$^{116}Ag\ \beta^-$ decay (237 s) 2009Ba52,2005Ba94

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111, 717 (2010)	1-Dec-2009

Parent: ^{116}Ag: E=0; J$^{\pi}$=(0$^-$); T$_{1/2}$=237 s *5*; Q(β^-)=6176 *4*; %β^- decay=100.0
^{116}Ag-J$^{\pi}$: From 2005Ba94. Likely configuration=π1/2[301]$\otimes\nu$1/2[420].
^{116}Ag-T$_{1/2}$: From 2009Ba52. Other: 230 s *5* (2005Ba94).
^{116}Ag-Q(β^-): From 2009AuZZ.
2009Ba52: ^{116}Ag activity was produced by the 40-MeV protons bombarding a $^{238}UC_x$ target installed at the On-Line Test Facility (oltf) at the Holifield Radioactive Ion Beam Facility (hribf). Fission products was separated and deposited on a moving tape collector (mtc).
Measured Eγ, Iγ, $\gamma\gamma$, ce, ceγ coin with the (cards) detector array, composed of the three segmented-clover Ge detectors, plastic scintillators and a high-resolution Si conversion-electron spectrometer (besca).
The $\gamma\gamma$ and ce-γ coincidences were used to construct the decay scheme in ^{116}Cd from the β decay of ^{116}Ag g.s.
All data are from 2009Ba52, unless otherwise stated.
The older data with T$_{1/2}$=2.68 min were from 1979BrZT, 1974Bj01, 1973FoZF.

^{116}Cd Levels

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$	Comments
0	0$^+$	stable	
513.50 *5*	2$^+$		
1213.09 *6*	2$^+$		
1219.50[#] *9*	4$^+$		
1282.60 *12*	0$^+$	65 ps *4*	From 1989Ma33.
1380.36 *18*	0$^+$		
1642.65 *8*	2$^+$		
1915.94[#] *10*	3$^+$		
1921.72[#] *7*	3$^-$		
1928.61 *21*	0$^+$		
1951.40 *7*	2$^+$		
2118.42 *21*			
2294.97 *15*	2$^+$		
2392.04 *9*	3$^-$		J$^{\pi}$: from text and tables vi and vii. Other: (2$^+$) in figure 5. log *ft*=8.5 from (0$^-$) is too low to be realistic for ΔJ=3 β transition.
2435.32 *12*	2$^+$		
2478.22 *8*	1$^-$		
2518.35 *9*	2$^-$		
2572.44[#] *15*			
2653.52 *21*			
2720.33 *12*			J$^{\pi}$: 2009Ba52 propose 2$^+$,3,4$^+$ based on γ's to 2$^+$ and 4$^+$, which disagrees with 1$^-$ assignment in Adopted Levels, but log *ft*=8.1 from (0$^-$) does not allow 3,4$^+$.
2760.31 *13*			
2784.11 *14*			
2802.77 *10*			
2829.06 *19*	1		
2844.10 *11*			
2845.71 *21*			
2862.64 *11*			
2978.28 *22*			
3001.44 *10*			
3015.19 *13*			
3068.94 *20*			
3102.7 *3*			
3119.12 *22*	1$^-$		

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^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94 (continued)

^{116}Cd Levels (continued)

E(level)†	E(level)†	E(level)†	E(level)†
3137.64 *21*	3527.99 *19*	3877.87 *20*	4539.20 *20*
3175.64 *10*	3531.56 *20*	3925.1 *3*	4562.06 *21*
3213.08 *13*	3542.92 *21*	3943.07 *20*	4573.91 *23*
3216.74 *11*	3560.85 *22*	3984.7 *3*	4590.80 *20*
3217.47 *18*	3595.5 *3*	4009.7 *3*	4614.86 *15*
3218.51 *21*	3601.36 *20*	4022.97 *20*	4632.0 *3*
3250.65 *20*	3674.75 *17*	4057.88 *20*	4642.71 *15*
3275.80 *18*	3681.86 *20*	4080.3 *3*	4647.4 *3*
3287.24 *21*	3708.39 *17*	4083.63 *19*	4652.95 *21*
3307.2 *3*	3732.35 *11*	4135.86 *21*	4689.30 *19*
3339.95 *20*	3745.96 *18*	4177.2 *3*	4697.65 *21*
3348.56 *9*	3747.25 *21*	4231.48 *20*	4755.25 *21*
3378.23 *16*	3758.72 *21*	4247.0 *3*	4773.0 *3*
3379.4 *3*	3794.44 *21*	4290.19 *20*	4787.19 *21*
3434.41 *14*	3795.2@ *3*	4378.47 *21*	4828.89 *21*
3435.74 *17*	3805.97 *20*	4428.29 *20*	4916.6 *3*
3471.4 *3*	3839.34 *21*	4432.07 *21*	4924.6 *3*
3473.00 *10*	3841.6 *3*	4449.5 *3*	4953.6 *3*
3511.86 *20*	3850.7 *3*	4475.95 *17*	4968.90 *21*

† From least-squares fit to Eγ′s.
‡ From Tables vi, vii and viii of 2009Ba52.
# No evidence of β feeding to this level.
@ 3975.1 listed in Table vi of 2009Ba52 is a misprint.

β^- radiations

No evidence of β feeding to 1219, 1916, 1922 and 2572 levels.

E(decay)	E(level)	Iβ^-‡	Log *ft*†	Comments
(1207 *4*)	4968.90	0.06 *2*	7.31 *15*	av Eβ=435.6 *17*
(1222 *4*)	4953.6	0.04 *1*	7.50 *11*	av Eβ=442.1 *18*
(1251 *4*)	4924.6	0.03 *1*	7.67 *15*	av Eβ=454.5 *18*
(1259 *4*)	4916.6	0.015 *6*	7.98 *18*	av Eβ=458.0 *18*
(1347 *4*)	4828.89	0.05 *2*	7.57 *18*	av Eβ=495.8 *18*
(1389 *4*)	4787.19	0.024 *9*	7.94 *17*	av Eβ=513.9 *18*
(1403 *4*)	4773.0	0.016 *6*	8.13 *17*	av Eβ=520.1 *18*
(1421 *4*)	4755.25	0.11 *3*	7.32 *12*	av Eβ=527.8 *18*
(1478 *4*)	4697.65	0.10 *3*	7.42 *13*	av Eβ=553.0 *18*
(1487 *4*)	4689.30	0.26 *7*	7.02 *12*	av Eβ=556.7 *18*
(1523 *4*)	4652.95	0.12 *3*	7.40 *11*	av Eβ=572.7 *18*
(1529 *4*)	4647.4	0.026 *8*	8.07 *14*	av Eβ=575.1 *18*
(1533 *4*)	4642.71	0.14 *3*	7.34 *10*	av Eβ=577.2 *18*
(1544 *4*)	4632.0	0.02 *1*	8.20 *22*	av Eβ=581.9 *18*
(1561 *4*)	4614.86	0.7 *1*	6.67 *7*	av Eβ=589.5 *18*
(1585 *4*)	4590.80	0.07 *1*	7.70 *7*	av Eβ=600.1 *18*
(1602 *4*)	4573.91	0.29 *5*	7.10 *8*	av Eβ=607.6 *18*
(1614 *4*)	4562.06	0.17 *4*	7.34 *11*	av Eβ=612.9 *18*
(1637 *4*)	4539.20	0.020 *6*	8.30 *13*	av Eβ=623.0 *18*
(1700 *4*)	4475.95	0.15 *2*	7.49 *6*	av Eβ=651.2 *18*

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^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94 (continued)

β^- radiations (continued)

E(decay)	E(level)	Iβ^- [‡]	Log *ft* [†]	Comments
(1727 *4*)	4449.5	0.021 *6*	8.37 *13*	av Eβ=663.1 *18*
(1744 *4*)	4432.07	0.06 *1*	7.93 *8*	av Eβ=670.9 *18*
(1748 *4*)	4428.29	0.07 *1*	7.87 *7*	av Eβ=672.6 *18*
(1798 *4*)	4378.47	0.08 *2*	7.86 *11*	av Eβ=694.9 *18*
(1886 *4*)	4290.19	0.02 *1*	8.54 *22*	av Eβ=734.8 *19*
(1929 *4*)	4247.0	0.15 *3*	7.71 *9*	av Eβ=754.3 *19*
(1945 *4*)	4231.48	0.027 *6*	8.47 *10*	av Eβ=761.3 *19*
(1999 *4*)	4177.2	0.03 *1*	8.47 *15*	av Eβ=786.0 *19*
(2040 *4*)	4135.86	0.13 *2*	7.87 *7*	av Eβ=804.8 *19*
(2092 *4*)	4083.63	0.35 *3*	7.48 *4*	av Eβ=828.6 *19*
(2096 *4*)	4080.3	0.3 *1*	7.55 *15*	av Eβ=830.1 *19*
(2118 *4*)	4057.88	0.02 *1*	8.75 *22*	av Eβ=840.4 *19*
(2153 *4*)	4022.97	0.06 *1*	8.30 *8*	av Eβ=856.4 *19*
(2166 *4*)	4009.7	0.05 *1*	8.39 *9*	av Eβ=862.4 *19*
(2191 *4*)	3984.7	0.13 *3*	7.99 *10*	av Eβ=873.9 *19*
(2233 *4*)	3943.07	0.03 *1*	8.66 *15*	av Eβ=893.0 *19*
(2251 *4*)	3925.1	0.03 *1*	8.68 *15*	av Eβ=901.3 *19*
(2298 *4*)	3877.87	0.03 *1*	8.71 *15*	av Eβ=923.0 *19*
(2325 *4*)	3850.7	0.09 *3*	8.26 *15*	av Eβ=935.5 *19*
(2334 *4*)	3841.6	0.10 *3*	8.22 *13*	av Eβ=939.7 *19*
(2337 *4*)	3839.34	0.16 *2*	8.02 *6*	av Eβ=940.7 *19*
(2370 *4*)	3805.97	0.03 *1*	8.77 *15*	av Eβ=956.1 *19*
(2381 *4*)	3795.2	0.03 *1*	8.78 *15*	av Eβ=961.1 *19*
(2382 *4*)	3794.44	0.37 *4*	7.69 *5*	av Eβ=961.5 *19*
(2417 *4*)	3758.72	0.14 *3*	8.14 *10*	av Eβ=978.0 *19*
(2429 *4*)	3747.25	0.17 *5*	8.06 *13*	av Eβ=983.3 *19*
(2430 *4*)	3745.96	0.22 *4*	7.95 *8*	av Eβ=983.9 *19*
(2444 *4*)	3732.35	0.2 *1*	8.00 *22*	av Eβ=990.2 *19*
(2468 *4*)	3708.39	0.25 *6*	7.92 *11*	av Eβ=1001.3 *19*
(2494 *4*)	3681.86	0.03 *1*	8.86 *15*	av Eβ=1013.5 *19*
(2501 *4*)	3674.75	0.13 *1*	8.23 *4*	av Eβ=1016.8 *19*
(2575 *4*)	3601.36	0.15 *5*	8.22 *15*	av Eβ=1050.9 *19*
(2581 *4*)	3595.5	0.05 *1*	8.70 *9*	av Eβ=1053.6 *19*
(2615 *4*)	3560.85	0.07 *2*	8.58 *13*	av Eβ=1069.7 *19*
(2633 *4*)	3542.92	0.35 *5*	7.89 *7*	av Eβ=1078.0 *19*
(2644 *4*)	3531.56	0.04 *2*	8.84 *22*	av Eβ=1083.3 *19*
(2648 *4*)	3527.99	0.19 *5*	8.17 *12*	av Eβ=1085.0 *19*
(2664 *4*)	3511.86	0.05 *1*	8.76 *9*	av Eβ=1092.5 *19*
(2703 *4*)	3473.00	3.8 *3*	6.90 *4*	av Eβ=1110.6 *19*
(2705 *4*)	3471.4	0.57 *9*	7.73 *7*	av Eβ=1111.3 *19*
(2740 *4*)	3435.74	0.21 *2*	8.19 *5*	av Eβ=1128.0 *19*
(2742 *4*)	3434.41	1.1 *1*	7.47 *4*	av Eβ=1128.6 *19*
(2797 *4*)	3379.4	0.02 *1*	9.25 *22*	av Eβ=1154.2 *19*
(2798 *4*)	3378.23	0.8 *2*	7.64 *11*	av Eβ=1154.8 *19*
(2827 *4*)	3348.56	4.6 *5*	6.90 *5*	av Eβ=1168.6 *19*
(2836 *4*)	3339.95	0.06 *2*	8.79 *15*	av Eβ=1172.7 *19*
(2869 *4*)	3307.2	0.25 *6*	8.20 *11*	av Eβ=1188.0 *19*
(2889 *4*)	3287.24	0.08 *3*	8.70 *17*	av Eβ=1197.3 *19*
(2900 *4*)	3275.80	0.17 *3*	8.38 *8*	av Eβ=1202.6 *19*
(2925 *4*)	3250.65	0.07 *2*	8.78 *13*	av Eβ=1214.4 *19*
(2957 *4*)	3218.51	0.15 *2*	8.47 *6*	av Eβ=1229.5 *19*
(2959 *4*)	3217.47	0.35 *4*	8.11 *5*	av Eβ=1229.9 *19*
(2959 *4*)	3216.74	4.5 *9*	7.00 *9*	av Eβ=1230.3 *19*
(2963 *4*)	3213.08	1.3 *1*	7.54 *4*	av Eβ=1232.0 *19*
(3000 *4*)	3175.64	2.9 *3*	7.21 *5*	av Eβ=1249.5 *19*
(3038 *4*)	3137.64	0.26 *6*	8.28 *10*	av Eβ=1267.4 *19*
(3057 *4*)	3119.12	1.6 *2*	7.51 *6*	av Eβ=1276.0 *19*

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^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94 (continued)

β^- radiations (continued)

E(decay)	E(level)	Iβ^-[‡]	Log *ft*[†]	Comments
(3073 4)	3102.7	0.20 5	8.42 11	av Eβ=1283.7 19
(3107 4)	3068.94	0.25 5	8.34 9	av Eβ=1299.6 19
(3161 4)	3015.19	1.5 2	7.60 6	av Eβ=1324.8 19
(3175 4)	3001.44	1.3 2	7.67 7	av Eβ=1331.3 19
(3198 4)	2978.28	0.13 4	8.68 14	av Eβ=1342.2 19
(3313 4)	2862.64	0.3 1	8.38 15	av Eβ=1396.6 19
(3330 4)	2845.71	0.13 3	8.75 10	av Eβ=1404.6 19
(3332 4)	2844.10	1.3 2	7.75 7	av Eβ=1405.3 19
(3347 4)	2829.06	1.3 2	7.76 7	av Eβ=1412.4 19
(3373 4)	2802.77	1.2 2	7.81 8	av Eβ=1424.8 19
(3392 4)	2784.11	0.3 1	8.42 15	av Eβ=1433.6 19
(3416 4)	2760.31	1.0 2	7.91 9	av Eβ=1444.8 19
(3456 4)	2720.33	0.7 1	8.09 7	av Eβ=1463.6 19
(3522 4)	2653.52	0.5 1	8.27 9	av Eβ=1495.2 19
(3658 4)	2518.35	4.6 3	7.38 3	av Eβ=1559.0 19
(3698 4)	2478.22	4.1 7	7.45 8	av Eβ=1578.0 19
(3741 4)	2435.32	0.4 1	10.1^{1u} 1	av Eβ=1585.7 19
(3784 4)	2392.04	0.4 1	8.50 11	av Eβ=1618.7 19 Log *ft*: 10.1 1 from Table x of 2009Ba52 with assumed first-forbidden unique transition.
(3881 4)	2294.97	0.7 1	9.90^{1u} 7	av Eβ=1651.4 19
(4058 4)	2118.42	0.9 1	8.28 5	av Eβ=1748.3 19
(4225 4)	1951.40	1.3 1	9.9^{1u} 1	av Eβ=1812.7 19
(4247 4)	1928.61	0.37 7	8.76 9	av Eβ=1838.3 19
(4533 4)	1642.65	1.4 2	10.0^{1u} 1	av Eβ=1958.2 19
(4796 4)	1380.36	0.7 1	8.71 7	av Eβ=2098.7 19
(4893 4)	1282.60	0.19 8	9.32 19	av Eβ=2145.2 19
(4963 4)	1213.09	2.6 7	10.0^{1u} 1	av Eβ=2161.3 19
(5663 4)	513.50	4 2	10.2^{1u} 2	av Eβ=2493.4 19
(6176 4)	0	≈39	≈7.5	av Eβ=2755.7 19 Iβ^-: from assumed log *ft*=7.5 for a 0^- to 0^+, first forbidden transition.

† Deduced by the compilers. The values are nearly the same as in Table iv of 2009Ba52, the authors state that log *ft* values should be considered as lower limits, especially, for weak β feedings, due to "pandemonium" effect.

‡ Absolute intensity per 100 decays.

γ(^{116}Cd)

E_γ	I_γ[†&]	E_i(level)	J^π_i	E_f	J^π_f	E_γ	I_γ[†&]	E_i(level)	J^π_i	E_f	J^π_f
423.1 3	0.05 2	1642.65	2^+	1219.50	4^+	650.1 3	0.18 5	3434.41		2784.11	
470.5 3	0.04[#] 3	2392.04	3^-	1921.72	3^-	668.7 2	0.32[‡] 4	1951.40	2^+	1282.60	0^+
513.5 1	37[‡] 2	513.50	2^+	0	0^+	696.5 2	0.09[#] 5	1915.94	3^+	1219.50	4^+
545.6 2	0.07[‡] 1	3348.56		2802.77		699.6 3	5.9 4	1213.09	2^+	513.50	2^+
555.2 3	0.03[#] 1	3275.80		2720.33		702.9 3	0.6[#] 2	1915.94	3^+	1213.09	2^+
556.2 4	0.015[#] 7	2478.22	1^-	1921.72	3^-	706.0 1	2.7 2	1219.50	4^+	513.50	2^+
567.0 2	0.06[‡] 1	2518.35	2^-	1951.40	2^+	708.6 1	0.4[#] 3	1921.72	3^-	1213.09	2^+
596.6 3	0.06 2	2518.35	2^-	1921.72	3^-	712.6 3	0.5 1	3473.00		2760.31	
602.7 2	0.08 2	2518.35	2^-	1915.94	3^+	734.9 2	0.08[#] 1	3213.08		2478.22	1^-
610.2 2	0.48[‡] 4	3473.00		2862.64		^{x}751.8 3	0.022 7				
640.9 2	1.2 1	3119.12	1^-	2478.22	1^-	769.1 2	0.85 7	1282.60	0^+	513.50	2^+

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^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94 (continued)

γ(^{116}Cd) (continued)

E_γ	I_γ[†&]	E_i(level)	J_i^π	E_f	J_f^π
776.2 2	0.06[‡] 2	3348.56		2572.44	
782.6 2	0.25[‡] 3	3542.92		2760.31	
[x]793.3 3	0.012 6				
798.5 2	0.11 2	2720.33		1921.72	3^-
829.0 3	0.19 5	3307.2		2478.22	1^-
830.4 3	0.09[‡] 1	3348.56		2518.35	2^-
861.1 3	0.02[#] 1	3379.4		2518.35	2^-
867.0 3	0.69[#] 8	1380.36	0^+	513.50	2^+
870.2 3	0.5 1	3348.56		2478.22	1^-
913.3 2	0.14[‡] 1	3348.56		2435.32	2^+
917.6 3	0.05[#] 1	3435.74		2518.35	2^-
917.8 3	0.06[#] 1	3213.08		2294.97	2^+
941.0 2	0.05 1	2862.64		1921.72	3^-
954.6 2	0.09[‡] 1	3674.75		2720.33	
995.1 2	0.68[‡] 6	3473.00		2478.22	1^-
1009.6 2	0.08[#] 2	3527.99		2518.35	2^-
1053.9 3	0.08[‡] 3	3348.56		2294.97	2^+
1056.6 3	0.03 1	2978.28		1921.72	3^-
1081.3 2	0.40[‡] 3	3473.00		2392.04	3^-
1093.6 2	0.12 1	3015.19		1921.72	3^-
1098.0 3	0.03[#] 2	2478.22	1^-	1380.36	0^+
1129.1 1	1.0[‡] 1	1642.65	2^+	513.50	2^+
1152.7 2	0.21 2	2435.32	2^+	1282.60	0^+
1168.8 2	0.05 1	3560.85		2392.04	3^-
1178.2 4	0.02 1	3473.00		2294.97	2^+
1179.0 2	0.14 3	2392.04	3^-	1213.09	2^+
1180.9 5	0.05[#] 2	3102.7		1921.72	3^-
[x]1196.9 3	0.039 8				
1213.1 1	3.1[‡] 3	1213.09	2^+	0	0^+
1222.4 3	0.13 4	2435.32	2^+	1213.09	2^+
[x]1251.5 3	0.024 5				
1254.3 3	0.05[#] 1	3175.64		1921.72	3^-
1260.0 3	0.07[#] 2	3175.64		1915.94	3^+
1267.1 2	0.11[‡] 2	3218.51		1951.40	2^+
1276.8 3	0.05[#] 2	3795.2		2518.35	2^-
1291.5 2	0.26[‡] 3	3213.08		1921.72	3^-
1297.0 3	0.40[‡] 4	3213.08		1915.94	3^+
1305.2 1	2.6[‡] 2	2518.35	2^-	1213.09	2^+
1354.0 2	0.13 1	3745.96		2392.04	3^-
1402.5 2	0.69 7	1915.94	3^+	513.50	2^+
1406.7 3	0.05[#] 2	3925.1		2518.35	2^-
1408.2 1	1.5 2	1921.72	3^-	513.50	2^+
1415.1 2	0.28[#] 4	1928.61	0^+	513.50	2^+
1437.9 1	0.75 6	1951.40	2^+	513.50	2^+
1462.2 3	0.3[#] 2	3378.23		1915.94	3^+
1484.3 2	0.05[‡] 1	3435.74		1951.40	2^+
1501.0 2	0.06[‡] 1	2720.33		1219.50	4^+
[x]1507.8 3	0.037 4				
1513.6[@] 5	0.06 3	3435.74		1921.72	3^-
[x]1518.7 3	0.009 3				
[x]1521.1 3	0.015 4				
1533.4 4	0.14[#] 3	3175.64		1642.65	2^+
1550.8 2	0.29 3	3473.00		1921.72	3^-
1564.4 2	0.03 1	2784.11		1219.50	4^+
1570.4 4	0.19[‡] 2	3213.08		1642.65	2^+
1574.8 2	0.11 1	3217.47		1642.65	2^+
[x]1590.5 3	0.028 6				
1604.9 2	0.66 5	2118.42		513.50	2^+
1632.6 2	0.10 3	2845.71		1213.09	2^+
1642.6 2	0.68[‡] 9	1642.65	2^+	0	0^+
1649.3 2	0.13 2	2862.64		1213.09	2^+
[x]1662.1 3	0.017 4				
[x]1697.4 3	0.04 1				
1705.7 2	0.13 2	3348.56		1642.65	2^+
1729.8 2	0.22[‡] 2	4573.91		2844.10	
[x]1752.2 3	0.05 1				
1758.6 2	0.14 1	3674.75		1915.94	3^+
[x]1765.0 3	0.05 1				
1781.5 2	0.67 6	2294.97	2^+	513.50	2^+
1791.6 2	0.12 3	3434.41		1642.65	2^+
1802.3 2	0.44 5	3015.19		1213.09	2^+
[x]1813.1 3	0.06 1				
1824.0 3	0.04 2	3745.96		1921.72	3^-
1837.1 2	0.15[‡] 2	3217.47		1380.36	0^+
[x]1858.1 3	0.03 1				
1872.7 2	0.28 4	3794.44		1921.72	3^-
1878.6 1	0.67[#] 9	2392.04	3^-	513.50	2^+
[x]1899.2 3	0.03 1				
[x]1903.7 3	0.04 1				
1917.6 2	0.12 2	3839.34		1921.72	3^-
1951.4 1	0.13[‡] 2	1951.40	2^+	0	0^+
1965.3 3	0.37 5	2478.22	1^-	513.50	2^+
2004.8 2	0.9 1	2518.35	2^-	513.50	2^+
[x]2030.9 3	0.029 8				
2059.0 2	0.07[#] 1	2572.44		513.50	2^+
2062.8 2	0.10[#] 3	3275.80		1213.09	2^+
2091.0 2	0.41[‡] 6	3471.4		1380.36	0^+
[x]2103.5 3	0.014 3				
[x]2126.7 5	0.04 3				
2135.3 2	1.0 1	3348.56		1213.09	2^+
2140.0 2	0.38 5	2653.52		513.50	2^+
2165.1 2	0.08 3	3378.23		1213.09	2^+
[x]2171.2 3	0.04 1				
2206.8 2	0.48 6	2720.33		513.50	2^+
2246.6 2	0.59 7	2760.31		513.50	2^+
2270.7 2	0.39 7	2784.11		513.50	2^+

Continued on next page (footnotes at end of table)

^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94 (continued)

γ(^{116}Cd) (continued)

E_γ	I_γ †&	E_i(level)	J_i^π	E_f	J_f^π
2289.2 1	1.0 1	2802.77		513.50	2^+
2315.7 5	0.30 5	2829.06	1	513.50	2^+
2330.6 1	0.69 8	2844.10		513.50	2^+
2349.1 2	0.53 6	2862.64		513.50	2^+
x2378.0 4	0.041 8				
x2424.9 5	0.007 5				
2435.3 2	0.10‡ 2	2435.32	2^+	0	0^+
x2448.7 3	0.034 8				
2464.7 3	0.02 1	2978.28		513.50	2^+
2478.2 1	5.3‡ 7	2478.22	1^-	0	0^+
2487.9 3	0.49 9	3001.44		513.50	2^+
2501.3 2	0.6 1	3015.19		513.50	2^+
2545.6 2	0.11‡ 2	3758.72		1213.09	2^+
2589.2 3	0.10# 4	3102.7		513.50	2^+
2624.1 2	0.19‡ 4	3137.64		513.50	2^+
2640.3 2	0.13 4	4562.06		1921.72	3^-
2662.0 1	1.9 3	3175.64		513.50	2^+
x2673.2 4	0.02 1				
2703.2 1	3.4 5	3216.74		513.50	2^+
2760.4 2	0.42 7	2760.31		0	0^+
2773.7 2	0.06 2	3287.24		513.50	2^+
2801.1 2	0.18# 3	4083.63		1282.60	0^+
x2811.7 3	0.034 6				
2829.0 2	0.7‡ 1	2829.06	1	0	0^+
2835.1 2	1.4 2	3348.56		513.50	2^+
2843.8 3	0.5‡ 1	2844.10		0	0^+
2864.9 4	0.19 4	3378.23		513.50	2^+
2867.2 3	0.19‡ 7	4080.3		1213.09	2^+
2921.1 2	0.51 8	3434.41		513.50	2^+
x2939.4 4	0.006 2				
x2943.0 5	0.005 1				
2959.4 2	0.49 8	3473.00		513.50	2^+
3001.4 1	0.5‡ 1	3001.44		0	0^+
3014.6 4	0.10# 5	3527.99		513.50	2^+
3029.4 4	0.02‡ 1	3542.92		513.50	2^+
x3047.9 4	0.018 5				
3068.9 2	0.19‡ 5	3068.94		0	0^+
3082.0 3	0.04 1	3595.5		513.50	2^+
3194.9 2	0.14 3	3708.39		513.50	2^+
3218.8 1	0.13# 7	3732.35		513.50	2^+
3233.7 2	0.13 3	3747.25		513.50	2^+
3250.6 2	0.05‡ 2	3250.65		0	0^+
3328.0 3	0.08# 3	3841.6		513.50	2^+
3339.9 2	0.05‡ 2	3339.95		0	0^+
3348.8 3	0.12‡ 9	3348.56		0	0^+
x3359.5 3	0.027 4				
x3371.9 3	0.010 3				
3401.8 2	0.33 9	4614.86		1213.09	2^+
3429.7 2	0.07 2	4642.71		1213.09	2^+
3439.8 2	0.09‡ 3	4652.95		1213.09	2^+
3471.1 3	0.10 3	3984.7		513.50	2^+

E_γ	I_γ †&	E_i(level)	J_i^π	E_f	J_f^π
3476.2 2	0.19 5	4689.30		1213.09	2^+
3484.5 2	0.07 2	4697.65		1213.09	2^+
3511.8 2	0.03‡ 1	3511.86		0	0^+
3531.5 2	0.03‡ 1	3531.56		0	0^+
3542.1 2	0.09 2	4755.25		1213.09	2^+
3601.3 2	0.12‡ 3	3601.36		0	0^+
3622.3 2	0.10 2	4135.86		513.50	2^+
3663.6 3	0.02 1	4177.2		513.50	2^+
x3663.8 3	0.009 3				
3681.8 2	0.02 1	3681.86		0	0^+
x3703.3 4	0.009 4				
3708.2 3	0.05‡ 1	3708.39		0	0^+
3733.4 3	0.11 3	4247.0		513.50	2^+
3805.9 2	0.02‡ 1	3805.97		0	0^+
x3817.2 5	0.003 1				
3850.6 3	0.07‡ 2	3850.7		0	0^+
x3850.8 3	0.028 5				
3864.9 2	0.06 2	4378.47		513.50	2^+
3877.8 2	0.02‡ 1	3877.87		0	0^+
3918.5 2	0.04 1	4432.07		513.50	2^+
3935.9 3	0.02 1	4449.5		513.50	2^+
3943.0 2	0.03‡ 1	3943.07		0	0^+
3962.4 2	0.07 2	4475.95		513.50	2^+
4009.6 3	0.04‡ 1	4009.7		0	0^+
4022.9 2	0.05‡ 1	4022.97		0	0^+
4057.8 2	0.02‡ 1	4057.88		0	0^+
4083.3 3	0.09‡ 3	4083.63		0	0^+
4101.2 2	0.16 4	4614.86		513.50	2^+
4118.4 3	0.02 1	4632.0		513.50	2^+
4129.0 2	0.03 1	4642.71		513.50	2^+
4133.8 3	0.02 1	4647.4		513.50	2^+
x4151.0 4	0.007 3				
x4178.4 4	0.008 2				
4231.4 2	0.02‡ 1	4231.48		0	0^+
4259.4 3	0.012 4	4773.0		513.50	2^+
x4259.6 4	0.005 2				
4273.6 2	0.018 6	4787.19		513.50	2^+
4290.1 2	0.02‡ 1	4290.19		0	0^+
4315.3 2	0.04 1	4828.89		513.50	2^+
4403.0 3	0.011 4	4916.6		513.50	2^+
4411.0 3	0.024 7	4924.6		513.50	2^+
4428.2 2	0.05‡ 1	4428.29		0	0^+
4440.0 3	0.030 8	4953.6		513.50	2^+
4455.3 2	0.05 2	4968.90		513.50	2^+
4475.8 3	0.04‡ 1	4475.95		0	0^+
x4486.8 5	0.006 2				
4539.1 2	0.02‡ 1	4539.20		0	0^+
4590.7 2	0.05‡ 1	4590.80		0	0^+
x4633.4 4	0.006 2				
4688.9 5	0.010‡ 4	4689.30		0	0^+

Continued on next page (footnotes at end of table)

^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94 (continued)

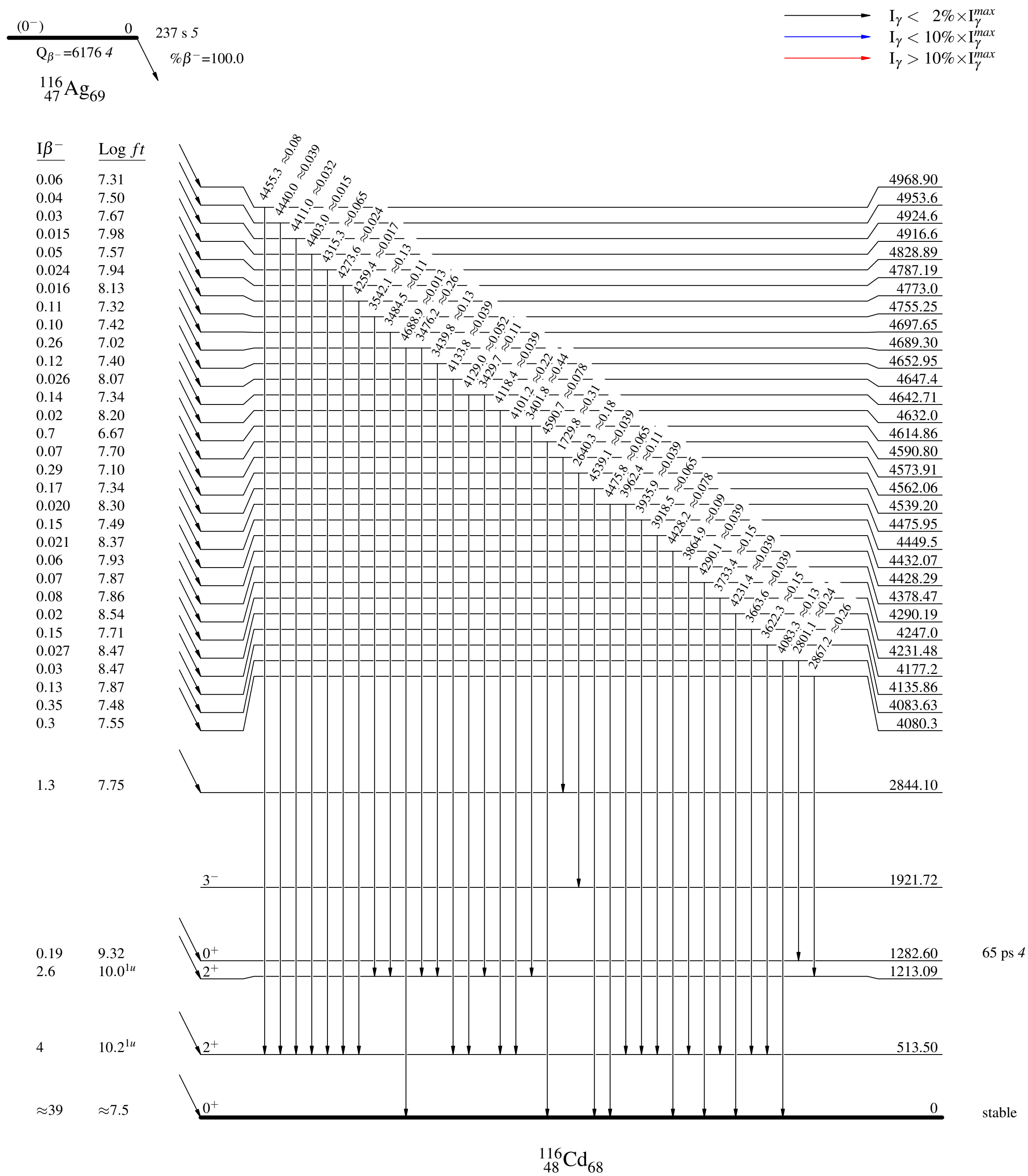
γ(^{116}Cd) (continued)

† From singles γ and $\gamma\gamma$ coin spectra, unless otherwise stated.
‡ From γ singles spectra.
# From $\gamma\gamma$ coincidence spectra.
@ 1531.6 listed in Table vi of 2009Ba52 is a misprint.
& For absolute intensity per 100 decays, multiply by ≈1.3.
^{x} γ ray not placed in level scheme.

^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94

Decay Scheme

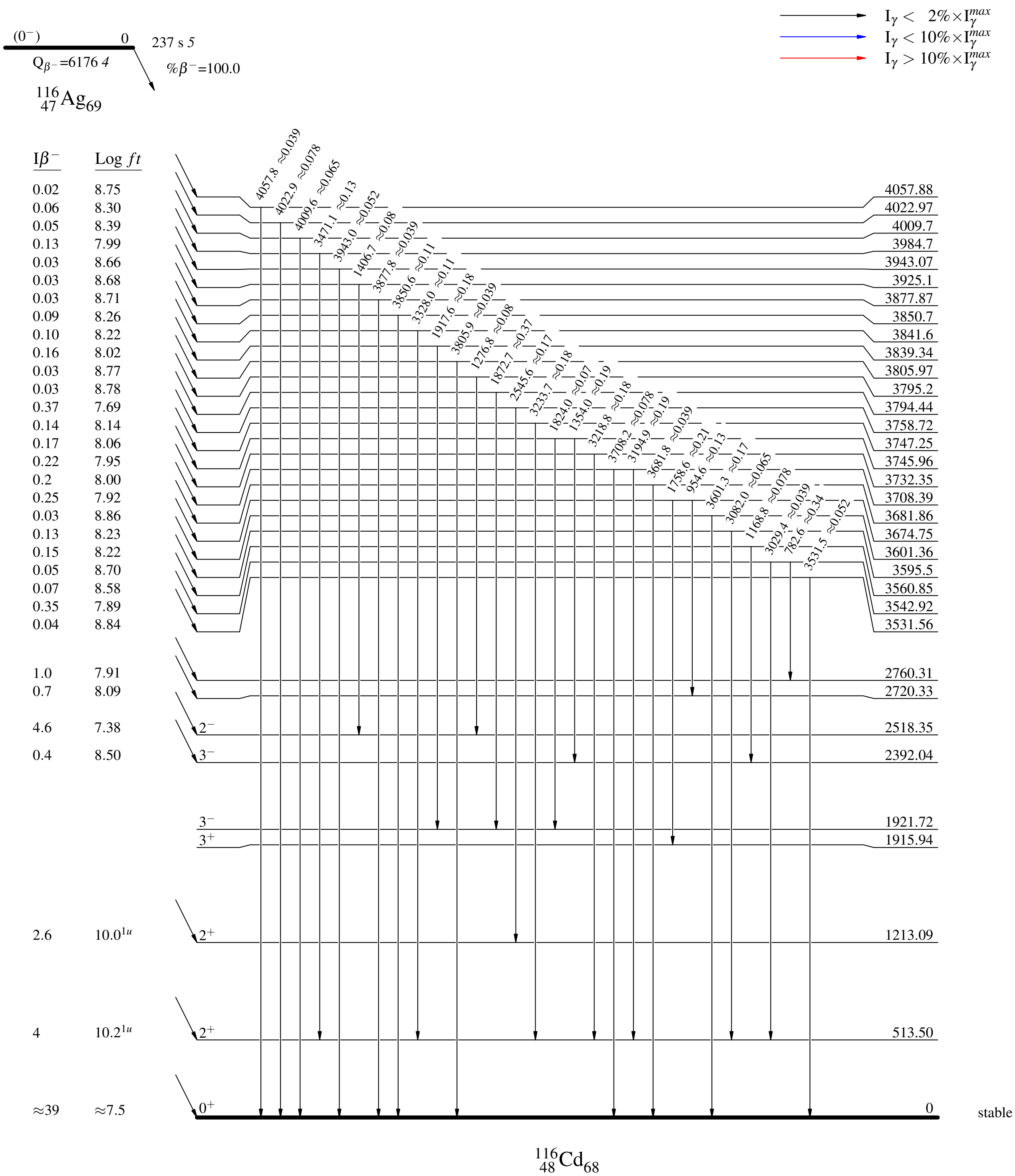
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94

Decay Scheme (continued)

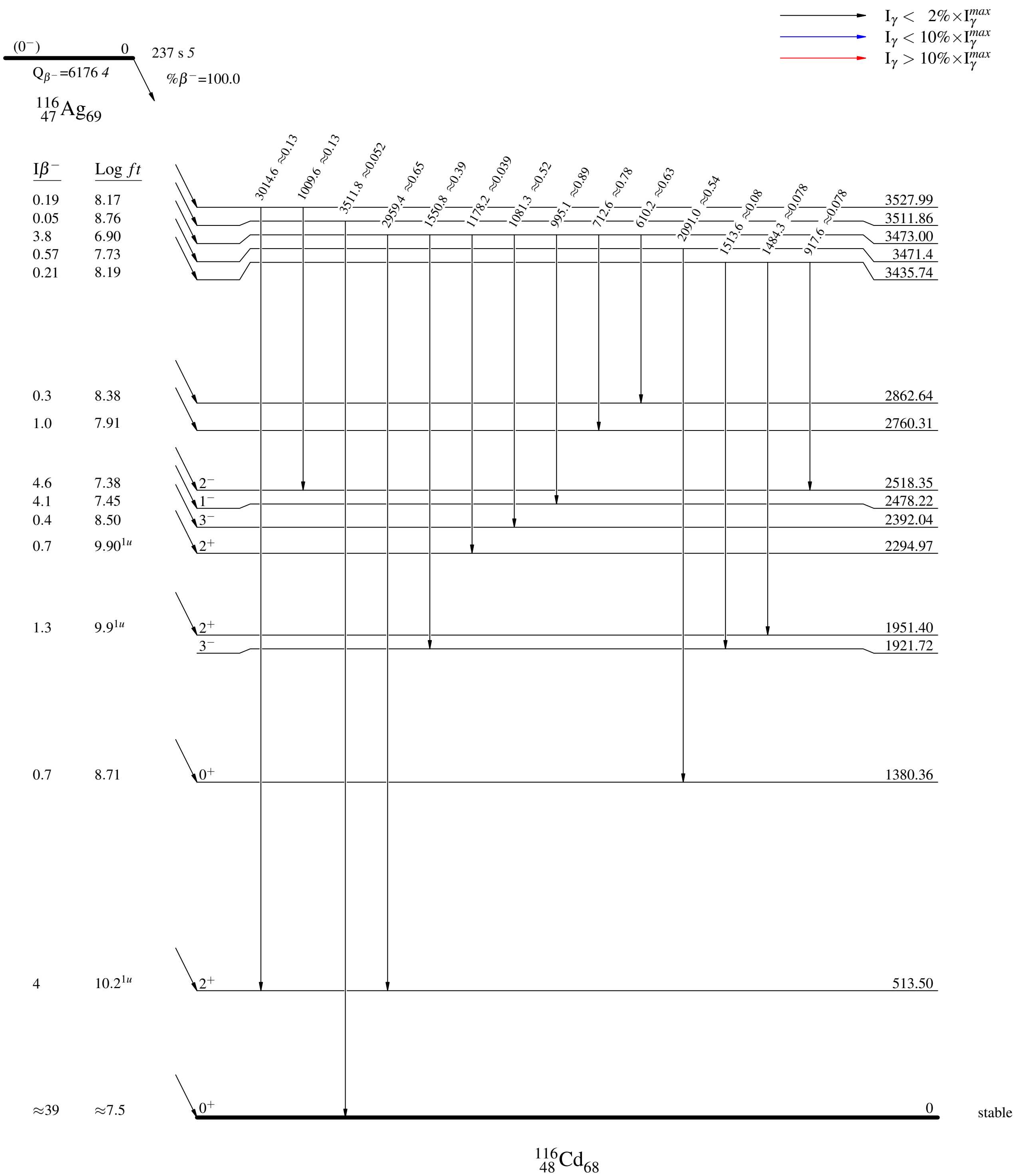
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94

Decay Scheme (continued)

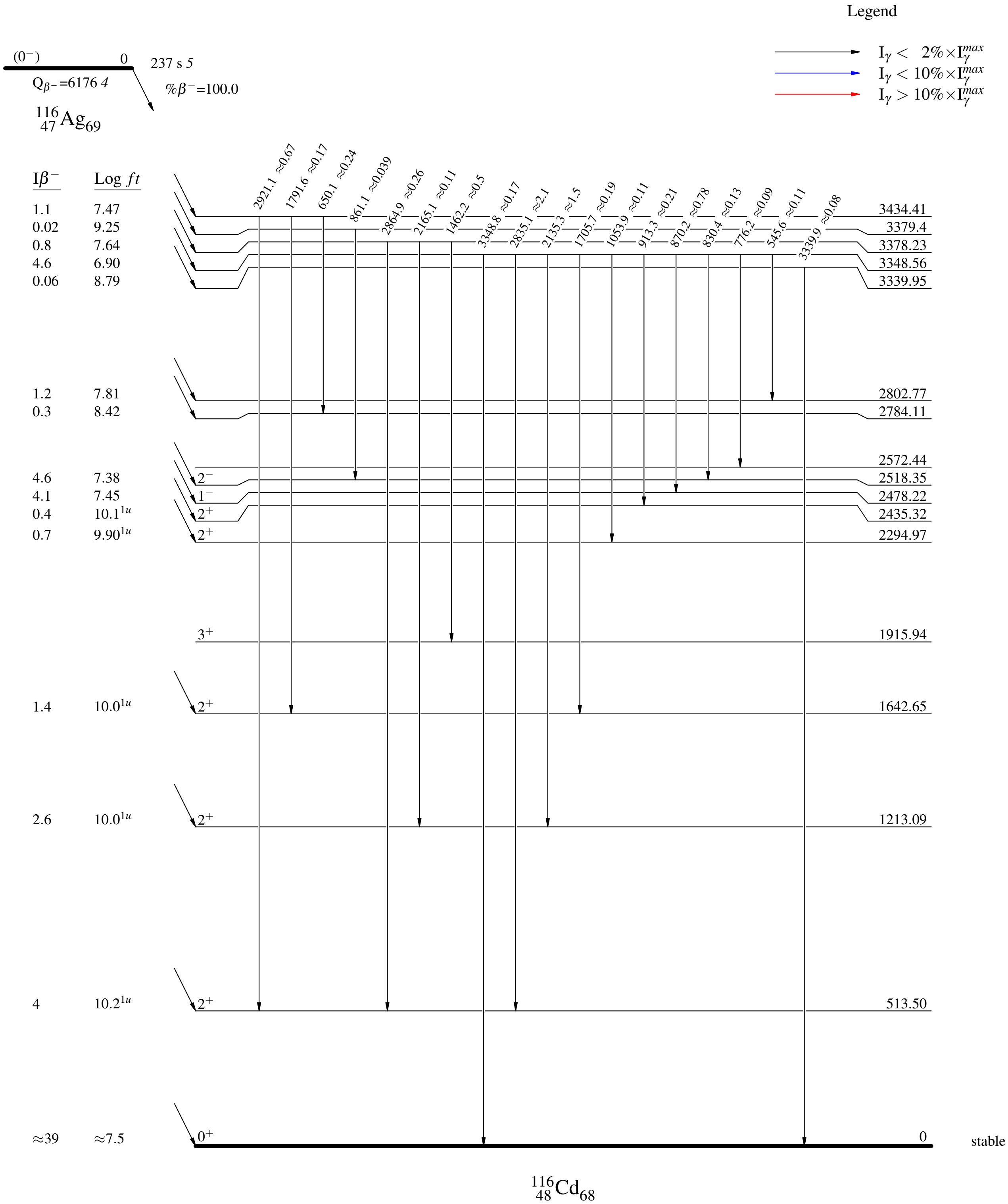
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94

Decay Scheme (continued)

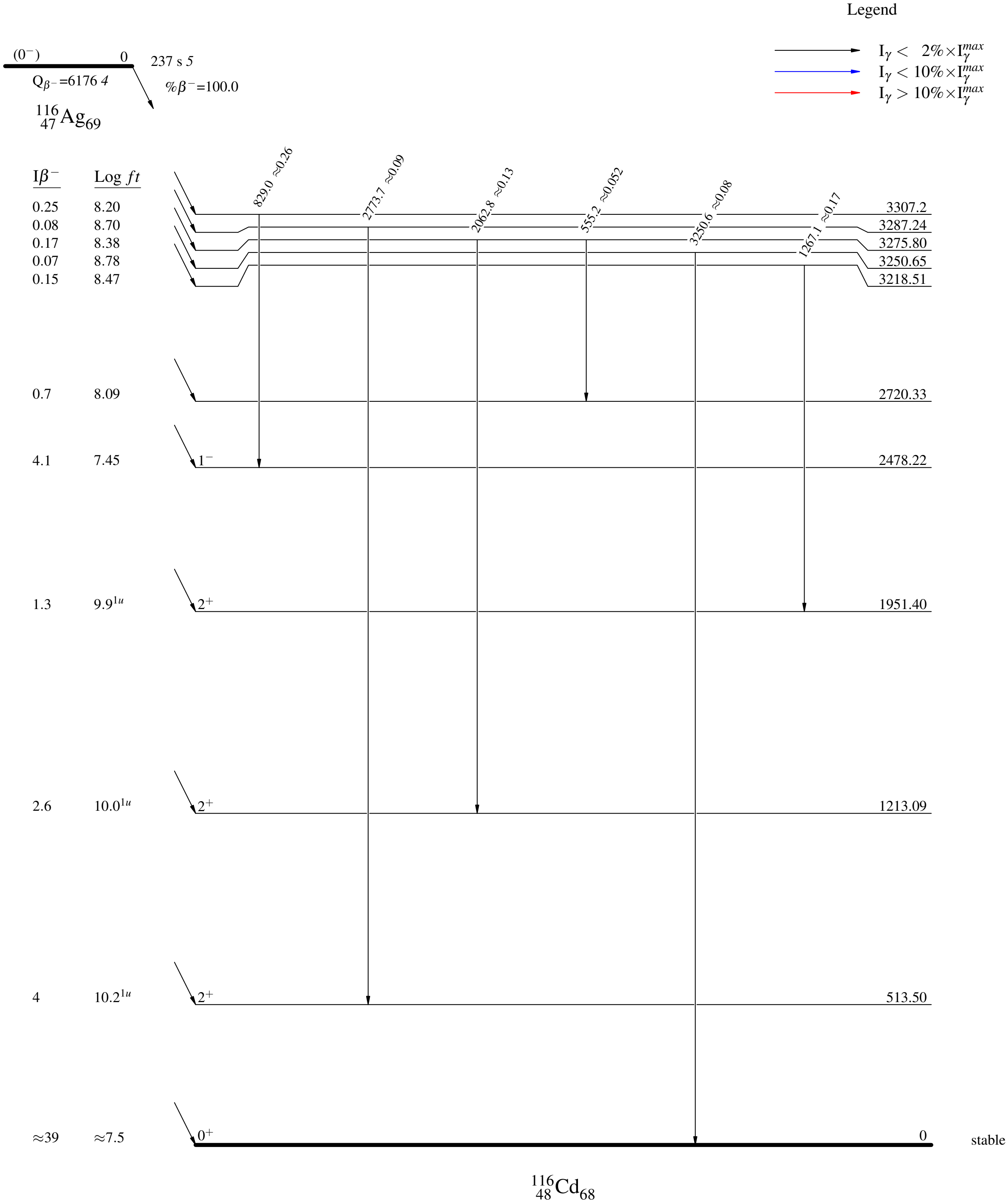
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94

Decay Scheme (continued)

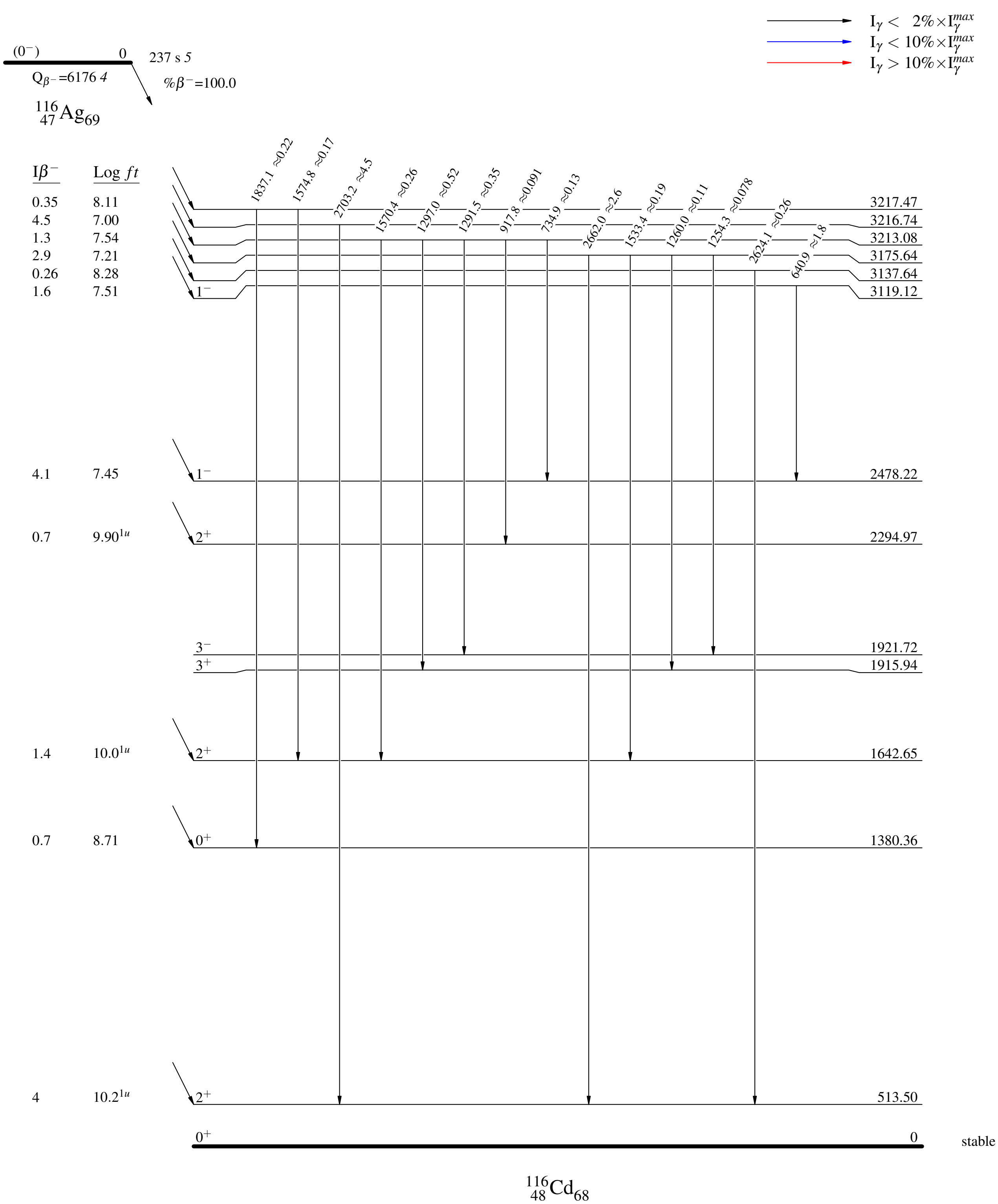
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94

Decay Scheme (continued)

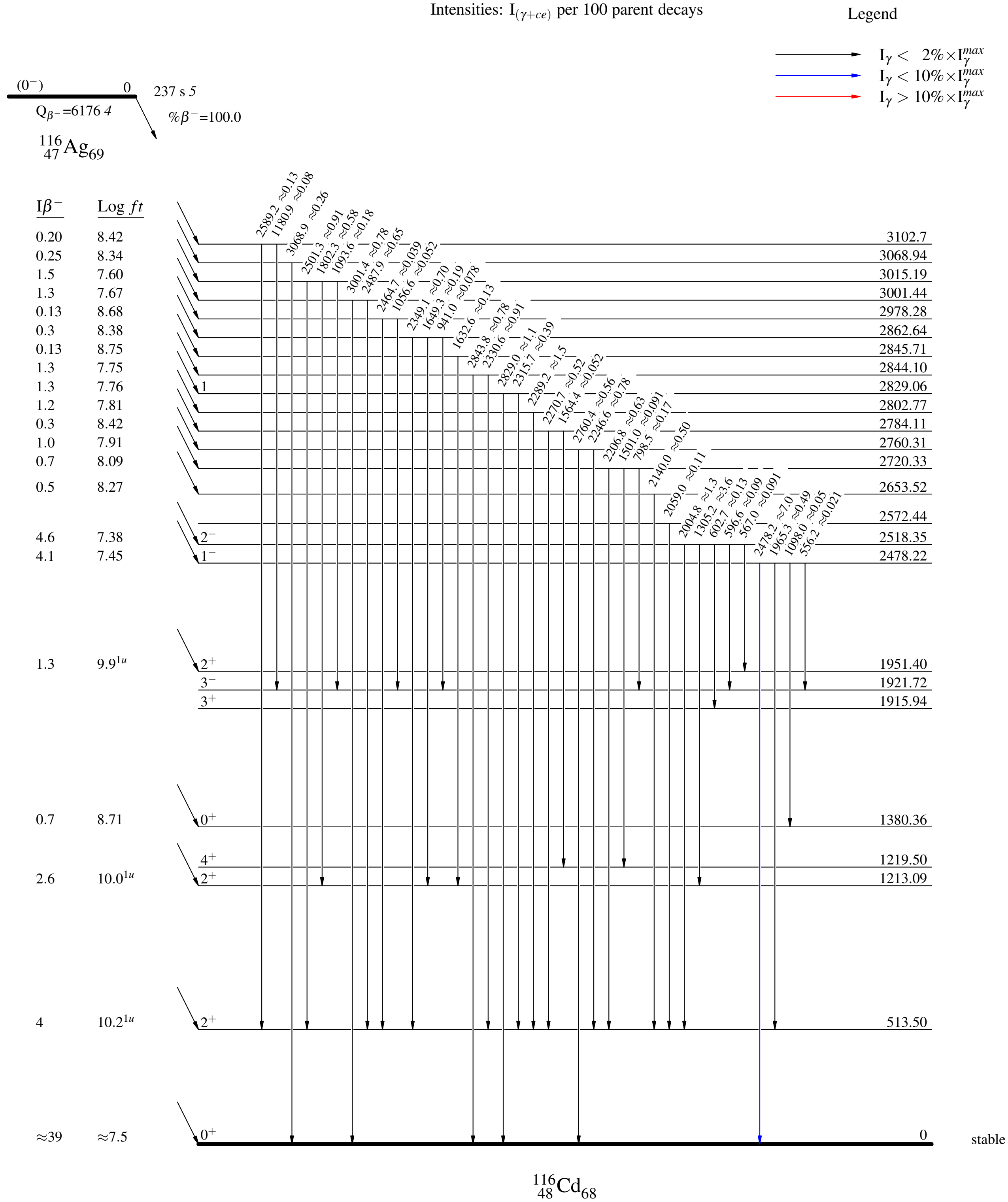
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{116}Ag β^- decay (237 s) 2009Ba52,2005Ba94

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



$^{116}Ag\ \beta^-$ decay (237 s) 2009Ba52,2005Ba94

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays