

^{112}Ag β^- decay (3.130 h) [1972Wa03](#),[1970Ma45](#),[1968Li13](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, F. G. Kondev		NDS 124, 157 (2015)	1-Aug-2014

Parent: ^{112}Ag : $E=0.0$; $J^\pi=2^-$; $T_{1/2}=3.130$ h 8; $Q(\beta^-)=3992.1$ 25; $\% \beta^-$ decay=100.0

[1972Wa03](#): Facility: INS (New Zealand) Van de Graaff accelerator; Sources: produced in $^{112}\text{Cd}(n,p)$ and $^{115}\text{In}(n,\alpha)$ reactions.

Neutrons generated in $^3\text{H}(d,n)$ reaction. Natural Cd and In targets. Chemically separated activity; Detectors: one Ge(Li), two NaI(Tl); Measured: $E\gamma$, $I\gamma$, $\gamma\text{-}\gamma$, $\gamma\text{-}\gamma(\theta)$ coinc.; Deduced: ^{112}Cd levels, J^π , δ , Branching, $\log ft$.

[1970Ma45](#): Facility: McMaster University reactor; Source: chemically separated ^{112}Pd from 300 mg U_3O_8 irradiated with 2.5×10^{13} N.cm $^{-2}$.sec $^{-1}$; Detectors: two Ge(Li) and one NaI(Tl); Measured: γ , $\gamma\text{-}\gamma$ coinc., $E\gamma$, $I\gamma$; Deduced: ^{112}Cd level scheme, J^π .

[1968Li13](#): Facility: IKO (Amsterdam) synchrotron; Source: chemically separated ^{112}Ag from Th+d reaction with $E(d)=25$ MeV. ^{112}Ag in equilibrium with ^{112}Pd ; Detectors: one Ge(Li); Measured: γ , $I\gamma$, $E\gamma$; Deduced: ^{112}Cd level scheme, J^π .

[1962In01](#): Facility: Osaka University cyclotron; Source: chemically separated ^{112}Ag produced in $^{114}\text{Cd}(d,\alpha)$ reaction with $E(d)=11$ MeV; Detectors: β -spectrometer, Geiger-Muller counter, two NaI(Tl); Measured: β , γ , $\beta\text{-}\gamma$, $\gamma\text{-}\gamma$, $\gamma\text{-}\gamma(\theta)$ coinc., $E\beta$, $I\beta$, $I\gamma$, $E\gamma$; Deduced: ^{112}Cd level scheme, J^π , $\log ft$.

Others: [2011Ga10](#), [2009Gr10](#), [1970Ma45](#), [1969Sa09](#), [1957Je07](#).

 ^{112}Cd Levels

E(level) [†]	J^π [‡]	Comments
0.0	0 ⁺	
617.519 3	2 ⁺	
1224.344 5	0 ⁺	
1312.391 8	2 ⁺	
1415.57 5	4 ⁺	
1433.280 17	0 ⁺	
1468.819 15	2 ⁺	
1870.75 6	4 ⁺	E(level): Level observed only in 2009Gr10 .
1871.23 7	0 ⁺	
2005.18 3	3 ⁻	
2064.53 3	3 ⁺	$E\gamma=2066.0$ 16 with $I\gamma=0.030$ 8 is tentatively reported in 1972Wa03 , but it was not adopted.
2081.74 5	4 ⁺	
2156.22 6	2 ⁺	
2231.17 5	2 ⁺	
2416.01 5	3 ⁻	
2506.36 [#] 7	(2) ⁺	
2506.68 [#] 7	1 ⁻	
2668.94 7	(2) ⁻	
2674.04 18	2 ⁺	
2723.95 7	2 ⁺	
2765.75 6	2 ⁺	
2829.19 7	1 ⁻	
2866.79 [#] 6	3 ⁻	
2867.47 [#] 6	(3) ⁺	
2962.0 7	2 ⁺	
3068.64 6	4 ⁺	
3130.85 [#] 7	5 ⁻	
3133.42 [#] 9	1 ⁻	
3169.48 7	2 ⁺	
3231.60 7	1 ⁺	
3303.25 14	(2,3) ⁺	
3369.62 7	(0 ⁺ to 4 ⁺)	
3393.3 10	(1,2 ⁺)	

Continued on next page (footnotes at end of table)

^{112}Ag β^- decay (3.130 h) [1972Wa03](#),[1970Ma45](#),[1968Li13](#) (continued) ^{112}Cd Levels (continued)

$E(\text{level})^\dagger$	$J^\pi^\ddagger$
3470.3 12	$2^+, 3, 4^+$
3478.7 9	0^+ to 4^+

[†] From a least-squares fit to E_γ .[‡] From the Adopted Levels.# Unresolved doublet in [1972Wa03](#) and [1970Ma45](#). β^- radiations

$E(\text{decay})$	$E(\text{level})$	$I\beta^-^\dagger$	$\text{Log } f t$	Comments
(513 3)	3478.7	0.034 7	7.91 9	av $E\beta=159.31$ 96
(522 3)	3470.3	0.0170 19	8.23 5	av $E\beta=162.3$ 10
(599 3)	3393.3	0.0170 23	8.44 6	av $E\beta=190.6$ 10
(622 3)	3369.62	0.161 20	7.52 6	av $E\beta=199.44$ 94
(689 3)	3303.25	0.31 5	7.39 7	av $E\beta=224.63$ 96
(761 3)	3231.60	0.0059 7	9.27 6	av $E\beta=252.40$ 98
(823 3)	3169.48	0.19 3	7.88 7	av $E\beta=276.9$ 10
(859 3)	3133.42	0.0059 7	9.46 6	av $E\beta=291.3$ 10
(861 3)	3130.85	0.27 4	7.80 7	av $E\beta=292.3$ 10
(923 3)	3068.64	0.23 3	8.47 ^{1u} 6	av $E\beta=333.89$ 99
(1030 3)	2962.0	0.026 7	9.10 12	av $E\beta=361.2$ 11
(1125 3)	2867.47	0.043 10	9.03 11	av $E\beta=400.7$ 11
(1125 3)	2866.79	0.46 6	8.00 6	av $E\beta=401.0$ 11
(1163 3)	2829.19	0.82 11	7.80 6	av $E\beta=416.9$ 11
(1226 3)	2765.75	0.135 18	8.67 6	av $E\beta=443.8$ 11
(1268 3)	2723.95	2.8 4	7.41 7	av $E\beta=461.7$ 11
(1318 3)	2674.04	0.58 9	8.16 7	av $E\beta=483.2$ 11
(1323 3)	2668.94	0.58 8	8.17 6	av $E\beta=485.4$ 11
(1485 3)	2506.68	1.25 19	8.03 7	av $E\beta=556.1$ 11
(1486 3)	2506.36	0.37 5	8.56 6	av $E\beta=556.3$ 11
(1576 3)	2416.01	1.43 19	8.07 6	av $E\beta=596.1$ 11
(1761 3)	2231.17	3.1 5	7.92 7	av $E\beta=678.5$ 12
(1836 3)	2156.22	0.57 8	8.73 7	av $E\beta=712.2$ 12
(1928 3)	2064.53	0.053 16	9.85 14	av $E\beta=753.7$ 12
(1987 3)	2005.18	5.6 9	7.88 7	av $E\beta=780.6$ 12
(2121 3)	1871.23	0.38 6	10.27 ^{1u} 7	av $E\beta=842.5$ 12
(2523 3)	1468.819	2.3 3	8.69 6	av $E\beta=1027.1$ 12
(2559 3)	1433.280	0.18 3	11.08 ^{1u} 8	av $E\beta=1039.7$ 12
(2577 3)	1415.57	0.23 6	10.99 ^{1u} 12	av $E\beta=1047.8$ 12
(2680 3)	1312.391	1.6 4	8.96 11	av $E\beta=1099.8$ 12
(2768 3)	1224.344	2.4 5	10.16 ^{1u} 9	av $E\beta=1135.0$ 12
(3375 3)	617.519	20.0 23	8.28 5	av $E\beta=1425.5$ 12
3940 40	0.0	54 5	9.78 ^{1u} 4	av $E\beta=1703.3$ 12

 $I\beta^-$: from [1962In01](#), but the uncertainty was assigned by the evaluators.[†] Absolute intensity per 100 decays.

$\gamma(^{112}\text{Cd})$

I γ normalization: from Σ I γ (to g.s.)+I β^- (to g.s.)=100 with I β^- (g.s.)=54.5 (1962In01), but the 10% uncertainty was assumed by the evaluators.

E_γ [†]	I γ ^{†c}	E_i (level)	J_i^π	E_f	J_f^π	Mult. [†]	δ ^{†b}	α ^a	I $_{(\gamma+ce)}$ ^c	Comments
120.68 10	0.18 [#] 2	1433.280	0 ⁺	1312.391	2 ⁺	E2		0.766		$\alpha(K)=0.597$ 9; $\alpha(L)=0.1367$ 20; $\alpha(M)=0.0270$ 4 $\alpha(N)=0.00453$ 7; $\alpha(O)=0.0001141$ 17
^x 147.9 2	0.030 8									
^x 159.5 3	0.030 8									
208.93 3	^{&}	1433.280	0 ⁺	1224.344	0 ⁺	E0			0.020 4	
211.0 3		2081.74	4 ⁺	1870.75	4 ⁺	[M1]		0.0597		$\alpha(K)=0.0519$ 8; $\alpha(L)=0.00638$ 10; $\alpha(M)=0.001226$ 18 $\alpha(N)=0.000218$ 4; $\alpha(O)=1.261 \times 10^{-5}$ 19
226.0 3	0.040 [#] 11	2231.17	2 ⁺	2005.18	3 ⁻	[E1]		0.01665		$\alpha(K)=0.01452$ 21; $\alpha(L)=0.00174$ 3; $\alpha(M)=0.000332$ 5 $\alpha(N)=5.87 \times 10^{-5}$ 9; $\alpha(O)=3.18 \times 10^{-6}$ 5
244.86 23	1.0 [#] 3	1468.819	2 ⁺	1224.344	0 ⁺	(E2)		0.0641		$\alpha(K)=0.0538$ 8; $\alpha(L)=0.00840$ 13; $\alpha(M)=0.001633$ 24 $\alpha(N)=0.000282$ 4; $\alpha(O)=1.143 \times 10^{-5}$ 17
^x 278.3 [‡] 10	0.08 [‡]									
^x 342.3 3	0.04 1									
401.88 13		1870.75	4 ⁺	1468.819	2 ⁺	E2		0.01277		$\alpha(K)=0.01093$ 16; $\alpha(L)=0.001492$ 21; $\alpha(M)=0.000288$ 4 $\alpha(N)=5.04 \times 10^{-5}$ 7; $\alpha(O)=2.44 \times 10^{-6}$ 4
402.50 16	0.097 ^{&} 15	1871.23	0 ⁺	1468.819	2 ⁺	E2		0.01271		$\alpha(K)=0.01088$ 16; $\alpha(L)=0.001485$ 21; $\alpha(M)=0.000287$ 4 $\alpha(N)=5.02 \times 10^{-5}$ 7; $\alpha(O)=2.43 \times 10^{-6}$ 4 I γ : 0.10 2 in 1972Wa03.
411.39 23	0.27 [#] 3	2416.01	3 ⁻	2005.18	3 ⁻	M1+E2	-0.35 +18-23	0.01087 23		$\alpha(K)=0.00945$ 18; $\alpha(L)=0.00115$ 4; $\alpha(M)=0.000222$ 8 $\alpha(N)=3.95 \times 10^{-5}$ 13; $\alpha(O)=2.26 \times 10^{-6}$ 4
450.75 10	0.084 ^{&} 9	2866.79	3 ⁻	2416.01	3 ⁻	M1+E2	+0.73 +69-71	0.00873 20		$\alpha(K)=0.00757$ 15; $\alpha(L)=0.00094$ 5; $\alpha(M)=0.000182$ 10 $\alpha(N)=3.22 \times 10^{-5}$ 16; $\alpha(O)=1.78 \times 10^{-6}$ 3 I γ : 0.08 2 in 1972Wa03.
455.26 13		1870.75	4 ⁺	1415.57	4 ⁺	M1+E2	+2.7 +4-3	0.00871		$\alpha(K)=0.00750$ 11; $\alpha(L)=0.000987$ 15; $\alpha(M)=0.000190$ 3 $\alpha(N)=3.35 \times 10^{-5}$ 5; $\alpha(O)=1.706 \times 10^{-6}$ 24
^x 528.9 [‡] 10	0.04 [‡]									
536.31 10	0.139 ^{&} 21	2005.18	3 ⁻	1468.819	2 ⁺	E1		0.00181		$\alpha(K)=0.001581$ 23; $\alpha(L)=0.000186$ 3;

¹¹²Ag β⁻ decay (3.130 h) [1972Wa03](#),[1970Ma45](#),[1968Li13](#) (continued)

γ(¹¹²Cd) (continued)

E _γ [†]	I _γ ^{†c}	E _i (level)	J _i ^π	E _f	J _f ^π	Mult. [†]	δ ^{†b}	α ^a	Comments
									α(M)=3.54×10 ⁻⁵ 5 α(N)=6.30×10 ⁻⁶ 9; α(O)=3.61×10 ⁻⁷ 5 I _γ : 0.120 12 in 1972Wa03 . α(K)=0.00421 6; α(L)=0.000542 8; α(M)=0.0001042 15 α(N)=1.84×10 ⁻⁵ 3; α(O)=9.62×10 ⁻⁷ 14
558.39 11		1870.75	4 ⁺	1312.391	2 ⁺	E2		0.00487	
558.7 5	0.030 [#] 8	1871.23	0 ⁺	1312.391	2 ⁺	E2		0.00487	α(K)=0.00420 6; α(L)=0.000541 8; α(M)=0.0001041 15 α(N)=1.83×10 ⁻⁵ 3; α(O)=9.61×10 ⁻⁷ 14
^x 569.8 3 ^x 585.4 3	0.100 25 0.090 20								
606.821 [‡] 6	7.2 [‡] 7	1224.344	0 ⁺	617.519	2 ⁺	E2		0.00388	α(K)=0.00336 5; α(L)=0.000427 6; α(M)=8.21×10 ⁻⁵ 12 α(N)=1.450×10 ⁻⁵ 21; α(O)=7.71×10 ⁻⁷ 11 α(K)=0.00327 5; α(L)=0.000415 6; α(M)=7.99×10 ⁻⁵ 12 α(N)=1.411×10 ⁻⁵ 20; α(O)=7.52×10 ⁻⁷ 11
612.88 25		2081.74	4 ⁺	1468.819	2 ⁺	E2		0.00378	
617.517 3	100 [#]	617.519	2 ⁺	0.0	0 ⁺	E2		0.00371	α(K)=0.00321 5; α(L)=0.000407 6; α(M)=7.82×10 ⁻⁵ 11 α(N)=1.381×10 ⁻⁵ 20; α(O)=7.37×10 ⁻⁷ 11
629.2 4	0.04 [#] 1	3303.25	(2,3) ⁺	2674.04	2 ⁺				
648.91 [‡] 10	0.026 ^{‡&} 6	2064.53	3 ⁺	1415.57	4 ⁺	M1+E2	-1.20 +20-15	0.00338 6	α(K)=0.00294 5; α(L)=0.000361 6; α(M)=6.93×10 ⁻⁵ 10 α(N)=1.230×10 ⁻⁵ 19; α(O)=6.89×10 ⁻⁷ 14 I _γ : 0.05 1 in 1972Wa03 .
^x 662.9 [‡] 10	0.1 [‡]								
663.59 15	0.071 ^{&} 7	2668.94	(2) ⁻	2005.18	3 ⁻	M1+E2	+1.3 +23-8	0.00319 15	α(K)=0.00277 14; α(L)=0.000340 9; α(M)=6.53×10 ⁻⁵ 17 α(N)=1.16×10 ⁻⁵ 4; α(O)=6.5×10 ⁻⁷ 5 I _γ : 0.07 2 in 1972Wa03 . α(K)=0.00289 4; α(L)=0.000345 5; α(M)=6.62×10 ⁻⁵ 10 α(N)=1.181×10 ⁻⁵ 17; α(O)=6.89×10 ⁻⁷ 10
666.17 6		2081.74	4 ⁺	1415.57	4 ⁺	M1+E2	-0.41 3	0.00331	α(K)=0.00247 22; α(L)=0.000307 15; α(M)=5.9×10 ⁻⁵ 3 α(N)=1.04×10 ⁻⁵ 6; α(O)=5.7×10 ⁻⁷ 7 I _γ : 0.10 2 in 1972Wa03 .
687.41 10	0.067 ^{&} 11	2156.22	2 ⁺	1468.819	2 ⁺	M1+E2	-2.3 19	0.00285 24	
692.82 3	2.8 ^{&} 3	2005.18	3 ⁻	1312.391	2 ⁺	E1		1.02×10 ⁻³	α(K)=0.000893 13; α(L)=0.0001041 15; α(M)=1.99×10 ⁻⁵ 3

¹¹²Ag β⁻ decay (3.130 h) 1972Wa03,1970Ma45,1968Li13 (continued)

γ(¹¹²Cd) (continued)

E _γ [†]	I _γ ^{†c}	E _i (level)	J _i ^π	E _f	J _f ^π	Mult. [†]	δ ^{†b}	α ^a	I _(γ+ce) ^c	Comments
694.872 7	6.9 7	1312.391	2 ⁺	617.519	2 ⁺	E2+M1	-4.0 7	0.00274		α(N)=3.54×10 ⁻⁶ 5; α(O)=2.05×10 ⁻⁷ 3 I _γ : 2.5 3 in 1972Wa03. α(K)=0.00238 4; α(L)=0.000296 5; α(M)=5.68×10 ⁻⁵ 8 α(N)=1.007×10 ⁻⁵ 15; α(O)=5.50×10 ⁻⁷ 8 Mult.,δ: A ₂ =0.13 4, A ₄ =0.31 8 (1972Wa03).
714.84 10	0.126 ^{&} 15	3130.85	5 ⁻	2416.01	3 ⁻	E2		0.00253		α(K)=0.00220 3; α(L)=0.000274 4; α(M)=5.25×10 ⁻⁵ 8 α(N)=9.30×10 ⁻⁶ 13; α(O)=5.08×10 ⁻⁷ 8 I _γ : 0.12 2 in 1972Wa03.
718.89 10	0.64 [#] 8	2723.95	2 ⁺	2005.18	3 ⁻	E1		9.43×10 ⁻⁴		α(K)=0.000825 12; α(L)=9.62×10 ⁻⁵ 14; α(M)=1.84×10 ⁻⁵ 3 α(N)=3.27×10 ⁻⁶ 5; α(O)=1.90×10 ⁻⁷ 3
752.14 3	0.09 [#] 2	2064.53	3 ⁺	1312.391	2 ⁺	M1+E2	-2.75 +23-17	0.00227		α(K)=0.00197 3; α(L)=0.000242 4; α(M)=4.65×10 ⁻⁵ 7 α(N)=8.24×10 ⁻⁶ 12; α(O)=4.58×10 ⁻⁷ 7
762.41 10	0.137 ^{&} 16	2231.17	2 ⁺	1468.819	2 ⁺	M1+E2	-1.4 +8-34	0.00226 13		α(K)=0.00196 12; α(L)=0.000239 10; α(M)=4.58×10 ⁻⁵ 18 α(N)=8.1×10 ⁻⁶ 4; α(O)=4.6×10 ⁻⁷ 4 I _γ : 0.12 2 in 1972Wa03.
769.36 10		2081.74	4 ⁺	1312.391	2 ⁺	E2		0.00211		α(K)=0.00183 3; α(L)=0.000226 4; α(M)=4.34×10 ⁻⁵ 6 α(N)=7.69×10 ⁻⁶ 11; α(O)=4.24×10 ⁻⁷ 6
784.91 10	0.093 ^{&} 12	2866.79	3 ⁻	2081.74	4 ⁺	E1		7.85×10 ⁻⁴		α(K)=0.000687 10; α(L)=7.99×10 ⁻⁵ 12; α(M)=1.524×10 ⁻⁵ 22 α(N)=2.72×10 ⁻⁶ 4; α(O)=1.580×10 ⁻⁷ 23 E _γ : Not observed in 1972Wa03 and 1970Ma45.
798.04 10	1.20 [#] 12	1415.57	4 ⁺	617.519	2 ⁺	E2		0.00193		I _γ : 0.04 in 1968Li13. α(K)=0.001676 24; α(L)=0.000206 3; α(M)=3.95×10 ⁻⁵ 6 α(N)=7.01×10 ⁻⁶ 10; α(O)=3.89×10 ⁻⁷ 6
802.3 4	0.07 [#] 2	2866.79	3 ⁻	2064.53	3 ⁺	[E1]		7.50×10 ⁻⁴		α(K)=0.000657 10; α(L)=7.63×10 ⁻⁵ 11; α(M)=1.456×10 ⁻⁵ 21 α(N)=2.59×10 ⁻⁶ 4; α(O)=1.511×10 ⁻⁷ 22
815.79 3	0.31 [#] 3	1433.280	0 ⁺	617.519	2 ⁺	E2		0.00183		α(K)=0.001589 23; α(L)=0.000195 3; α(M)=3.74×10 ⁻⁵ 6 α(N)=6.63×10 ⁻⁶ 10; α(O)=3.69×10 ⁻⁷ 6
842.8 [‡] 15	0.030 ^{#‡} 8	2156.22	2 ⁺	1312.391	2 ⁺	[M1]		0.00195		α(K)=0.001706 25; α(L)=0.000201 3;

¹¹²Ag β⁻ decay (3.130 h) [1972Wa03](#),[1970Ma45](#),[1968Li13](#) (continued)

<u>γ(¹¹²Cd) (continued)</u>										
<u>E_γ[†]</u>	<u>I_γ^{†c}</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.[†]</u>	<u>δ^{†b}</u>	<u>α^a</u>	<u>I_(γ+ce)^c</u>	<u>Comments</u>
851.285 15	2.4 [#] 3	1468.819	2 ⁺	617.519	2 ⁺	M1+E2+E0	+0.050 18	0.00195	4	α(M)=3.85×10 ⁻⁵ 6 α(N)=6.88×10 ⁻⁶ 10; α(O)=4.08×10 ⁻⁷ 6 α(K)=0.001667 24; α(L)=0.000196 3; α(M)=3.76×10 ⁻⁵ 6 α(N)=6.72×10 ⁻⁶ 10; α(O)=3.98×10 ⁻⁷ 6 Mult.,δ: A ₂ =0.07 7, A ₄ =0.03 16 and δ=+0.22 5 (1972Wa03). α: 0.00195 4 from adopted gammas.
861.68 10	0.51 [#] 5	2866.79	3 ⁻	2005.18	3 ⁻	M1(+E2)	+0.069 +89-69	0.00186		α(K)=0.001621 24; α(L)=0.000191 3; α(M)=3.66×10 ⁻⁵ 6 α(N)=6.53×10 ⁻⁶ 10; α(O)=3.87×10 ⁻⁷ 6
886.99 23	0.100 ^{&} 20	3303.25	(2,3) ⁺	2416.01	3 ⁻					
894.5 1	0.017 ^{&} 3	2765.75	2 ⁺	1871.23	0 ⁺	E2		1.47×10 ⁻³		α(K)=0.001280 18; α(L)=0.0001555 22; α(M)=2.98×10 ⁻⁵ 5 α(N)=5.29×10 ⁻⁶ 8; α(O)=2.98×10 ⁻⁷ 5 I _γ : 0.17 3 in 1972Wa03 .
918.72 10	0.180 ^{&} 20	2231.17	2 ⁺	1312.391	2 ⁺	M1+E2	+0.21 +20-13	0.00160 4		α(K)=0.00140 3; α(L)=0.000164 3; α(M)=3.14×10 ⁻⁵ 6 α(N)=5.62×10 ⁻⁶ 11; α(O)=3.33×10 ⁻⁷ 8 I _γ : 0.16 2 in 1972Wa03 .
946.92 10	0.20 ^{&} 3	2416.01	3 ⁻	1468.819	2 ⁺	E1		5.39×10 ⁻⁴		α(K)=0.000472 7; α(L)=5.46×10 ⁻⁵ 8; α(M)=1.043×10 ⁻⁵ 15 α(N)=1.86×10 ⁻⁶ 3; α(O)=1.089×10 ⁻⁷ 16 I _γ : 0.19 2 in 1972Wa03 .
957.1 10	0.02 [#] 1	2962.0	2 ⁺	2005.18	3 ⁻	[E1]		5.28×10 ⁻⁴		α(K)=0.000463 7; α(L)=5.35×10 ⁻⁵ 8; α(M)=1.021×10 ⁻⁵ 15 α(N)=1.82×10 ⁻⁶ 3; α(O)=1.066×10 ⁻⁷ 15

$\gamma(^{112}\text{Cd})$ (continued)

E_γ [†]	I_γ ^{†c}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	δ ^{†b}	α ^a	Comments
957.80 [‡] 19	0.080 ^{#‡} 10	2829.19	1 ⁻	1871.23	0 ⁺	E1		5.28×10 ⁻⁴	$\alpha(\text{K})=0.000462$ 7; $\alpha(\text{L})=5.34\times 10^{-5}$ 8; $\alpha(\text{M})=1.019\times 10^{-5}$ 15 $\alpha(\text{N})=1.82\times 10^{-6}$ 3; $\alpha(\text{O})=1.065\times 10^{-7}$ 15
983.8 3	0.12 [#] 2	2416.01	3 ⁻	1433.280	0 ⁺	[E3]		0.00249	$\alpha(\text{K})=0.00215$ 3; $\alpha(\text{L})=0.000279$ 4; $\alpha(\text{M})=5.38\times 10^{-5}$ 8 $\alpha(\text{N})=9.51\times 10^{-6}$ 14; $\alpha(\text{O})=5.08\times 10^{-7}$ 8
1006.81 10	0.27 ^{&} 3	2231.17	2 ⁺	1224.344	0 ⁺	E2		1.12×10 ⁻³	$\alpha(\text{K})=0.000979$ 14; $\alpha(\text{L})=0.0001177$ 17; $\alpha(\text{M})=2.25\times 10^{-5}$ 4 $\alpha(\text{N})=4.01\times 10^{-6}$ 6; $\alpha(\text{O})=2.28\times 10^{-7}$ 4 I_γ : 0.24 3 in 1972Wa03 .
1037.9 3	0.17 [#] 2	2506.68	1 ⁻	1468.819	2 ⁺	E1		4.53×10 ⁻⁴	$\alpha(\text{K})=0.000396$ 6; $\alpha(\text{L})=4.58\times 10^{-5}$ 7; $\alpha(\text{M})=8.73\times 10^{-6}$ 13 $\alpha(\text{N})=1.557\times 10^{-6}$ 22; $\alpha(\text{O})=9.15\times 10^{-8}$ 13
1063.49 10	0.2 [#]	3068.64	4 ⁺	2005.18	3 ⁻	E1		4.32×10 ⁻⁴	$\alpha(\text{K})=0.000379$ 6; $\alpha(\text{L})=4.37\times 10^{-5}$ 7; $\alpha(\text{M})=8.34\times 10^{-6}$ 12 $\alpha(\text{N})=1.487\times 10^{-6}$ 21; $\alpha(\text{O})=8.74\times 10^{-8}$ 13
^x 1063.7 3	0.18 18								
^x 1070.7 [‡] 10	0.08 [‡]								
1073.32 17	0.120 [#] 19	2506.68	1 ⁻	1433.280	0 ⁺	E1		4.25×10 ⁻⁴	$\alpha(\text{K})=0.000372$ 6; $\alpha(\text{L})=4.29\times 10^{-5}$ 6; $\alpha(\text{M})=8.19\times 10^{-6}$ 12 $\alpha(\text{N})=1.462\times 10^{-6}$ 21; $\alpha(\text{O})=8.59\times 10^{-8}$ 12
1103.58 10	0.99 ^{&} 10	2416.01	3 ⁻	1312.391	2 ⁺	E1		4.08×10 ⁻⁴	$\alpha(\text{K})=0.000354$ 5; $\alpha(\text{L})=4.08\times 10^{-5}$ 6; $\alpha(\text{M})=7.78\times 10^{-6}$ 11 $\alpha(\text{N})=1.387\times 10^{-6}$ 20; $\alpha(\text{O})=8.16\times 10^{-8}$ 12; $\alpha(\text{IPF})=4.47\times 10^{-6}$ 7 I_γ : 0.98 10 in 1972Wa03 .
1125.78 10	0.42 [#] 4	3130.85	5 ⁻	2005.18	3 ⁻	E2		8.81×10 ⁻⁴	$\alpha(\text{K})=0.000767$ 11; $\alpha(\text{L})=9.15\times 10^{-5}$ 13; $\alpha(\text{M})=1.751\times 10^{-5}$ 25 $\alpha(\text{N})=3.12\times 10^{-6}$ 5; $\alpha(\text{O})=1.79\times 10^{-7}$ 3; $\alpha(\text{IPF})=1.198\times 10^{-6}$ 18
1164.2 1		3169.48	2 ⁺	2005.18	3 ⁻	E1		3.86×10 ⁻⁴	$\alpha(\text{K})=0.000321$ 5; $\alpha(\text{L})=3.69\times 10^{-5}$ 6; $\alpha(\text{M})=7.04\times 10^{-6}$ 10 $\alpha(\text{N})=1.257\times 10^{-6}$ 18; $\alpha(\text{O})=7.41\times 10^{-8}$ 11; $\alpha(\text{IPF})=1.96\times 10^{-5}$ 3
1194.00 10	0.131 ^{&} 13	2506.36	(2) ⁺	1312.391	2 ⁺	M1+E2	+0.20 +16-12	9.01×10 ⁻⁴ 16	$\alpha(\text{K})=0.000783$ 14; $\alpha(\text{L})=9.16\times 10^{-5}$ 16; $\alpha(\text{M})=1.75\times 10^{-5}$ 3 $\alpha(\text{N})=3.13\times 10^{-6}$ 6; $\alpha(\text{O})=1.86\times 10^{-7}$ 4; $\alpha(\text{IPF})=5.48\times 10^{-6}$ 11 I_γ : 0.07 2 in 1972Wa03 .

$\gamma(^{112}\text{Cd})$ (continued)

E_γ [†]	I_γ ^{†c}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	α^a	$I_{(\gamma+ce)}$ ^c	Comments
1224.341 7		1224.344	0 ⁺	0.0	0 ⁺	E0		0.065 8	$I_{(\gamma+ce)}$: From adopted gammas branching ratios and $I_\gamma(606.821\gamma) = 7.2$ 7.
1253.16 12		1870.75	4 ⁺	617.519	2 ⁺	E2	7.17×10^{-4}		$\alpha(\text{K})=0.000612$ 9; $\alpha(\text{L})=7.25 \times 10^{-5}$ 11; $\alpha(\text{M})=1.387 \times 10^{-5}$ 20 $\alpha(\text{N})=2.47 \times 10^{-6}$ 4; $\alpha(\text{O})=1.431 \times 10^{-7}$ 20; $\alpha(\text{IPF})=1.510 \times 10^{-5}$ 22
1253.56 12	0.87 [#] 9	1871.23	0 ⁺	617.519	2 ⁺	E2	7.16×10^{-4}		$\alpha(\text{K})=0.000612$ 9; $\alpha(\text{L})=7.25 \times 10^{-5}$ 11; $\alpha(\text{M})=1.386 \times 10^{-5}$ 20 $\alpha(\text{N})=2.47 \times 10^{-6}$ 4; $\alpha(\text{O})=1.430 \times 10^{-7}$ 20; $\alpha(\text{IPF})=1.517 \times 10^{-5}$ 22
1282.29 10	0.138 ^{&} 21	2506.68	1 ⁻	1224.344	0 ⁺	E1	3.90×10^{-4}		$\alpha(\text{K})=0.000270$ 4; $\alpha(\text{L})=3.10 \times 10^{-5}$ 5; $\alpha(\text{M})=5.92 \times 10^{-6}$ 9 $\alpha(\text{N})=1.056 \times 10^{-6}$ 15; $\alpha(\text{O})=6.24 \times 10^{-8}$ 9; $\alpha(\text{IPF})=8.18 \times 10^{-5}$ 12
1296.9 1	0.037 ^{&} 10	2765.75	2 ⁺	1468.819	2 ⁺	M1+E2	7.74×10^{-4}		I_γ : 0.09 2 in 1972Wa03 . $\alpha(\text{K})=0.000659$ 10; $\alpha(\text{L})=7.68 \times 10^{-5}$ 11; $\alpha(\text{M})=1.469 \times 10^{-5}$ 21 $\alpha(\text{N})=2.63 \times 10^{-6}$ 4; $\alpha(\text{O})=1.567 \times 10^{-7}$ 22; $\alpha(\text{IPF})=2.02 \times 10^{-5}$ 3
1312.36 4	2.6 ^{&} 3	1312.391	2 ⁺	0.0	0 ⁺	E2	6.64×10^{-4}		I_γ : 0.037 10 in 1970Ma45 . $\alpha(\text{K})=0.000557$ 8; $\alpha(\text{L})=6.58 \times 10^{-5}$ 10; $\alpha(\text{M})=1.258 \times 10^{-5}$ 18 $\alpha(\text{N})=2.24 \times 10^{-6}$ 4; $\alpha(\text{O})=1.302 \times 10^{-7}$ 19; $\alpha(\text{IPF})=2.64 \times 10^{-5}$ 4
1322.0 10	0.06 [@] 1	3478.7	0 ⁺ to 4 ⁺	2156.22	2 ⁺				I_γ : 2.8 3 in 1972Wa03 .
1356.52 10	1.1 [#] 1	2668.94	(2) ⁻	1312.391	2 ⁺	E1	4.08×10^{-4}		$\alpha(\text{K})=0.000245$ 4; $\alpha(\text{L})=2.81 \times 10^{-5}$ 4; $\alpha(\text{M})=5.36 \times 10^{-6}$ 8 $\alpha(\text{N})=9.56 \times 10^{-7}$ 14; $\alpha(\text{O})=5.66 \times 10^{-8}$ 8; $\alpha(\text{IPF})=0.0001287$ 18
1387.68 10	12.5 [#] 13	2005.18	3 ⁻	617.519	2 ⁺	E1	4.19×10^{-4}		$\alpha(\text{K})=0.000235$ 4; $\alpha(\text{L})=2.70 \times 10^{-5}$ 4; $\alpha(\text{M})=5.15 \times 10^{-6}$ 8 $\alpha(\text{N})=9.19 \times 10^{-7}$ 13; $\alpha(\text{O})=5.44 \times 10^{-8}$ 8; $\alpha(\text{IPF})=0.0001504$ 21
1398.64 10	0.07 [#] 2	2867.47	(3) ⁺	1468.819	2 ⁺	M1+E2	6.84×10^{-4}		Mult.: $A_2=-0.11$ 3, $A_4=-0.02$ 5 (1972Wa03). $\alpha(\text{K})=0.000561$ 8; $\alpha(\text{L})=6.53 \times 10^{-5}$ 10; $\alpha(\text{M})=1.249 \times 10^{-5}$ 18 $\alpha(\text{N})=2.23 \times 10^{-6}$ 4; $\alpha(\text{O})=1.333 \times 10^{-7}$ 19; $\alpha(\text{IPF})=4.30 \times 10^{-5}$ 6
1411.8 8	0.08 [#] 2	2723.95	2 ⁺	1312.391	2 ⁺	[M1+E2]	6.75×10^{-4}		$\alpha(\text{K})=0.000550$ 8; $\alpha(\text{L})=6.40 \times 10^{-5}$ 9; $\alpha(\text{M})=1.224 \times 10^{-5}$ 18 $\alpha(\text{N})=2.19 \times 10^{-6}$ 3; $\alpha(\text{O})=1.306 \times 10^{-7}$ 19; $\alpha(\text{IPF})=4.66 \times 10^{-5}$ 7

$^{112}\text{Ag} \beta^-$ decay (3.130 h) [1972Wa03,1970Ma45,1968Li13](#) (continued)

 $\gamma(^{112}\text{Cd})$ (continued)

E_γ [†]	I_γ ^{†c}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	δ ^{†b}	α ^a	$I_{(\gamma+ce)}$ ^c	Comments
1433.27 3	&	1433.280	0 ⁺	0.0	0 ⁺	E0			0.0084 15	
1447.00 [‡] 10	0.079 ^{‡&} 18	2064.53	3 ⁺	617.519	2 ⁺	M1+E2	-1.70 +10-12	6.04×10 ⁻⁴		$\alpha(\text{K})=0.000474$ 7; $\alpha(\text{L})=5.55\times 10^{-5}$ 8; $\alpha(\text{M})=1.062\times 10^{-5}$ 16 $\alpha(\text{N})=1.89\times 10^{-6}$ 3; $\alpha(\text{O})=1.114\times 10^{-7}$ 17; $\alpha(\text{IPF})=6.18\times 10^{-5}$ 9 I_γ : 0.10 2 in 1972Wa03 .
1451.30 10	0.33 ^{&} 3	2866.79	3 ⁻	1415.57	4 ⁺	E1		4.45×10 ⁻⁴		$\alpha(\text{K})=0.000218$ 3; $\alpha(\text{L})=2.50\times 10^{-5}$ 4; $\alpha(\text{M})=4.77\times 10^{-6}$ 7 $\alpha(\text{N})=8.51\times 10^{-7}$ 12; $\alpha(\text{O})=5.04\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000197$ 3 I_γ : 0.35 4 in 1972Wa03 .
1453.4 1	0.0205 ^{&} 21	2765.75	2 ⁺	1312.391	2 ⁺	M1+E2		6.50×10 ⁻⁴		$\alpha(\text{K})=0.000518$ 8; $\alpha(\text{L})=6.02\times 10^{-5}$ 9; $\alpha(\text{M})=1.150\times 10^{-5}$ 17 $\alpha(\text{N})=2.06\times 10^{-6}$ 3; $\alpha(\text{O})=1.228\times 10^{-7}$ 18; $\alpha(\text{IPF})=5.85\times 10^{-5}$ 9 I_γ : 0.020 3 in 1972Wa03 .
^x 1462.0 15	0.02 [@]									
1464.04 10		2081.74	4 ⁺	617.519	2 ⁺	E2		5.81×10 ⁻⁴		$\alpha(\text{K})=0.000447$ 7; $\alpha(\text{L})=5.25\times 10^{-5}$ 8; $\alpha(\text{M})=1.003\times 10^{-5}$ 14 $\alpha(\text{N})=1.79\times 10^{-6}$ 3; $\alpha(\text{O})=1.046\times 10^{-7}$ 15; $\alpha(\text{IPF})=6.92\times 10^{-5}$ 10
1468.84 10	1.40 ^{&} 18	1468.819	2 ⁺	0.0	0 ⁺	E2		5.79×10 ⁻⁴		$\alpha(\text{K})=0.000444$ 7; $\alpha(\text{L})=5.21\times 10^{-5}$ 8; $\alpha(\text{M})=9.96\times 10^{-6}$ 14 $\alpha(\text{N})=1.777\times 10^{-6}$ 25; $\alpha(\text{O})=1.039\times 10^{-7}$ 15; $\alpha(\text{IPF})=7.09\times 10^{-5}$ 10 I_γ : 1.5 2 in 1972Wa03 .
^x 1503.9 3	0.38 4									
1538.68 10	1.2 1	2156.22	2 ⁺	617.519	2 ⁺	M1+E2	+0.085 +25-22	6.11×10 ⁻⁴		$\alpha(\text{K})=0.000459$ 7; $\alpha(\text{L})=5.33\times 10^{-5}$ 8; $\alpha(\text{M})=1.019\times 10^{-5}$ 15 $\alpha(\text{N})=1.82\times 10^{-6}$ 3; $\alpha(\text{O})=1.089\times 10^{-7}$ 16; $\alpha(\text{IPF})=8.67\times 10^{-5}$ 13
1555.1 1		2867.47	(3) ⁺	1312.391	2 ⁺	M1+E2		6.06×10 ⁻⁴		$\alpha(\text{K})=0.000449$ 7; $\alpha(\text{L})=5.22\times 10^{-5}$ 8; $\alpha(\text{M})=9.97\times 10^{-6}$ 14 $\alpha(\text{N})=1.783\times 10^{-6}$ 25; $\alpha(\text{O})=1.066\times 10^{-7}$ 15; $\alpha(\text{IPF})=9.26\times 10^{-5}$ 13 E_γ : weak transition in 1970Ma45 .
1599.70 10	0.187 ^{&} 6	3068.64	4 ⁺	1468.819	2 ⁺	E2		5.50×10 ⁻⁴		$\alpha(\text{K})=0.000376$ 6; $\alpha(\text{L})=4.40\times 10^{-5}$ 7; $\alpha(\text{M})=8.40\times 10^{-6}$ 12 $\alpha(\text{N})=1.499\times 10^{-6}$ 21; $\alpha(\text{O})=8.80\times 10^{-8}$ 13; $\alpha(\text{IPF})=0.0001200$ 17 I_γ : 0.15 in 1968Li13 .

¹¹²Ag β⁻ decay (3.130 h) [1972Wa03](#),[1970Ma45](#),[1968Li13](#) (continued)

$\gamma(^{112}\text{Cd})$ (continued)									
E_γ [†]	I_γ ^{†c}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	δ ^{†b}	α ^a	Comments
1604.6 4	0.050 [#] 14	2829.19	1 ⁻	1224.344	0 ⁺	[E1]		5.24×10 ⁻⁴	$\alpha(\text{K})=0.000185$ 3; $\alpha(\text{L})=2.11\times 10^{-5}$ 3; $\alpha(\text{M})=4.02\times 10^{-6}$ 6 $\alpha(\text{N})=7.19\times 10^{-7}$ 10; $\alpha(\text{O})=4.27\times 10^{-8}$ 6; $\alpha(\text{IPF})=0.000313$ 5
1613.66 10	6.6 [#] 7	2231.17	2 ⁺	617.519	2 ⁺	M1+E2	-0.020 +20-27	5.90×10 ⁻⁴	$\alpha(\text{K})=0.000416$ 6; $\alpha(\text{L})=4.83\times 10^{-5}$ 7; $\alpha(\text{M})=9.23\times 10^{-6}$ 13 $\alpha(\text{N})=1.650\times 10^{-6}$ 24; $\alpha(\text{O})=9.86\times 10^{-8}$ 14; $\alpha(\text{IPF})=0.0001147$ 16 Mult.: Other: $\delta=0.00$ 6 in 1972Wa03 .
1653.09 10	0.090 ^{&} 4	3068.64	4 ⁺	1415.57	4 ⁺	M1+E2	-0.54 21	5.74×10 ⁻⁴ 10	$\alpha(\text{K})=0.000386$ 8; $\alpha(\text{L})=4.48\times 10^{-5}$ 9; $\alpha(\text{M})=8.57\times 10^{-6}$ 17 $\alpha(\text{N})=1.53\times 10^{-6}$ 3; $\alpha(\text{O})=9.13\times 10^{-8}$ 20; $\alpha(\text{IPF})=0.0001328$ 25 I_γ : 0.07 2 in 1972Wa03 .
^x 1683.7 7	0.10 1	3130.85	5 ⁻	1415.57	4 ⁺	E1		5.86×10 ⁻⁴	$\alpha(\text{K})=0.0001656$ 24; $\alpha(\text{L})=1.89\times 10^{-5}$ 3; $\alpha(\text{M})=3.61\times 10^{-6}$ 5 $\alpha(\text{N})=6.44\times 10^{-7}$ 9; $\alpha(\text{O})=3.83\times 10^{-8}$ 6; $\alpha(\text{IPF})=0.000397$ 6 I_γ : 0.10 1 in 1972Wa03 .
1715.08 12	0.097 ^{&} 11								
1756.30 14	0.073 ^{&} 5	3068.64	4 ⁺	1312.391	2 ⁺	E2		5.47×10 ⁻⁴	$\alpha(\text{K})=0.000315$ 5; $\alpha(\text{L})=3.66\times 10^{-5}$ 6; $\alpha(\text{M})=7.00\times 10^{-6}$ 10 $\alpha(\text{N})=1.249\times 10^{-6}$ 18; $\alpha(\text{O})=7.36\times 10^{-8}$ 11; $\alpha(\text{IPF})=0.000188$ 3 I_γ : 0.07 in 1968Li13 .
1798.50 10	2.1 [#] 2	2416.01	3 ⁻	617.519	2 ⁺	E1		6.36×10 ⁻⁴	$\alpha(\text{K})=0.0001535$ 22; $\alpha(\text{L})=1.751\times 10^{-5}$ 25; $\alpha(\text{M})=3.34\times 10^{-6}$ 5 $\alpha(\text{N})=5.96\times 10^{-7}$ 9; $\alpha(\text{O})=3.55\times 10^{-8}$ 5; $\alpha(\text{IPF})=0.000461$ 7
1888.79 10	0.73 [#] 7	2506.36	(2) ⁺	617.519	2 ⁺	M1+E2	-0.18 6	5.76×10 ⁻⁴	$\alpha(\text{K})=0.000301$ 5; $\alpha(\text{L})=3.48\times 10^{-5}$ 5; $\alpha(\text{M})=6.64\times 10^{-6}$ 10 $\alpha(\text{N})=1.188\times 10^{-6}$ 17; $\alpha(\text{O})=7.11\times 10^{-8}$ 10; $\alpha(\text{IPF})=0.000233$ 4
1900.77 10	0.059 [#] 6	3369.62	(0 ⁺ to 4 ⁺)	1468.819	2 ⁺				
^x 1909.2 6	0.100 25	3133.42	1 ⁻	1224.344	0 ⁺	[E1]		7.02×10 ⁻⁴	$\alpha(\text{K})=0.0001396$ 20; $\alpha(\text{L})=1.592\times 10^{-5}$ 23; $\alpha(\text{M})=3.03\times 10^{-6}$ 5 $\alpha(\text{N})=5.42\times 10^{-7}$ 8; $\alpha(\text{O})=3.23\times 10^{-8}$ 5; $\alpha(\text{IPF})=0.000543$ 8 I_γ : 0.10 1 in 1972Wa03 .
1909.53 17	0.00387 ^{&} 16								

¹¹²Ag β⁻ decay (3.130 h) [1972Wa03](#),[1970Ma45](#),[1968Li13](#) (continued)

$\gamma(^{112}\text{Cd})$ (continued)									
E_γ [†]	I_γ ^{†c}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	δ ^{†b}	α^a	Comments
1919.4 1	&	3231.60	1 ⁺	1312.391	2 ⁺	M1+E2		5.80×10 ⁻⁴	$\alpha(\text{K})=0.000292$ 4; $\alpha(\text{L})=3.37\times 10^{-5}$ 5; $\alpha(\text{M})=6.45\times 10^{-6}$ 9 $\alpha(\text{N})=1.153\times 10^{-6}$ 17; $\alpha(\text{O})=6.91\times 10^{-8}$ 10; $\alpha(\text{IPF})=0.000247$ 4 I_γ : 0.04 in 1970Ma45 .
1945.14 17	0.185& 23	3169.48	2 ⁺	1224.344	0 ⁺	E2		5.72×10 ⁻⁴	$\alpha(\text{K})=0.000260$ 4; $\alpha(\text{L})=3.02\times 10^{-5}$ 5; $\alpha(\text{M})=5.76\times 10^{-6}$ 8 $\alpha(\text{N})=1.028\times 10^{-6}$ 15; $\alpha(\text{O})=6.09\times 10^{-8}$ 9; $\alpha(\text{IPF})=0.000275$ 4 I_γ : 0.20 2 in 1972Wa03 .
1952.9 10	0.11@	3369.62	(0 ⁺ to 4 ⁺)	1415.57	4 ⁺				
2051.50 10	0.197& 20	2668.94	(2) ⁻	617.519	2 ⁺	E1		7.86×10 ⁻⁴	$\alpha(\text{K})=0.0001249$ 18; $\alpha(\text{L})=1.422\times 10^{-5}$ 20; $\alpha(\text{M})=2.71\times 10^{-6}$ 4 $\alpha(\text{N})=4.84\times 10^{-7}$ 7; $\alpha(\text{O})=2.89\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.000644$ 9 I_γ : 0.28 3 in 1972Wa03 .
2056.5 2	1.40# 14	2674.04	2 ⁺	617.519	2 ⁺	M1(+E2)	+0.05 +7-8	6.01×10 ⁻⁴	$\alpha(\text{K})=0.000254$ 4; $\alpha(\text{L})=2.93\times 10^{-5}$ 5; $\alpha(\text{M})=5.60\times 10^{-6}$ 8 $\alpha(\text{N})=1.003\times 10^{-6}$ 14; $\alpha(\text{O})=6.01\times 10^{-8}$ 9; $\alpha(\text{IPF})=0.000311$ 5
2106.31 10	5.6# 6	2723.95	2 ⁺	617.519	2 ⁺	M1(+E2)	+0.05 +6-5	6.12×10 ⁻⁴	$\alpha(\text{K})=0.000242$ 4; $\alpha(\text{L})=2.80\times 10^{-5}$ 4; $\alpha(\text{M})=5.34\times 10^{-6}$ 8 $\alpha(\text{N})=9.56\times 10^{-7}$ 14; $\alpha(\text{O})=5.73\times 10^{-8}$ 8; $\alpha(\text{IPF})=0.000335$ 5 Mult., δ : Also: $\delta=-18.5$ +95- <i>INFINITY</i> (1972Wa03).
2148.21 10	0.23# 2	2765.75	2 ⁺	617.519	2 ⁺	M1(+E2)	+0.06 +7-6	6.22×10 ⁻⁴	$\alpha(\text{K})=0.000233$ 4; $\alpha(\text{L})=2.69\times 10^{-5}$ 4; $\alpha(\text{M})=5.14\times 10^{-6}$ 8 $\alpha(\text{N})=9.19\times 10^{-7}$ 13; $\alpha(\text{O})=5.51\times 10^{-8}$ 8; $\alpha(\text{IPF})=0.000355$ 5
2156.20 10	0.110& 10	2156.22	2 ⁺	0.0	0 ⁺	E2		6.23×10 ⁻⁴	$\alpha(\text{K})=0.000216$ 3; $\alpha(\text{L})=2.49\times 10^{-5}$ 4; $\alpha(\text{M})=4.75\times 10^{-6}$ 7 $\alpha(\text{N})=8.49\times 10^{-7}$ 12; $\alpha(\text{O})=5.04\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000377$ 6 I_γ : 0.16 2 in 1972Wa03 .
2211.65 10	1.00# 10	2829.19	1 ⁻	617.519	2 ⁺	E1		8.80×10 ⁻⁴	$\alpha(\text{K})=0.0001114$ 16; $\alpha(\text{L})=1.267\times 10^{-5}$ 18; $\alpha(\text{M})=2.41\times 10^{-6}$ 4 $\alpha(\text{N})=4.31\times 10^{-7}$ 6; $\alpha(\text{O})=2.58\times 10^{-8}$ 4; $\alpha(\text{IPF})=0.000753$ 11
2249.91 10	0.03@	2867.47	(3) ⁺	617.519	2 ⁺	M1+E2		6.48×10 ⁻⁴	$\alpha(\text{K})=0.000213$ 3; $\alpha(\text{L})=2.45\times 10^{-5}$ 4; $\alpha(\text{M})=4.69\times 10^{-6}$ 7 $\alpha(\text{N})=8.38\times 10^{-7}$ 12; $\alpha(\text{O})=5.03\times 10^{-8}$ 7; $\alpha(\text{IPF})=0.000405$ 6
^x 2330 [‡] 10	0.01 [‡]								
^x 2362.4 6	0.090 20								
2506.70 10	2.5# 3	2506.68	1 ⁻	0.0	0 ⁺	E1		1.04×10 ⁻³	$\alpha(\text{K})=9.25\times 10^{-5}$ 13; $\alpha(\text{L})=1.050\times 10^{-5}$ 15; $\alpha(\text{M})=2.00\times 10^{-6}$ 3

¹¹²Ag β⁻ decay (3.130 h) [1972Wa03](#),[1970Ma45](#),[1968Li13](#) (continued)

$\gamma(^{112}\text{Cd})$ (continued)									
E_γ [†]	I_γ ^{†c}	E_i (level)	J_i^π	E_f	J_f^π	Mult. [†]	δ ^{†b}	α ^a	Comments
2552.01 10	0.25 [#] 3	3169.48	2 ⁺	617.519	2 ⁺	M1+E2	-0.68 +13-20	7.43×10 ⁻⁴	$\alpha(\text{N})=3.58\times 10^{-7}$ 5; $\alpha(\text{O})=2.14\times 10^{-8}$ 3; $\alpha(\text{IPF})=0.000940$ 14 $\alpha(\text{K})=0.0001647$ 25; $\alpha(\text{L})=1.89\times 10^{-5}$ 3; $\alpha(\text{M})=3.61\times 10^{-6}$ 6 $\alpha(\text{N})=6.46\times 10^{-7}$ 10; $\alpha(\text{O})=3.87\times 10^{-8}$ 6; $\alpha(\text{IPF})=0.000555$ 8
^x 2576.7 [‡] 8	0.08 [‡]	3231.60	1 ⁺	617.519	2 ⁺	M1+E2		7.61×10 ⁻⁴	$\alpha(\text{K})=0.0001594$ 23; $\alpha(\text{L})=1.83\times 10^{-5}$ 3; $\alpha(\text{M})=3.50\times 10^{-6}$ 5 $\alpha(\text{N})=6.25\times 10^{-7}$ 9; $\alpha(\text{O})=3.76\times 10^{-8}$ 6; $\alpha(\text{IPF})=0.000579$ 9 I_γ : 0.01 in 1970Ma45 .
2614.02 14	0.0039 ^{&}								
2685.83 17	0.59 [#] 6	3303.25	(2,3) ⁺	617.519	2 ⁺	[E2]		8.09×10 ⁻⁴	$\alpha(\text{K})=0.0001430$ 20; $\alpha(\text{L})=1.641\times 10^{-5}$ 23; $\alpha(\text{M})=3.13\times 10^{-6}$ 5 $\alpha(\text{N})=5.59\times 10^{-7}$ 8; $\alpha(\text{O})=3.34\times 10^{-8}$ 5; $\alpha(\text{IPF})=0.000645$ 9
2723.6 3	0.23 [#] 2	2723.95	2 ⁺	0.0	0 ⁺				
2752.08 10	0.21 [#] 2	3369.62	(0 ⁺ to 4 ⁺)	617.519	2 ⁺	E2		8.23×10 ⁻⁴	$\alpha(\text{K})=0.0001393$ 20; $\alpha(\text{L})=1.597\times 10^{-5}$ 23; $\alpha(\text{M})=3.05\times 10^{-6}$ 5 $\alpha(\text{N})=5.45\times 10^{-7}$ 8; $\alpha(\text{O})=3.25\times 10^{-8}$ 5; $\alpha(\text{IPF})=0.000665$ 10 I_γ : 0.013 2 in 1972Wa03 .
2765.7 3	0.0135 ^{&} 13	2765.75	2 ⁺	0.0	0 ⁺				
2776.0 15	0.03 [@]	3393.3	(1,2 ⁺)	617.519	2 ⁺	[M1+E2]		8.17×10 ⁻⁴	$\alpha(\text{K})=0.0001422$ 20; $\alpha(\text{L})=1.633\times 10^{-5}$ 23; $\alpha(\text{M})=3.12\times 10^{-6}$ 5 $\alpha(\text{N})=5.58\times 10^{-7}$ 8; $\alpha(\text{O})=3.35\times 10^{-8}$ 5; $\alpha(\text{IPF})=0.000655$ 10
^x 2803.5 [‡] 15	0.02 [‡]	2829.19	1 ⁻	0.0	0 ⁺	E1		1.22×10 ⁻³	$\alpha(\text{K})=7.77\times 10^{-5}$ 11; $\alpha(\text{L})=8.80\times 10^{-6}$ 13; $\alpha(\text{M})=1.677\times 10^{-6}$ 24 $\alpha(\text{N})=3.00\times 10^{-7}$ 5; $\alpha(\text{O})=1.79\times 10^{-8}$ 3; $\alpha(\text{IPF})=0.001129$ 16 I_γ : 1.0 1 in 1972Wa03 .
2829.20 10	0.79 ^{&} 8								
^x 2839.0 [‡] 15	0.03 [‡]	3470.3	2 ⁺ ,3,4 ⁺	617.519	2 ⁺				
2852.7 12	0.04 [@]								
2863.0 20	0.02 [@] 1	3478.7	0 ⁺ to 4 ⁺	617.519	2 ⁺				
^x 2884.0 [‡] 10	0.04 [‡]	2962.0	2 ⁺	0.0	0 ⁺	[E2]		8.93×10 ⁻⁴	$\alpha(\text{K})=0.0001240$ 18; $\alpha(\text{L})=1.419\times 10^{-5}$ 20;
^x 2921.2 [‡] 10	0.03 [‡]								
2961.7 10	0.04 [#] 1								

¹¹²Ag β⁻ decay (3.130 h) [1972Wa03](#),[1970Ma45](#),[1968Li13](#) (continued)

<u>γ(¹¹²Cd) (continued)</u>									
<u>E_γ[†]</u>	<u>I_γ^{†c}</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.[†]</u>	<u>α^a</u>	<u>Comments</u>	
								α(M)=2.71×10 ⁻⁶ 4 α(N)=4.84×10 ⁻⁷ 7; α(O)=2.90×10 ⁻⁸ 4; α(IPF)=0.000751 11	
^x 3091.0 [‡] 15	0.01 [‡]								
^x 3113 3	0.01 [@]								
3133.21 10	0.01 [@]	3133.42	1 ⁻	0.0	0 ⁺	[E1]	1.35×10 ⁻³	α(K)=6.73×10 ⁻⁵ 10; α(L)=7.62×10 ⁻⁶ 11; α(M)=1.451×10 ⁻⁶ 21 α(N)=2.59×10 ⁻⁷ 4; α(O)=1.554×10 ⁻⁸ 22; α(IPF)=0.001278 18	
3170.0 15	0.01 [@]	3169.48	2 ⁺	0.0	0 ⁺	[E2]	9.66×10 ⁻⁴	α(K)=0.0001106 16; α(L)=1.264×10 ⁻⁵ 18; α(M)=2.41×10 ⁻⁶ 4 α(N)=4.31×10 ⁻⁷ 6; α(O)=2.58×10 ⁻⁸ 4; α(IPF)=0.000840 12	
^x 3178.0 [‡] 15	0.01 [‡]								
3231.35 10	0.01 [@]	3231.60	1 ⁺	0.0	0 ⁺	M1	9.79×10 ⁻⁴	α(K)=0.0001073 15; α(L)=1.229×10 ⁻⁵ 18; α(M)=2.35×10 ⁻⁶ 4 α(N)=4.20×10 ⁻⁷ 6; α(O)=2.52×10 ⁻⁸ 4; α(IPF)=0.000856 12	
^x 3244.0 [‡] 20	0.01 [‡]								
^x 3375.0 [‡] 15	0.03 [‡]								
3393.0 12	0.010 [#] 3	3393.3	(1,2 ⁺)	0.0	0 ⁺	[M1,E2]	1.04×10 ⁻³	α(K)=9.82×10 ⁻⁵ 14; α(L)=1.124×10 ⁻⁵ 16; α(M)=2.15×10 ⁻⁶ 3 α(N)=3.84×10 ⁻⁷ 6; α(O)=2.31×10 ⁻⁸ 4; α(IPF)=0.000924 13	

[†] From adopted gammas, unless otherwise stated.

[‡] From [1968Li13](#). It is not reported in [1972Wa03](#), but the placement is consistent with the Adopted Levels, gammas.

[#] From [1972Wa03](#).

[@] From [1970Ma45](#).

[&] From adopted gammas branching ratios and I_γ for the strongest transition that depopulates the level.

^a [Additional information 1](#).

^b If No value given it was assumed δ=0.00 for E2/M1, δ=1.00 for E3/M2 and δ=0.10 for the other multipolarities.

^c For absolute intensity per 100 decays, multiply by 0.425 46.

^x γ ray not placed in level scheme.

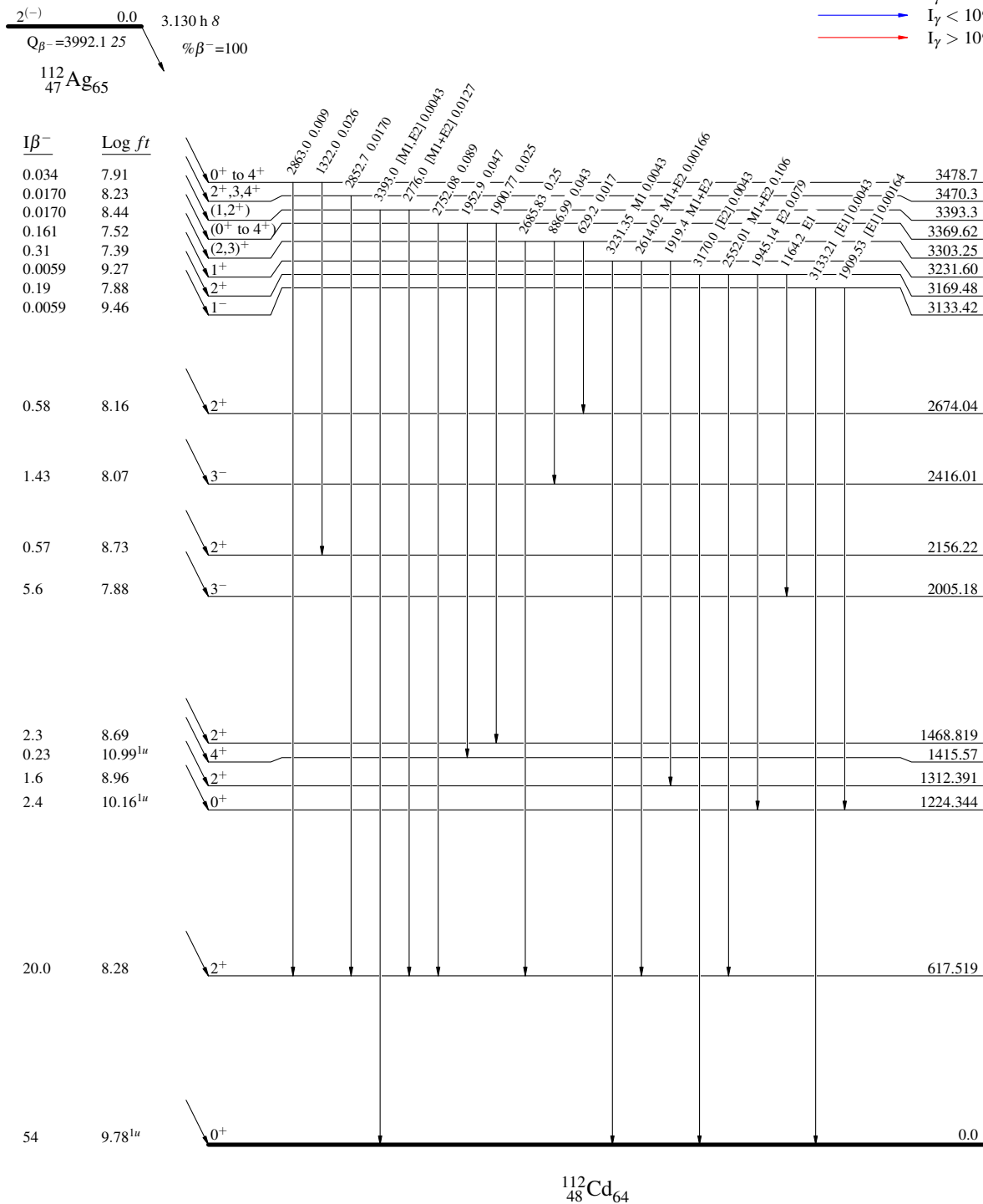
$^{112}\text{Ag} \beta^-$ decay (3.130 h) 1972Wa03,1970Ma45,1968Li13

Decay Scheme

Intensities: I_γ per 100 parent decays

Legend

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



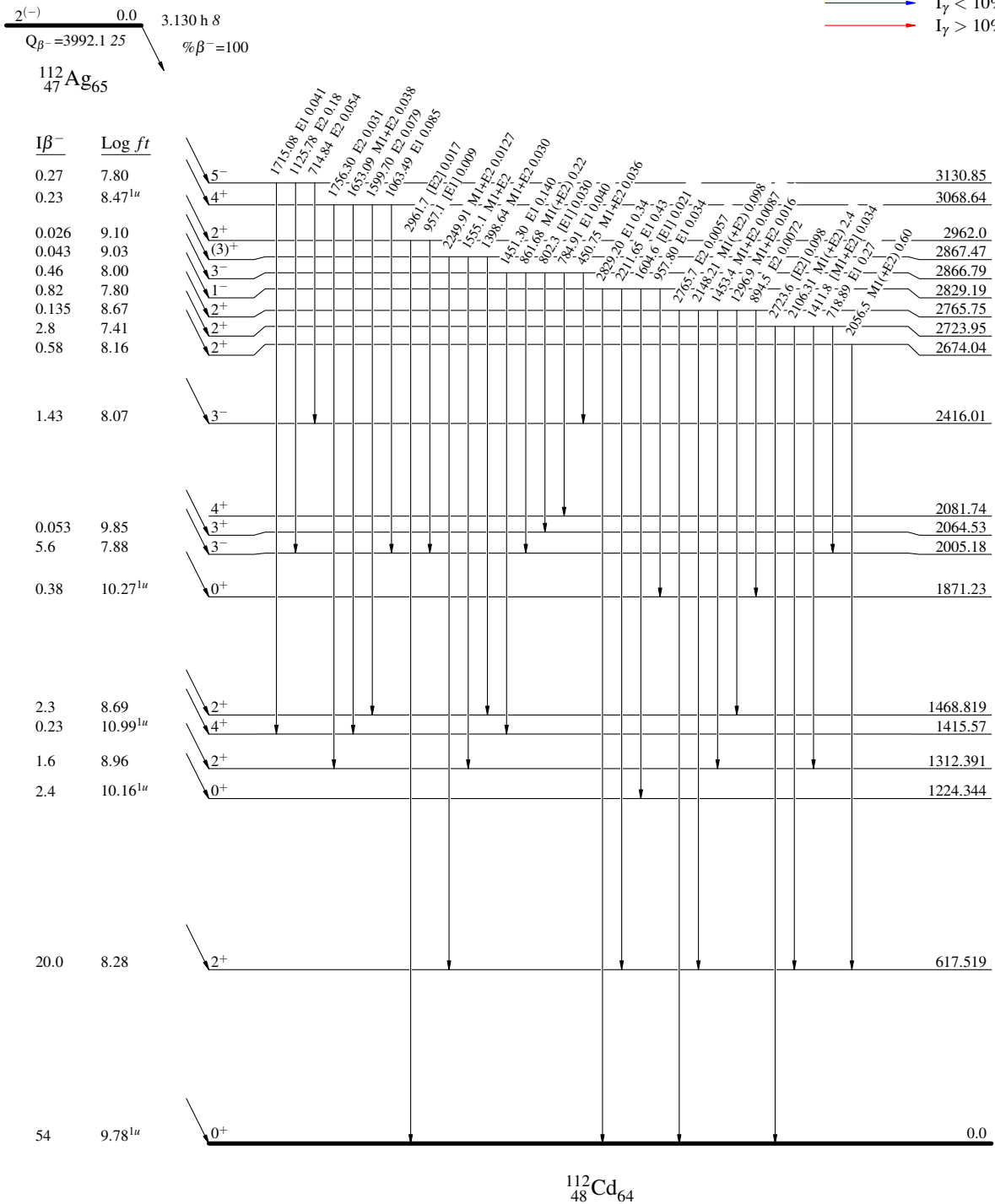
$^{112}\text{Ag} \beta^-$ decay (3.130 h) 1972Wa03,1970Ma45,1968Li13

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays

Legend

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



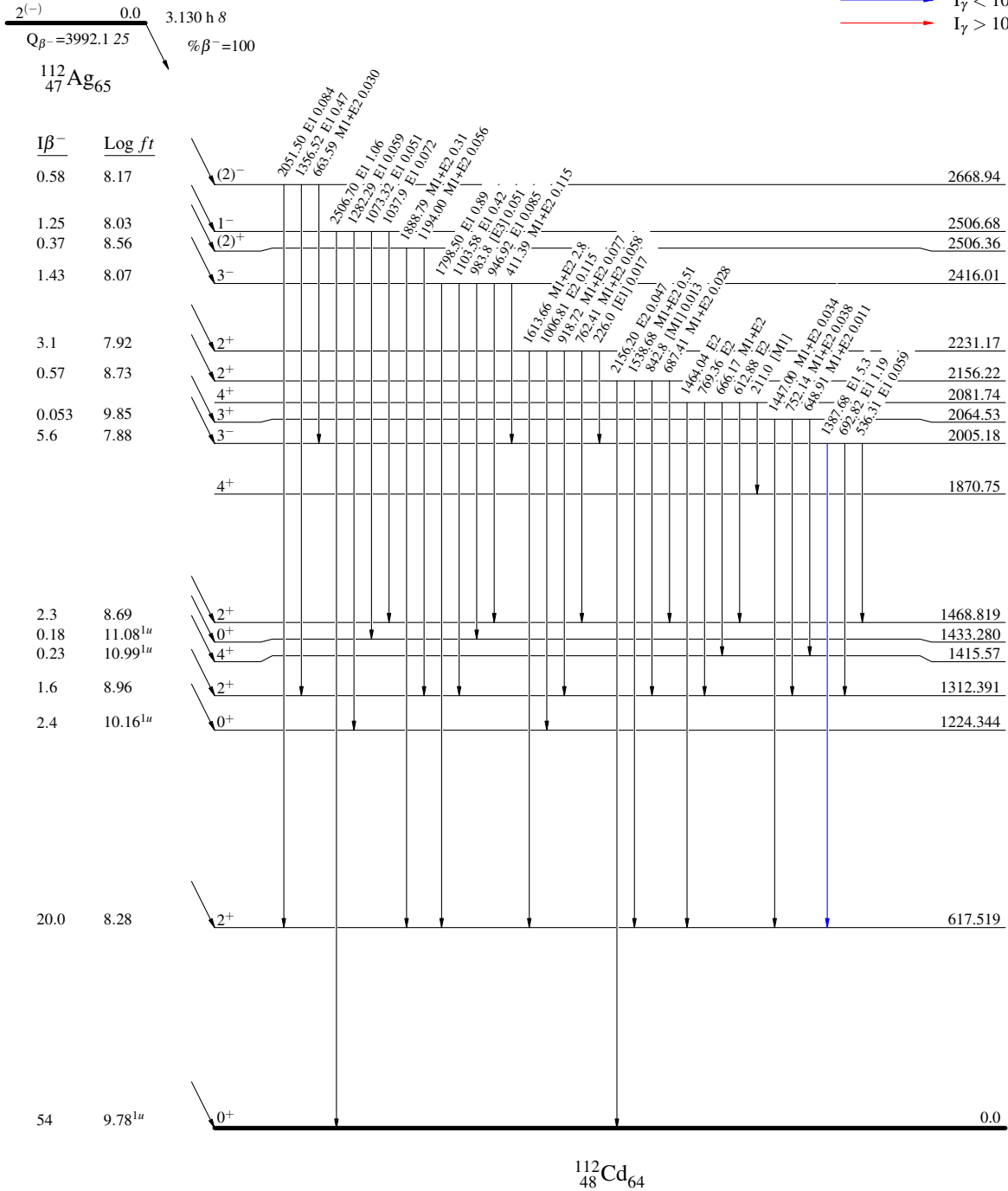
$^{112}\text{Ag} \beta^-$ decay (3.130 h) 1972Wa03,1970Ma45,1968Li13

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays

Legend

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



$^{112}\text{Ag} \beta^-$ decay (3.130 h) 1972Wa03,1970Ma45,1968Li13

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays

Legend

