^{99}Y β^- decay (1.484 s) 2005Lh01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 145, 25 (2017)	1-Jul-2017

Parent: ^{99}Y: E=0; J^π=(5/2$^+$); $T_{1/2}$=1.484 s *7*; Q(β^-)=6971 *12*; %β^- decay=100.0

Based on XUNDL. Compiled by J. Roediger and B. Singh (McMaster) October 13, 2005.

On-line mass separated source. Measured Eγ, Iγ, $\gamma\gamma$ using an array of nine Compton-suppressed Ge detectors and a low-energy planar Ge detector. Other: 1997Lh02, 1994Lh01.

^{99}Zr Levels

E(level)[†]	J^π[‡]	$T_{1/2}$[‡]	Comments
0.0	(1/2$^+$)	2.1 s *1*	
121.74 *7*	(3/2$^+$)	1.07 ns *3*	
251.96 *9*	(7/2$^+$)	293 ns *10*	
575.68 *7*	(3/2$^+$)	0.33 ns *2*	
614.14[#] *11*	(3/2$^-$)	7.0 ns *9*	$T_{1/2}$: Other value: 6.9 ns 12 (1997Lh02).
657.92 *8*	(3/2$^+$)		
667.48[#] *11*	(5/2$^-$)	2.6 ns *14*	
678.55 *14*	(7/2$^-$)	8.9 ns *12*	
724.50 *9*	(3/2$^+$,5/2$^+$)		
761.68 *10*	(3/2$^+$,5/2$^+$)		
782.24 *11*	(3/2$^+$)		
821.64 *24*	(11/2$^-$)		
850.51 *16*	(5/2$^+$)		
852.12 *9*	(5/2$^+$)	0.04 ns *1*	
867.78 *22*	(9/2$^-$)		
885.08 *15*			
958.73 *15*			
1005.51 *13*			
1051.14 *18*			
1064.73 *14*	(3/2$^+$)		
1065.89 *21*	(7/2$^+$)		
1079.09 *12*	(3/2$^+$,5/2$^+$)		
1146.48 *18*			
1154.2 *4*			
1230.33 *17*			
1255.8 *4*	(11/2$^+$)		
1277.2? *4*			
1326.7? *4*			
1433.15 *16*			
1444.9 *4*			
1587.82 *11*	(3/2$^+$,5/2$^+$)		
1670.3? *4*			
1699.73 *20*			
1716.10 *24*			
1834.29 *23*	(3/2,5/2)		
1925.1? *3*			
2079.2 *3*			
2296.9 *3*			
2400.70 *16*	(3/2$^+$,5/2$^+$)		
2448.51 *19*	(3/2$^+$,5/2$^+$)		
2484.2 *7*			

[†] Deduced by evaluators from least-squares fit to γ-ray energies.

[‡] From Adopted Levels.

[#] Band(A): 3/2$^-$[541] Rotational Band.

^{99}Y β^- decay (1.484 s) 2005Lh01 (continued)

β^- radiations

E(decay)	E(level)	Iβ^-[†][‡]	Log *ft*	Comments
(4487 *12*)	2484.2	0.14 *4*	6.97 *13*	av Eβ=1973.3 *58*
(4522 *12*)	2448.51	2.9 *4*	5.67 *6*	av Eβ=1990.4 *58*
(4570 *12*)	2400.70	4.4 *6*	5.51 *6*	av Eβ=2013.4 *58*
(4674 *12*)	2296.9	0.81 *15*	6.28 *8*	av Eβ=2063.2 *58*
(4892 *12*)	2079.2	1.34 *22*	6.15 *8*	av Eβ=2167.8 *58*
(5046[#] *12*)	1925.1?	0.14 *3*	7.19 *10*	av Eβ=2241.8 *58*
(5137 *12*)	1834.29	1.80 *15*	6.12 *4*	av Eβ=2285.5 *58*
(5255 *12*)	1716.10	0.95 *13*	6.44 *6*	av Eβ=2342.3 *58*
(5271 *12*)	1699.73	0.61 *8*	6.64 *6*	av Eβ=2350.2 *58*
(5301[#] *12*)	1670.3?	0.38 *8*	6.86 *10*	av Eβ=2364.3 *58*
(5383 *12*)	1587.82	6.8 *7*	5.63 *5*	av Eβ=2404.0 *58*
(5526 *12*)	1444.9	0.21 *5*	7.20 *11*	av Eβ=2472.8 *58*
(5538 *12*)	1433.15	0.47 *18*	6.85 *17*	av Eβ=2478.4 *58*
(5644[#] *12*)	1326.7?	0.07 *2*	7.71 *13*	av Eβ=2529.6 *58*
(5694[#] *12*)	1277.2?	0.16 *2*	7.37 *6*	av Eβ=2553.4 *58*
(5715 *12*)	1255.8	0.25 *4*	7.19 *7*	av Eβ=2563.7 *58*
(5741 *12*)	1230.33	0.63 *8*	6.79 *6*	av Eβ=2576.0 *58*
(5817 *12*)	1154.2	0.57 *9*	6.86 *7*	av Eβ=2612.6 *58*
(5825 *12*)	1146.48	0.93 *11*	6.65 *6*	av Eβ=2616.3 *58*
(5892 *12*)	1079.09	2.8 *3*	6.20 *5*	av Eβ=2648.8 *58*
(5905 *12*)	1065.89	0.40 *6*	7.05 *7*	av Eβ=2655.1 *58*
(5906 *12*)	1064.73	5.5 *6*	5.91 *5*	av Eβ=2655.7 *58*
(5920 *12*)	1051.14	1.7 *6*	6.42 *16*	av Eβ=2662.2 *58*
(5965 *12*)	1005.51	3.8 *4*	6.09 *5*	av Eβ=2684.2 *58*
(6012 *12*)	958.73	1.37 *17*	6.55 *6*	av Eβ=2706.7 *58*
(6086 *12*)	885.08	0.6 *3*	6.93 *22*	av Eβ=2742.2 *58*
(6103 *12*)	867.78	0.9 *4*	6.76 *20*	av Eβ=2750.5 *58*
(6119 *12*)	852.12	11.0 *9*	5.68 *4*	av Eβ=2758.0 *58*
(6120 *12*)	850.51	2.3 *3*	6.36 *6*	av Eβ=2758.8 *58*
(6149[#] *12*)	821.64	<0.2	>7.4	av Eβ=2772.7 *58*
(6189 *12*)	782.24	3.0 *5*	6.26 *8*	av Eβ=2791.7 *58*
(6209 *12*)	761.68	2.5 *7*	6.35 *13*	av Eβ=2801.5 *58*
(6247 *12*)	724.50	25.3 *25*	5.35 *5*	av Eβ=2819.4 *58*
(6292 *12*)	678.55	2.0 *5*	6.47 *11*	av Eβ=2841.6 *58*
(6304 *12*)	667.48	2.4 *7*	6.40 *13*	av Eβ=2846.9 *58*
(6313 *12*)	657.92	2.0 *16*	6.5 *4*	av Eβ=2851.5 *58*
(6357[#] *12*)	614.14	<1.5	>6.6	av Eβ=2872.6 *58*
(6395 *12*)	575.68	5.2 *21*	6.09 *18*	av Eβ=2891.1 *58*
(6719[#] *12*)	251.96	<2.0	>6.6	av Eβ=3046.9 *58*
(6849 *12*)	121.74	<10	>5.9	av Eβ=3109.5 *58*

[†] Deduced by evaluators from γ-ray intensity balance. These values generally agree with those given in 2005Lh01.
[‡] Absolute intensity per 100 decays.
[#] Existence of this branch is questionable.

^{99}Y β^- decay (1.484 s) 2005Lh01 (continued)

$\gamma(^{99}Zr)$

Iγ normalization: Σ(I(γ+ce) of γ's to g.s.)=98.3 *4*, %β^-n=1.77 *19*, and assuming no β feeding to g.s.
Absolute γ-ray intensities are values calculated using the decay-scheme normalization.

E_γ	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
(11.1)		678.55	(7/2$^-$)	667.48	(5/2$^-$)			
(20.7)		678.55	(7/2$^-$)	657.92	(3/2$^+$)			
46.1 *2*	0.09 *3*	867.78	(9/2$^-$)	821.64	(11/2$^-$)	[M1,E2]	9.9 *81*	α(K)=7.0 *54*; α(L)=2.4 *23*; α(M)=0.43 *40* α(N)=0.054 *49*; α(O)=0.00106 *74* %Iγ=0.042 *15*.
53.3 *1*	2.4 *4*	667.48	(5/2$^-$)	614.14	(3/2$^-$)	(M1)	1.208	α(K)=1.058 *16*; α(L)=0.1248 *19*; α(M)=0.0217 *4* α(N)=0.00307 *5*; α(O)=0.000209 *4* %Iγ=1.13 *19*. Mult.: From α(exp)=1.1 *4* (1997Lh02).
64.4 *1*	0.19 *4*	678.55	(7/2$^-$)	614.14	(3/2$^-$)	E2	5.46	α(K)=4.20 *7*; α(L)=1.052 *17*; α(M)=0.185 *3* α(N)=0.0236 *4*; α(O)=0.000635 *10* %Iγ=0.089 *20*. Mult.: From α(exp)=8 *5* (1997Lh02).
66.6 *1*	0.55 *10*	724.50	(3/2$^+$,5/2$^+$)	657.92	(3/2$^+$)	[M1]	0.637	α(K)=0.558 *9*; α(L)=0.0656 *10*; α(M)=0.01143 *17* α(N)=0.001613 *24*; α(O)=0.0001103 *17* %Iγ=0.26 *5*.
82.2[#] *2*	0.77 *24*	657.92	(3/2$^+$)	575.68	(3/2$^+$)	[M1,E2]	1.31 *96*	α(K)=1.07 *76*; α(L)=0.20 *17*; α(M)=0.035 *30* α(N)=0.0046 *38*; α(O)=1.7×10^{-4} *12* %Iγ=0.36 *12*,
90.4 *1*	1.17 *20*	852.12	(5/2$^+$)	761.68	(3/2$^+$,5/2$^+$)	[M1]	0.268	α(K)=0.235 *4*; α(L)=0.0275 *4*; α(M)=0.00479 *7* α(N)=0.000677 *10*; α(O)=4.65×10^{-5} *7* %Iγ=0.55 *10*.
91.7 *2*	1.3 *4*	667.48	(5/2$^-$)	575.68	(3/2$^+$)	[E1]	0.1463 *23*	α(K)=0.1288 *20*; α(L)=0.01463 *23*; α(M)=0.00252 *4* α(N)=0.000350 *6*; α(O)=2.20×10^{-5} *4* %Iγ=0.61 *19*.
121.7 *1*	100 *7*	121.74	(3/2$^+$)	0.0	(1/2$^+$)	M1	0.1179	α(K)=0.1035 *15*; α(L)=0.01200 *17*; α(M)=0.00209 *3* α(N)=0.000295 *5*; α(O)=2.04×10^{-5} *3* %Iγ=46.9 *21*. I$_\gamma$: ΔIγ estimated by evaluators. Mult.: From α(K)exp=0.12 *3* (1986SiZY).
127.6 *2*	0.44 *6*	852.12	(5/2$^+$)	724.50	(3/2$^+$,5/2$^+$)	[M1,E2]	0.28 *18*	α(K)=0.24 *15*; α(L)=0.035 *25*; α(M)=0.0062 *44* α(N)=8.3×10^{-4} *57*;

Continued on next page (footnotes at end of table)

^{99}Y β^- decay (1.484 s) 2005Lh01 (continued)

$\gamma(^{99}Zr)$ (continued)

E_γ	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
								α(O)=4.1×10^{-5} *24* %Iγ=0.21 *3*.
130.2 *1*	15.4 *17*	251.96	(7/2$^+$)	121.74	(3/2$^+$)	E2	0.425	α(K)=0.358 *6*; α(L)=0.0555 *8*; α(M)=0.00969 *14* α(N)=0.001293 *19*; α(O)=5.99×10^{-5} *9* %Iγ=7.2 *8*. Mult.: From α(K)exp=0.47 *12* (1986SiZY).
143.0 *3*	0.29 *5*	821.64	(11/2$^-$)	678.55	(7/2$^-$)	E2	0.302	α(K)=0.256 *4*; α(L)=0.0382 *7*; α(M)=0.00666 *11* α(N)=0.000893 *15*; α(O)=4.33×10^{-5} *7* %Iγ=0.136 *25*. Mult.: From 2001Ur01.
149.0 *2*	0.34 *4*	724.50	(3/2$^+$,5/2$^+$)	575.68	(3/2$^+$)	[M1,E2]	0.164 *96*	α(K)=0.140 *81*; α(L)=0.020 *13*; α(M)=0.0034 *23* α(N)=4.7×10^{-4} *30*; α(O)=2.5×10^{-5} *13* %Iγ=0.160 *21*.
186.1 *2*	0.83 *8*	761.68	(3/2$^+$,5/2$^+$)	575.68	(3/2$^+$)	[M1,E2]	0.077 *40*	α(K)=0.067 *34*; α(L)=0.0087 *50*; α(M)=0.00152 *86* α(N)=2.1×10^{-4} *12*; α(O)=1.19×10^{-5} *55* %Iγ=0.39 *5*.
189.3 *3*	0.54 *5*	867.78	(9/2$^-$)	678.55	(7/2$^-$)	M1	0.0360	α(K)=0.0317 *5*; α(L)=0.00363 *6*; α(M)=0.000631 *10* α(N)=8.94×10^{-5} *13*; α(O)=6.22×10^{-6} *9* %Iγ=0.25 *3*. Mult.: From 2001Ur01.
192.7 *2*	4.1 *5*	850.51	(5/2$^+$)	657.92	(3/2$^+$)	[M1,E2]	0.068 *35*	α(K)=0.059 *29*; α(L)=0.0077 *43*; α(M)=0.00134 *74* α(N)=1.8×10^{-4} *10*; α(O)=1.07×10^{-5} *48* %Iγ=1.9 *3*.
194.1 *2*	5.7 *6*	852.12	(5/2$^+$)	657.92	(3/2$^+$)			%Iγ=2.7 *3*.
200.3 *3*	0.28 *5*	867.78	(9/2$^-$)	667.48	(5/2$^-$)	E2	0.0893	α(K)=0.0769 *12*; α(L)=0.01032 *16*; α(M)=0.00180 *3* α(N)=0.000245 *4*; α(O)=1.348×10^{-5} *21* %Iγ=0.131 *25*. Mult.: From 2001Ur01.
215.5 *2*	0.21 *4*	1065.89	(7/2$^+$)	850.51	(5/2$^+$)			%Iγ=0.099 *20*.
234.4 *3*	0.18 *5*	958.73		724.50	(3/2$^+$,5/2$^+$)			%Iγ=0.085 *24*.
238.2 *2*	0.48 *6*	852.12	(5/2$^+$)	614.14	(3/2$^-$)			%Iγ=0.23 *3*.
261.6 *3*	0.34 *7*	1146.48		885.08				%Iγ=0.16 *4*.
274.9 *3*	1.41 *17*	850.51	(5/2$^+$)	575.68	(3/2$^+$)			%Iγ=0.66 *9*.
276.6 *2*	5.0 *6*	852.12	(5/2$^+$)	575.68	(3/2$^+$)			%Iγ=2.3 *3*.
282.6 *2*	0.66 *9*	1064.73	(3/2$^+$)	782.24	(3/2$^+$)			%Iγ=0.31 *5*.
296.9 *2*	0.74 *10*	1079.09	(3/2$^+$,5/2$^+$)	782.24	(3/2$^+$)			%Iγ=0.35 *5*.
301.0 *3*	0.17 *4*	958.73		657.92	(3/2$^+$)			%Iγ=0.080 *20*.
309.6 *2*	0.61 *9*	885.08		575.68	(3/2$^+$)			%Iγ=0.29 *5*.
317.4[#] *3*	0.30 *5*	1079.09	(3/2$^+$,5/2$^+$)	761.68	(3/2$^+$,5/2$^+$)			%Iγ=0.141 *25*.
323.8 *3*	0.86 *12*	575.68	(3/2$^+$)	251.96	(7/2$^+$)			%Iγ=0.40 *6*.

Continued on next page (footnotes at end of table)

^{99}Y β^- decay (1.484 s) 2005Lh01 (continued)

$\gamma(^{99}Zr)$ (continued)

E_γ	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Comments
347.8 *2*	0.74 *10*	1005.51		657.92	(3/2$^+$)	%Iγ=0.35 *5*.
354.7 *3*	0.44 *9*	1079.09	(3/2$^+$,5/2$^+$)	724.50	(3/2$^+$,5/2$^+$)	%Iγ=0.21 *5*.
391.4 *4*	0.14 *4*	1005.51		614.14	(3/2$^-$)	%Iγ=0.066 *19*.
392.5 *3*	1.20 *17*	1154.2		761.68	(3/2$^+$,5/2$^+$)	%Iγ=0.56 *9*.
405.9 *2*	4.5 *6*	657.92	(3/2$^+$)	251.96	(7/2$^+$)	%Iγ=2.1 *3*.
407.7 *3*	0.64 *10*	1065.89	(7/2$^+$)	657.92	(3/2$^+$)	%Iγ=0.30 *5*.
415.6 *2*	1.70 *20*	667.48	(5/2$^-$)	251.96	(7/2$^+$)	%Iγ=0.80 *10*.
421.4 *3*	0.34 *5*	1079.09	(3/2$^+$,5/2$^+$)	657.92	(3/2$^+$)	%Iγ=0.160 *25*.
422.0 *4*	0.27 *8*	1146.48		724.50	(3/2$^+$,5/2$^+$)	%Iγ=0.13 *4*.
426.7 *3*	0.65 *11*	678.55	(7/2$^-$)	251.96	(7/2$^+$)	%Iγ=0.31 *6*.
429.7 *3*	0.62 *8*	1005.51		575.68	(3/2$^+$)	%Iγ=0.29 *4*.
448.1 *3*	0.20 *5*	1230.33		782.24	(3/2$^+$)	%Iγ=0.094 *24*.
454.0 *1*	12.0 *14*	575.68	(3/2$^+$)	121.74	(3/2$^+$)	%Iγ=5.6 *7*.
472.7 *2*	1.9 *3*	724.50	(3/2$^+$,5/2$^+$)	251.96	(7/2$^+$)	%Iγ=0.89 *15*.
475.3 *4*	0.24 *10*	1051.14		575.68	(3/2$^+$)	%Iγ=0.11 *5*.
476.2[#] *3*	0.15 *5*	1326.7?		850.51	(5/2$^+$)	%Iγ=0.070 *24*.
509.6 *2*	0.73 *10*	761.68	(3/2$^+$,5/2$^+$)	251.96	(7/2$^+$)	%Iγ=0.34 *5*.
536.2 *1*	24 *3*	657.92	(3/2$^+$)	121.74	(3/2$^+$)	%Iγ=11.3 *19*.
546.0 *3*	0.65 *11*	667.48	(5/2$^-$)	121.74	(3/2$^+$)	%Iγ=0.31 *6*.
570.6 *3*	0.97 *16*	1146.48		575.68	(3/2$^+$)	%Iγ=0.46 *8*.
572.3 *4*	0.63 *10*	1230.33		657.92	(3/2$^+$)	%Iγ=0.30 *5*.
575.7 *1*	21 *4*	575.68	(3/2$^+$)	0.0	(1/2$^+$)	%Iγ=9.9 *18*.
600.1 *2*	7.0 *10*	852.12	(5/2$^+$)	251.96	(7/2$^+$)	%Iγ=3.3 *5*.
602.7 *2*	16.0 *20*	724.50	(3/2$^+$,5/2$^+$)	121.74	(3/2$^+$)	%Iγ=7.5 *10*.
614.2 *2*	12.1 *12*	614.14	(3/2$^-$)	0.0	(1/2$^+$)	%Iγ=5.7 *6*.
619.3[#] *4*	0.35 *5*	1277.2?		657.92	(3/2$^+$)	%Iγ=0.164 *25*.
639.9 *2*	8.3 *11*	761.68	(3/2$^+$,5/2$^+$)	121.74	(3/2$^+$)	%Iγ=3.9 *6*.
658.0 *4*	0.82 *10*	657.92	(3/2$^+$)	0.0	(1/2$^+$)	%Iγ=0.38 *5*.
660.6 *2*	0.76 *11*	782.24	(3/2$^+$)	121.74	(3/2$^+$)	%Iγ=0.36 *6*.
671.7 *3*	0.67 *12*	1433.15		761.68	(3/2$^+$,5/2$^+$)	%Iγ=0.31 *6*.
703.1 *3*	0.91 *18*	1587.82	(3/2$^+$,5/2$^+$)	885.08		%Iγ=0.43 *9*.
706.7 *2*	2.3 *3*	958.73		251.96	(7/2$^+$)	%Iγ=1.08 *15*.
724.4 *2*	37 *4*	724.50	(3/2$^+$,5/2$^+$)	0.0	(1/2$^+$)	%Iγ=17.4 *18*,
730.4 *2*	3.7 *5*	852.12	(5/2$^+$)	121.74	(3/2$^+$)	%Iγ=1.74 *25*.
761.6 *5*	2.1 *4*	761.68	(3/2$^+$,5/2$^+$)	0.0	(1/2$^+$)	%Iγ=0.99 *20*.
782.3 *2*	9.3 *8*	782.24	(3/2$^+$)	0.0	(1/2$^+$)	%Iγ=4.4 *5*.
805.7 *3*	0.57 *14*	1587.82	(3/2$^+$,5/2$^+$)	782.24	(3/2$^+$)	%Iγ=0.27 *7*.
813.6[#] *4*	0.15 *8*	1065.89	(7/2$^+$)	251.96	(7/2$^+$)	%Iγ=0.07 *4*, E_γ: could also be placed from 2401 to 1588 level.
827.1 *2*	0.52 *8*	1079.09	(3/2$^+$,5/2$^+$)	251.96	(7/2$^+$)	%Iγ=0.24 *4*.
830.8 *3*	0.45 *9*	1444.9		614.14	(3/2$^-$)	%Iγ=0.21 *5*.
836.8 *3*	0.25 *5*	958.73		121.74	(3/2$^+$)	%Iγ=0.117 *24*.
857.7[#] *3*	0.41 *10*	1433.15		575.68	(3/2$^+$)	%Iγ=0.19 *5*.
865.6 *3*	0.73 *10*	1716.10		850.51	(5/2$^+$)	%Iγ=0.34 *5*.
883.6 *2*	2.4 *3*	1005.51		121.74	(3/2$^+$)	%Iγ=1.13 *15*.
885.2 *3*	1.9 *5*	885.08		0.0	(1/2$^+$)	%Iγ=0.89 *24*.
929.5 *3*	3.1 *11*	1051.14		121.74	(3/2$^+$)	%Iγ=1.5 *6*.
929.8 *2*	3.4 *7*	1587.82	(3/2$^+$,5/2$^+$)	657.92	(3/2$^+$)	%Iγ=1.6 *4*.
938.5[#] *4*	0.39 *9*	1699.73		761.68	(3/2$^+$,5/2$^+$)	%Iγ=0.18 *5*.
942.9 *2*	2.9 *4*	1064.73	(3/2$^+$)	121.74	(3/2$^+$)	%Iγ=1.36 *20*.
954.4 *3*	1.27 *22*	1716.10		761.68	(3/2$^+$,5/2$^+$)	%Iγ=0.60 *11*.
957.2 *2*	2.2 *3*	1079.09	(3/2$^+$,5/2$^+$)	121.74	(3/2$^+$)	%Iγ=1.03 *15*.
967.6 *3*	1.5 *3*	2400.70	(3/2$^+$,5/2$^+$)	1433.15		%Iγ=0.70 *15*.
1003.8 *3*	0.55 *8*	1255.8	(11/2$^+$)	251.96	(7/2$^+$)	%Iγ=0.26 *4*.

Continued on next page (footnotes at end of table)

^{99}Y β^- decay (1.484 s) 2005Lh01 (continued)

$\gamma(^{99}Zr)$ (continued)

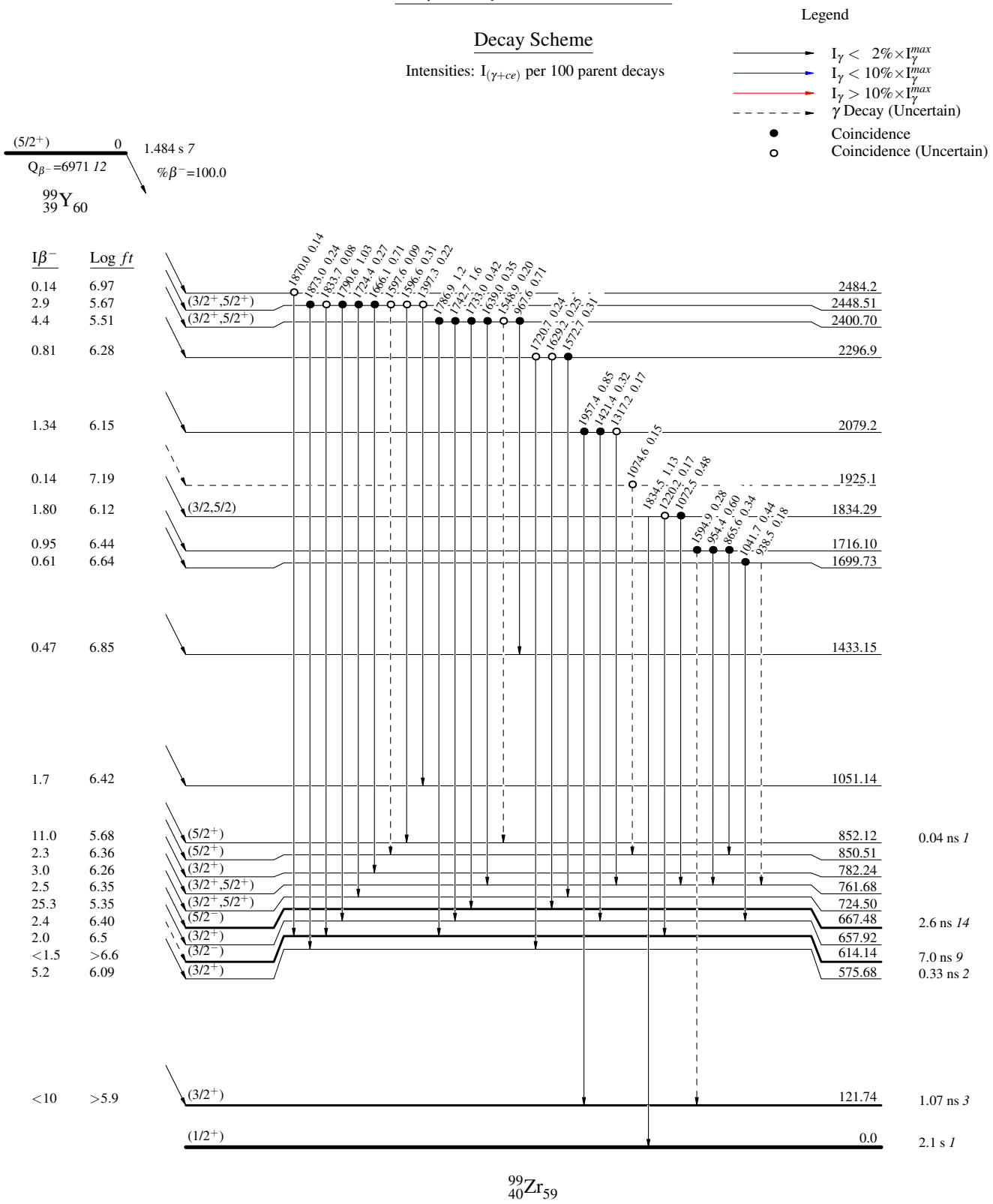
E_γ	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Comments
1005.5 *3*	4.2 *5*	1005.51		0.0	$(1/2^+)$	%Iγ=1.97 *25*.
1012.1 *1*	9.4 *10*	1587.82	$(3/2^+,5/2^+)$	575.68	$(3/2^+)$	%Iγ=4.4 *5*.
1024.7 *3*	0.39 *7*	1146.48		121.74	$(3/2^+)$	%Iγ=0.18 *4*.
1041.7 *2*	0.94 *12*	1699.73		657.92	$(3/2^+)$	%Iγ=0.44 *6*.
1051.1 *3*	0.7 *3*	1051.14		0.0	$(1/2^+)$	%Iγ=0.33 *15*.
1064.7 *3*	8.0 *9*	1064.73	$(3/2^+)$	0.0	$(1/2^+)$	%Iγ=3.8 *5*.
1072.5 *3*	1.03 *20*	1834.29	(3/2,5/2)	761.68	$(3/2^+,5/2^+)$	%Iγ=0.48 *10*.
1074.6[#] *2*	0.31 *8*	1925.1?		850.51	$(5/2^+)$	%Iγ=0.15 *4*.
1079.0 *4*	1.7 *4*	1079.09	$(3/2^+,5/2^+)$	0.0	$(1/2^+)$	%Iγ=0.80 *19*.
1108.6 *2*	0.50 *10*	1230.33		121.74	$(3/2^+)$	%Iγ=0.23 *5*.
1181.0 *4*	0.63 *11*	1433.15		251.96	$(7/2^+)$	%Iγ=0.30 *6*.
1220.2 *4*	0.37 *11*	1834.29	(3/2,5/2)	614.14	$(3/2^-)$	%Iγ=0.17 *6*.
1311.1 *3*	0.80 *15*	1433.15		121.74	$(3/2^+)$	%Iγ=0.38 *8*.
1317.2 *6*	0.36 *12*	2079.2		761.68	$(3/2^+,5/2^+)$	%Iγ=0.17 *6*.
1397.3 *4*	0.47 *11*	2448.51	$(3/2^+,5/2^+)$	1051.14		%Iγ=0.22 *6*.
1421.4 *4*	0.68 *11*	2079.2		657.92	$(3/2^+)$	%Iγ=0.32 *6*.
1548.5[#] *4*	0.81 *17*	1670.3?		121.74	$(3/2^+)$	%Iγ=0.38 *9*.
1548.9[#] *6*	0.42 *20*	2400.70	$(3/2^+,5/2^+)$	852.12	$(5/2^+)$	%Iγ=0.20 *10*.
1572.7 *4*	0.66 *23*	2296.9		724.50	$(3/2^+,5/2^+)$	%Iγ=0.31 *11*.
1594.9[#] *4*	0.6 *4*	1716.10		121.74	$(3/2^+)$	%Iγ=0.28 *19*.
1596.6 *5*	0.65 *15*	2448.51	$(3/2^+,5/2^+)$	852.12	$(5/2^+)$	%Iγ=0.31 *8*.
1597.6[#] *5*	0.19 *6*	2448.51	$(3/2^+,5/2^+)$	850.51	$(5/2^+)$	%Iγ=0.09 *3*.
1629.2 *5*	0.54 *16*	2296.9		667.48	$(5/2^-)$	%Iγ=0.25 *8*.
1639.0 *4*	0.75 *18*	2400.70	$(3/2^+,5/2^+)$	761.68	$(3/2^+,5/2^+)$	%Iγ=0.35 *9*.
1666.1 *4*	1.5 *3*	2448.51	$(3/2^+,5/2^+)$	782.24	$(3/2^+)$	%Iγ=0.70 *15*.
1720.7 *7*	0.51 *16*	2296.9		575.68	$(3/2^+)$	%Iγ=0.24 *8*.
1724.4 *7*	0.58 *21*	2448.51	$(3/2^+,5/2^+)$	724.50	$(3/2^+,5/2^+)$	%Iγ=0.27 *10*.
1733.0 *4*	0.9 *3*	2400.70	$(3/2^+,5/2^+)$	667.48	$(5/2^-)$	%Iγ=0.42 *15*.
1742.7 *2*	3.5 *6*	2400.70	$(3/2^+,5/2^+)$	657.92	$(3/2^+)$	%Iγ=1.6 *3*.
1786.9 *4*	2.6 *7*	2400.70	$(3/2^+,5/2^+)$	614.14	$(3/2^-)$	%Iγ=1.2 *4*.
1790.6 *3*	2.2 *4*	2448.51	$(3/2^+,5/2^+)$	657.92	$(3/2^+)$	%Iγ=1.03 *20*.
1833.7 *7*	0.17 *9*	2448.51	$(3/2^+,5/2^+)$	614.14	$(3/2^-)$	%Iγ=0.08 *5*.
1834.5 *5*	2.40 *7*	1834.29	(3/2,5/2)	0.0	$(1/2^+)$	%Iγ=1.13 *7*.
1870.0 *7*	0.29 *8*	2484.2		614.14	$(3/2^-)$	%Iγ=0.14 *4*.
1873.0 *6*	0.51 *15*	2448.51	$(3/2^+,5/2^+)$	575.68	$(3/2^+)$	%Iγ=0.24 *8*.
1957.4 *4*	1.8 *4*	2079.2		121.74	$(3/2^+)$	%Iγ=0.85 *19*.

[†] Additional information 1.
[‡] For absolute intensity per 100 decays, multiply by 0.47 *2*.
[#] Placement of transition in the level scheme is uncertain.

^{99}Y β^- decay (1.484 s) 2005Lh01

Decay Scheme

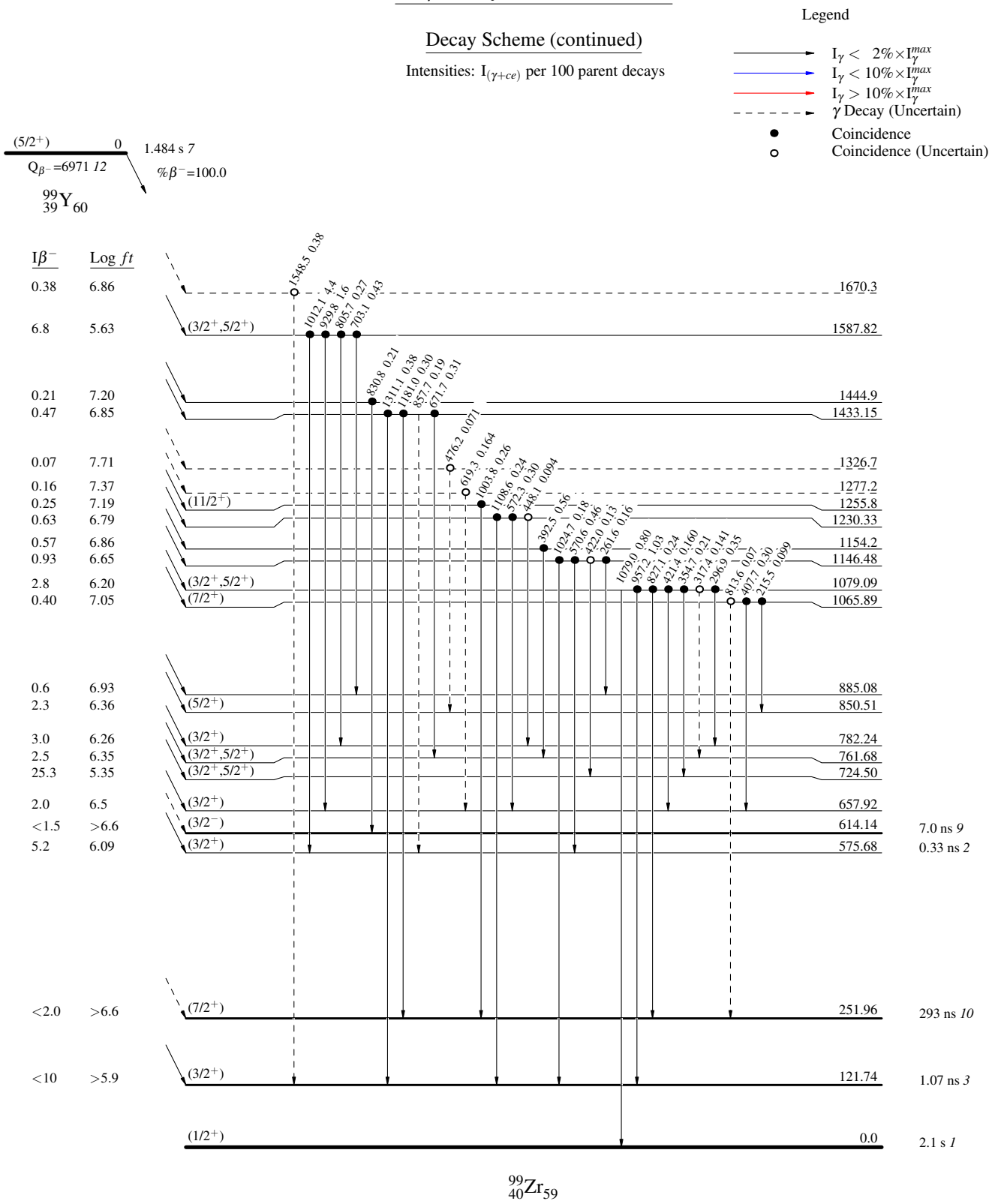
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{99}Y β^- decay (1.484 s) 2005Lh01

Decay Scheme (continued)

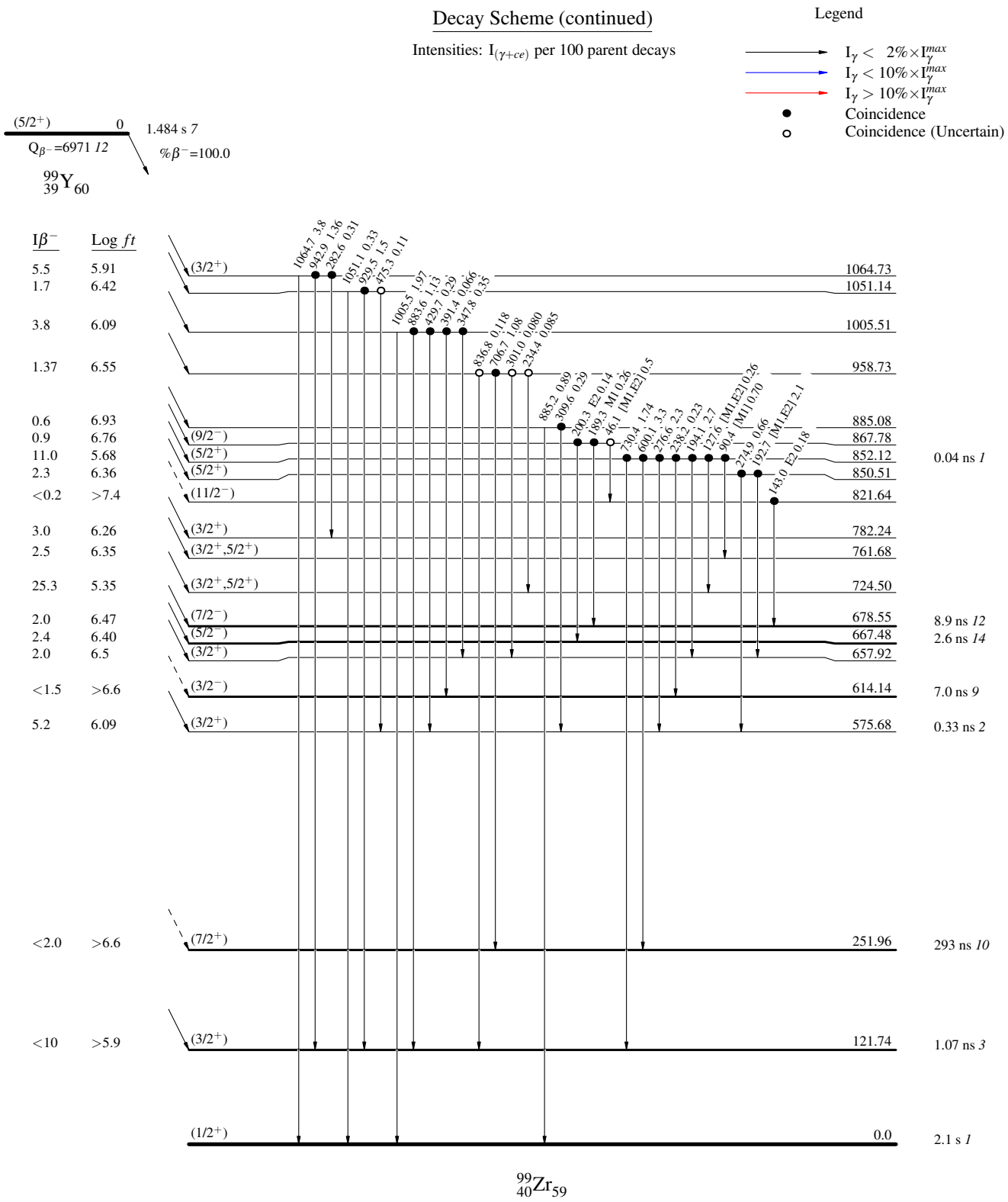
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{99}Y β^- decay (1.484 s) 2005Lh01

Decay Scheme (continued)

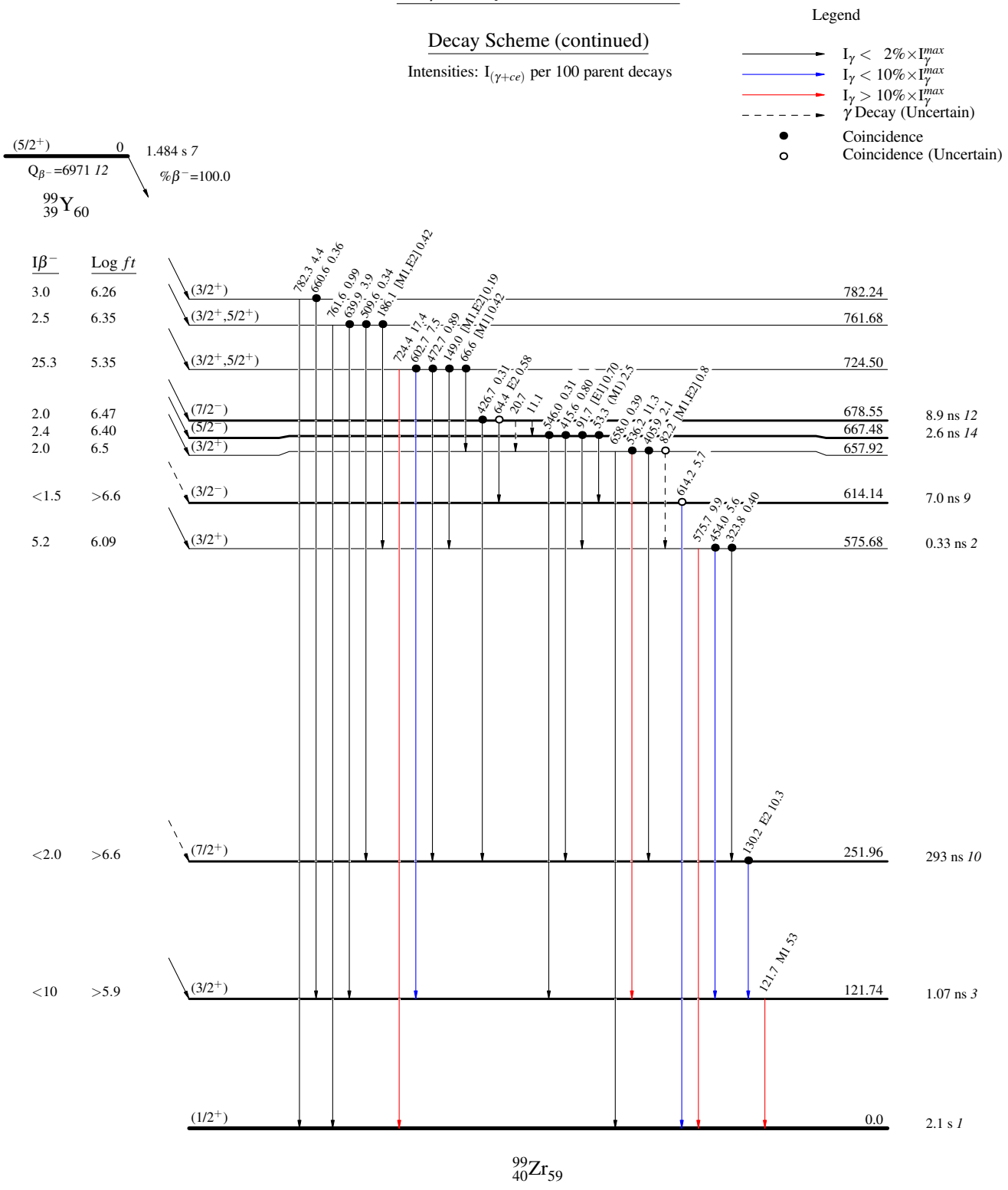
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



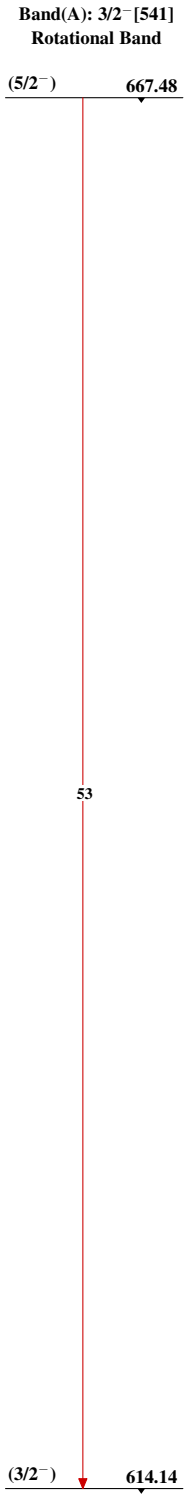
^{99}Y β^- decay (1.484 s) 2005Lh01

Decay Scheme (continued)

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



^{99}Y β^- decay (1.484 s) 2005Lh01



$^{99}_{40}Zr_{59}$