^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 114, 1849 (2013)	31-Dec-2012

1984Ko29: Unpolarized and polarized neutrons. Measured Eγ, Iγ, γ circ pol; Ge, Ge(Li) and NaI detectors.
1978Bo08: Measured Eγ, I$\gamma(\theta)$. Polarized beam and polarized target. Ge(Li) detectors and BF_3 counters.
2003Su36: measured cascade of two γ's following thermal N capture.
2001Su02: measured absolute Iγ for 49 γ transitions, HPGE.
1969Me05: Measured Iγ, aligned nuclei, Ge(Li) detector.
1969Sm05: Measured Eγ, Iγ, cryst.
1966Sh15: Measured Eγ, Iγ, $\gamma\gamma$. Ge(Li) and NaI annular detectors.
For additional unplaced γ rays see 1969Sm05 and 1966Sh15.
For theoretical analysis on level densities and dipole transition strengths, see 1986Kr16.

Others: 1969Sa10, 1968Wa20
1973Ho24, 1973Re06 (Pol beam and pol target)
1972St05, 1969Ko05, 1969Ei01 (Pol beam and circ pol measurements)

^{60}Co Levels

E(level)†	J$^\pi$#	$T_{1/2}$	Comments
0.0	5		
58.545 *14*	2	10.467 min *6*	$T_{1/2}$: from Adopted Levels.
277.173 *14*	4		
288.367 *14*	3		
435.72 *3*	5		
506.19 *3*	3		
542.784 *19*	2		
614.518 *14*	3		
738.751 *19*	1		
785.700 *9*	4		
1003.872 *15*	(3,4)		
1005.760 *15*	4		
1132.10 *16*			
1150.68 *5*	(2,3)		
1207.798 *21*	5		
1216.34 *16*	(6)		
1216.84 *3*	4		
1341.823 *25*	2,3		J$^\pi$: adopted 3^+.
1379.78 *6*	(6)		
1380.94 *3*	3		
1451.17 *3*	4		
1508.30 *9*	2,3		
1515.780 *12*	4		
1565.899 *22*	2		
1639.837 *22*	(3),4,5		J$^\pi$: 3,4,5 from 1978Bo08.
1686.18 *5*	1		
1709.58 *13*			
1749.252 *20*	3		
1787.56 *4*	5		J$^\pi$: 4 from 1978Bo08.
1799.91 *3*			
1808.8 *1*	2,3,4		J$^\pi$: adopted 4^-.
1830.861 *19*	4		
1833.19 *4*			
1852.714 *25*	4		
1877.14 *4*	2		
1888.87 *3*	4		

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^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29 (continued)

^{60}Co Levels (continued)

E(level)[†]	Jπ[#]	Comments
1924.19 *20*		
1981.16 *4*	4	
1983.68 *11*		
2032.59 *10*	2,3	Jπ: adopted 3^+.
2045.43 *11*		
2080.89 *9*		
2121.76 *5*	3,4	
2133.43 *6*	3,4	
2151.79 *22*		
2183.05 *6*	2,3	
2200.53 *12*		
2221.55 *6*	4	
2230.4 *1*		
2274.65 *16*	3,4,(5)	
2279.80 *18*	3,4,5	
2310.14 *4*	3	
2323.91 *24*		
2341.83 *8*		
2351.85 *8*		
2363.96 *9*		
2423.18 *7*	4	
2431.00 *9*	3,4	
2451.05 *11*	3,4	
2469.72 *9*		
2488.68 *7*	5	
2528.68 *4*		
2546[‡] *3*		
2560.14 *14*		
2569.84 *6*	4	
2585.72 *5*		
2598.09 *8*	3	
2607.30 *8*		
2621.88 *14*		
2655.78 *16*		
2685.43 *18*	3,4	
2709.98 *17*	2,3,4	
2719.00 *8*	1	
2734.5 *8*		
2760.78 *15*		
2768.17 *20*		
2771.56 *17*		
2785.76 *10*	3,4	
2801.36 *20*		
2809.68 *20*		
2825.64 *9*	3,4	
2845.13 *11*		
2867.78 *10*		
2884.90 *6*	(3,4)	
2901.75 *8*		
2920.4 *4*		
2936.38 *13*		
2944.83 *11*		
2963.12 *9*		
2996.8 *3*		
3009.85 *22*		
3022.24 *7*	3,4	
3047.2 *4*		

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^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29 (continued)

^{60}Co Levels (continued)

E(level)†	Jπ#	E(level)†	Jπ#	E(level)†	Jπ#	E(level)†	Jπ#
3064.7 *3*		3238.5 *3*		3696.79 *22*		4269.96 *23*	3,4
3077.02 *22*		3279.31 *12*		3742.65 *8*		4291.9 *1*	
3084.61 *23*		3283.88 *10*	3,4	3798.19 *14*		4298.18 *19*	
3096.19 *7*		3336.36 *15*		3827.64 *20*		4513.92 *19*	
3114.70 *15*	3,4	3342.99 *17*		3872.0 *3*	3,4	4538.1 *3*	
3121.42 *19*		3415.64 *10*		3915.7 *3*		4600.83 *15*	
3132.1 *3*		3459.34 *12*		3929.5 *3*		4752.32 *10*	
3141.44 *9*		3465.26 *11*		4012.05 *15*	3,4	4799.82 *16*	3,4
3155.41 *18*		3496.94 *24*		4100.83 *19*		4811.26 *17*	
3162.85 *14*		3514.88 *18*		4111.68 *10*		4875.28 *18*	
3186.3 *4*	3,4	3562.08 *9*		4156.57 *18*	3,4	(7491.919 *17*)	3,4
3191.00 *11*		3588.98 *11*	3,4	4194.1 *4*			
3203.23 *12*		3595.01 *16*		4212.6 *5*	3,4		
3216.26 *14*		3650.54 *13*		4253.69 *22*			

† From a least-squares fit to Eγ data, except as noted.
‡ From 1969Sm05.
# From circular polarization and γ(θ) measurements (1984Ko29). All assignments, except as noted, are in agreement with those in 1978Bo08.

γ(^{60}Co)

Eγ†	Iγ@&	Ei(level)	J_i^π	E_f	J_f^π	Mult.	I(γ+ce)&	Comments
58.90 *22*		58.545	2	0.0	5		48.0 *20*	I(γ+ce): Iγ value corrected for internal conversion and self absorption. Value of α used not stated.
158.46 *5*	2.438 *15*	435.72	5	277.173	4	D+Q		δ: + 0.06 *+14−10* or - 10 *+6−70*.
171.3 *3*	0.123 *21*	785.700	4	614.518	3			
172.1 *4*	0.072 *21*	1379.78	(6)	1207.798	5			
174.91 *5*	0.494 *7*	1983.68		1808.8	2,3,4			
195.84 *5*	0.419 *6*	738.751	1	542.784	2			
217.88 *20*	0.037 *3*	506.19	3	288.367	3			
220.00 *11*	0.082 *3*	1005.760	4	785.700	4			
224.1 *3*	0.22 *3*	1565.899	2	1341.823	2,3			
229.72 *4*	15.18 *9*	288.367	3	58.545	2	D+Q		δ: - 0.02 *3* or - 4.00 *5*.
233.89 *11*	0.068 *3*	2585.72		2351.85				
254.23 *5*	2.75 *5*	542.784	2	288.367	3			
277.08 *3*	13.96 *7*	277.173	4	0.0	5	D+Q		δ: + 0.03 *3* or - 20 *+10−20*.
297.55 *8*	0.231 *7*	2431.00	3,4	2133.43	3,4			
337.32 *7*	0.440 *11*	614.518	3	277.173	4			
349.87 *8*	0.231 *7*	785.700	4	435.72	5			
370.09 *10*	0.095 *4*	2451.05	3,4	2080.89				
391.222 *21*	2.290 *15*	1005.760	4	614.518	3			
393.18 *19*	0.203 *11*	1132.10		738.751	1			
435.71 *5*	1.56 *3*	435.72	5	0.0	5			
447.68 *9*	7.00 *9*	506.19	3	58.545	2	D+Q		δ: - 0.03 *+11−17* or - 4 *2*.
461.04 *3*	1.073 *8*	1003.872	(3,4)	542.784	2			
484.21 *3*	1.690 *18*	542.784	2	58.545	2			
497.277 *18*	4.46 *3*	785.700	4	288.367	3	D+Q		δ: 0.0 *+1−3* or - 7 *+4−23*.
532.11 *4*	0.145 *7*	2963.12		2431.00	3,4			
555.972 *12*	11.97 *10*	614.518	3	58.545	2	D+Q		δ: - 0.03 *7* or - 4 *1*.
589.35 *11*	0.061 *7*	2621.88		2032.59	2,3			

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^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29 (continued)

γ(^{60}Co) (continued)

E_γ †	I_γ @&	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
602.714 *25*	0.300 *8*	3162.85		2560.14			
617.15 *5*	0.127 *6*	2183.05	2,3	1565.899	2		
665.52 *4*	0.158 *6*	1451.17	4	785.700	4		
680.214 *13*	0.593 *9*	738.751	1	58.545	2		
710.653 *10*	1.435 *18*	1216.84	4	506.19	3		
715.38 *8*	0.098 *8*	1003.872	(3,4)	288.367	3		
717.420 *10*	1.792 *22*	1005.760	4	288.367	3		
726.714 *13*	0.983 *14*	1003.872	(3,4)	277.173	4		
728.758 *23*	0.398 *10*	2528.68		1799.91			
744.27 *6*	0.132 *7*	2944.83		2200.53			
779.99 *7*	0.158 *10*	2901.75		2121.76	3,4		
781.81 *3*	0.400 *12*	1787.56	5	1005.760	4		
785.730 *10*	5.33 *7*	785.700	4	0.0	5	D+Q	δ: + 0.10 +*20*−*10*.
799.04 *3*	0.257 *7*	1341.823	2,3	542.784	2		
824.89 *10*	0.077 *7*	2032.59	2,3	1207.798	5		
827.04 *7*	0.115 *7*	3191.00		2363.96			
829.46 *8*	0.111 *8*	3514.88		2685.43	3,4		
837.63 *14*	0.047 *6*	2045.43		1207.798	5		
854.154 *22*	0.390 *9*	1639.837	(3),4,5	785.700	4		
862.31 *4*	0.172 *7*	1150.68	(2,3)	288.367	3		
883.21 *5*	0.167 *8*	1888.87	4	1005.760	4		
901.289 *15*	0.948 *16*	1515.780	4	614.518	3		
908.38 *3*	0.223 *7*	1451.17	4	542.784	2		
928.43 *3*	0.341 *9*	1216.84	4	288.367	3		
930.622 *17*	0.906 *16*	1207.798	5	277.173	4		
944.06 *5*	0.383 *23*	1379.78	(6)	435.72	5		
945.329 *17*	2.04 *4*	1003.872	(3,4)	58.545	2		
947.42 *4*	0.229 *8*	1686.18	1	738.751	1		
963.58 *3*	0.396 *12*	1749.252	3	785.700	4		
968.75 *22*	0.044 *9*	4100.83		3132.1			
972.51 *15*	0.214 *10*	3203.23		2230.4			
1002.10 *8*	0.136 *9*	1508.30	2,3	506.19	3		
1005.70 *4*	0.282 *10*	1005.760	4	0.0	5		
1023.645 *24*	0.460 *11*	3742.65		2719.00	1		
1059.51 *10*	0.090 *8*	3827.64		2768.17			
1069.93 *11*	0.093 *9*	2585.72		1515.780	4		
1075.68 *7*	0.170 *10*	4012.05	3,4	2936.38			
1092.358 *22*	0.859 *20*	3562.08		2469.72			
1103.77 *3*	0.618 *18*	1380.94	3	277.173	4		
1117.93 *5*	0.261 *11*	2121.76	3,4	1003.872	(3,4)		
1134.76 *13*	0.080 *9*	2351.85		1216.84	4		
1146.1 *3*	0.046 *10*	2151.79		1005.760	4		
1158.86 *15*	0.055 *7*	2845.13		1686.18	1		
1176.9 *3*	0.031 *7*	3009.85		1833.19			
1195.70 *8*	0.128 *8*	4291.9		3096.19			
1206.67 *12*	0.25 *3*	1749.252	3	542.784	2		
1207.97 *7*	0.36 *3*	1207.798	5	0.0	5		
1215.80 *14*	0.7 *3*	2221.55	4	1005.760	4		
1216.45 *18*	0.5 *3*	1216.34	(6)	0.0	5		
1226.80 *4*	0.244 *9*	2936.38		1709.58			
1238.575 *22*	0.666 *16*	1515.780	4	277.173	4		
1246.75 *8*	0.130 *8*	3279.31		2032.59	2,3		
1262.56 *10*	0.100 *8*	1877.14	2	614.518	3		
1271.92 *10*	0.121 *10*	2488.68	5	1216.84	4		
1274.28 *3*	0.457 *14*	1888.87	4	614.518	3		
1277.50 *3*	0.417 *13*	1565.899	2	288.367	3		
1283.28 *3*	0.476 *14*	1341.823	2,3	58.545	2		

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^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29 (continued)

γ(^{60}Co) (continued)

E_γ †	I_γ @&	E_i(level)	J_i^π	E_f	J_f^π
1334.74 *5*	0.365 *15*	3415.64		2080.89	
1341.2 *3*	0.032 *9*	1341.823	2,3	0.0	5
1362.51 *6*	0.170 *9*	1639.837	(3),4,5	277.173	4
1382.43 *7*	0.168 *9*	3022.24	3,4	1639.837	(3),4,5
1419.37 *7*	0.229 *13*	2423.18	4	1003.872	(3,4)
x1424.49 *13*	0.116 *11*				
1429.33 *14*	0.141 *14*	4513.92		3084.61	
1472.03 *3*	0.683 *22*	1749.252	3	277.173	4
1505.01 *18*	0.130 *16*	2655.78		1150.68	(2,3)
1507.368 *23*	1.48 *4*	1565.899	2	58.545	2
1515.769 *14*	5.55 *15*	1515.780	4	0.0	5
1539.18 *17*	0.088 *11*	2045.43		506.19	3
1542.53 *25*	0.075 *13*	3742.65		2200.53	
1545.01 *12*	0.177 *14*	3696.79		2151.79	
1553.70 *6*	0.389 *18*	1830.861	4	277.173	4
1556.11 *8*	0.279 *16*	2341.83		785.700	4
1612.3 *3*	0.054 *11*	3595.01		1983.68	
1639.37 *14*	0.112 *12*	2771.56		1132.10	
1647.08 *21*	0.074 *11*	1924.19		277.173	4
1651.07 *13*	0.129 *12*	1709.58		58.545	2
1677.92 *20*	0.088 *12*	3465.26		1787.56	5
1690.77 *4*	0.73 *3*	1749.252	3	58.545	2
1692.81 *4*	0.69 *3*	1981.16	4	288.367	3
1704.24 *7*	0.258 *14*	4513.92		2809.68	
1774.65 *3*	0.93 *3*	1833.19		58.545	2
1785.97 *18*	0.32 *6*	3595.01		1808.8	2,3,4
1787.4 *3*	0.17 *6*	1787.56	5	0.0	5
1799.91 *3*	0.90 *3*	1799.91		0.0	5
1808.40 *18*	0.40 *10*	1808.8	2,3,4	0.0	5
1809.56 *24*	0.31 *10*	2351.85		542.784	2
1818.57 *5*	0.58 *3*	1877.14	2	58.545	2
1830.793 *21*	5.50 *19*	1830.861	4	0.0	5
1839.69 *11*	0.189 *15*	3588.98	3,4	1749.252	3
1845.01 *9*	0.297 *21*	2133.43	3,4	288.367	3
1852.709 *25*	1.41 *5*	1852.714	4	0.0	5
1889.07 *8*	0.228 *15*	1888.87	4	0.0	5
1910.4 *4*	0.050 *13*	3742.65		1833.19	
x1913.86 *19*	0.108 *13*				
1924.62 *12*	0.166 *14*	3141.44		1216.84	4
1933.75 *8*	0.261 *16*	3742.65		1808.8	2,3,4
1982.37 *17*	0.144 *16*	2488.68	5	506.19	3
1986.27 *16*	0.155 *16*	2274.65	3,4,(5)	288.367	3
1998.52 *14*	0.178 *17*	4799.82	3,4	2801.36	
2022.19 *11*	0.224 *17*	2080.89		58.545	2
2032.95 *4*	1.19 *5*	2310.14	3	277.173	4
2063.86 *11*	0.205 *16*	2569.84	4	506.19	3
2074.88 *9*	0.427 *24*	2133.43	3,4	58.545	2
2099.25 *7*	0.337 *19*	2884.90	(3,4)	785.700	4
2121.3 *3*	0.071 *14*	2121.76	3,4	0.0	5
2128.75 *14*	0.157 *15*	2867.78		738.751	1
2158.16 *17*	0.154 *16*	3798.19		1639.837	(3),4,5
2171.69 *11*	0.254 *19*	2230.4		58.545	2
2203.77 *19*	0.129 *15*	2709.98	2,3,4	506.19	3
2210.8 *7*	0.042 *17*	2488.68	5	277.173	4
2221.53 *10*	0.74 *7*	2221.55	4	0.0	5
2240.5 *8*	0.045 *17*	2528.68		288.367	3
2249.75 *22*	0.112 *15*	2685.43	3,4	435.72	5

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^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29 (continued)

γ(^{60}Co) (continued)

E_γ †	I_γ @&	E_i(level)	J_i^π	E_f	J_f^π
2262.4 *4*	0.085 *16*	2768.17		506.19	3
2265.7 *4*	0.082 *16*	2323.91		58.545	2
2279.94 *20*	0.30 *5*	2279.80	3,4,5	0.0	5
2281.80 *15*	0.42 *5*	2569.84	4	288.367	3
2309.68 *11*	0.299 *21*	2598.09	3	288.367	3
2319.41 *10*	0.311 *22*	2825.64	3,4	506.19	3
x2329.6 *8*	0.038 *16*				
2338.6 *3*	0.123 *20*	2845.13		506.19	3
2346.4 *6*	0.045 *15*	3132.1		785.700	4
2357.56 *8*	0.52 *3*	3096.19		738.751	1
2361.43 *22*	0.129 *16*	2867.78		506.19	3
2399.6 *3*	0.133 *17*	4752.32		2351.85	
2430.90 *24*	0.131 *17*	2431.00	3,4	0.0	5
2434.5 *3*	0.108 *17*	3650.54		1216.34	(6)
2454.0 *3*	0.126 *19*	2996.8		542.784	2
2469.6 *3*	0.124 *23*	2469.72		0.0	5
2472.4 *5*	0.090 *22*	2760.78		288.367	3
2482.41 *23*	0.133 *18*	4269.96	3,4	1787.56	5
2488.64 *21*	0.150 *18*	2488.68	5	0.0	5
2501.4 *3*	0.123 *18*	2560.14		58.545	2
2527.10 *11*	0.46 *3*	2585.72		58.545	2
2557.55 *18*	0.199 *20*	3342.99		785.700	4
2569.74 *11*	0.53 *3*	2569.84	4	0.0	5
2607.58 *13*	0.52 *3*	2607.30		0.0	5
2616.59 *18*	0.203 *20*	(7491.919)	3,4	4875.28	
2628.8 *5*	0.128 *22*	3064.7		435.72	5
2632.2 *4*	0.097 *20*	2920.4		288.367	3
2641.35 *24*	0.170 *20*	3077.02		435.72	5
2661.2 *4*	0.092 *18*	4513.92		1852.714	4
2680.66 *18*	0.238 *21*	(7491.919)	3,4	4811.26	
2692.25 *20*	0.206 *20*	(7491.919)	3,4	4799.82	3,4
2720.2 *9*	0.040 *20*	3929.5		1207.798	5
2727.18 *15*	1.53 *9*	2785.76	3,4	58.545	2
2739.58 *20*	0.31 *3*	(7491.919)	3,4	4752.32	
2745.8 *9*	0.085 *21*	3022.24	3,4	277.173	4
2759.1 *6*	0.104 *19*	3047.2		288.367	3
2768.5 *5*	0.118 *20*	2768.17		0.0	5
2777.6 *3*	0.204 *22*	3283.88	3,4	506.19	3
2789.5 *4*	0.167 *21*	4298.18		1508.30	2,3
2801.8 *4*	0.154 *21*	2801.36		0.0	5
2831.8 *13*	0.07 *3*	3121.42		288.367	3
2836.9 *6*	0.16 *3*	3114.70	3,4	277.173	4
2861.3 *7*	0.13 *3*	2920.4		58.545	2
2866.5 *7*	0.12 *3*	3155.41		288.367	3
2884.50 *24*	0.292 *25*	2884.90	(3,4)	0.0	5
2892.4 *5*	0.131 *20*	(7491.919)	3,4	4600.83	
2899.9 *4*	0.158 *20*	3336.36		435.72	5
2926.39 *17*	0.38 *3*	3203.23		277.173	4
x2946.9 *3*	0.220 *21*				
2954.0 *3*	0.205 *21*	(7491.919)	3,4	4538.1	
2978.03 *22*	0.266 *21*	(7491.919)	3,4	4513.92	
2995.38 *22*	0.266 *21*	3283.88	3,4	288.367	3
3006.3 *3*	0.184 *19*	3064.7		58.545	2
3048.6 *3*	0.186 *18*	3336.36		288.367	3
3084.9 *6*	0.087 *15*	3084.61		0.0	5
3097.01 *20*	0.285 *20*	3155.41		58.545	2
3121.5 *4*	0.158 *19*	3121.42		0.0	5
3128.0 *4*	0.172 *19*	3186.3	3,4	58.545	2
3154.2 *10*	0.065 *18*	3155.41		0.0	5
x3160.0 *16*	0.040 *17*				
3193.63 *21*	0.327 *22*	(7491.919)	3,4	4298.18	
3200.1 *5*	0.129 *18*	(7491.919)	3,4	4291.9	
3216.24 *18*	0.48 *3*	3216.26		0.0	5
3222.1 *11*	0.069 *21*	(7491.919)	3,4	4269.96	3,4
3238.4 *3*	0.192 *19*	(7491.919)	3,4	4253.69	
3248.1 *3*	0.191 *18*	4253.69		1005.760	4
3279.6 *7*	0.15 *4*	(7491.919)	3,4	4212.6	3,4
3284.1 *5*	0.28 *4*	3283.88	3,4	0.0	5
3290.4 *13*	0.073 *20*	3798.19		506.19	3
3296.9 *10*	0.091 *19*	(7491.919)	3,4	4194.1	
3303.0 *5*	0.135 *20*	4811.26		1508.30	2,3
3320.7 *4*	0.132 *16*	3827.64		506.19	3
3328.3 *6*	0.110 *16*	3872.0	3,4	542.784	2
3335.35 *18*	0.375 *22*	(7491.919)	3,4	4156.57	3,4
3349.3 *6*	0.079 *14*	4799.82	3,4	1451.17	4
3380.28 *10*	0.70 *3*	(7491.919)	3,4	4111.68	
3391.5 *4*	0.129 *15*	(7491.919)	3,4	4100.83	
3401.8 *3*	0.183 *18*	3459.34		58.545	2
3408.0 *9*	0.066 *16*	3915.7		506.19	3
x3448.1 *5*	0.117 *16*				
3454.1 *3*	0.218 *18*	3742.65		288.367	3
3480.1 *4*	0.158 *17*	(7491.919)	3,4	4012.05	3,4
x3488.8 *15*	0.06 *3*				
3493.2 *9*	0.11 *3*	4875.28		1380.94	3
3503.8 *4*	0.117 *15*	3562.08		58.545	2
3513.7 *7*	0.068 *15*	3514.88		0.0	5
x3528.6 *8*	0.046 *12*				
3562.2 *3*	0.159 *14*	(7491.919)	3,4	3929.5	
3576.1 *3*	0.157 *14*	(7491.919)	3,4	3915.7	
x3586.3 *6*	0.123 *23*				
x3612.02 *18*	0.354 *20*				
3619.7 *3*	0.193 *16*	(7491.919)	3,4	3872.0	3,4
3639.7 *17*	0.026 *12*	3915.7		277.173	4
3651.2 *5*	0.091 *14*	4194.1		542.784	2
3664.2 *3*	0.225 *19*	(7491.919)	3,4	3827.64	
3670.0 *7*	0.098 *16*	4212.6	3,4	542.784	2
3677.50 *25*	0.331 *21*	4291.9		614.518	3
3693.28 *24*	0.201 *14*	(7491.919)	3,4	3798.19	
x3702.11 *18*	0.272 *16*				
3749.23# *9*	1.39 *5*	(7491.919)	3,4	3742.65	
3758.2 *5*	0.125 *17*	4194.1		435.72	5
3795.2 *3*	0.118 *12*	(7491.919)	3,4	3696.79	
3815.19 *17*	0.279 *15*	4600.83		785.700	4
3823.67 *23*	0.208 *13*	4100.83		277.173	4
x3831.4 *3*	0.126 *12*				
3841.44 *13*	0.375 *16*	(7491.919)	3,4	3650.54	
3897.2 *3*	0.246 *21*	(7491.919)	3,4	3595.01	
3902.5 *4*	0.188 *20*	(7491.919)	3,4	3588.98	3,4
3929.84 *9*	0.90 *3*	(7491.919)	3,4	3562.08	
3966.74 *11*	0.70 *3*	4752.32		785.700	4
3976.9 *3*	0.213 *16*	(7491.919)	3,4	3514.88	
3994.98 *24*	0.198 *14*	(7491.919)	3,4	3496.94	
3997.8 *12*	0.08 *4*	4538.1		542.784	2
x4017.23 *24*	0.212 *15*				

Continued on next page (footnotes at end of table)

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29 (continued)

γ(^{60}Co) (continued)

E_γ [†]	I_γ [@&]	E_i(level)	J_i^π	E_f	J_f^π
4026.73 *12*	0.83 *3*	(7491.919)	3,4	3465.26	
4032.77 *13*	0.67 *3*	(7491.919)	3,4	3459.34	
4043.7 *8*	0.054 *12*	4100.83		58.545	2
4075.94 *24*	0.176 *13*	(7491.919)	3,4	3415.64	
4112.4 *4*	0.110 *11*	4111.68		0.0	5
[x]4123.4 *11*	0.055 *16*				
[x]4129.0 *3*	0.231 *18*				
4150.2 *4*	0.200 *21*	(7491.919)	3,4	3342.99	
4155.62 *18*	0.440 *24*	(7491.919)	3,4	3336.36	
4207.99 *12*	0.75 *3*	(7491.919)	3,4	3283.88	3,4
4213.0 *3*	0.273 *24*	(7491.919)	3,4	3279.31	
4245.5 *9*	0.041 *10*	4752.32		506.19	3
4253.4 *3*	0.122 *11*	(7491.919)	3,4	3238.5	
4275.63 *21*	0.183 *12*	(7491.919)	3,4	3216.26	
4288.3 *4*	0.098 *10*	(7491.919)	3,4	3203.23	
4300.8 *3*	0.166 *14*	(7491.919)	3,4	3191.00	
4307.2 *10*	0.016 *13*	(7491.919)	3,4	3186.3	3,4
4313.0 *4*	0.130 *15*	4600.83		288.367	3
4329.02 *15*	0.310 *14*	(7491.919)	3,4	3162.85	
4336.7 *4*	0.102 *10*	(7491.919)	3,4	3155.41	
4350.49 *13*	0.319 *13*	(7491.919)	3,4	3141.44	
4370.49 *21*	0.232 *14*	(7491.919)	3,4	3121.42	
4377.18 *15*	0.350 *16*	(7491.919)	3,4	3114.70	3,4
4396.20 *15*	0.286 *14*	(7491.919)	3,4	3096.19	
4415.1 *5*	0.072 *10*	(7491.919)	3,4	3077.02	
4427.6 *12*	0.029 *9*	(7491.919)	3,4	3064.7	
4444.9 *4*	0.090 *10*	(7491.919)	3,4	3047.2	
4469.90 *20*	0.194 *12*	(7491.919)	3,4	3022.24	3,4
4482.3 *3*	0.118 *10*	(7491.919)	3,4	3009.85	
4528.57 *19*	0.182 *11*	(7491.919)	3,4	2963.12	
4547.01 *11*	0.410 *15*	(7491.919)	3,4	2944.83	
4590.2 *3*	0.130 *12*	(7491.919)	3,4	2901.75	
4607.03 *8*	0.840 *24*	(7491.919)	3,4	2884.90	(3,4)
4623.75 *15*	0.304 *14*	(7491.919)	3,4	2867.78	
4646.52 *18*	0.241 *13*	(7491.919)	3,4	2845.13	
4666.18 *17*	0.249 *13*	(7491.919)	3,4	2825.64	3,4
4706.13 *12*	0.359 *14*	(7491.919)	3,4	2785.76	3,4
4720.07 *25*	0.141 *10*	(7491.919)	3,4	2771.56	
4731.14 *15*	0.251 *12*	(7491.919)	3,4	2760.78	
4757.4 *8*	0.043 *9*	(7491.919)	3,4	2734.5	
4781.9 *3*	0.120 *9*	(7491.919)	3,4	2709.98	2,3,4
4799.7 *4*	0.072 *8*	4799.82	3,4	0.0	5
4835.9 *3*	0.108 *8*	(7491.919)	3,4	2655.78	
4870.9 *4*	0.110 *12*	(7491.919)	3,4	2621.88	
4884.79 *10*	0.712 *23*	(7491.919)	3,4	2607.30	
4893.78 *11*	0.614 *21*	(7491.919)	3,4	2598.09	3
4906.16 *7*	1.70 *4*	(7491.919)	3,4	2585.72	
4922.24 *8*	0.92 *3*	(7491.919)	3,4	2569.84	4
4946[‡] *3*		(7491.919)	3,4	2546	
4963.03 *21*	0.191 *12*	(7491.919)	3,4	2528.68	
5003.24 *9*	0.726 *21*	(7491.919)	3,4	2488.68	5
5040.67 *17*	0.238 *12*	(7491.919)	3,4	2451.05	3,4
5061.9 *9*	0.041 *9*	(7491.919)	3,4	2431.00	3,4
5068.97 *14*	0.315 *13*	(7491.919)	3,4	2423.18	4
5127.97 *9*	0.479 *14*	(7491.919)	3,4	2363.96	
5140.5 *4*	0.087 *8*	(7491.919)	3,4	2351.85	
5149.89 *24*	0.140 *9*	(7491.919)	3,4	2341.83	

Continued on next page (footnotes at end of table)

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29 (continued)

γ(^{60}Co) (continued)

E_γ [†]	I_γ [@&]	E_i(level)	J_i^π	E_f	J_f^π
5168.2 *3*	0.276 *21*	(7491.919)	3,4	2323.91	
5181.74 *7*	2.67 *7*	(7491.919)	3,4	2310.14	3
5212.7 *4*	0.21 *3*	(7491.919)	3,4	2279.80	3,4,5
5217.1 *6*	0.16 *3*	(7491.919)	3,4	2274.65	3,4,(5)
5270.36 *7*	1.05 *3*	(7491.919)	3,4	2221.55	4
5308.8 *3*	0.127 *11*	(7491.919)	3,4	2183.05	2,3
5358.46 *11*	0.444 *15*	(7491.919)	3,4	2133.43	3,4
5370.25 *10*	0.500 *16*	(7491.919)	3,4	2121.76	3,4
5411.3 *9*	0.031 *7*	(7491.919)	3,4	2080.89	
5446.2 *4*	0.090 *9*	(7491.919)	3,4	2045.43	
5510.86 *9*	0.495 *14*	(7491.919)	3,4	1981.16	4
5568.1 *5*	0.099 *12*	(7491.919)	3,4	1924.19	
5602.99 *7*	1.18 *3*	(7491.919)	3,4	1888.87	4
5614.68 *8*	1.04 *3*	(7491.919)	3,4	1877.14	2
5639.13 *10*	0.96 *3*	(7491.919)	3,4	1852.714	4
5660.51[#] *6*	7.14 *15*	(7491.919)	3,4	1830.861	4
5704.50 *13*	0.469 *18*	(7491.919)	3,4	1787.56	5
5742.78 *6*	2.17 *5*	(7491.919)	3,4	1749.252	3
5782.8 *10*	0.049 *12*	(7491.919)	3,4	1709.58	
5851.99 *12*	0.291 *11*	(7491.919)	3,4	1639.837	(3),4,5
5925.98 *7*	1.81 *5*	(7491.919)	3,4	1565.899	2
5976.13 *5*	6.90 *14*	(7491.919)	3,4	1515.780	4
6040.89 *10*	0.524 *16*	(7491.919)	3,4	1451.17	4
6111.01 *8*	0.543 *15*	(7491.919)	3,4	1380.94	3
6150.06 *9*	0.466 *13*	(7491.919)	3,4	1341.823	2,3
6275.16 *10*	0.644 *19*	(7491.919)	3,4	1216.34	(6)
6284.28 *10*	0.605 *18*	(7491.919)	3,4	1207.798	5
6341.3 *3*	0.080 *7*	(7491.919)	3,4	1150.68	(2,3)
6359.9 *8*	0.030 *6*	(7491.919)	3,4	1132.10	
6486.61[#] *6*	6.25 *12*	(7491.919)	3,4	1003.872	(3,4)
6706.22 *7*	7.54 *18*	(7491.919)	3,4	785.700	4
6877.40 *7*	8.42 *18*	(7491.919)	3,4	614.518	3
6948.97 *11*	0.686 *23*	(7491.919)	3,4	542.784	2
6985.61 *6*	2.76 *6*	(7491.919)	3,4	506.19	3
7056.11 *7*	1.76 *4*	(7491.919)	3,4	435.72	5
7203.45 *12*	0.85 *3*	(7491.919)	3,4	288.367	3
7214.79 *7*	3.70 *8*	(7491.919)	3,4	277.173	4
7433.34 *12*	0.218 *8*	(7491.919)	3,4	58.545	2
7491.99 *8*	2.88 *7*	(7491.919)	3,4	0.0	5

[†] Corrected for recoil. From 1984Ko29, except as noted. Primary Eγ from comparison with resonance data (24 keV) in 1984Ko29.
[‡] From 1969Sm05.
[#] Probably mixed peak.
[@] Photon intensity per 100 captures: 90% of strength is accounted for. Statistical uncertainties. Systematic errors estimated as 4-8% (1984Ko29).
[&] Intensity per 100 neutron captures.
[x] γ ray not placed in level scheme.

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme

Intensities: Photon intensity per 100 neutron captures.

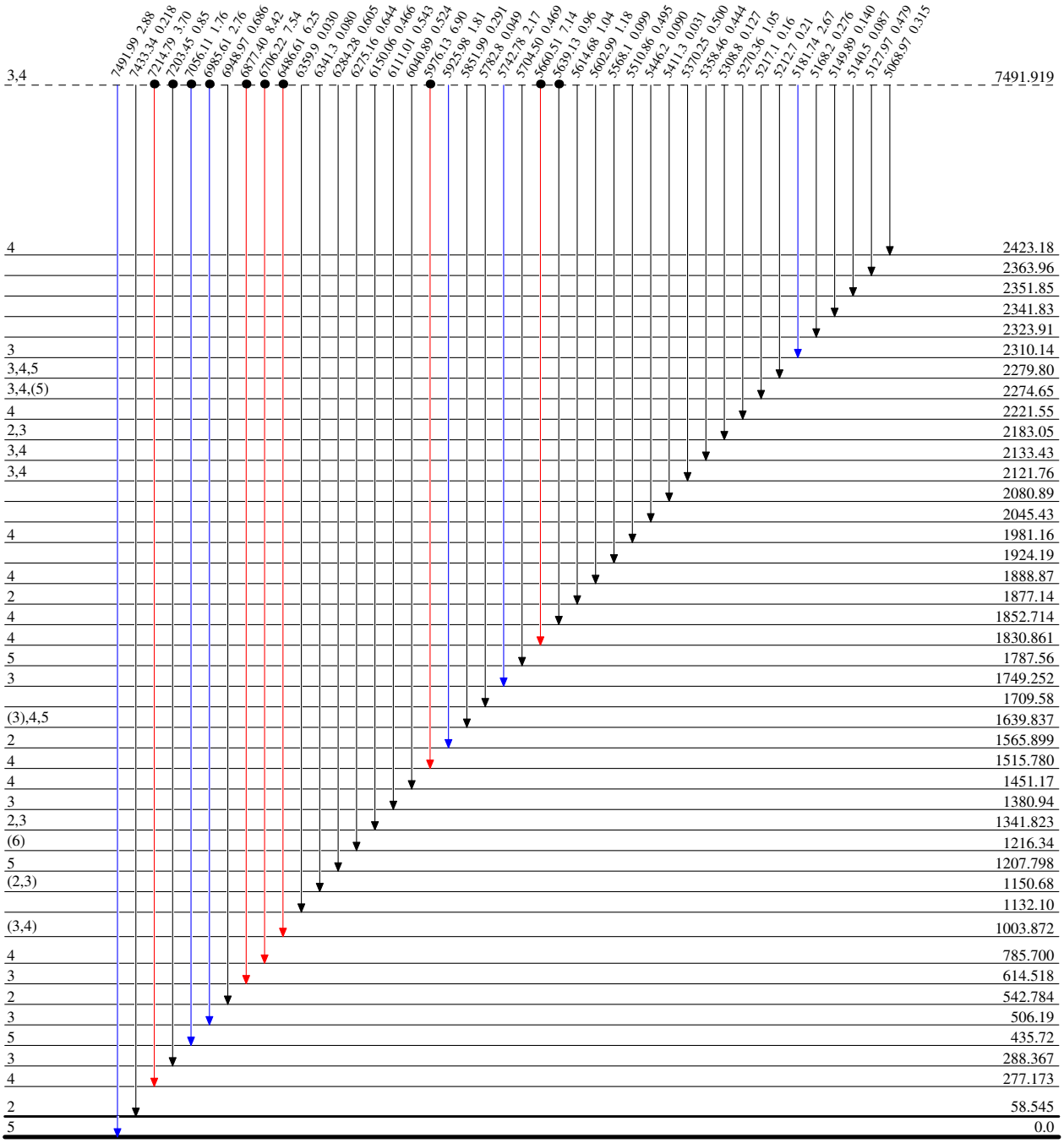
Legend

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

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

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

Coincidence

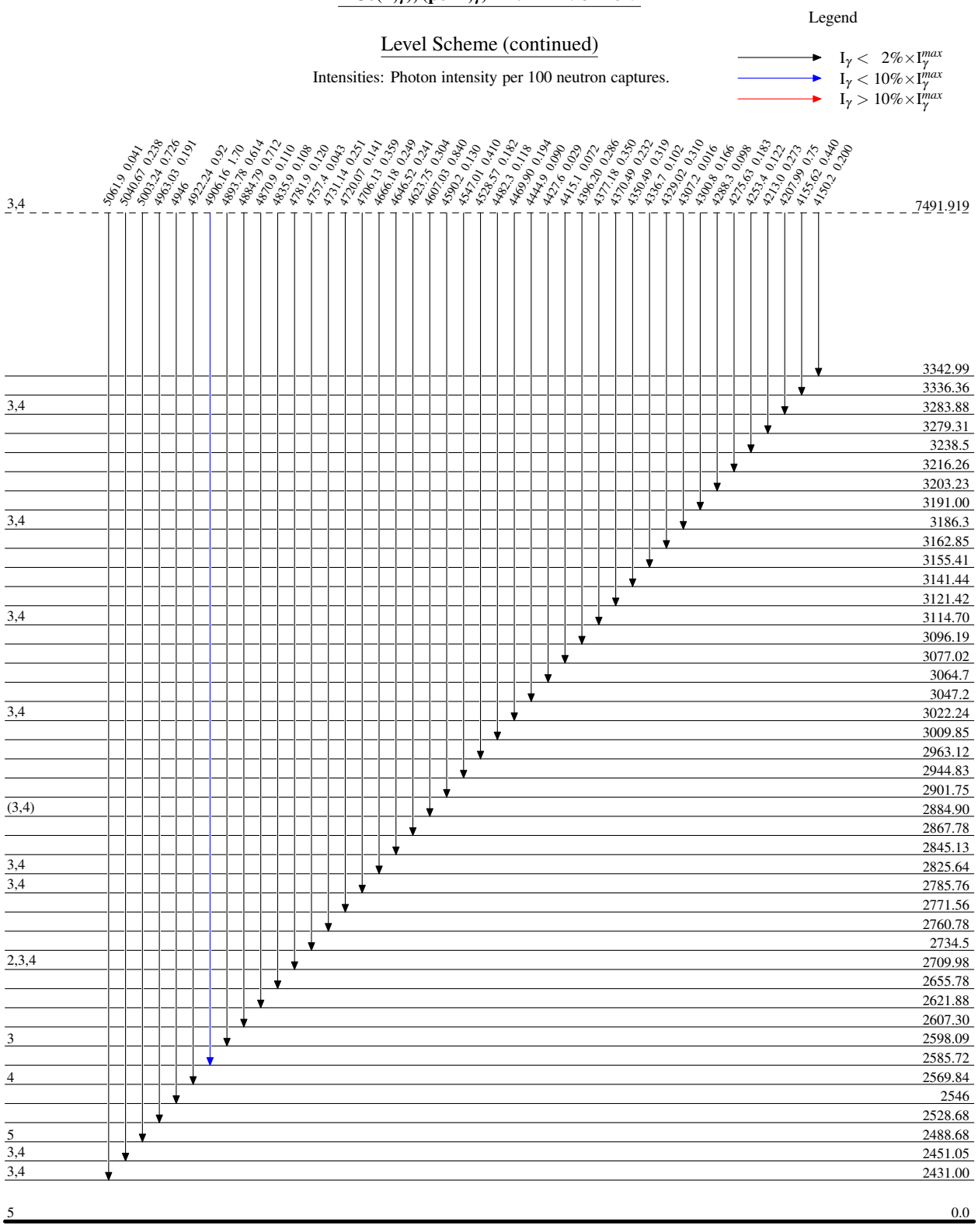


$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.

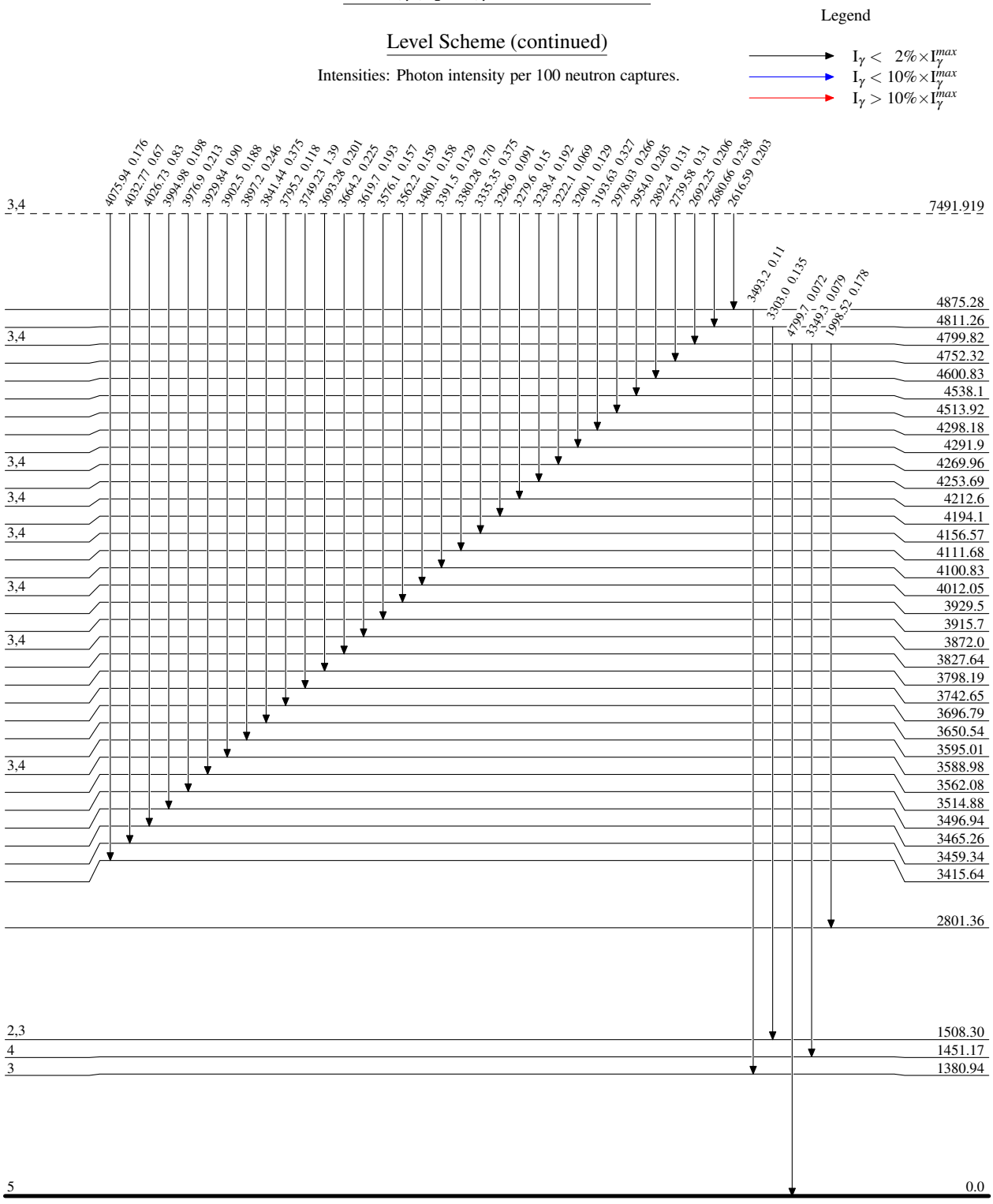


$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.



$^{60}_{27}Co_{33}$

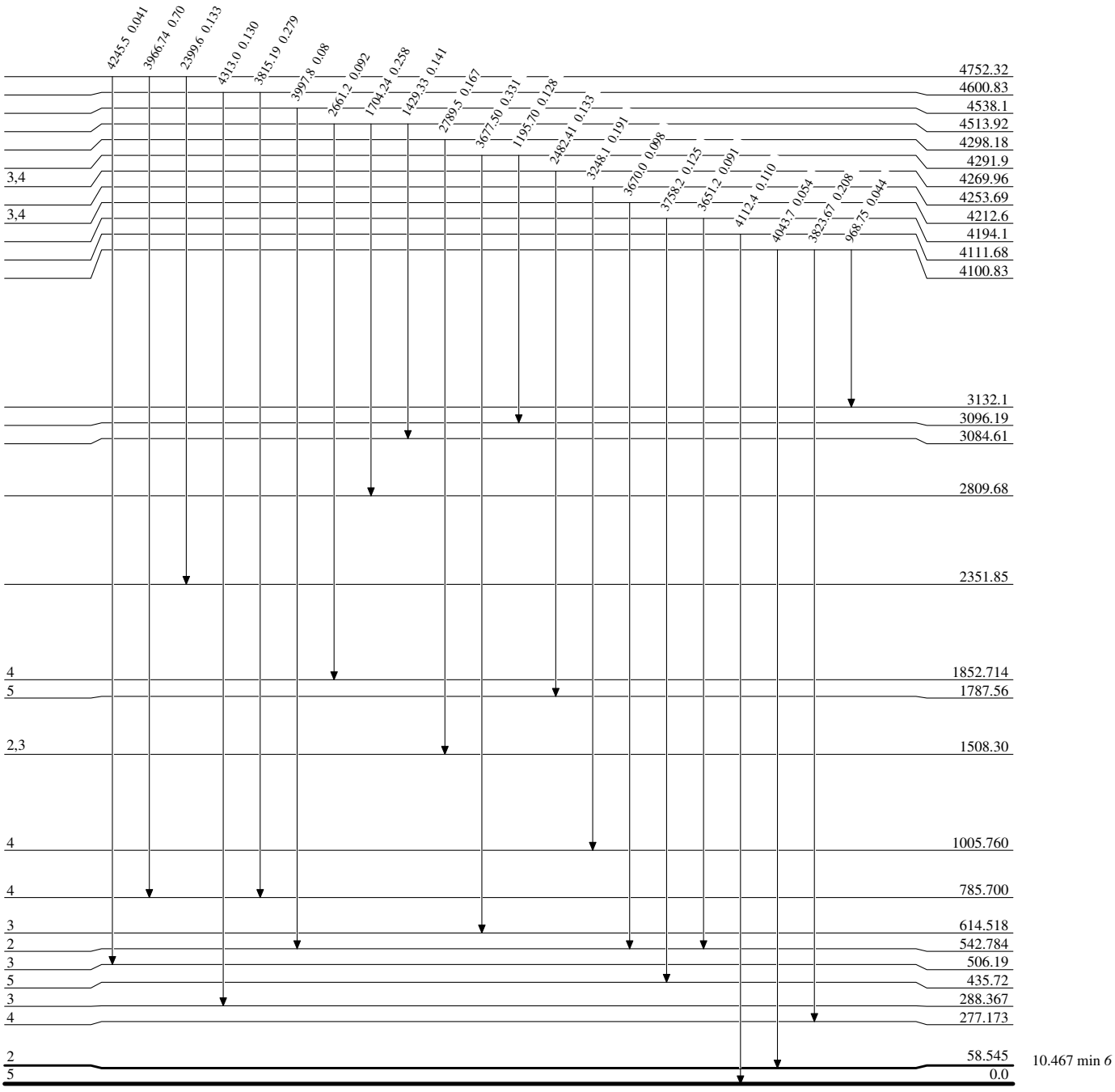
^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Legend

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

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.



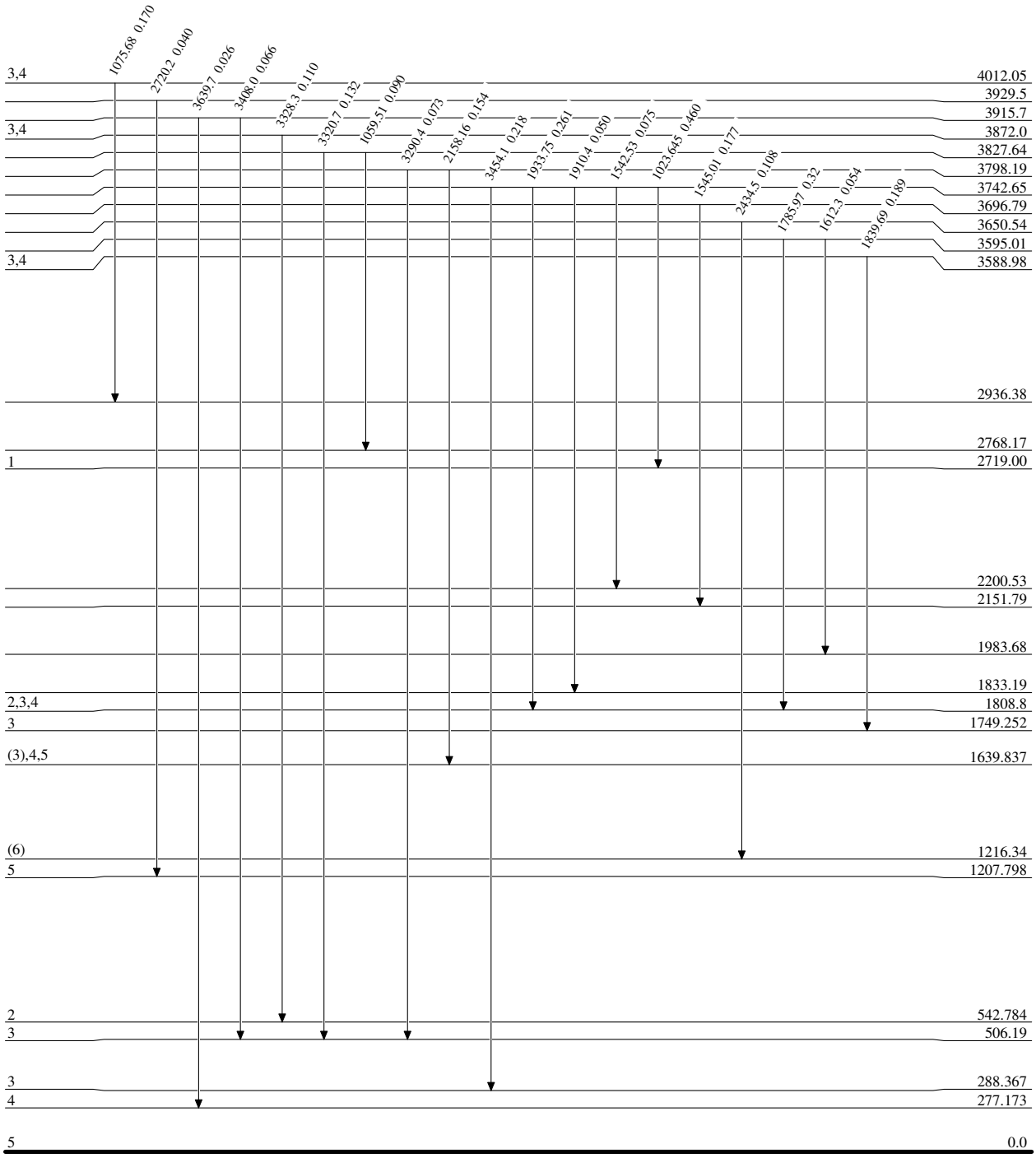
$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.

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



$^{60}_{27}Co_{33}$

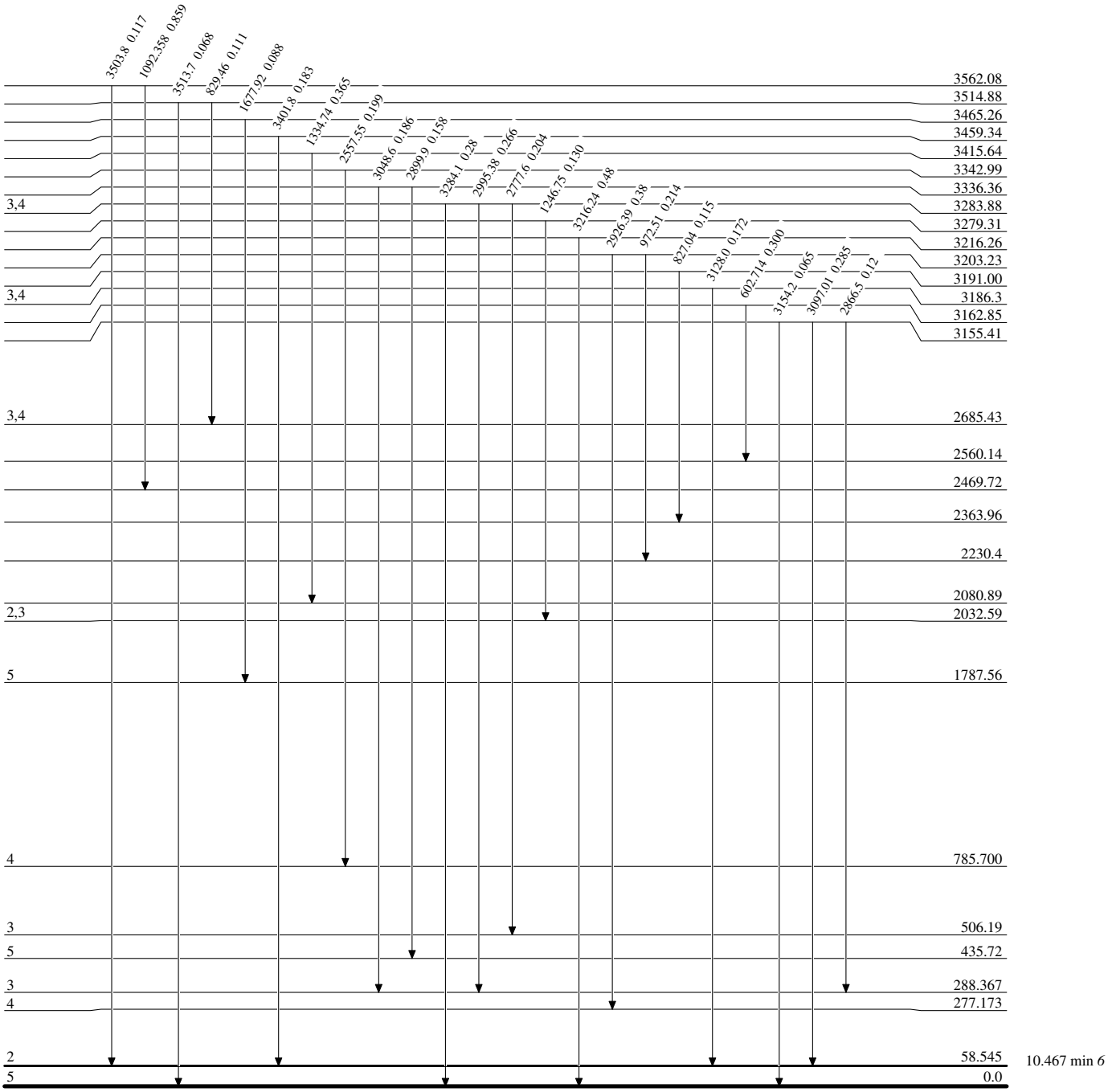
^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Legend

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

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.

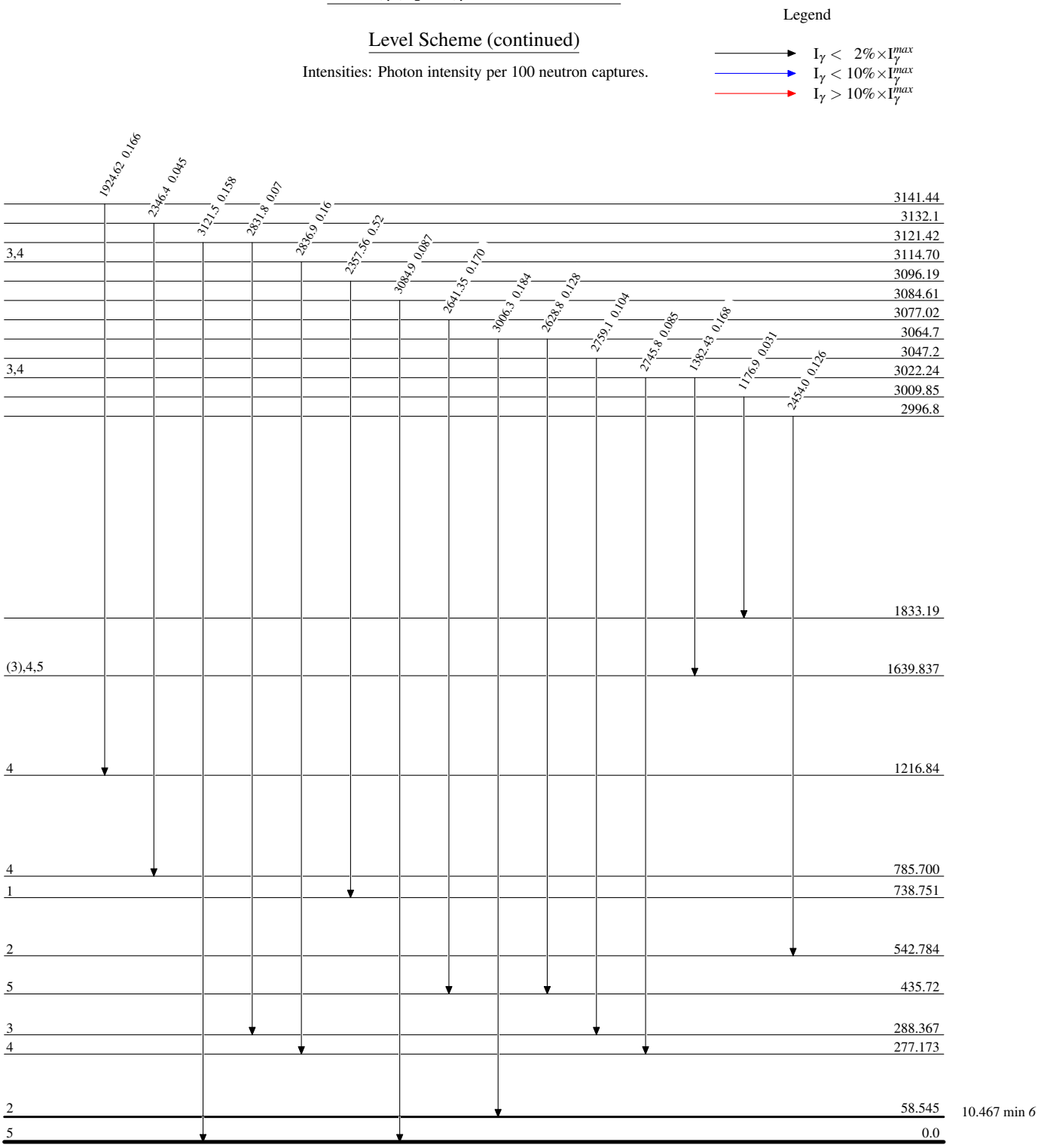


$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.

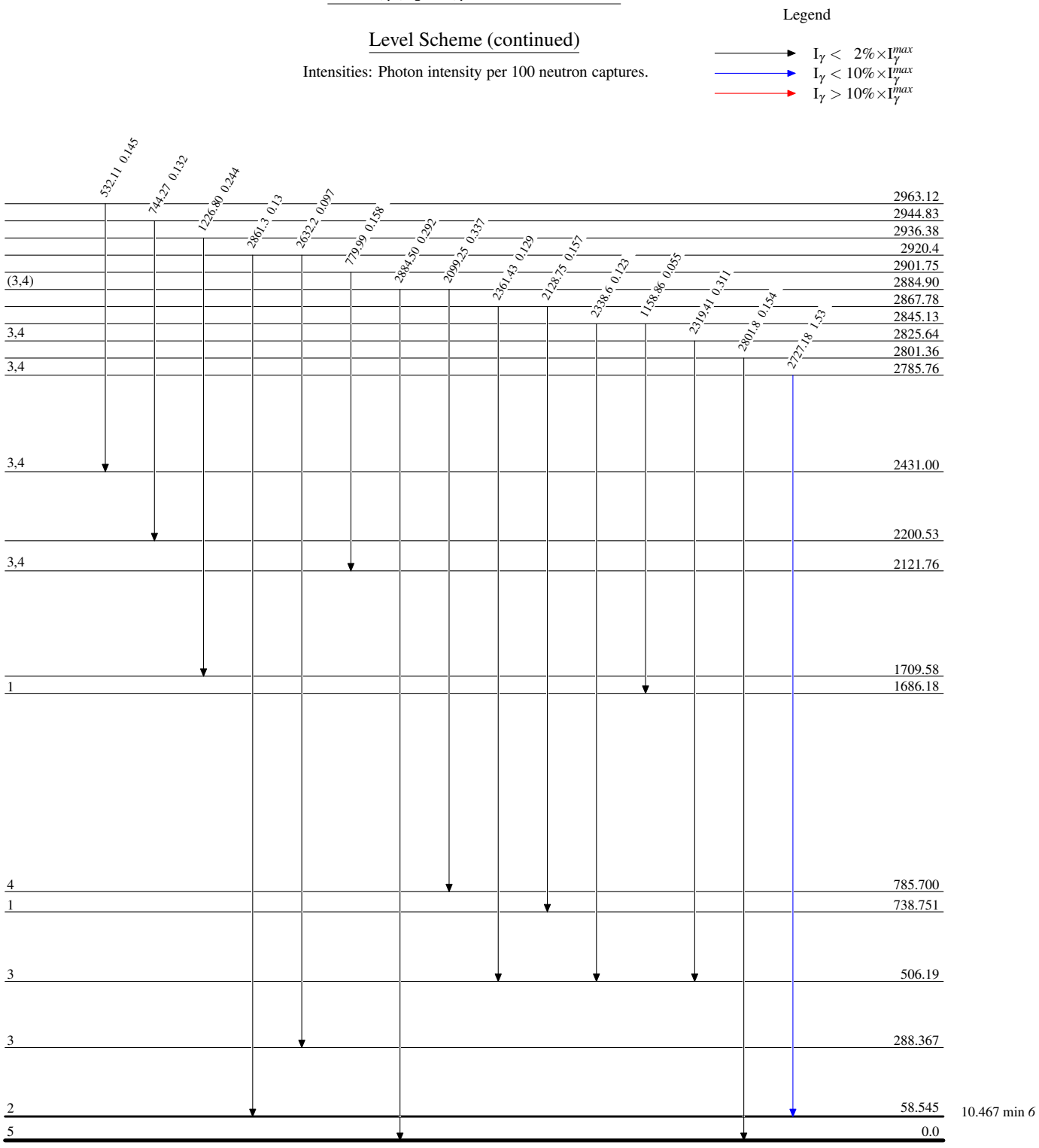


$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.



$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

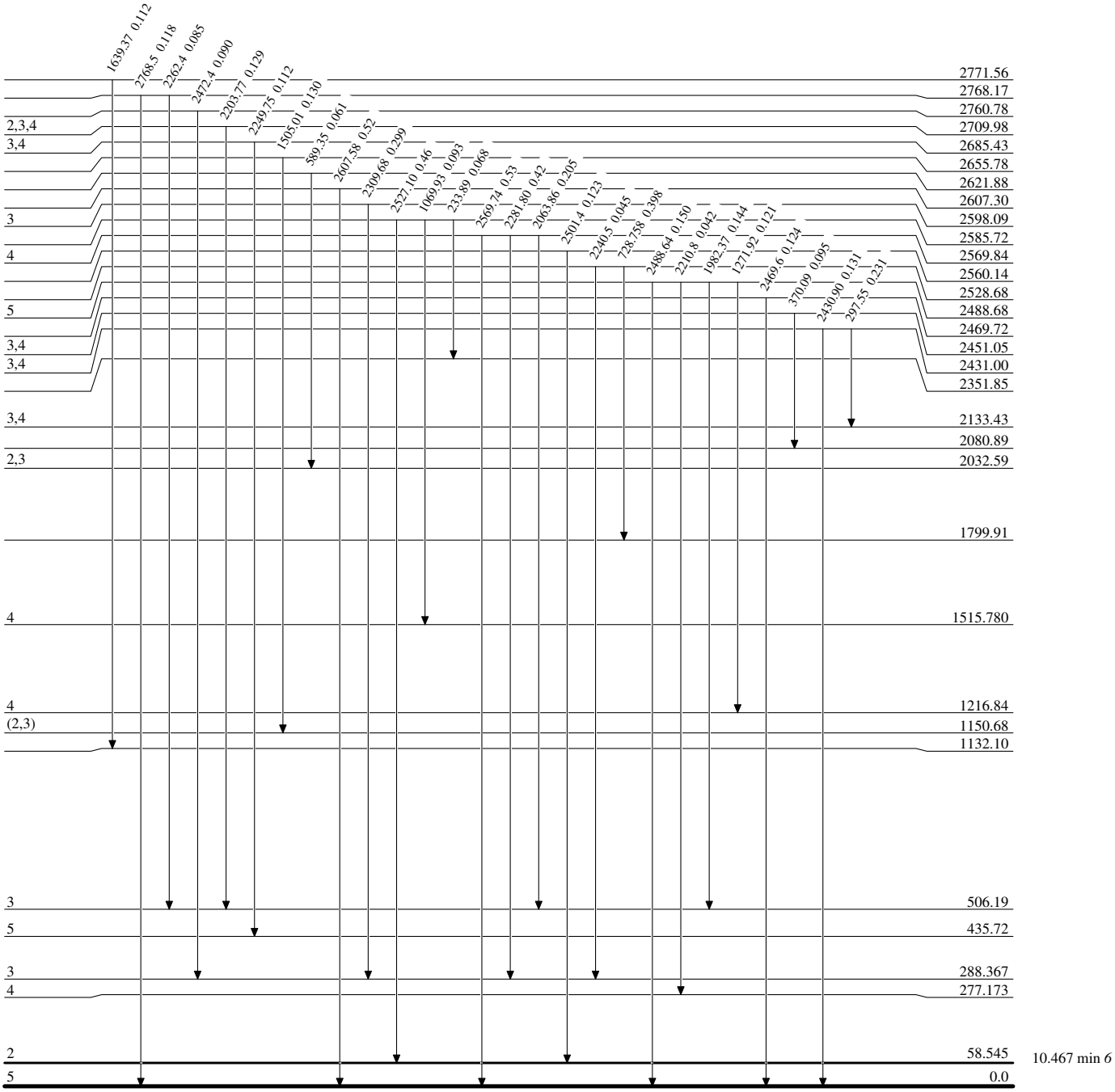
Intensities: Photon intensity per 100 neutron captures.

Legend

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

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

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



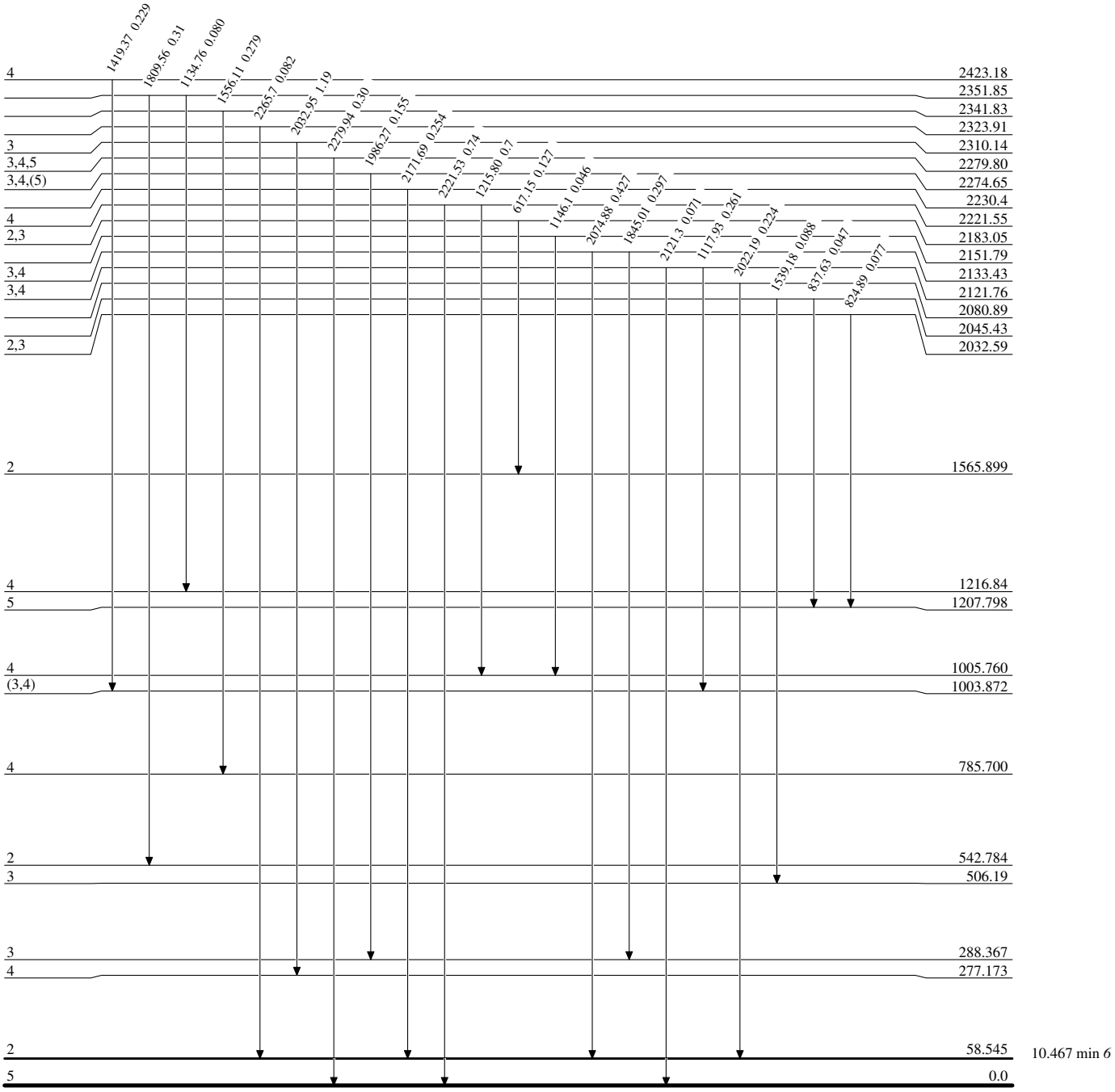
$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.

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



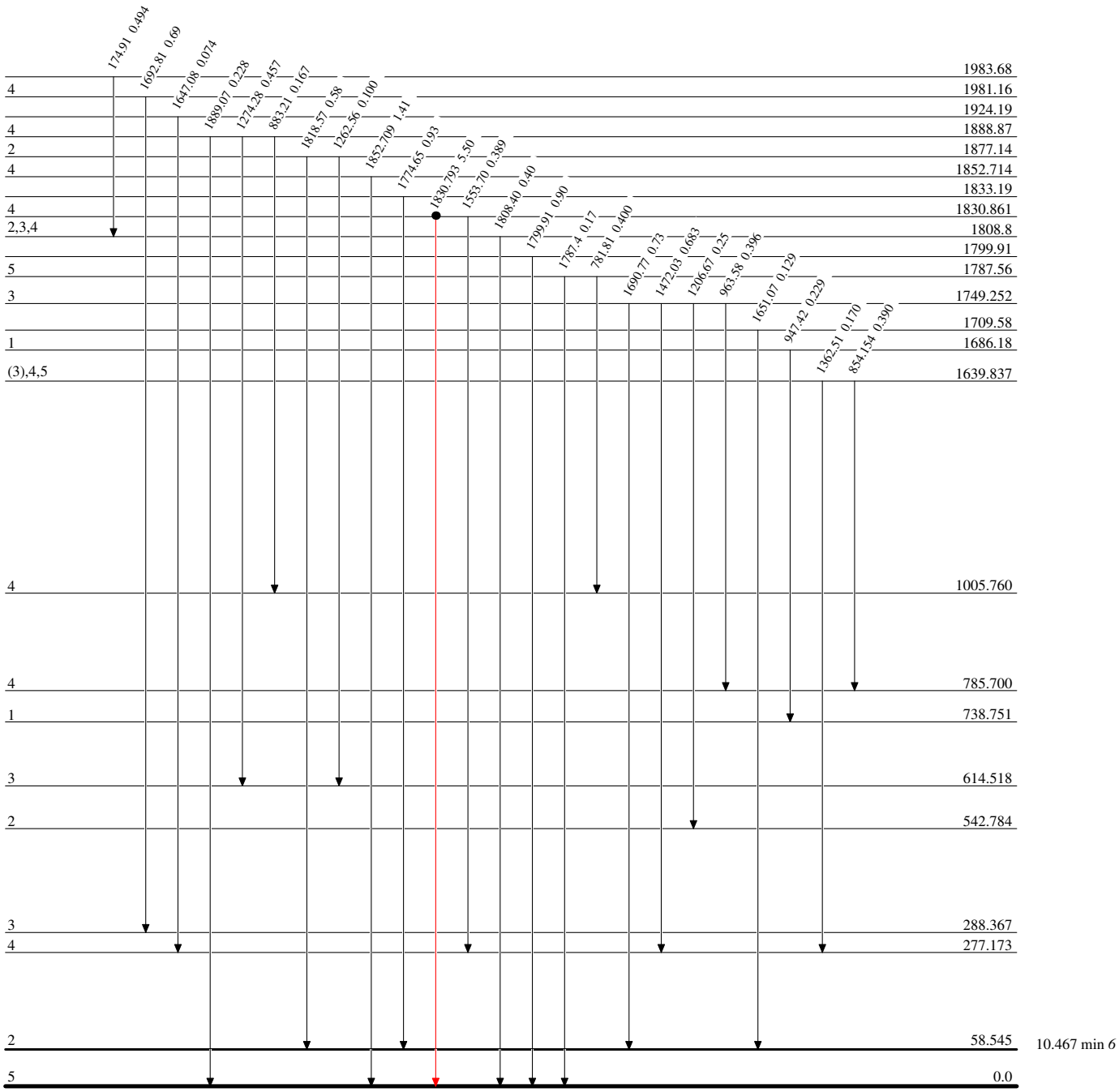
$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.

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



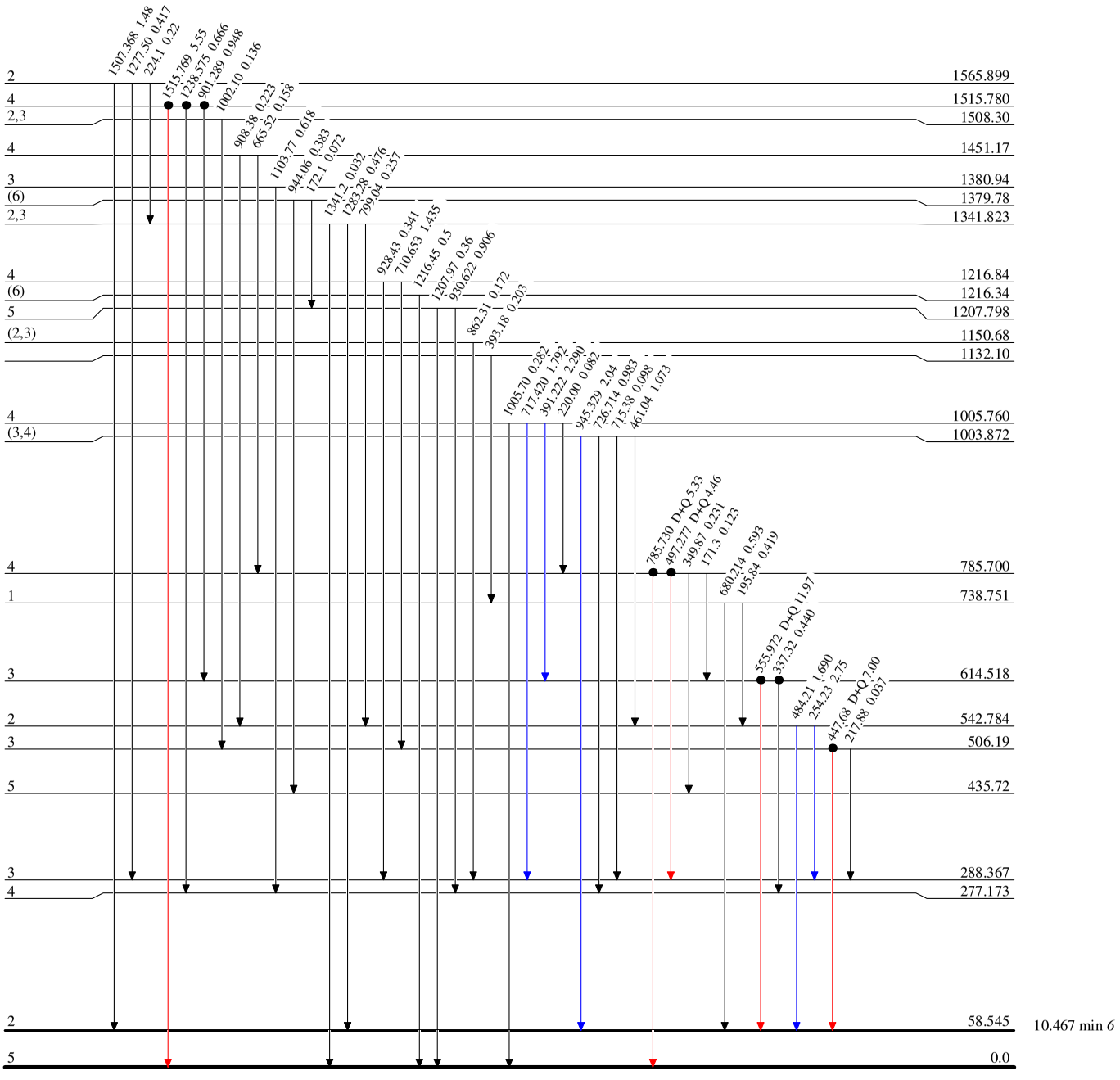
$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.

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

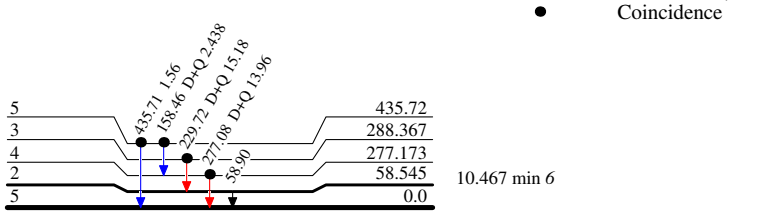


$^{60}_{27}Co_{33}$

^{59}Co(n,γ), (pol n,γ) E=th 1984Ko29

Level Scheme (continued)

Intensities: Photon intensity per 100 neutron captures.



$^{60}_{27}Co_{33}$