×10 ⁻⁷ 12 α(K)exp=0.0060 8
535.0 5	0.4	1285.2	(3/2 ⁺)	750.4	(3/2 ⁻)				
570.7 5	0.5	2391.2	(5/2 ⁺ ,7/2 ⁺)	1820.6	(5/2 ⁺ ,7/2 ⁺)				
609.1 5	3.9	2429.7	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1820.6	(5/2 ⁺ ,7/2 ⁺)	M1,E2			α(K)=0.00333; α(L)=0.00039 α(K)exp=0.0031 7
635.0 5	1.0	2429.7	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1794.8	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)				
637.9 2	5.1	1599.1	(1/2 to 7/2) ⁺	961.0	(3/2 ⁺ ,5/2 ⁻)	E1			α(K)=0.00100; α(L)=0.00012 α(K)exp=0.0018 7
652.8 7	0.7	2154.9		1502.6					
677.4 5	1.6	1473.8	(3/2 ⁺ ,5/2 ⁺ ,7/2)	797.4	(5/2 ⁻)				
682.0 7	0.8	2154.9		1473.8	(3/2 ⁺ ,5/2 ⁺ ,7/2)				
686.9 2	9.1	961.0	(3/2 ⁺ ,5/2 ⁻)	274.0	1/2 ⁻	M1,E2			α(K)=0.00240 12; α(L)=0.000289 7; α(M)=5.49×10 ⁻⁵ 13; α(N+..)=9.9×10 ⁻⁶ 3

¹⁰¹Cd ε decay **1980Ka05** (continued)

γ(¹⁰¹Ag) (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>
							α(N)=9.5×10 ⁻⁶ 3; α(O)=4.4×10 ⁻⁷ 3 α(K)exp=0.0022 3
690.0 7	1.0	2679.6	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1990.2	(5/2 ⁺ ,7/2 ⁺)		
700.5 8	1.3	2059.0	(5/2 ⁺ ,7/2 ⁺)	1357.4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		
705.8 & 7	2.6 &	1502.6		797.4	(5/2 ⁻)		
705.8 & 2	2.6 &	1990.2	(5/2 ⁺ ,7/2 ⁺)	1285.2	(3/2 ⁺)		
728.8 5	1.7	2787.7	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	2059.0	(5/2 ⁺ ,7/2 ⁺)	M1,E2	α(K)=0.00220; α(L)=0.00026 α(K)exp=0.0028 7
757.7 5	0.6	2059.0	(5/2 ⁺ ,7/2 ⁺)	1301.1	(5/2 ⁺ ,7/2 ⁺)		
772.4 5	1.8	2130.0	(5/2 ⁺ ,7/2 ⁺)	1357.4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		
796.0 5	0.4	2153.5		1357.4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		
798.0 5	0.4	1820.6	(5/2 ⁺ ,7/2 ⁺)	1022.6	(5/2,7/2) ⁺		
924.7 2	14.6	1022.6	(5/2,7/2) ⁺	98.1	7/2 ⁺	M1,E2	α(K)=0.00120 9; α(L)=0.000141 8; α(M)=2.68×10 ⁻⁵ 15; α(N+..)=4.9×10 ⁻⁶ 3 α(N)=4.6×10 ⁻⁶ 3; α(O)=2.18×10 ⁻⁷ 18 α(K)exp=0.00112 14
950.3 5	0.9	3380.0	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	2429.7	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		
969.6 5	0.8	2386.7		1417.5	(5/2 ⁺ ,7/2 ⁺)		
974.1 5	2.6	2391.2	(5/2 ⁺ ,7/2 ⁺)	1417.5	(5/2 ⁺ ,7/2 ⁺)		
1011.4 5	0.8	1285.2	(3/2 ⁺)	274.0	1/2 ⁻		
1022.6 5	4.6	1022.6	(5/2,7/2) ⁺	0	9/2 ⁺		
1072.0 5	0.6	2429.7	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1357.4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		
1098.0 ^a 5	1.0 ^a	1196.0	(5/2 ⁺ ,7/2)	98.1	7/2 ⁺		
1098.0 ^a 5	0.8 ^a	2455.0	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1357.4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)		
1108.6 7	0.9	2130.0	(5/2 ⁺ ,7/2 ⁺)	1022.6	(5/2,7/2) ⁺		
1130.0 7	1.0	2429.7	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1301.1	(5/2 ⁺ ,7/2 ⁺)		
1153.8 5	1.0	2455.0	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1301.1	(5/2 ⁺ ,7/2 ⁺)		
1187.3 5	5.9	1285.2	(3/2 ⁺)	98.1	7/2 ⁺	(E2)	α(K)=0.00064 α(K)exp=0.00082 18 Mult.: From Adopted Levels, gammas.
1196.4 5	1.5	1196.0	(5/2 ⁺ ,7/2)	0	9/2 ⁺		
1203.0 2	10.3	1301.1	(5/2 ⁺ ,7/2 ⁺)	98.1	7/2 ⁺		
1227.0 5	1.5	1324.6	(5/2 ⁺ ,7/2)	98.1	7/2 ⁺		
1258.9 2	17.4	1357.4	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	98.1	7/2 ⁺	M1,E2	α(K)=0.00057 α(K)exp=0.00062 8
1285.4 5	1.4	2308.0		1022.6	(5/2,7/2) ⁺		
1301.1 5	0.6	1301.1	(5/2 ⁺ ,7/2 ⁺)	0	9/2 ⁺		
1308.7 7	0.8	2269.9		961.0	(3/2,5/2) ⁻		
1319.5 5	4.1	1417.5	(5/2 ⁺ ,7/2 ⁺)	98.1	7/2 ⁺		
1324.6 2	3.8	1324.6	(5/2 ⁺ ,7/2)	0	9/2 ⁺		
1331.8 6	5.3	2130.0	(5/2 ⁺ ,7/2 ⁺)	797.4	(5/2 ⁻)		
1408.4 7	0.8	2429.7	(3/2 ⁺ ,5/2 ⁺ ,7/2 ⁺)	1022.6	(5/2,7/2) ⁺		

5

¹⁰¹Cd ε decay **1980Ka05** (continued)

γ(¹⁰¹Ag) (continued)

E_γ ‡	I_γ ‡#	E_i (level)	J_i^π	E_f	J_f^π	Mult. †	Comments
1417.1 2	12.3	1417.5	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺	M1, E2	$\alpha(K)\text{exp}=0.00060\ 8$
1430.7 5	1.1	2787.7	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1357.4	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)		
1491.6 5	1.2	2909.1	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1417.5	(5/2 ⁺ , 7/2 ⁺)		
1586.8 5	2.4	2943.5	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1357.4	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)		
1592.6 2	3.9	1690.9	(5/2, 7/2) ⁺	98.1	7/2 ⁺		
1631.4 5	5.3	2429.7	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	797.4	(5/2 ⁻)		
1642.4 5	1.6	2943.5	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1301.1	(5/2 ⁺ , 7/2 ⁺)		
1656.5 7	2.8	2679.6	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1022.6	(5/2, 7/2) ⁺		
1685.7 5	1.5	1783.4	(5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
1690.9 2	7.2	1690.9	(5/2, 7/2) ⁺	0	9/2 ⁺		
1696.7 2	9.1	1794.8	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
1722.5 5	24.1	1820.6	(5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
1761.7 5	2.5	1859.7	(5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
1783.1 5	0.7	1783.4	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺		
1796.6 2	3.9	1894.7	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
1801.6 5	1.2	3400.7	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1599.1	(1/2 to 7/2) ⁺		
1820.6 5	0.7	1820.6	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺		
1842.0 5	1.1	3259.1	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1417.5	(5/2 ⁺ , 7/2 ⁺)		
1853.0 5	0.8	2875.7	(5/2 ⁺ , 7/2 ⁺)	1022.6	(5/2, 7/2) ⁺		
1859.7 2	9.1	1859.7	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺		
1892.0 5	1.4	1990.2	(5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
1960.9 5	5.0	2059.0	(5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
1983.5 5	0.8	3006.1	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1022.6	(5/2, 7/2) ⁺		
1990.2 ^a 5	1.9 ^a	1990.2	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺		
1990.2 ^a 5	1.0 ^a	2787.7	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	797.4	(5/2 ⁻)		
2012.9 7	0.8	3430.0	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1417.5	(5/2 ⁺ , 7/2 ⁺)		
2032.5 7	0.9	2130.0	(5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
2055.4 7	0.8	2154.9		98.1	7/2 ⁺		
2059.0 5	0.3	2059.0	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺		
2130.0 5	2.9	2130.0	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺		
2139.2 7	0.9	3162.4	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	1022.6	(5/2, 7/2) ⁺		
2146.0 5	0.3	2243.5		98.1	7/2 ⁺		
2190.7 7	0.6	2940.4	(5/2 ⁺)	750.4	(3/2 ⁻)		
2243.5 5	1.1	2243.5		0	9/2 ⁺		
2293.3 7	0.4	2391.2	(5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
2391.2 7	0.4	2391.2	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺		
2431.5 5	0.4	3229.2	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	797.4	(5/2 ⁻)		
2776.1 7	1.2	2875.7	(5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		
2841.9 5	3.7	2940.4	(5/2 ⁺)	98.1	7/2 ⁺		
2875.7 5	0.5	2875.7	(5/2 ⁺ , 7/2 ⁺)	0	9/2 ⁺		
2940.0 5	0.4	2940.4	(5/2 ⁺)	0	9/2 ⁺		
3064.9 7	0.4	3162.4	(3/2 ⁺ , 5/2 ⁺ , 7/2 ⁺)	98.1	7/2 ⁺		

¹⁰¹Cd ε decay 1980Ka05 (continued)

$\gamma(^{101}\text{Ag})$ (continued)

† From $\alpha(\text{K})_{\text{exp}}$.

‡ Authors state $\Delta E_{\gamma} \approx 0.2$ and $\Delta I_{\gamma} \approx 6\%$. In the case of doublets, these values may increase to 0.7 keV and 20%.

For absolute intensity per 100 decays, multiply by 0.472 5.

@ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

& Multiply placed with undivided intensity.

^a Multiply placed with intensity suitably divided.

¹⁰¹Cd ε decay 1980Ka05

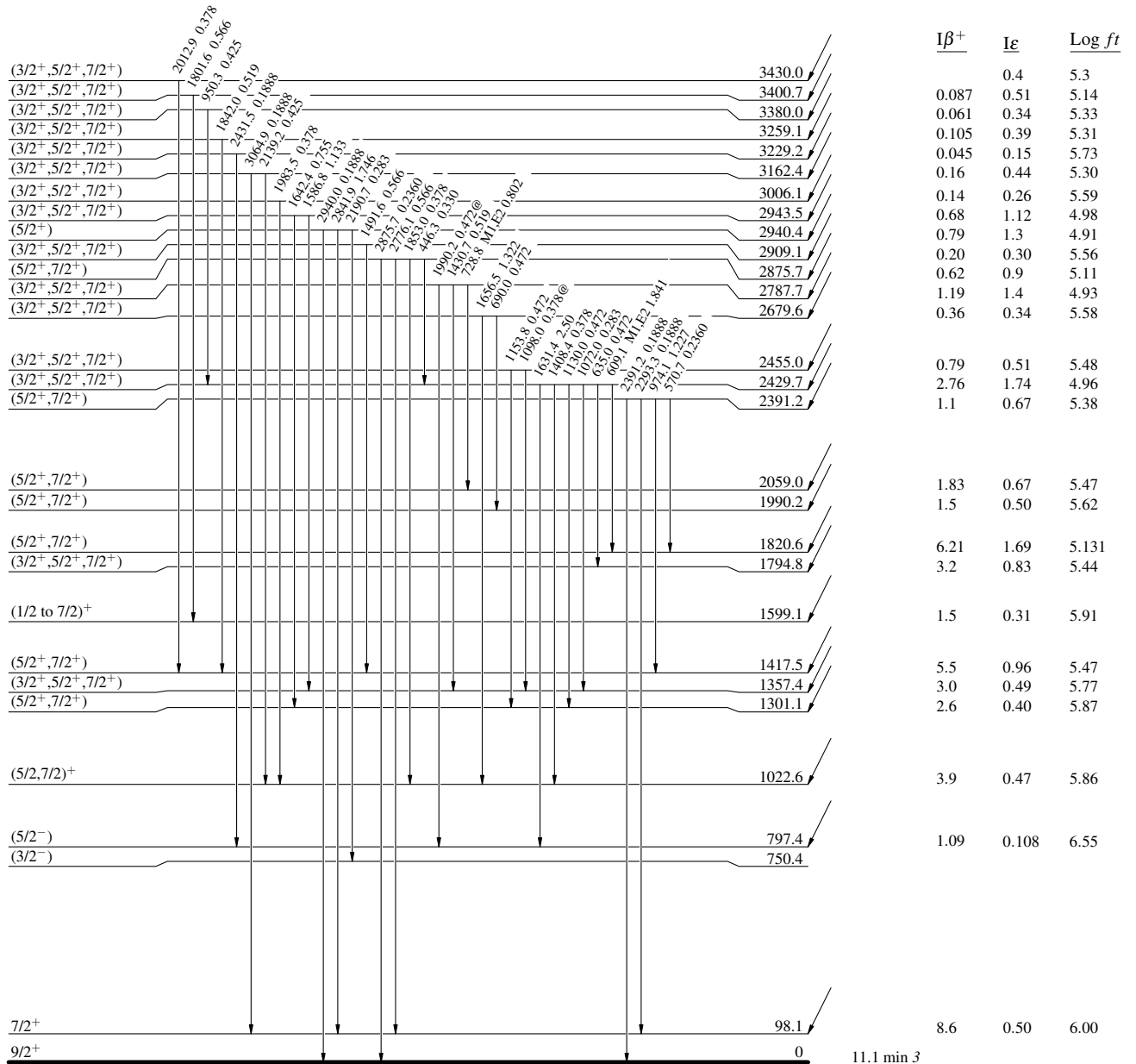
Decay Scheme

Intensities: I_(γ+ce) per 100 parent decays
@ Multiply placed: intensity suitably divided

Legend

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

$\frac{(5/2^+)}{0} \quad 1.36 \text{ min } 5$
 $Q_\epsilon = 5.48 \times 10^3 \text{ II}$
¹⁰¹Cd₅₃



¹⁰¹Ag₅₄

11.1 min 3

¹⁰¹Cd ε decay 1980Ka05

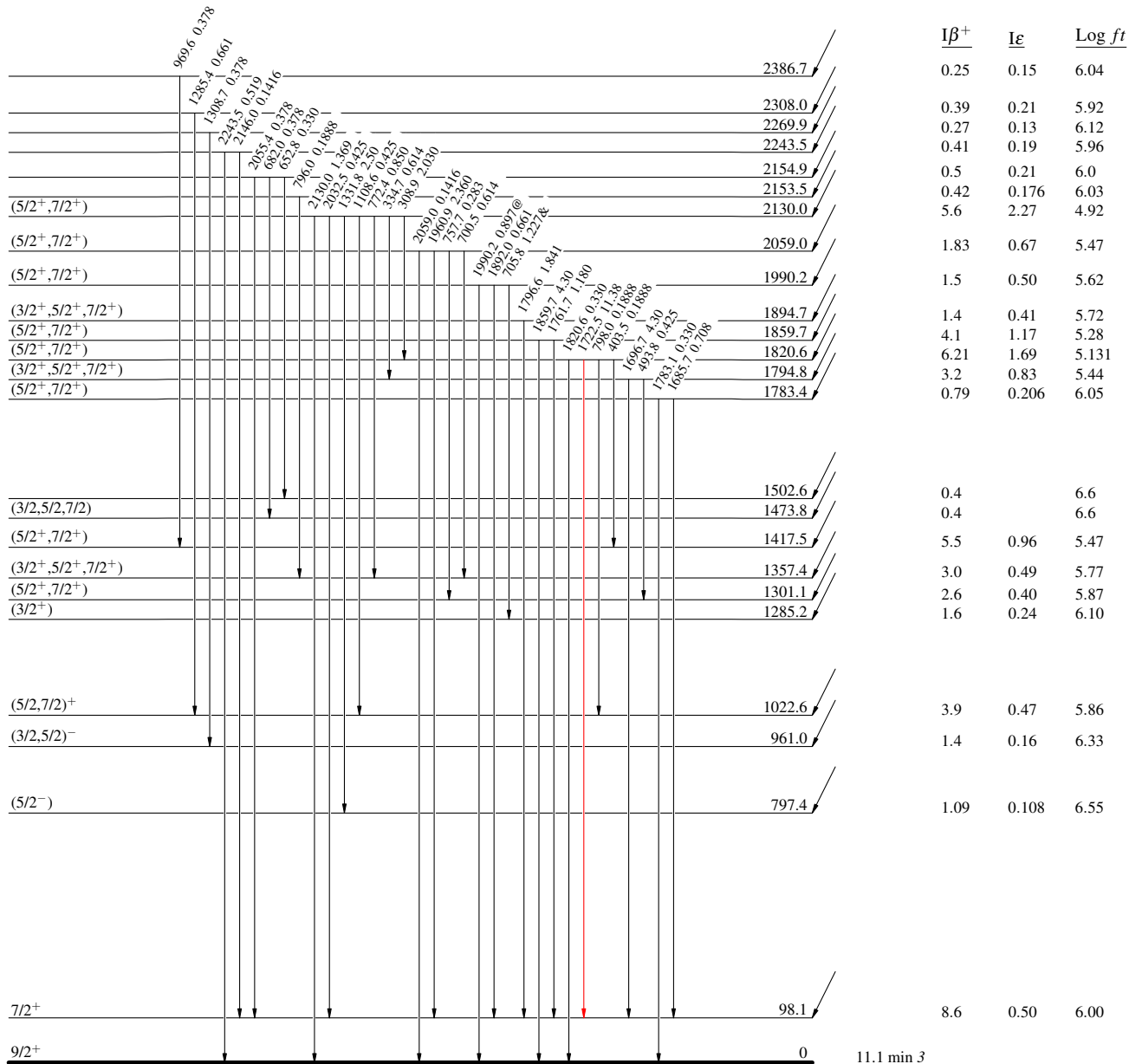
Decay Scheme (continued)

Intensities: I_(γ+ce) per 100 parent decays
& 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}

¹⁰¹Cd₄₈⁵³ (5/2⁺) 0 1.36 min 5
 Q_ε = 5.48 × 10³ keV
 %ε + %β⁺ = 100



¹⁰¹Ag₄₇⁵⁴

¹⁰¹Cd ε decay 1980Ka05

Decay Scheme (continued)

Intensities: I_(γ+ce) per 100 parent decays
& 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}

¹⁰¹Cd₅₃ (5/2⁺) 0 1.36 min 5
 Q_ε = 5.48 × 10³ II
 %ε + %β⁺ = 100

