^{75}Cu β^- decay (1.224 s) 2011Il01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Alexandru Negret, Balraj Singh	NDS 114, 841 (2013)	30-Jun-2013

Parent: ^{75}Cu: E=0; $J^\pi=5/2^{(-)}$; $T_{1/2}$=1.224 s *3*; Q(β^-)=8088 *3*; %β^- decay=100.0

^{75}Cu-J^π,$T_{1/2}$: From ^{75}Cu Adopted Levels.

^{75}Cu-Q(β^-): From 2012Wa38.

^{75}Cu-%β^- decay: %β^-n=3.5 *6* (1985Re01), 2.6 *5* (2002Pf04).

2011Il01: ^{75}Cu beam produced from fission of ^{238}U with protons at Holifield Radioactive Ion beam facility. Mass and isobaric separation of the beam with a high-resolution system. Measured Eγ, Iγ, $\gamma\gamma$ and $\beta\gamma$ coin, isotopic half-life using four HPGe Clover Ge detectors for γ rays and two plastic scintillators for β particles. Level scheme deduced from detailed $\gamma\gamma$ coin data.

^{75}Zn Levels

E(level)[†]	J^π[#]	Comments
0.0	$(7/2^+)$	
126.94 *9*	$(1/2^-)$	E(level): proposed as a β-decaying isomer in ^{75}Zn (2011Il01). A total of 151.9 *4* (or 29 *6* absolute units) of relative intensity units are feeding this isomer.
152.12 *10*	$(1/2^+,3/2^-)$	J^π: 2011Il01 assign $(3/2^-)$.
236.22 *10*	$(3/2,5/2^-)$	J^π: 2011Il01 assign $(3/2^-)$.
344.95 *8*	$(3/2^+,5/2^-)$	J^π: 2011Il01 assign $(5/2^-)$.
420.52 *8*	$(3/2^+,5/2^-)$	J^π: 2011Il01 assign $(5/2^-)$.
475.66 *8*	$(9/2^+)$	
725.14 *9*	$(3/2,5/2^-)$	J^π: 2011Il01 assign (3/2,5/2).
933.47 *17*		
1012.58 *10*		J^π: 2011Il01 assign $(9/2^-)$.
1102.01 *11*	$(3/2,5/2^-)$	J^π: 2011Il01 assign $(1/2^-,3/2,5/2)$.
1144.24 *8*	$(7/2^-)$	
1303.90 *11*	$(5/2^+)$	J^π: 2011Il01 assign $(5/2^+,7/2^-)$.
1317.8? *5*		
1551.08 *18*		
1605.83 *12*	$(5/2^+,7/2)$	
1787.64 *16*		
1864.30 *25*		
1915.96 *14*	$(5/2^+,7/2)$	
2042.5 *5*		
2230.1 *3*	$(5/2^+,7/2)$	
2239.60 *23*		
2315.91 *22*		
2339.9 *3*		
2851.26 *19*		
2871.4 *3*		
2904.66[‡] *17*		
2906.54[‡] *15*	$(7/2^-)$	
2969.77 *20*		
3000.1 *3*		
3020.37 *18*		
3087.25 *13*	$(3/2^-,5/2,7/2)$	J^π: 2011Il01 assign $(5/2^-,7/2)$.
3126.55 *16*	$(3/2^-,5/2,7/2)$	J^π: 2011Il01 assign $(5/2^-,7/2)$.
3166.9 *4*		
3235.04 *13*	$(3/2^-,5/2,7/2)$	J^π: 2011Il01 assign $(5/2^-,7/2)$.
3266.6 *3*		
3341.48 *23*	$(5/2^+,7/2)$	
3361.99 *15*	$(3/2^-,5/2,7/2)$	J^π: 2011Il01 assign $(5/2^-,7/2)$.
3406.7 *3*		
3424.88 *21*		

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^{75}Cu β^- decay (1.224 s) 2011Il01 (continued)

^{75}Zn Levels (continued)

E(level)[†]	J$^\pi$[#]	Comments
3492.30 *23*		
3530.73 *22*	(5/2$^+$,7/2)	
3546.4 *3*		
3574.1 *4*	(5/2$^+$,7/2)	J$^\pi$: 2011Il01 assign (5/2$^-$,7/2).
3576.9 *4*		J$^\pi$: 2011Il01 assign (5/2$^-$,7/2).
3668.0 *3*		
3818.3 *3*		
3840.38 *18*	(5/2$^+$,7/2$^-$)	
3886.7 *7*		
3897.4 *7*		
3900.1 *8*		
3999.0 *11*		
4010.0 *5*		J$^\pi$: 2011Il01 assign (5/2$^+$,7/2).
4016.4 *4*		
4035.4 *5*		J$^\pi$: 2011Il01 assign (5/2$^+$,7/2$^-$).
4359.0 *10*		
4599.0 *6*		
4686.1 *5*		
4989.6 *8*		
5022.0 *6*		

[†] From least-squares fit to Eγ data. Reduced χ^2=1.0.

[‡] Two levels at 2904.7 and 2906.5 are proposed by the evaluators based on γ-ray fits in the level scheme, and agreed upon by the first author of 2011Il01 in an e-mail reply.

[#] From Adopted Levels. Assignments proposed in 2011Il01 based on β feedings and γ-decay pattern are listed under comments.

β^- radiations

E(decay)	E(level)	Iβ^-[†&]	Log *ft*[‡]	Comments
(3066 *3*)	5022.0	0.017 *6*	6.9	av Eβ=1313.8 *15*
(3098 *3*)	4989.6	0.051 *16*	6.5	av Eβ=1329.3 *15*
(3402 *3*)	4686.1	0.13 *3*	6.3	av Eβ=1474.8 *15*
(3489 *3*)	4599.0	0.055 *17*	6.7	av Eβ=1516.6 *15*
(3729 *3*)	4359.0	0.036 *14*	7.0	av Eβ=1632.1 *16*
(4053 *3*)	4035.4	0.08 *3*	6.8	av Eβ=1788.3 *15*
(4072 *3*)	4016.4	0.14 *4*	6.6	av Eβ=1797.5 *15*
(4078 *3*)	4010.0	0.21 *6*	6.4	av Eβ=1800.5 *15*
(4089 *3*)	3999.0	0.05 *3*	7.0	av Eβ=1805.9 *16*
(4188 *3*)	3900.1	0.038 *16*	7.2	av Eβ=1853.7 *15*
(4191 *3*)	3897.4	0.099 *25*	6.8	av Eβ=1855.0 *15*
(4201 *3*)	3886.7	0.061 *20*	7.0	av Eβ=1860.2 *15*
(4248 *3*)	3840.38	1.5 *4*	5.6	av Eβ=1882.6 *15*
(4270 *3*)	3818.3	0.54 *12*	6.1	av Eβ=1893.3 *15*
(4420 *3*)	3668.0	0.55 *12*	6.1	av Eβ=1966.0 *15*
(4511 *3*)	3576.9	0.29 *7*	6.4	av Eβ=2010.1 *15*
(4514 *3*)	3574.1	0.34 *9*	6.4	av Eβ=2011.5 *15*
(4542 *3*)	3546.4	0.13 *4*	6.8	av Eβ=2024.9 *15*
(4557 *3*)	3530.73	0.87 *19*	6.0	av Eβ=2032.5 *15*
(4596 *3*)	3492.30	0.44 *10*	6.3	av Eβ=2051.1 *15*
(4663 *3*)	3424.88	0.64 *14*	6.2	av Eβ=2083.8 *15*
(4681 *3*)	3406.7	0.27 *6*	6.6	av Eβ=2092.6 *15*
(4726 *3*)	3361.99	2.3 *5*	5.6	av Eβ=2114.3 *15*

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^{75}Cu β^- decay (1.224 s) 2011Il01 (continued)

β^- radiations (continued)

E(decay)	E(level)	Iβ^-[†][&]	Log ft[‡]	Comments
(4747 *3*)	3341.48	0.80 *18*	6.1	av Eβ=2124.2 *15*
(4821 *3*)	3266.6	0.29 *7*	6.6	av Eβ=2160.6 *15*
(4853 *3*)	3235.04	2.5 *6*	5.7	av Eβ=2175.9 *15*
(4921 *3*)	3166.9	0.13 *4*	7.0	av Eβ=2208.9 *15*
(4961 *3*)	3126.55	1.4 *3*	6.0	av Eβ=2228.5 *15*
(5001 *3*)	3087.25	3.0 *7*	5.6	av Eβ=2247.6 *15*
(5068 *3*)	3020.37	1.4 *3*	6.0	av Eβ=2280.1 *15*
(5088 *3*)	3000.1	0.30 *17*	6.7	av Eβ=2289.9 *15*
(5118 *3*)	2969.77	0.67 *15*	6.3	av Eβ=2304.6 *15*
(5181 *3*)	2906.54	6.3[@] *14*	5.4	av Eβ=2335.3 *15*
(5183 *3*)	2904.66	1.6 *4*	6.0	av Eβ=2336.2 *15*
(5217 *3*)	2871.4	0.11 *3*	7.2	av Eβ=2352.4 *15*
(5237 *3*)	2851.26	1.7 *4*	6.0	av Eβ=2362.2 *15*
(5748 *3*)	2339.9	0.17 *4*	7.2	av Eβ=2610.7 *15*
(5772 *3*)	2315.91	0.62 *14*	6.6	av Eβ=2622.4 *15*
(5848 *3*)	2239.60	0.28 *7*	7.0	av Eβ=2659.5 *15*
(5858 *3*)	2230.1	0.20 *5*	7.1	av Eβ=2664.1 *15*
(6046 *3*)	2042.5	0.051 *18*	7.8	av Eβ=2755.4 *15*
(6172 *3*)	1915.96	0.61 *14*	6.7	av Eβ=2816.9 *15*
(6224 *3*)	1864.30	0.15 *4*	7.4	av Eβ=2842.1 *15*
(6300 *3*)	1787.64	0.64 *14*	6.8	av Eβ=2879.4 *15*
(6482 *3*)	1605.83	0.71 *15*	6.8	av Eβ=2967.9 *15*
(6537 *3*)	1551.08	0.17 *4*	7.4	av Eβ=2994.5 *15*
(6784 *3*)	1303.90	0.41 *9*	7.1	av Eβ=3114.8 *15*
(6944 *3*)	1144.24	17 *4*	5.5	av Eβ=3192.5 *15*
(6986 *3*)	1102.01	0.79 *18*	6.9	av Eβ=3213.1 *15*
(7155 *3*)	933.47	0.070 *23*	8.0	av Eβ=3295.1 *15*
(7363 *3*)	725.14	2.1 *5*	6.6	av Eβ=3396.5 *15*
(7612 *3*)	475.66	2.1[#] *5*	8.8[1u]	av Eβ=3519.7 *15*
(7667 *3*)	420.52	5 *1*	6.3	av Eβ=3544.8 *15*
(7743 *3*)	344.95	3.2 *7*	6.5	av Eβ=3581.6 *15*
(7852 *3*)	236.22	0.62 *15*	7.2	av Eβ=3634.5 *15*

[†] 2011Il01 list only strong β feedings to 345, 420, 476, 725, 1144, and 2906 levels. Others are deduced by the evaluators. These feedings should be considered as apparent values since about 35% β feeding remains unaccounted. Note that γ rays with uncertain placements are not included by the evaluators in obtaining intensity balances.

[‡] Deduced by the evaluators using LOGFT code. Due to incomplete decay scheme, these values should be considered as approximate, thus no uncertainties are listed here.

[#] 1.8 *4* in 2011Il01.

[@] 7.9 *17* in 2011Il01 for feeding to 2904.6+2906.5 levels.

[&] Absolute intensity per 100 decays.

$\gamma(^{75}Zn)$

Iγ normalization: Estimated Iγ/100 decays=19 *4* for 420.5γ from a level of this energy (2011Il01). An estimated 35% of the β intensity is unaccounted.

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^{75}Cu β^- decay (1.224 s) 2011Il01 (continued)

$\gamma(^{75}Zn)$ (continued)

E_γ	I_γ †&	E_i(level)	J_i^π	E_f	J_f^π	$I_{(\gamma+ce)}$ &	Comments
(25.2)		152.12	(1/2$^+$,3/2$^-$)	126.94	(1/2$^-$)	104.8‡ *3*	
109.21 *14*	19.26 *19*	236.22	(3/2,5/2$^-$)	126.94	(1/2$^-$)		Additional information 1.
131.25 *14*	1.60 *5*	1144.24	(7/2$^-$)	1012.58			
192.72 *14*	50.0 *5*	344.95	(3/2$^+$,5/2$^-$)	152.12	(1/2$^+$,3/2$^-$)		Additional information 2.
217.90 *13*	11.24 *11*	344.95	(3/2$^+$,5/2$^-$)	126.94	(1/2$^-$)		Additional information 3.
268.48 *13*	43.1 *4*	420.52	(3/2$^+$,5/2$^-$)	152.12	(1/2$^+$,3/2$^-$)		Additional information 5.
293.64 *13*	3.44 *6*	420.52	(3/2$^+$,5/2$^-$)	126.94	(1/2$^-$)		
304.60 *13*	1.50 *6*	725.14	(3/2,5/2$^-$)	420.52	(3/2$^+$,5/2$^-$)		
345.00 *13*	17.26 *17*	344.95	(3/2$^+$,5/2$^-$)	0.0	(7/2$^+$)		Additional information 4.
380.14 *13*	4.50 *7*	725.14	(3/2,5/2$^-$)	344.95	(3/2$^+$,5/2$^-$)		
420.51 *12*	100.0 *10*	420.52	(3/2$^+$,5/2$^-$)	0.0	(7/2$^+$)		Additional information 6.
475.61 *12*	56.84 *15*	475.66	(9/2$^+$)	0.0	(7/2$^+$)		
488.77 *12*	2.06 *6*	725.14	(3/2,5/2$^-$)	236.22	(3/2,5/2$^-$)		
573.01 *12*	8.70 *20*	725.14	(3/2,5/2$^-$)	152.12	(1/2$^+$,3/2$^-$)		
592.06 *11*	6.22 *8*	1012.58		420.52	(3/2$^+$,5/2$^-$)		
598.30 *11*	10.28 *10*	725.14	(3/2,5/2$^-$)	126.94	(1/2$^-$)		Additional information 7.
667.45 *23*	0.87 *15*	1012.58		344.95	(3/2$^+$,5/2$^-$)		
668.44 *11*	13.82 *16*	1144.24	(7/2$^-$)	475.66	(9/2$^+$)		
697.21 *17*	0.64 *6*	933.47		236.22	(3/2,5/2$^-$)		
723.76 *11*	70.6 *7*	1144.24	(7/2$^-$)	420.52	(3/2$^+$,5/2$^-$)		Additional information 8.
756.93 *12*	1.49 *6*	1102.01	(3/2,5/2$^-$)	344.95	(3/2$^+$,5/2$^-$)		
799.32 *11*	24.59 *25*	1144.24	(7/2$^-$)	344.95	(3/2$^+$,5/2$^-$)		Additional information 9.
828.29 *14*	1.03 *6*	1303.90	(5/2$^+$)	475.66	(9/2$^+$)		
854.13[a] *18*	0.57 *6*	1787.64		933.47			
865.90 *17*	0.90 *7*	1102.01	(3/2,5/2$^-$)	236.22	(3/2,5/2$^-$)		
907.99 *11*	4.69 *8*	1144.24	(7/2$^-$)	236.22	(3/2,5/2$^-$)		
975.12 *11*	2.78 *8*	1102.01	(3/2,5/2$^-$)	126.94	(1/2$^-$)		
1067.76 *14*	1.14 *8*	1303.90	(5/2$^+$)	236.22	(3/2,5/2$^-$)		
1075.42 *16*	0.90 *7*	1551.08		475.66	(9/2$^+$)		
1081.6[a] *4*	0.29 *7*	1317.8?		236.22	(3/2,5/2$^-$)		
1109.0 *4*	0.27 *7*	2042.5		933.47			
1130.16 *12*	2.26 *8*	1605.83	(5/2$^+$,7/2)	475.66	(9/2$^+$)		
1144.37[a] *16*	1.02 *8*	1144.24	(7/2$^-$)	0.0	(7/2$^+$)		
1176.86[a] *11*	4.62 *10*	1303.90	(5/2$^+$)	126.94	(1/2$^-$)		
1185.30 *16*	1.46 *9*	1605.83	(5/2$^+$,7/2)	420.52	(3/2$^+$,5/2$^-$)		
1440.23 *15*	1.68 *9*	1915.96	(5/2$^+$,7/2)	475.66	(9/2$^+$)		
1495.52 *20*	1.54 *15*	1915.96	(5/2$^+$,7/2)	420.52	(3/2$^+$,5/2$^-$)		
1551.42 *14*	3.39 *10*	1787.64		236.22	(3/2,5/2$^-$)		
1628.06 *23*	0.80 *9*	1864.30		236.22	(3/2,5/2$^-$)		
1757.6[#a] *3*	1.20 *17*	2230.1	(5/2$^+$,7/2)	475.66	(9/2$^+$)		
1760.46 *16*	6.91 *20*	2904.66		1144.24	(7/2$^-$)		
1809.6 *3*	1.03 *15*	2230.1	(5/2$^+$,7/2)	420.52	(3/2$^+$,5/2$^-$)		
1840.23 *20*	3.24 *12*	2315.91		475.66	(9/2$^+$)		
1864.23 *24*	0.90 *10*	2339.9		475.66	(9/2$^+$)		
1894.62 *21*	1.45 *11*	2239.60		344.95	(3/2$^+$,5/2$^-$)		
1942.98 *26*	1.91 *20*	3087.25	(3/2$^-$,5/2,7/2)	1144.24	(7/2$^-$)		

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^{75}Cu β^- decay (1.224 s) 2011Il01 (continued)

$\gamma(^{75}Zn)$ (continued)

E_γ	I_γ †&	E_i(level)	J_i^π	E_f	J_f^π
1982.01 *17*	4.87 *9*	3126.55	(3/2$^-$,5/2,7/2)	1144.24	(7/2$^-$)
2024.7 *4*	1.00 *16*	3126.55	(3/2$^-$,5/2,7/2)	1102.01	(3/2,5/2$^-$)
2074.75 *22*	1.79 *12*	3087.25	(3/2$^-$,5/2,7/2)	1012.58	
2090.84 *20*	4.53 *14*	3235.04	(3/2$^-$,5/2,7/2)	1144.24	(7/2$^-$)
2114.8 *3*	0.86 *12*	3126.55	(3/2$^-$,5/2,7/2)	1012.58	
2217.32 *19*	7.75 *16*	3361.99	(3/2$^-$,5/2,7/2)	1144.24	(7/2$^-$)
2222.47 *24*	2.05 *13*	3235.04	(3/2$^-$,5/2,7/2)	1012.58	
2244.5 *3*	1.62 *12*	2969.77		725.14	(3/2,5/2$^-$)
2262.0[a] *6*	0.95 *13*	3406.7		1144.24	(7/2$^-$)
2295.24 *21*	2.79 *11*	3020.37		725.14	(3/2,5/2$^-$)
2349.60[a] *23*	0.35 *2*	3361.99	(3/2$^-$,5/2,7/2)	1012.58	
2362.05 *21*	4.45 *12*	3087.25	(3/2$^-$,5/2,7/2)	725.14	(3/2,5/2$^-$)
2430.68 *21*	6.63 *19*	2851.26		420.52	(3/2$^+$,5/2$^-$)
2430.88 *21*	10.91 *19*	2906.54	(7/2$^-$)	475.66	(9/2$^+$)
2485.99 *22*	15.38 *18*	2906.54	(7/2$^-$)	420.52	(3/2$^+$,5/2$^-$)
2506.3 *3*	2.23 *13*	2851.26		344.95	(3/2$^+$,5/2$^-$)
2509.83 *24*	2.93 *13*	3235.04	(3/2$^-$,5/2,7/2)	725.14	(3/2,5/2$^-$)
2524.4 *3*	1.58 *10*	3000.1		475.66	(9/2$^+$)
2549.23 *25*	1.55 *11*	2969.77		420.52	(3/2$^+$,5/2$^-$)
2559.3 *4*	1.42 *12*	2904.66		344.95	(3/2$^+$,5/2$^-$)
2565.0 *9*	0.49 *14*	3576.9		1012.58	
2625.0 *6*	0.34 *9*	2969.77		344.95	(3/2$^+$,5/2$^-$)
2635.14 *27*	0.60 *4*	2871.4		236.22	(3/2,5/2$^-$)
2666.70 *24*	4.36 *15*	3087.25	(3/2$^-$,5/2,7/2)	420.52	(3/2$^+$,5/2$^-$)
2675.32 *24*	4.33 *12*	3020.37		344.95	(3/2$^+$,5/2$^-$)
2695.9 *3*	1.52 *12*	3840.38	(5/2$^+$,7/2$^-$)	1144.24	(7/2$^-$)
2699.5 *3*	1.22 *11*	3424.88		725.14	(3/2,5/2$^-$)
2742.10 *25*	3.34 *11*	3087.25	(3/2$^-$,5/2,7/2)	344.95	(3/2$^+$,5/2$^-$)
2780.8 *9*	0.45 *19*	3126.55	(3/2$^-$,5/2,7/2)	344.95	(3/2$^+$,5/2$^-$)
2784.0 *9*	0.45 *19*	3020.37		236.22	(3/2,5/2$^-$)
2814.2 *3*	0.33 *20*	3235.04	(3/2$^-$,5/2,7/2)	420.52	(3/2$^+$,5/2$^-$)
2821.9 *4*	0.71 *14*	3166.9		344.95	(3/2$^+$,5/2$^-$)
2848.8 *8*	0.70 *20*	3574.1	(5/2$^+$,7/2)	725.14	(3/2,5/2$^-$)
2865.9 *3*	2.13 *11*	3341.48	(5/2$^+$,7/2)	475.66	(9/2$^+$)
2890.1 *3*	3.18 *19*	3235.04	(3/2$^-$,5/2,7/2)	344.95	(3/2$^+$,5/2$^-$)
2906.4 *3*	6.70 *14*	2906.54	(7/2$^-$)	0.0	(7/2$^+$)
2921.4 *3*	1.53 *10*	3266.6		344.95	(3/2$^+$,5/2$^-$)
2931.1 *3*	1.43 *11*	3406.7		475.66	(9/2$^+$)
2942.5 *3*	2.35 *11*	3668.0		725.14	(3/2,5/2$^-$)
2996.1 *5*	0.73 *13*	3341.48	(5/2$^+$,7/2)	344.95	(3/2$^+$,5/2$^-$)
3004.2 *4*	1.04 *14*	3424.88		420.52	(3/2$^+$,5/2$^-$)
3017.6 *3*	4.21 *13*	3361.99	(3/2$^-$,5/2,7/2)	344.95	(3/2$^+$,5/2$^-$)
3055.2 *4*	0.58 *9*	3530.73	(5/2$^+$,7/2)	475.66	(9/2$^+$)
3070.7 *3*	0.67 *11*	3546.4		475.66	(9/2$^+$)
3071.7 *3*	0.67 *11*	3492.30		420.52	(3/2$^+$,5/2$^-$)
3080.14 *33*	1.10 *10*	3424.88		344.95	(3/2$^+$,5/2$^-$)
3098.4 *4*	1.08 *12*	3574.1	(5/2$^+$,7/2)	475.66	(9/2$^+$)
3110.4 *3*	2.60 *13*	3530.73	(5/2$^+$,7/2)	420.52	(3/2$^+$,5/2$^-$)
3115.1[a] *5*	0.48 *11*	3266.6		152.12	(1/2$^+$,3/2$^-$)
3147.3 *3*	1.67 *10*	3492.30		344.95	(3/2$^+$,5/2$^-$)
3231.7 *4*	1.01 *9*	3576.9		344.95	(3/2$^+$,5/2$^-$)
3248.2 *5*	0.55 *8*	3668.0		420.52	(3/2$^+$,5/2$^-$)
3341.4 *4*	1.37 *9*	3341.48	(5/2$^+$,7/2)	0.0	(7/2$^+$)
3365.3 *4*	1.38 *9*	3840.38	(5/2$^+$,7/2$^-$)	475.66	(9/2$^+$)
3397.7 *3*	2.30 *10*	3818.3		420.52	(3/2$^+$,5/2$^-$)

Continued on next page (footnotes at end of table)

^{75}Cu β^- decay (1.224 s) 2011Il01 (continued)

$\gamma(^{75}Zn)$ (continued)

E_γ	I_γ[†][&]	E_i(level)	J_i^π	E_f	J_f^π
3411.0 *7*	0.32 *8*	3886.7		475.66	$(9/2^+)$
3419.7 *4*	1.43 *10*	3840.38	$(5/2^+,7/2^-)$	420.52	$(3/2^+,5/2^-)$
3495.2 *4*	1.17 *8*	3840.38	$(5/2^+,7/2^-)$	344.95	$(3/2^+,5/2^-)$
3530.0 *4*	1.38 *13*	3530.73	$(5/2^+,7/2)$	0.0	$(7/2^+)$
3533.8 *6*	0.70 *13*	4010.0		475.66	$(9/2^+)$
3540.7 *4*	0.73 *7*	4016.4		475.66	$(9/2^+)$
3555.1 *8*	0.20 *7*	3900.1		344.95	$(3/2^+,5/2^-)$
3560.1 *8*	0.15 *7*	4035.4		475.66	$(9/2^+)$
3578.4 *11*	0.28 *12*	3999.0		420.52	$(3/2^+,5/2^-)$
3581.8 *7*	0.52 *12*	3818.3		236.22	$(3/2,5/2^-)$
3661.1 *7*	0.52 *7*	3897.4		236.22	$(3/2,5/2^-)$
3665.5 *6*	0.38 *8*	4010.0		344.95	$(3/2^+,5/2^-)$
3688.1 *4*	2.59 *9*	3840.38	$(5/2^+,7/2^-)$	152.12	$(1/2^+,3/2^-)$
3798.7 *7*	0.28 *7*	4035.4		236.22	$(3/2,5/2^-)$
3845.3 *8*	0.27 *6*	4989.6		1144.24	$(7/2^-)$
3883.2 *10*	0.19 *6*	4359.0		475.66	$(9/2^+)$
[x]4011.5 *7*	0.30[@] *6*				
[x]4017.0 *6*	<0.2				
[x]4019.0 *6*	<0.2				
4035.2[a] *10*	0.17 *6*	4035.4		0.0	$(7/2^+)$
[x]4098.4 *5*	0.6 *1*				
4123.2 *6*	0.29 *6*	4599.0		475.66	$(9/2^+)$
[x]4137.7 *5*	0.5 *1*				
[x]4206.3 *9*	0.2 *1*				
4341.0 *5*	0.68 *6*	4686.1		344.95	$(3/2^+,5/2^-)$
4785.0 *10*	0.03 *1*	5022.0		236.22	$(3/2,5/2^-)$
4895.1 *6*	0.06 *2*	5022.0		126.94	$(1/2^-)$

[†] Uncertainties quoted in 2011Il01 are statistical only, as communicated to the evaluators by the first author in an e-mail reply. The evaluators have assigned minimum of 1% uncertainty to take into account systematic uncertainties arising from efficiency calibration and peak fitting procedures.

[‡] From intensity balance at 152 level. There may be direct β feeding also which is not taken into account (evaluators′ comment).

[#] Poor fit, level-energy difference=1754.5.

[@] Uncertainty quoted as 0.6 in 2011Il01 seems a misprint. The evaluators assign 0.06.

[&] For absolute intensity per 100 decays, multiply by 0.19 *4*.

[a] Placement of transition in the level scheme is uncertain.

[x] γ ray not placed in level scheme.

^{75}Cu β^- decay (1.224 s) 2011Il01

Decay Scheme

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

Legend
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)
- Coincidence

$5/2^{(-)}$ 0 1.224 s *3*

Q_{β^-}=8088 *3* $\%\beta^-$=100.0

$^{75}_{29}Cu_{46}$

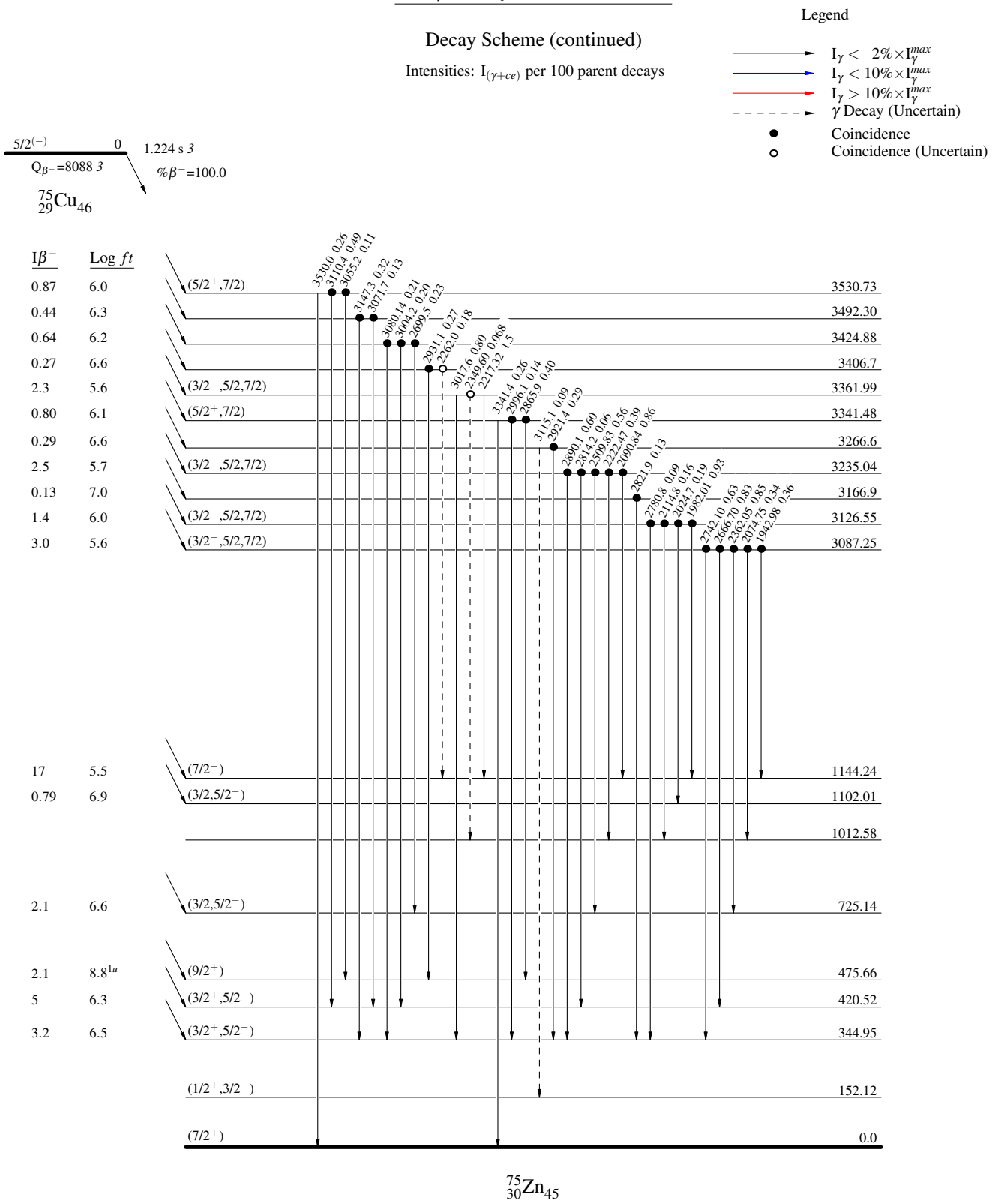
$I\beta^-$	Log *ft*		
0.017	6.9	4895.1 0.013	5022.0
0.051	6.5	4785.0 0.0076	4989.6
0.13	6.3	3845.3 0.051	4686.1
0.055	6.7	4341.0 0.13	4599.0
0.036	7.0	4123.2 0.055	4359.0
0.08	6.8	3883.2 0.036	4035.4
0.14	6.6	4035.2 0.032	4016.4
0.21	6.4	3798.7 0.053	4010.0
0.05	7.0	3560.1 0.028	3999.0
0.038	7.2	3540.7 0.14	3900.1
0.099	6.8	3665.5 0.072	3897.4
0.061	7.0	3533.8 0.13	3886.7
1.5	5.6	3578.4 0.05	3840.38
0.54	6.1	3555.1 0.038	3818.3
0.55	6.1	3661.1 0.099	3668.0
0.29	6.4	3411.0 0.061	3576.9
0.34	6.4	3688.1 0.49	3574.1
0.13	6.8	3495.2 0.22	3546.4
		3419.7 0.27	
		3365.3 0.26	
		2695.9 0.29	
		3581.8 0.10	
		3397.7 0.44	
		3248.2 0.10	
		2942.5 0.45	
		3231.7 0.19	
		2565.0 0.09	
		3098.4 0.21	
		2848.8 0.13	
		3070.7 0.13	
17	5.5	$(7/2^-)$	1144.24
			1012.58
2.1	6.6	$(3/2,5/2^-)$	725.14
2.1	8.8^{1u}	$(9/2^+)$	475.66
5	6.3	$(3/2^+,5/2^-)$	420.52
3.2	6.5	$(3/2^+,5/2^-)$	344.95
0.62	7.2	$(3/2,5/2^-)$	236.22
		$(1/2^+,3/2^-)$	152.12
		$(1/2^-)$	126.94
		$(7/2^+)$	0.0

$^{75}_{30}Zn_{45}$

^{75}Cu β^- decay (1.224 s) 2011Il01

Decay Scheme (continued)

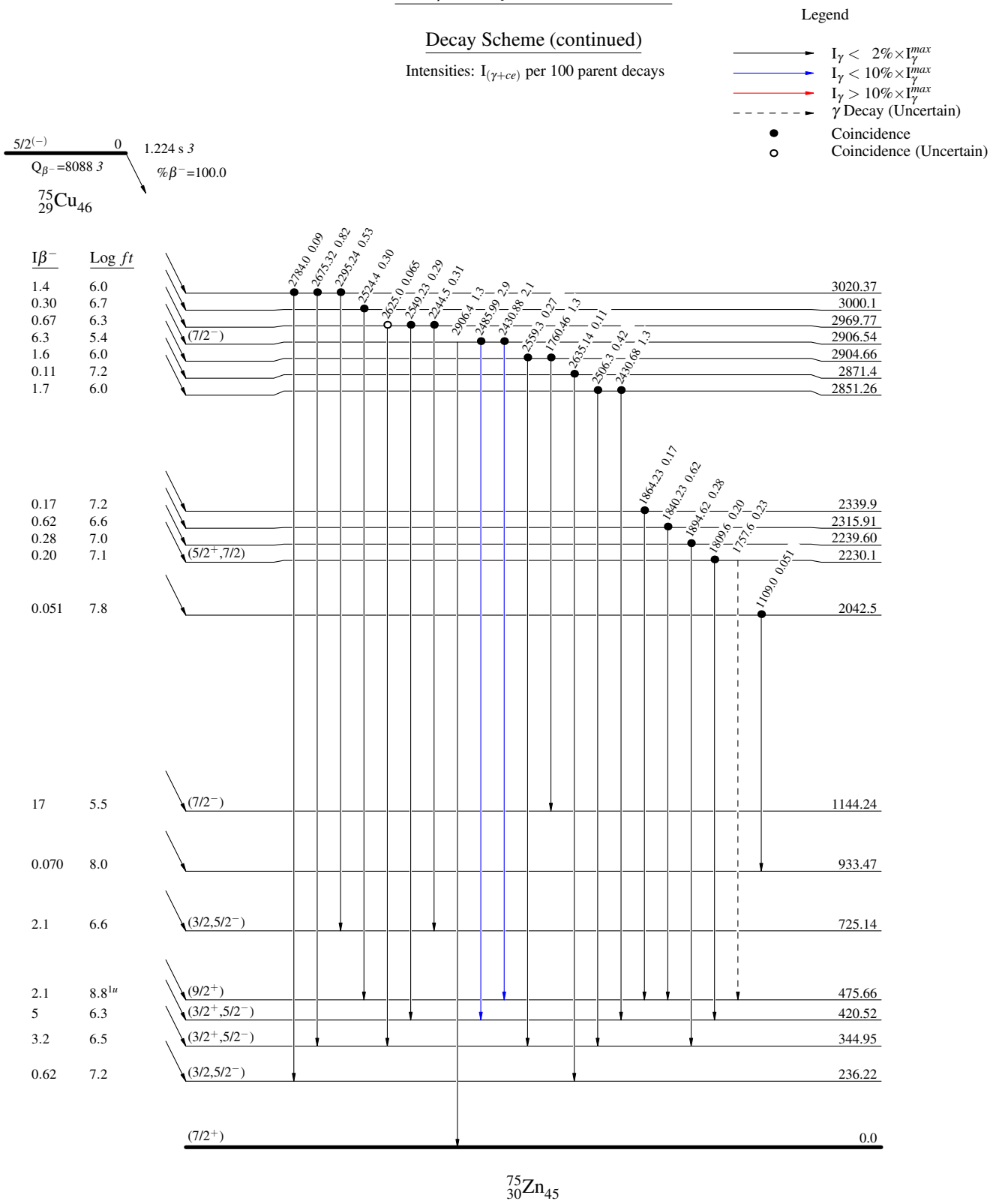
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{75}Cu β^- decay (1.224 s) 2011Il01

Decay Scheme (continued)

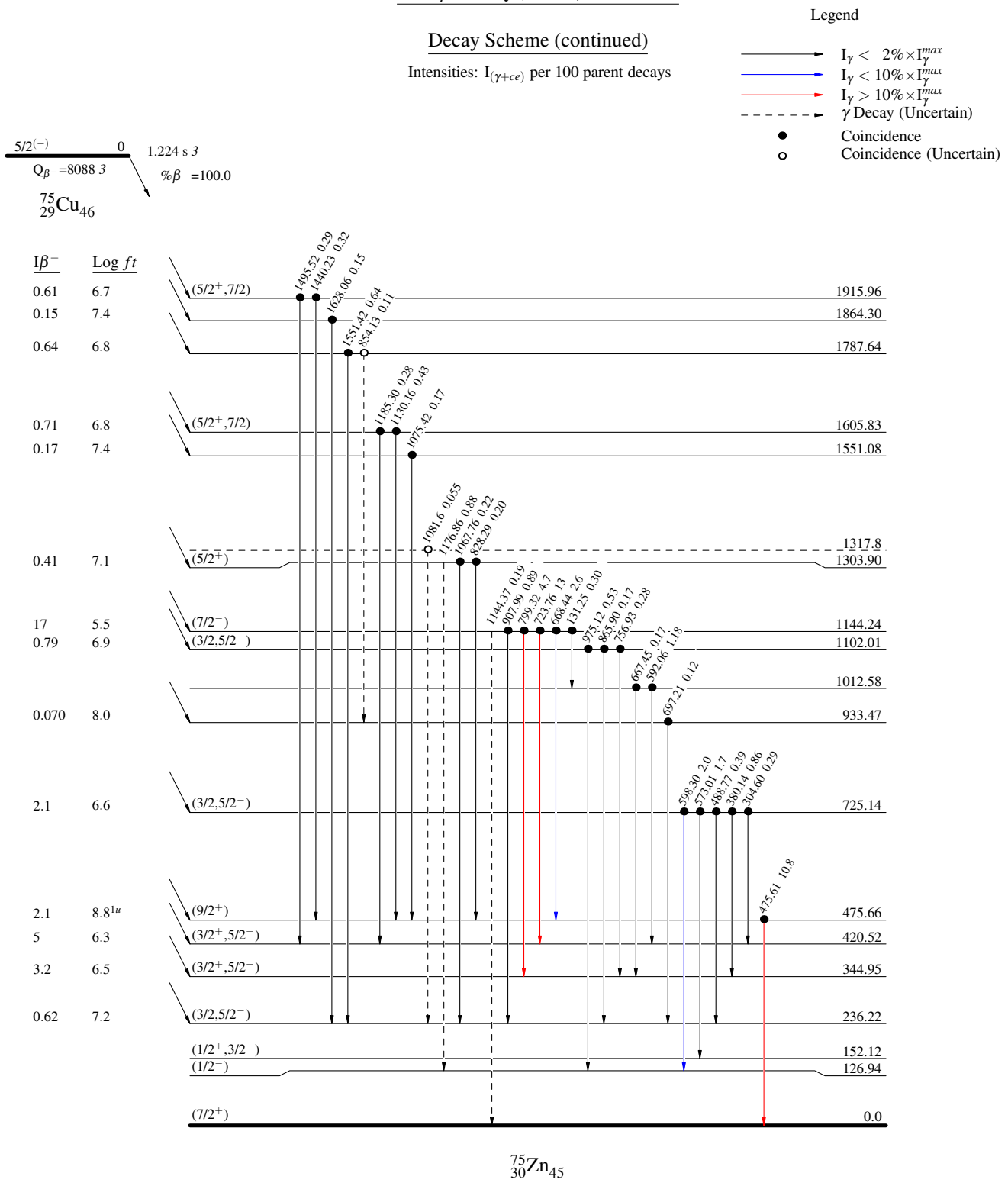
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{75}Cu β^- decay (1.224 s) 2011Il01

Decay Scheme (continued)

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



^{75}Cu β^- decay (1.224 s) 2011Il01

Decay Scheme (continued)

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