^{195}Pb ε decay (15.0 min) 1982Hi04,1977CoZM,1977LiZG

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao	NDS 121, 395 (2014)	1-Mar-2014

Parent: ^{195}Pb: E=202.9 *7*; J^π=13/2$^+$; $T_{1/2}$=15.0 min *12*; Q(ε)=4441 *27*; %ε+%β^+ decay=100.0

Others: 1957An53, 1957An54, 1972Ho09, 1974Ne16.

Sources produced by ^{197}Au(^{6}Li,8n) (1982Hi04), ^{203}Tl(p,9n) (1957An53), and ^{181}Ta(^{19}F,5n) (1974Ne16).

Energy balance: total decay energy of 4725 keV *231* deduced (using RADLIST code) from proposed decay scheme is in agreement with the expected value of 4644 keV *27*, suggesting that the decay scheme is reasonably complete.

Measured Eγ, Iγ, γγ-coin, I(ce) (1982Hi04,1977CoZM) with semi.

ms sources of ^{195}Pb are mixed: isomer + g.s.

Partial ^{195}Pb decay study of 1977LiZG supports 1977CoZM results, results of 1982Hi04 support also 1977CoZM.

Max E(β^+): 3.81 *30* MeV (1977WeZM) ms, 4.49 *43* MeV (1995Au04) mass adjustment calculation, if this β^+ group feeds the 877 level.

^{195}Tl Levels

All data are from 1977CoZM, except as noted.

For eight proposed E(levels)=2034-2996, see 1977CoZM; in E(level)>2362−keV range E(level)=2367.9-, 2581.5-keV levels determined by 1982Hi04.

E(level)[@]	J^π[&]	$T_{1/2}$[&]	Comments
0.0	1/2$^+$	1.16 h *5*	configuration=π 1/2$^+$[402] (1982Hi04).
383.64 *12*	3/2$^+$		configuration=π 3/2$^+$[402] (1982Hi04).
482.61[†] *17*	9/2$^-$	3.6 s *4*	configuration=π 9/2$^-$[505] (1982Hi04).
876.68[†] *19*	11/2$^-$		
1173.77 *21*	9/2$^-$,11/2$^-$		E(level): undetermined by 1982Hi04.
1190.11[†] *20*	13/2$^-$		Branching: Iγ(708γ)/Iγ(313γ)=2.0 *2* (1977CoZM), 2.0 *3* (1974Ne16), 2.2 *6* (1977LiZG).
1360.94[‡] *22*	11/2$^-$		Interpreted as h11/2 proton-hole state.
1410.66[‡] *20*	11/2$^-$,13/2$^-$		
1484.00[‡] *21*	13/2$^-$		
1616.40 *21*	9/2$^-$,11/2$^-$,13/2$^-$		E(level): may correspond to E(level)=1619.1 (1982Hi04).
1618.73[†] *21*	15/2$^-$		E(level): may correspond to E(level)=1619.1 (1982Hi04). Branching: Iγ(428γ)/Iγ(742γ)=1.1 *1* (1977CoZM), 0.9 *2* (1977LiZG).
1725.24 *23*	(13/2)$^+$		
1924.47 *22*	17/2$^-$		Branching: Iγ(734γ)/Iγ(306γ)=1.7 *5* (1977CoZM), ≈5.4 (1977LiZG).
1944.60[‡] *22*	13/2$^-$		
1991.46[‡] *23*	11/2$^-$,13/2$^-$		
2011.4[†] *4*	17/2$^-$		
2023.5[‡] *3*	11/2$^-$,13/2$^-$,15/2$^-$		
2033.7?[#] *5*			
2037.2[‡] *4*	15/2$^+$		E(level): may correspond to 2033.7 and 2038.8 (1982Hi04).
2115.1?[#] *5*			
2145.1 *3*	(11/2,13/2,15/2)$^+$		
2361.9 *4*	(11/2,13/2,15/2)		
2367.9?[#] *5*			
2581.5?[#] *5*			

[†] Band(A): π $h_{9/2}$ band members.

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^{195}Pb ε decay (15.0 min) 1982Hi04,1977CoZM,1977LiZG (continued)

^{195}Tl Levels (continued)

‡ Interpreted as 3 quasiparticle state for decay nature (1982Hi04).
# From 1982Hi04.
@ From Eγ and scheme using least-squares fit to data.
& From Adopted Levels.

ε,β^+ radiations

E(decay)	E(level)	Iβ^+ †‡	Iε †‡	Log *ft*	I($\varepsilon+\beta^+$) †‡	Comments
(2.06×10^3 # *3*)	2581.5?	0.018 *7*	1.6 *6*	6.87 *17*	1.6 *6*	av Eβ=485 *12*; εK=0.7947 *8*; εL=0.1462 *3*; εM+=0.04754 *10* I($\varepsilon+\beta^+$): 1.4 (1982Hi04).
(2.28×10^3 # *3*)	2367.9?	0.033 *13*	1.5 *6*	6.99 *18*	1.5 *6*	av Eβ=579 *12*; εK=0.7875 *12*; εL=0.1439 *4*; εM+=0.04675 *11* I($\varepsilon+\beta^+$): 1.4 (1982Hi04).
(2.28×10^3 *3*)	2361.9	0.02 *1*	0.9 *4*	7.22 *20*	0.9 *4*	av Eβ=581 *12*; εK=0.7873 *12*; εL=0.1439 *4*; εM+=0.04672 *11* I($\varepsilon+\beta^+$): other: ≈0.7 (1982Hi04).
(2.50×10^3 *3*)	2145.1	0.027 *4*	0.71 *10*	7.39 *7*	0.74 *10*	av Eβ=676 *12*; εK=0.7762 *17*; εL=0.1411 *4*; εM+=0.04577 *13* I($\varepsilon+\beta^+$): other: ≈0.7 (1982Hi04).
(2.53×10^3 *3*)	2115.1?	0.11 *2*	2.8 *4*	6.81 *7*	2.9 *4*	av Eβ=689 *12*; εK=0.7743 *18*; εL=0.1406 *4*; εM+=0.04562 *14*
(2.53×10^3 # *3*)						I($\varepsilon+\beta^+$): 0.4 (1982Hi04).
(2.61×10^3 *3*)	2037.2	0.04 *3*	0.8 *6*	7.4 *4*	0.8 *6*	av Eβ=723 *12*; εK=0.7692 *19*; εL=0.1395 *5*; εM+=0.04523 *15* I($\varepsilon+\beta^+$): other: 1.2+1.0 for ε decay to 2033.7 and 2038.8 levels, respectively (1982Hi04).
(2.61×10^3 *3*)	2033.7?	0.03 *1*	0.6 *3*	7.53 *22*	0.6 *3*	av Eβ=725 *12*; εK=0.7689 *19*; εL=0.1394 *5*; εM+=0.04521 *15* I($\varepsilon+\beta^+$): 1.0 (1982Mi04).
(2.62×10^3 *3*)	2023.5	0.068 *7*	1.37 *12*	7.15 *6*	1.44 *13*	av Eβ=729 *12*; εK=0.7682 *20*; εL=0.1392 *5*; εM+=0.04516 *15* I($\varepsilon+\beta^+$): other: 1.2 (1982Hi04).
(2.63×10^3 *3*)	2011.4	≤0.020	≤1.5	≥8.5^{1u}	≤1.5	av Eβ=735 *12*; εK=0.7861 *5*; εL=0.1509 *3*; εM+=0.04941 *10* I($\varepsilon+\beta^+$): other: 0.9 (1982Hi04).
(2.65×10^3 *3*)	1991.46	0.28 *2*	5.2 *4*	6.58 *5*	5.5 *4*	av Eβ=744 *12*; εK=0.7659 *20*; εL=0.1387 *5*; εM+=0.04499 *15* I($\varepsilon+\beta^+$): other: 5.7 (1982Hi04).
(2.70×10^3 *3*)	1944.60	0.47 *4*	8.1 *6*	6.40 *5*	8.6 *6*	av Eβ=764 *12*; εK=0.7624 *21*; εL=0.1380 *5*; εM+=0.04473 *16* I($\varepsilon+\beta^+$): other: 5.3 (1982Hi04).
(2.72×10^3 *3*)	1924.47	0.048 *9*	2.9 *5*	8.29^{1u} *9*	2.9 *5*	av Eβ=771 *12*; εK=0.7844 *6*; εL=0.1500 *3*; εM+=0.04909 *10* I($\varepsilon+\beta^+$): other: 2.0 (1982Hi04).
(2.92×10^3 *3*)	1725.24	0.21 *6*	2.4 *7*	7.00 *14*	2.6 *8*	av Eβ=861 *12*; εK=0.744 *3*; εL=0.1340 *6*; εM+=0.04342 *18* I($\varepsilon+\beta^+$): other: 2.4 (1982Hi04).
(3.03×10^3 *3*)	1618.73	0.47 *8*	4.6 *7*	6.75 *8*	5.1 *8*	av Eβ=908 *12*; εK=0.733 *3*; εL=0.1319 *6*; εM+=0.04272 *19* I($\varepsilon+\beta^+$): other: 5.2 (1982Hi04).
(3.03×10^3 *3*)	1616.40	0.19 *2*	1.9 *2*	7.14 *6*	2.1 *2*	av Eβ=909 *12*; εK=0.733 *3*; εL=0.1318 *6*; εM+=0.04271 *19*
(3.16×10^3 *3*)	1484.00	0.61 *13*	4.9 *11*	6.76 *11*	5.5 *12*	av Eβ=967 *12*; εK=0.719 *3*; εL=0.1290 *6*;

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^{195}Pb ε decay (15.0 min) 1982Hi04,1977CoZM,1977LiZG (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ †‡	Iε †‡	Log *ft*	I($\varepsilon+\beta^+$) †‡	Comments
						εM+=0.04178 *20* I($\varepsilon+\beta^+$): other: 7.2 (1982Hi04).
(3.23×10^3 *3*)	1410.66	0.65 *10*	4.7 *7*	6.80 *8*	5.4 *8*	av Eβ=1000 *12*; εK=0.710 *4*; εL=0.1274 *7*; εM+=0.04124 *21* I($\varepsilon+\beta^+$): other: 4.8 (1982Hi04).
(3.28×10^3 *3*)	1360.94	2.74 *25*	18.6 *16*	6.22 *6*	21.3 *18*	av Eβ=1022 *12*; εK=0.704 *4*; εL=0.1262 *7*; εM+=0.04087 *21* I($\varepsilon+\beta^+$): other: 19.7 (1982Hi04).
(3.45×10^3 *3*)	1190.11	1.5 *3*	8.0 *14*	6.63 *9*	9.5 *16*	av Eβ=1098 *12*; εK=0.683 *4*; εL=0.1221 *7*; εM+=0.03952 *22* I($\varepsilon+\beta^+$): other: 8.4 (1982Hi04).
(3.47×10^3 *3*)	1173.77	0.32 *5*	1.7 *3*	7.31 *8*	2.0 *3*	av Eβ=1105 *12*; εK=0.681 *4*; εL=0.1217 *7*; εM+=0.03939 *22*
(3.77×10^3 *3*)	876.68	3.7 *4*	14.0 *13*	6.46 *6*	17.7 *17*	av Eβ=1238 *12*; εK=0.640 *4*; εL=0.1140 *8*; εM+=0.03688 *24* I($\varepsilon+\beta^+$): other: 13.6 (1982Hi04).

† From I(γ+ce) intensity imbalance. All data are from 1977CoZM, except as noted. I(γ+ce)=1.4 (to levels at 2367.8 and 2581.5-keV) determined by 1982Hi04.
‡ Absolute intensity per 100 decays.
# Existence of this branch is questionable.

γ(^{195}Tl)

Iγ normalization: From ΣI(γ+ce to 482)=100.
All data are from 1977CoZM, except as noted.

$E_γ$[†]	$I_γ$[#a]	E_i(level)	$J^π_i$	E_f	$J^π_f$	Mult.[@]	δ[&]	α[b]	Comments
98.97 *12*	1.43 *12*	482.61	9/2⁻	383.64	3/2⁺	E3		157.5	α(K)=0.561 *9*; α(L)=114.5 *18*; α(M)=32.6 *6*; α(N+..)=9.75 *16* Mult.: based on L3/L2=0.66 *5* (1957An54), 0.57 (1957An53), no K-line. $I_γ$: Required for intensity balance at 483 level and from I(γ+ce)/(1+α). Other: 1.77 *15* from 1977CoZM.
236.60 *23*	0.10 *1*	1410.66	11/2⁻,13/2⁻	1173.77	9/2⁻,11/2⁻	M1		0.754	α(K)=0.617 *9*; α(L)=0.1046 *15*; α(M)=0.0244 *4*; α(N+..)=0.00748 *11* α(K)exp=0.69 *15* $E_γ$: undetermined by 1982Hi04.
294.2[‡] *5*	2.3[‡] *9*	1484.00	13/2⁻	1190.11	13/2⁻				
305.67 *15*	2.07 *22*	1924.47	17/2⁻	1618.73	15/2⁻	M1		0.373	α(K)=0.305 *5*; α(L)=0.0515 *8*; α(M)=0.01202 *17*; α(N+..)=0.00368 *6* α(K)exp=0.33 *4* $I_γ$: other: 2.0 *9* (1982Hi04).
313.22 *12*	15.8 *10*	1190.11	13/2⁻	876.68	11/2⁻	M1(+E2)	0.38 *10*	0.317 *16*	α(K)=0.257 *15*; α(L)=0.0459 *13*; α(M)=0.0108 *3*; α(N+..)=0.00329 *9* $I_γ$: other: 15.7 *17* (1982Hi04). α: α(K)exp=0.22 *2* (1977CoZM), 0.30 (1974Ne16).
325.85 *14*	1.51 *18*	1944.60	13/2⁻	1618.73	15/2⁻	M1+E2		0.20 *12*	α(K)exp=0.15 *3* α(K)=0.15 *11*; α(L)=0.035 *9*; α(M)=0.0083 *18*; α(N+..)=0.0025 *6*
383.64 *12*	207 *4*	383.64	3/2⁺	0.0	1/2⁺	M1+E2	1.8 *+4−3*	0.090 *11*	α(K)=0.067 *10*; α(L)=0.0176 *10*; α(M)=0.00430 *22*; α(N+..)=0.00130 *7* $I_γ$: Required for intensity balance at 483 level and from I(γ+ce)/(1+α). Others: 243 *4* (1974Ne16), 271 *22* (1977LiZG), 285 *13* (1982Hi04); 311 *20* (1977CoZM) includes ^{195}Pb g.s. decay. δ: from K/L=3.8 *3* (1963Di10) ^{195}Tl IT decay. Other: δ=2.4 from α(K)exp=0.076. α: α(K)exp=0.048 *4* (1977CoZM), 0.076 (1974Ne16), 0.087 (1972Ho09, normalized to α(L)(99γ,E3)=116).
392.8 *5*	1.7 *8*	2011.4	17/2⁻	1618.73	15/2⁻	(M1+E2)		0.12 *7*	α(K)=0.09 *6*; α(L)=0.020 *7*; α(M)=0.0047 *14*; α(N+..)=0.0014 *5* $E_γ$,$I_γ$: from 1977LiZG.
394.21 *12*	100	876.68	11/2⁻	482.61	9/2⁻	M1(+E2)	0.42 *13*	0.167 *12*	α(K)=0.136 *10*; α(L)=0.0239 *11*; α(M)=0.00560 *24*;

γ(^{195}Tl) (continued)

E_γ[†]	I_γ[#a]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	δ[&]	α[b]	Comments
									α(N+..)=0.00171 *8* α: α(K)exp=0.13 *2* (1977CoZM), 0.14 (1974Ne16).
419.81 *16*	1.44 *18*	2145.1	(11/2,13/2,15/2)$^+$	1725.24	(13/2)$^+$	M1		0.1583	α(K)=0.1299 *19*; α(L)=0.0217 *3*; α(M)=0.00507 *8*; α(N+..)=0.001551 *22* α(K)exp=0.10 *3* I_γ: other: 1.7 *9* (1982Hi04).
428.44 *13*	10.3 *6*	1618.73	15/2$^-$	1190.11	13/2$^-$	M1(+E2)	0.34 *6*	0.139 *5*	α(K)exp=0.092 *11* α(K)=0.113 *4*; α(L)=0.0195 *5*; α(M)=0.00456 *11*; α(N+..)=0.00139 *4*
442.74 *14*	1.86 *19*	1616.40	9/2$^-$,11/2$^-$,13/2$^-$	1173.77	9/2$^-$,11/2$^-$	M1		0.1374	α(K)exp=0.094 *16* α(K)=0.1127 *16*; α(L)=0.0188 *3*; α(M)=0.00439 *7*; α(N+..)=0.001344 *19*
466.4[‡] *5*	0.9[‡] *4*	2581.5?		2115.1?					
534.11[d] *14*	4.0[d‡] *11*	1410.66	11/2$^-$,13/2$^-$	876.68	11/2$^-$	M1		0.0836	α(K)=0.0687 *10*; α(L)=0.01141 *16*; α(M)=0.00266 *4*; α(N+..)=0.000814 *12* α(K)exp=0.064 *8* I_γ: other: ≈4.0 (1977CoZM).
534.11[d] *14*	≈1.2[d]	1944.60	13/2$^-$	1410.66	11/2$^-$,13/2$^-$				I_γ: other; 0.9 *5* (1982Hi04).
539.50 *15*	3.01 *26*	2023.5	11/2$^-$,13/2$^-$,15/2$^-$	1484.00	13/2$^-$	M1		0.0814	α(K)exp=0.067 *11* α(K)=0.0669 *10*; α(L)=0.01111 *16*; α(M)=0.00259 *4*; α(N+..)=0.000792 *12*
[x]549.0 *5*	1.1 *10*								
607.64 *15*	18.9 *21*	1484.00	13/2$^-$	876.68	11/2$^-$	M1+E2	0.66 *19*	0.047 *6*	α(K)=0.038 *5*; α(L)=0.0067 *6*; α(M)=0.00157 *14*; α(N+..)=0.00048 *4* I_γ: other: 21.7 *43* (1982Hi04). α: α(K)exp=0.036 *4* (1977CoZM), 0.030 (1974Ne16).
630.58[c] *14*	7.4[c] *6*	1991.46	11/2$^-$,13/2$^-$	1360.94	11/2$^-$	M1(+E2)		0.035 *19*	α(K)=0.028 *16*; α(L)=0.0052 *22*; α(M)=0.0012 *5*; α(N+..)=0.00037 *15* α(K)exp=0.030 *12* I_γ: other: 10 *2* (1982Hi04) includes Iγ(630.4γ + 630.9γ).
630.58[c] *14*	7.4[c] *6*	2115.1?		1484.00	13/2$^-$				
[x]672.6 *5*	1.6 *5*								α(K)exp<0.0084
691.17 *15*	6.6 *5*	1173.77	9/2$^-$,11/2$^-$	482.61	9/2$^-$	M1		0.0426	α(K)exp=0.030 *6* α(K)=0.0351 *5*; α(L)=0.00578 *8*; α(M)=0.001345 *19*; α(N+..)=0.000412 *6*
707.67 *15*	31.9 *20*	1190.11	13/2$^-$	482.61	9/2$^-$	E2		0.01281	α(K)=0.00985 *14*; α(L)=0.00225 *4*; α(M)=0.000544 *8*; α(N+..)=0.0001644 *23* I_γ: other: 36.5 *32* (1982Hi04). Mult.: based on γ(θ) A_2=+0.29 *2* (1977LiZG) reaction γ′s.

From ENSDF

γ(^{195}Tl) (continued)

$E_γ$[†]	$I_γ$[#a]	E_i(level)	$J^π_i$	E_f	$J^π_f$	Mult.[@]	α[b]	Comments
[x]717.43 *22*	1.28 *24*							α(K)exp<0.015
734.43 *15*	3.6 *9*	1924.47	17/2⁻	1190.11	13/2⁻	E2	0.01184	α(K)=0.00916 *13*; α(L)=0.00204 *3*; α(M)=0.000493 *7*; α(N+..)=0.0001490 *21* α(K)exp=0.0065 *25* $I_γ$: other: 5.1 *12* (1982Hi04).
739.47 *23*	0.87 *14*	1616.40	9/2⁻,11/2⁻,13/2⁻	876.68	11/2⁻			
742.19 *15*	9.6 *6*	1618.73	15/2⁻	876.68	11/2⁻	E2	0.01159	α(K)=0.00897 *13*; α(L)=0.00199 *3*; α(M)=0.000479 *7*; α(N+..)=0.0001449 *21* α(K)exp=0.0082 *19* $I_γ$: other: 10.3 *17* (1982Hi04).
748.8[‡] *5*	3.4[‡] *10*	2367.9?		1618.73	15/2⁻			
754.73 *32*	1.9 *4*	1944.60	13/2⁻	1190.11	13/2⁻	M1	0.0339	α(K)exp=0.022 *9* α(K)=0.0279 *4*; α(L)=0.00459 *7*; α(M)=0.001068 *15*; α(N+..)=0.000327 *5*
801.26 *17*	4.6 *4*	1991.46	11/2⁻,13/2⁻	1190.11	13/2⁻	M1	0.0291	α(K)=0.0239 *4*; α(L)=0.00393 *6*; α(M)=0.000913 *13*; α(N+..)=0.000280 *4* α(K)exp=0.027 *6* $I_γ$: other: 6.6 *12* (1982Hi04).
[x]815.31 *16*	5.6 *15*					E2	0.00953	α(K)exp=0.009 *3* α(K)=0.00747 *11*; α(L)=0.001570 *22*; α(M)=0.000376 *6*; α(N+..)=0.0001139 *16*
821.3 *3*	1.4 *8*	2011.4	17/2⁻	1190.11	13/2⁻	E2	0.00939	α(K)=0.00737 *11*; α(L)=0.001542 *22*; α(M)=0.000369 *6*; α(N+..)=0.0001118 *16* $E_γ$,$I_γ$: from 1977LiZG. Other: Iγ=2.3 *9* (1982Hi04). Mult.: based on γ(θ) A_2=+0.32 *3* (1977LiZG), reaction γ′s.
843.2[‡] *5*	1.4[‡] *6*	2033.7?		1190.11	13/2⁻			
847.1 *3*	1.7 *12*	2037.2	15/2⁺	1190.11	13/2⁻	(E1)	0.00326	α(K)=0.00272 *4*; α(L)=0.000414 *6*; α(M)=9.55×10^{-5} *14*; α(N+..)=2.90×10^{-5} *4* $E_γ$,$I_γ$,Mult.: from 1977LiZG.
848.66 *16*	6.7 *17*	1725.24	(13/2)⁺	876.68	11/2⁻	E1(+M2)	0.0038 *6*	α(K)=0.027 *24*; α(L)=0.005 *5*; α(M)=0.0012 *11*; α(N+..)=0.0004 *4* $I_γ$: from 1977LiZG. Other Iγ=8.5 *6* (1977CoZM) probably includes Iγ(847.1γ), 8.0 *13* (1982Hi04) includes Iγ(848.3γ). α: α(K)exp(848.7γ)=0.0082 *19* deduced from doublet α(K)exp=0.0070 *16* if 847γ is E1.
877.9 *3*	2.1 *7*	2361.9	(11/2,13/2,15/2)	1484.00	13/2⁻			$E_γ$: from 1977LiZG. See also 1982Hi04.
878.40 *16*	55.0 *36*	1360.94	11/2⁻	482.61	9/2⁻	M1(+E2)	0.016 *8*	α(K)=0.013 *7*; α(L)=0.0022 *9*; α(M)=0.00052 *21*; α(N+..)=0.00016 *7* $I_γ$: other: 58.7 *50* (1982Hi04). α: α(K)exp=0.017 *2* (1977CoZM), 0.009 (1974Ne16).
[x]889.9 *5*	<6.7							
[x]912.74 *17*	3.53 *25*					M1	0.0208	α(K)exp=0.019 *4* α(K)=0.01714 *24*; α(L)=0.00280 *4*; α(M)=0.000651 *10*; α(N+..)=0.000199 *3*

$^{195}_{81}$Tl$_{114}$-6

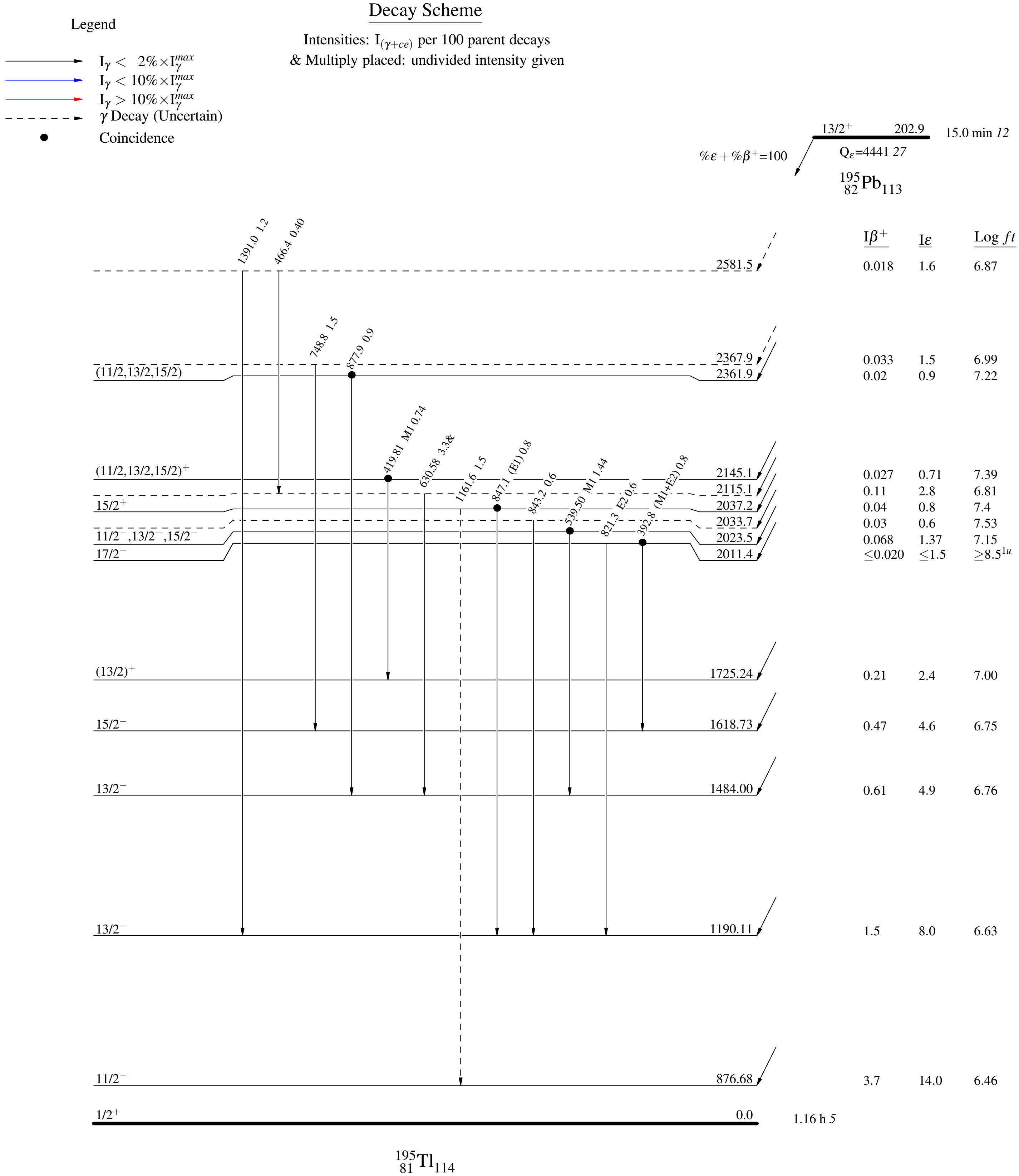
γ(^{195}Tl) (continued)

E_γ[†]	I_γ[#a]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	α[b]	Comments
928.02 *16*	8.9 *13*	1410.66	11/2$^-$,13/2$^-$	482.61	9/2$^-$	(E2)	0.00734	α(K)=0.00584 *9*; α(L)=0.001150 *17*; α(M)=0.000274 *4*; α(N+..)=8.30×10^{-5} *12* α(K)exp=0.0048 *25* I_γ: other: 8.5 *13* (1982Hi04).
[x]937.86 *19*	1.93 *29*					(M1+E2)	0.013 *7*	α(K)exp=0.011 *5* α(K)=0.011 *6*; α(L)=0.0019 *8*; α(M)=0.00044 *17*; α(N+..)=0.00013 *6*
[x]979.07 *18*	3.5 *4*							α(K)exp=0.0022 *21*
1000.92 *18*	3.13 *26*	1484.00	13/2$^-$	482.61	9/2$^-$			α(K)exp<0.0033 I_γ: other: 3.1 *10* (1982Hi04).
1067.88 *17*	14.3 *9*	1944.60	13/2$^-$	876.68	11/2$^-$	M1(+E2)	0.010 *5*	α(K)=0.008 *4*; α(L)=0.0014 *6*; α(M)=0.00032 *12*; α(N+..)=0.00010 *4* α(K)exp=0.0088 *16* I_γ: other: 12.8 *18* (1982Hi04).
1133.73 *21*	1.84 *20*	1616.40	9/2$^-$,11/2$^-$,13/2$^-$	482.61	9/2$^-$			α(K)exp=0.0032 *28* I_γ: Iγ(1136.5γ)=1.4 *6* (1982Hi04).
1161.6[‡e] *5*	3.4[‡] *10*	2037.2	15/2$^+$	876.68	11/2$^-$			
1242.24 *32*	0.76 *17*	1725.24	(13/2)$^+$	482.61	9/2$^-$			
1391.0[‡] *5*	2.8[‡] *9*	2581.5?		1190.11	13/2$^-$			
[x]1630.46 *38*	2.23 *28*							
[x]1929.84 *38*	2.64 *18*							

† Unplaced γ's may originate from ^{195}Pb isomer and/or g.s.
‡ From 1982Hi04.
# Relative photon intensities normalizer to Iγ(394.21γ)=100.
@ Deduced from α(K)exp=I(ce(K))/Iγ normalized to α(K)(708γ,E2)=0.0099.
& From adopted γ radiations.
a For absolute intensity per 100 decays, multiply by 0.442 *12*.
b Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
c Multiply placed with undivided intensity.
d Multiply placed with intensity suitably divided.
e Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

$^{195}_{81}$Tl$_{114}$-7

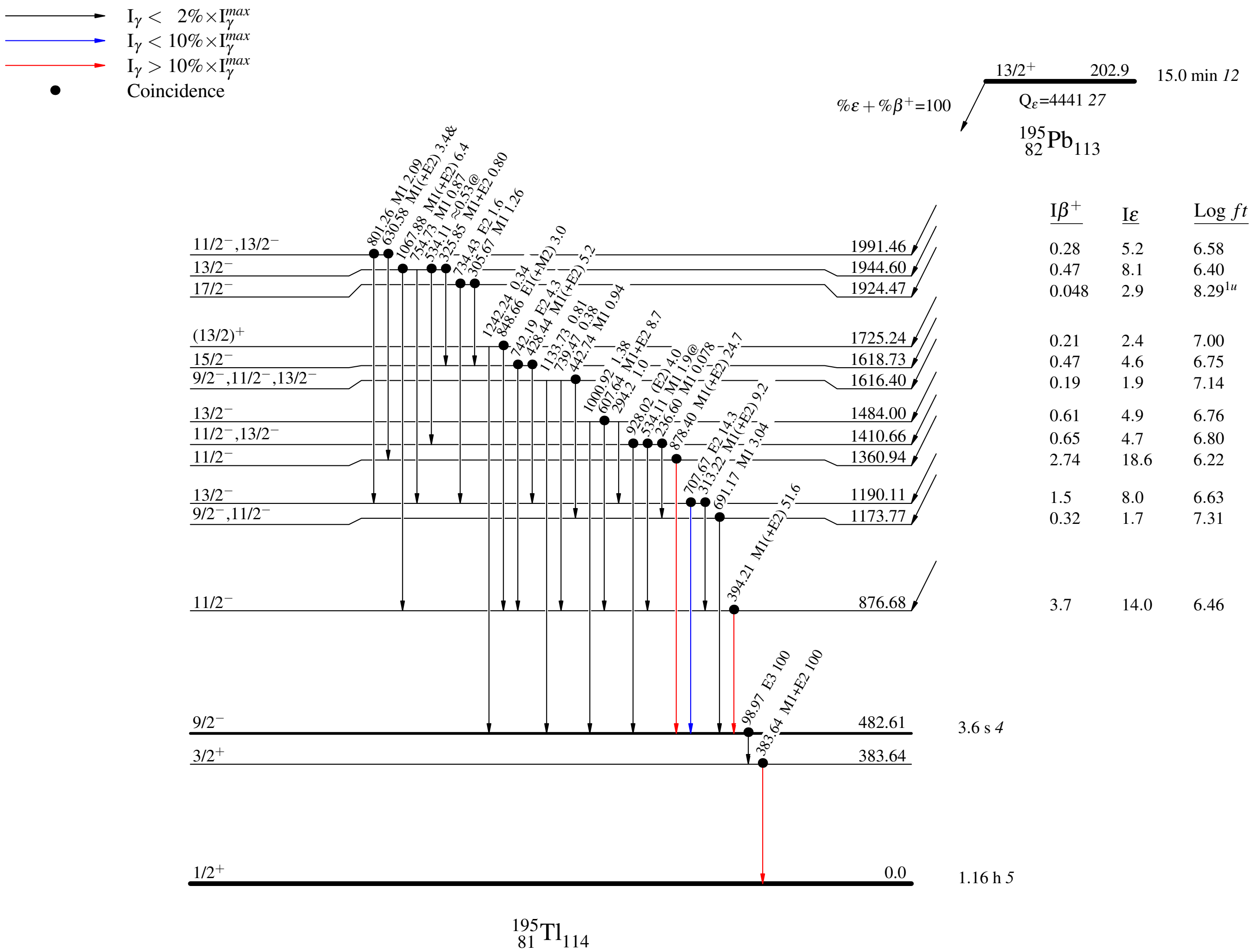
^{195}Pb ε decay (15.0 min) 1982Hi04,1977CoZM,1977LiZG



^{195}Pb ε decay (15.0 min) 1982Hi04,1977CoZM,1977LiZG

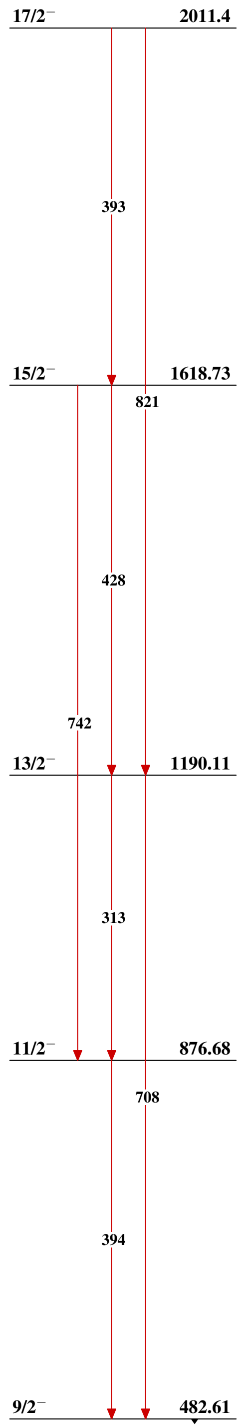
Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



^{195}Pb ε decay (15.0 min) 1982Hi04,1977CoZM,1977LiZG

Band(A): π $h_{9/2}$ band members



$^{195}_{81}Tl_{114}$