^{203}Bi ε decay 1976Ri10

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 177, 509, 2021	4-Jul-2021

Parent: ^{203}Bi: E=0; J^π=9/2$^-$; $T_{1/2}$=11.76 h *5*; Q(ε)=3262 *14*; %ε+%$β^+$ decay=100.0

1976Ri10: mass-separated source following (p,xn) reaction of 73-MeV protons on natural lead; Detectors: Ge(Li) and Si(Li); Measured: Eγ, Iγ, γγ coin, α(K)exp, α(L)exp; Deduced: J^π, level scheme.

^{203}Pb Levels

E(level)†	Jπ‡	$T_{1/2}$‡	Comments
0#	5/2$^-$	51.92 h *3*	
126.5& *3*	1/2$^-$	75 ns *3*	$T_{1/2}$: From 126γ(t) in 1961Be29. Superseded $T_{1/2}$=55 ns *5* in 1960Be19.
186.6a *3*	3/2$^-$		
595.1@ *5*	3/2$^-$		
820.3@ *3*	7/2$^-$		
825.2c *3*	13/2$^+$	6.21 s *8*	
866.4@ *5*	5/2$^-$		
896.9@ *3*	9/2$^-$		
933.1b *3*	(5/2)$^-$		
1033.8 *3*	7/2$^-$		
1161.1 *4*	(7/2)$^-$		
1198.6 *4*	9/2$^-$		
1203.1 *5*	(7/2)$^-$		
1536.5 *4*	(7/2)$^-$		
1547.7 *4*	9/2$^+$		
1592.9 *6*	(7/2)$^-$		
1641.5 *4*	9/2$^+$		
1682.6 *5*	(7/2)$^-$		
1802.4 *4*	(7/2)$^+$		
1894.9 *8*	(9/2$^+$)		
2034.2 *5*	(7/2)$^+$		
2048.7 *5*	(9/2$^+$)		
2078.9 *6*	(11/2)$^+$		
2371.8 *4*	(7/2)$^+$		
2388.0 *4*	(9/2)$^+$		
2472.3 *6*	(9/2$^+$,11/2$^-$)		
2568.8 *5*	9/2$^+$		
2620.1 *7*	(7/2$^+$,9/2$^+$)		
2667.8 *3*	(7/2,9/2)$^+$		
2713.3 *3*	9/2$^+$		
2748.5 *11*	(11/2$^-$)		
2753.6 *4*	(9/2)$^+$		
2774.6 *6*	(7/2,9/2$^-$)		
2794.2 *5*	(9/2)$^+$		
2821.1 *5*	(7/2,9/2)$^+$		
2870.5 *5*	(7/2,9/2)$^+$		
2964.5? *11*	(7/2,9/2,11/2$^-$)		
3006.7 *6*	(9/2$^+$,11/2)		
3016.8 *5*	(7/2,9/2)$^-$		
3045.0 *7*	(7/2,9/2)$^+$		

† From a least-squares fit to Eγ.
‡ From Adopted Levels.

Continued on next page (footnotes at end of table)

^{203}Bi ε decay 1976Ri10 (continued)

^{203}Pb Levels (continued)

Dominant configuration: $\nu(f^{-1}_{5/2})$.

@ Dominant configuration: $\nu(f^{-1}_{5/2})\otimes 2^+$.

& Dominant configuration: $\nu(p^{-1}_{1/2})$.

a Dominant configuration: $\nu(p^{-1}_{3/2})$.

b Admixture of $\nu(p^{-1}_{1/2})\otimes 2^+$ and $\nu(p^{-1}_{3/2})\otimes 2^+$ configurations.

c Dominant configuration: $\nu(i^{-1}_{13/2})$.

ε,β$^+$ radiations

E(decay)	E(level)	Iβ$^+$ †	Iε†	Log *ft*	I(ε+β$^+$)†	Comments
(217 *14*)	3045.0		2.2 *4*	6.17 *12*	2.2 *4*	εK=0.635 *21*; εL=0.268 *15*; εM+=0.097 *7*
(245 *14*)	3016.8		1.38 *19*	6.52 *10*	1.38 *19*	εK=0.666 *14*; εL=0.246 *10*; εM+=0.088 *5*
(255 *14*)	3006.7		0.97 *11*	6.72 *9*	0.97 *11*	εK=0.674 *13*; εL=0.240 *9*; εM+=0.086 *4*
(298 *14*)	2964.5?		0.23 *5*	7.52 *11*	0.23 *5*	εK=0.702 *8*; εL=0.220 *6*; εM+=0.0775 *24*
(392 *14*)	2870.5		1.78 *19*	6.94 *6*	1.78 *19*	εK=0.736 *4*; εL=0.196 *3*; εM+=0.0675 *11*
(441 *14*)	2821.1		1.36 *19*	7.18 *7*	1.36 *19*	εK=0.747 *3*; εL=0.1883 *20*; εM+=0.0644 *8*
(468 *14*)	2794.2		1.45 *20*	7.21 *7*	1.45 *20*	εK=0.7519 *24*; εL=0.1850 *17*; εM+=0.0631 *7*
(487 *14*)	2774.6		1.12 *13*	7.37 *6*	1.12 *13*	εK=0.7550 *22*; εL=0.1828 *16*; εM+=0.0622 *7*
(508 *14*)	2753.6		7.8 *5*	6.57 *4*	7.8 *5*	εK=0.7579 *20*; εL=0.1807 *14*; εM+=0.0614 *6*
(514 *14*)	2748.5		1.13 *24*	7.42 *10*	1.13 *24*	εK=0.7586 *19*; εL=0.1803 *14*; εM+=0.0612 *6*
(549 *14*)	2713.3		21.2 *10*	6.21 *4*	21.2 *10*	εK=0.7628 *16*; εL=0.1773 *12*; εM+=0.0600 *5*
(594 *14*)	2667.8		20.1 *9*	6.31 *3*	20.1 *9*	εK=0.7673 *14*; εL=0.1740 *10*; εM+=0.0587 *4*
(642 *14*)	2620.1		1.37 *20*	7.55 *7*	1.37 *20*	εK=0.7713 *11*; εL=0.1712 *8*; εM+=0.0575 *4*
(693 *14*)	2568.8		3.6 *5*	7.21 *7*	3.6 *5*	εK=0.7749 *10*; εL=0.1686 *7*; εM+=0.0565 *3*
(790 *14*)	2472.3		0.37 *7*	8.32 *9*	0.37 *7*	εK=0.7802 *7*; εL=0.1648 *5*; εM+=0.05500 *20*
(874 *14*)	2388.0		<0.3	>8.5	<0.3	εK=0.7837 *6*; εL=0.1623 *4*; εM+=0.05399 *16*
(890 *14*)	2371.8		<0.4	>8.4	<0.4	εK=0.7843 *6*; εL=0.1619 *4*; εM+=0.05382 *15*
(1183 *14*)	2078.9		0.93 *25*	8.30 *12*	0.93 *25*	εK=0.7921 *3*; εL=0.15632 *20*; εM+=0.05162 *8*
(1213 *14*)	2048.7		0.62 *17*	8.50 *12*	0.62 *17*	εK=0.7926 *3*; εL=0.15591 *19*; εM+=0.05146 *8*
(1367 *14*)	1894.9		0.04 *4*	9.8 *5*	0.04 *4*	εK=0.7950 *2*; εL=0.1541 *2*; εM+=0.05075 *6*
(1460 *14*)	1802.4		0.3 *4*	9.0 *6*	0.3 *4*	εK=0.7960 *2*; εL=0.1532 *2*; εM+=0.05040 *6*
(1579 *14*)	1682.6	0.00057 *19*	0.56 *18*	8.79 *14*	0.56 *18*	av Eβ=273.0 *63*; εK=0.7969; εL=0.1521 *2*; εM+=0.04998 *5*
(1621 *14*)	1641.5	0.0030 *6*	2.2 *4*	8.22 *8*	2.2 *4*	av Eβ=291.3 *63*; εK=0.7970; εL=0.1518 *2*; εM+=0.04985 *5*
(1669 *14*)	1592.9	0.0022 *5*	1.22 *23*	8.50 *9*	1.22 *23*	av Eβ=312.9 *63*; εK=0.7971; εL=0.1514 *2*; εM+=0.04969 *5*
(1714 *14*)	1547.7	0.0084 *14*	3.5 *5*	8.07 *7*	3.5 *5*	av Eβ=332.9 *62*; εK=0.7970; εL=0.1510 *2*; εM+=0.04955 *5*
(1726 *14*)	1536.5	0.020 *2*	8.0 *5*	7.71 *3*	8.0 *5*	av Eβ=337.9 *62*; εK=0.7970; εL=0.1509 *2*; εM+=0.04952 *5*
(2063 *14*)	1198.6	0.008 *5*	0.7 *5*	8.9 *4*	0.7 *5*	av Eβ=486.3 *62*; εK=0.7929 *4*; εL=0.1480 *2*; εM+=0.04844 *5*
(2101 *14*)	1161.1	0.016 *10*	1.3 *8*	8.7 *3*	1.3 *8*	av Eβ=502.7 *62*; εK=0.7920 *4*; εL=0.1476 *2*; εM+=0.04831 *5*
(2228 *14*)	1033.8	0.01 *2*	0.7 *10*	9.0 *7*	0.7 *10*	av Eβ=558.3 *62*; εK=0.7881 *5*; εL=0.14629 *16*; εM+=0.04785 *6*
(2365 *14*)	896.9	0.073 *25*	2.8 *10*	8.45 *15*	2.9 *10*	av Eβ=618.2 *62*; εK=0.7827 *7*; εL=0.14471 *18*; εM+=0.04730 *6*
(2437 *14*)	825.2	0.054 *10*	6.8 *12*	9.42^{1u} *8*	6.9 *12*	av Eβ=652.4 *59*; εK=0.7864 *1*; εL=0.1548 *2*; εM+=0.05112 *6*
(2442 *14*)	820.3	0.10 *5*	3.1 *17*	8.44 *25*	3.2 *18*	av Eβ=651.7 *62*; εK=0.7790 *8*; εL=0.14374 *19*; εM+=0.04697 *7*

† Absolute intensity per 100 decays.

γ(^{203}Pb)

Iγ normalization: Deduced using Σ(I(γ+ce)[g.s. ^{203}Pb])=100% and by assuming that there is no direct feeding to the ^{203}Pb ground state (J^{π}=5/2$^-$).

E_γ †	I_γ †c	E_i(level)	J_i^π	E_f	J_f^π	Mult.&	δa	αb	$I_{(\gamma+ce)}$ c	Comments
(4.9)	0.78×10^{-9}	825.2	13/2$^+$	820.3	7/2$^-$	[E3]		6.61×10^9	4.6 *5*	%Iγ=2.07×10^{-10} *23* ce(M)/(γ+ce)=0.750 *8* ce(N)/(γ+ce)=0.215 *4*; ce(O)/(γ+ce)=0.0347 *7*; ce(P)/(γ+ce)=0.000835 *17* α(M)=4.96×10^9 *7* α(N)=1.419×10^9 *20*; α(O)=2.29×10^8 *4*; α(P)=5.52×10^6 *8* $I_{(\gamma+ce)}$: From ^{203}Pb IT decay.
60.13‡ *5*	1.1‡ *2*	186.6	3/2$^-$	126.5	1/2$^-$	M1		7.64		%Iγ=0.33 *6* α(L)=5.84 *9*; α(M)=1.371 *20* α(N)=0.349 *5*; α(O)=0.0695 *10*; α(P)=0.00742 *11* Mult.: L1/L2=9.2 *10*, L3/L2<0.2 (1960St21).
100.5 *10*	0.19 *4*	1033.8	7/2$^-$	933.1	(5/2)$^-$	[M1,E2]		9.2 *3*		%Iγ=0.056 *12* α(K)=7.51 *24*; α(L)=1.31 *5*; α(M)=0.307 *10* α(N)=0.078 *3*; α(O)=0.0156 *5*; α(P)=0.00166 *6*
120.0 *10*	0.19 *4*	1802.4	(7/2)$^+$	1682.6	(7/2)$^-$	[E1]		0.278 *7*		%Iγ=0.056 *12* α(K)=0.222 *6*; α(L)=0.0428 *12*; α(M)=0.0101 *3* α(N)=0.00252 *7*; α(O)=0.000476 *13*; α(P)=3.80×10^{-5} *10*
126.5 *10*	4.0 *8*	126.5	1/2$^-$	0	5/2$^-$	E2		2.38 *9*		%Iγ=1.19 *23* α(K)=0.426 *8*; α(L)=1.46 *6*; α(M)=0.385 *16* α(N)=0.097 *4*; α(O)=0.0174 *7*; α(P)=0.00073 *3* Mult.: K/L=0.17 *2*, L1/L2<0.16, L2/L3=1.41 *11* (1960St21); (L1+L2)/L3=1.5 *6* (1958No30).
136.8 *10*	0.84 *17*	1033.8	7/2$^-$	896.9	9/2$^-$	M1+E2	1.4 *3*	2.45 *25*		%Iγ=0.25 *5* α(K)=1.3 *4*; α(L)=0.86 *7*; α(M)=0.221 *18* α(N)=0.056 *5*; α(O)=0.0102 *8*; α(P)=0.00058 *3* Mult.: α(K)exp=1.33 *23* (1976Ri10).

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ[†]	I_γ[†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
157.3 *10*	0.20 *4*	2870.5	(7/2,9/2)$^+$	2713.3	9/2$^+$	[M1,E2]		2.57 *6*	%Iγ=0.059 *12* α(K)=2.10 *5*; α(L)=0.363 *9*; α(M)=0.0850 *20* α(N)=0.0216 *5*; α(O)=0.00431 *10*; α(P)=0.000460 *11*
[x]166.2 *10*	0.29								%Iγ=0.0861 *20*
186.6 *5*	10.5 *5*	186.6	3/2$^-$	0	5/2$^-$	M1(+E2)	<0.26	1.56 *5*	%Iγ=3.12 *15* α(K)=1.26 *4*; α(L)=0.225 *4*; α(M)=0.0529 *10* α(N)=0.01344 *25*; α(O)=0.00267 *5*; α(P)=0.000279 *7* Mult.: α(K)exp=1.29 *12*(1976Ri10); K/L=5.8 *4*, L1/L2=8.7 *15*, L1/L3>20 (1960Be19); K/L=5.0 *15* (1958No30).
196.1[e] *10*	0.29 *6*	3016.8	(7/2,9/2)$^-$	2821.1	(7/2,9/2)$^+$	[E1]		0.0819 *16*	%Iγ=0.086 *18* α(K)=0.0665 *13*; α(L)=0.01180 *23*; α(M)=0.00277 *6* α(N)=0.000695 *14*; α(O)=0.000134 *3*; α(P)=1.165×10^{-5} *22*
202.2 *10*	0.25 *5*	2870.5	(7/2,9/2)$^+$	2667.8	(7/2,9/2)$^+$	E2+M1	1.4 *4*	0.70 *14*	%Iγ=0.074 *15* α(K)=0.46 *15*; α(L)=0.183 *5*; α(M)=0.0461 *16* α(N)=0.0117 *4*; α(O)=0.00218 *6*; α(P)=0.000150 *19* Mult.: α(K)exp=0.46 *8* (1976Ri10).
212.5 *10*	0.92 *18*	3006.7	(9/2$^+$,11/2)	2794.2	(9/2)$^+$				%Iγ=0.27 *5*
[x]220.4 *10*	0.10								%Iγ=0.0297 *7*
252.2 *10*	0.35 *7*	2821.1	(7/2,9/2)$^+$	2568.8	9/2$^+$	E2+M1	1.4 *4*	0.36 *8*	%Iγ=0.104 *21* α(K)=0.25 *8*; α(L)=0.082 *4*; α(M)=0.0204 *7* α(N)=0.00516 *18*; α(O)=0.00097 *5*; α(P)=7.4×10^{-5} *12* Mult.: α(K)exp=0.26 *5* (1976Ri10).
264.2 *5*	17.7 *9*	1161.1	(7/2)$^-$	896.9	9/2$^-$	M1+E2	0.5 *3*	0.52 *9*	%Iγ=5.25 *29* α(K)=0.41 *8*; α(L)=0.080 *5*; α(M)=0.0190 *8* α(N)=0.00483 *21*; α(O)=0.00095 *6*; α(P)=9.4×10^{-5} *13* Mult.: α(K)exp=0.44 *5* (1976Ri10); K/L=5.0 *15* (1958No30); K/(L1+L2)=5.2 *5* (1960St21).
271.1 *10*	0.48 *9*	866.4	5/2$^-$	595.1	3/2$^-$	E2+M1	1.7 *3*	0.26 *4*	%Iγ=0.142 *27* α(K)=0.18 *3*; α(L)=0.0618 *22*; α(M)=0.0155 *5* α(N)=0.00392 *12*; α(O)=0.00074 *3*; α(P)=5.5×10^{-5} *5* Mult.: α(K)exp=0.18 *5* (1976Ri10).
295.8 *10*	0.28 *6*	2667.8	(7/2,9/2)$^+$	2371.8	(7/2)$^+$	[M1,E2]		0.443 *8*	%Iγ=0.083 *18* α(K)=0.362 *6*; α(L)=0.0619 *11*; α(M)=0.01449 *25* α(N)=0.00368 *7*; α(O)=0.000734 *13*; α(P)=7.85×10^{-5} *14*
[x]299.3 *10*	0.39								%Iγ=0.1158 *27*
306.1 *10*	0.10 *2*	1203.1	(7/2)$^-$	896.9	9/2$^-$	[M1,E2]		0.404 *7*	%Iγ=0.030 *6* α(K)=0.330 *6*; α(L)=0.0563 *10*; α(M)=0.01319 *22* α(N)=0.00335 *6*; α(O)=0.000668 *12*; α(P)=7.15×10^{-5} *12*
[x]311.1 *10*	0.22								%Iγ=0.0653 *15*
322.0 *10*	0.51 *10*	2794.2	(9/2)$^+$	2472.3	(9/2$^+$,11/2$^-$)				%Iγ=0.151 *30*
325.5 *10*	0.22 *4*	2713.3	9/2$^+$	2388.0	(9/2)$^+$	[M1,E2]		0.341 *6*	%Iγ=0.065 *12*

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^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ †	I_γ †c	E_i(level)	J_i^π	E_f	J_f^π	Mult.&	δa	αb	Comments
									α(K)=0.279 *5*; α(L)=0.0476 *8*; α(M)=0.01114 *19* α(N)=0.00283 *5*; α(O)=0.000564 *10*; α(P)=6.04×10^{-5} *10*
331.3 *10*	0.70 *14*	3045.0	(7/2,9/2)$^+$	2713.3	9/2$^+$				%Iγ=0.21 *4*
337.9 *10*	0.58 *12*	2371.8	(7/2)$^+$	2034.2	(7/2)$^+$	[M1,E2]		0.308	%Iγ=0.17 *4* α(K)=0.252 *4*; α(L)=0.0430 *7*; α(M)=0.01006 *17* α(N)=0.00256 *5*; α(O)=0.000509 *9*; α(P)=5.45×10^{-5} *9*
339.7 *10*	0.55 *11*	2388.0	(9/2)$^+$	2048.7	(9/2$^+$)	[M1,E2]		0.304	%Iγ=0.163 *33* α(K)=0.249 *4*; α(L)=0.0423 *7*; α(M)=0.00991 *16* α(N)=0.00252 *4*; α(O)=0.000502 *9*; α(P)=5.37×10^{-5} *9*
349.1 *10*	0.43 *9*	1547.7	9/2$^+$	1198.6	9/2$^-$	[E1]		0.0209 *4*	%Iγ=0.128 *27* α(K)=0.0171 *3*; α(L)=0.00285 *5*; α(M)=0.000665 *11* α(N)=0.000168 *3*; α(O)=3.27×10^{-5} *5*; α(P)=3.09×10^{-6} *5*
375.1 *10*	1.20 *24*	1536.5	(7/2)$^-$	1161.1	(7/2)$^-$	M1+E2	1.7 *3*	0.105 *14*	%Iγ=0.36 *7* α(K)=0.078 *13*; α(L)=0.0208 *13*; α(M)=0.0051 *3* α(N)=0.00129 *8*; α(O)=0.000247 *16*; α(P)=2.07×10^{-5} *23* Mult.: α(K)exp=0.078 *16* (1976Ri10).
378.0 *10*	0.97 *19*	1198.6	9/2$^-$	820.3	7/2$^-$	M1		0.228	%Iγ=0.29 *6* α(K)=0.186 *3*; α(L)=0.0317 *5*; α(M)=0.00741 *12* α(N)=0.00188 *3*; α(O)=0.000375 *6*; α(P)=4.02×10^{-5} *7* Mult.: α(K)exp=0.20 *4* (1976Ri10).
381.7 *10*	4.3 *9*	2753.6	(9/2)$^+$	2371.8	(7/2)$^+$	M1(+E2)	0.5 *4*	0.19 *4*	%Iγ=1.28 *27* α(K)=0.15 *4*; α(L)=0.028 *4*; α(M)=0.0066 *8* α(N)=0.00167 *21*; α(O)=0.00033 *5*; α(P)=3.4×10^{-5} *7* Mult.: α(K)exp=0.15 *3* (1976Ri10); K/L=5.0 *15* (1958No30).
392.5 *10*	1.13 *23*	2034.2	(7/2)$^+$	1641.5	9/2$^+$	M1+E2	0.7 *3*	0.16 *3*	%Iγ=0.34 *7* α(K)=0.12 *3*; α(L)=0.024 *3*; α(M)=0.0057 *6* α(N)=0.00144 *16*; α(O)=0.00028 *4*; α(P)=2.8×10^{-5} *5* Mult.: α(K)exp=0.122 *23* (1976Ri10).
406.3 *10*	1.25 *25*	2794.2	(9/2)$^+$	2388.0	(9/2)$^+$	M1(+E2)	0.5 *5*	0.16 *5*	%Iγ=0.37 *7* α(K)=0.13 *4*; α(L)=0.023 *4*; α(M)=0.0055 *9* α(N)=0.00140 *23*; α(O)=0.00028 *5*; α(P)=2.9×10^{-5} *7* Mult.: α(K)exp=0.13 *4* (1976Ri10).
x416.1 *10*	0.31								%Iγ=0.0920 *21*
421.8 *10*	1.3 *3*	2794.2	(9/2)$^+$	2371.8	(7/2)$^+$	E2+M1	2.4 *6*	0.063 *11*	%Iγ=0.39 *9* α(K)=0.046 *10*; α(L)=0.0130 *11*; α(M)=0.00322 *25* α(N)=0.00082 *7*; α(O)=0.000155 *13*; α(P)=1.27×10^{-5} *18* Mult.: α(K)exp=0.046 *5* (1976Ri10).
x429.0 *10*	0.08								%Iγ=0.0237 *5*
432.5 *10*	0.45 *9*	2821.1	(7/2,9/2)$^+$	2388.0	(9/2)$^+$	[M1,E2]		0.1588 *25*	%Iγ=0.134 *27* α(K)=0.1300 *20*; α(L)=0.0220 *4*; α(M)=0.00514 *8* α(N)=0.001307 *20*; α(O)=0.000261 *4*; α(P)=2.79×10^{-5} *5*
449.9 *10*	0.13 *3*	2821.1	(7/2,9/2)$^+$	2371.8	(7/2)$^+$	[M1,E2]		0.1429 *22*	%Iγ=0.039 *9*

$^{203}_{82}Pb_{121}$-5

$\gamma(^{203}Pb)$ (continued)

E_γ [†]	I_γ [†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
									α(K)=0.1171 *18*; α(L)=0.0198 *3*; α(M)=0.00463 *7* α(N)=0.001175 *18*; α(O)=0.000234 *4*; α(P)=2.51×10^{-5} *4*
[x]452.8 *10*	0.33								%Iγ=0.0980 *23*
[x]459.5 *10*	0.21								%Iγ=0.0623 *14*
[x]462.2 *10*	0.59					M1		0.1330	%Iγ=0.175 *4* α(K)=0.1090 *17*; α(L)=0.0184 *3*; α(M)=0.00430 *7* α(N)=0.001093 *17*; α(O)=0.000218 *4*; α(P)=2.34×10^{-5} *4* Mult.: α(K)exp=0.095 *28* (1976Ri10).
[x]465.8 *10*	0.28					M1		0.1303	%Iγ=0.0831 *19* α(K)=0.1068 *17*; α(L)=0.0180 *3*; α(M)=0.00421 *7* α(N)=0.001071 *17*; α(O)=0.000213 *4*; α(P)=2.29×10^{-5} *4* Mult.: α(K)exp=0.095 *18* (1976Ri10).
468.8 *10*	0.76 *15*	595.1	3/2$^-$	126.5	1/2$^-$	M1+E2	0.6 *4*	0.103 *23*	%Iγ=0.23 *4* α(K)=0.083 *20*; α(L)=0.0151 *23*; α(M)=0.0036 *6* α(N)=0.00091 *13*; α(O)=0.00018 *3*; α(P)=1.8×10^{-5} *4* Mult.: α(K)exp=0.084 *16* (1976Ri10).
477.0 *10*	0.29 *5*	2371.8	(7/2)$^+$	1894.9	(9/2$^+$)	[M1,E2]		0.1223 *19*	%Iγ=0.086 *15* α(K)=0.1002 *16*; α(L)=0.0169 *3*; α(M)=0.00395 *6* α(N)=0.001004 *16*; α(O)=0.000200 *3*; α(P)=2.15×10^{-5} *4*
483.8 *10*	0.90 *18*	1682.6	(7/2)$^-$	1198.6	9/2$^-$	[M1]		0.1178	%Iγ=0.27 *5* α(K)=0.0965 *15*; α(L)=0.01628 *25*; α(M)=0.00381 *6* α(N)=0.000967 *15*; α(O)=0.000193 *3*; α(P)=2.07×10^{-5} *4*
486.6 *10*	0.39 *8*	2034.2	(7/2)$^+$	1547.7	9/2$^+$	[M1,E2]		0.1160 *18*	%Iγ=0.116 *24* α(K)=0.0951 *15*; α(L)=0.01603 *25*; α(M)=0.00375 *6* α(N)=0.000952 *15*; α(O)=0.000190 *3*; α(P)=2.03×10^{-5} *3*
490.2 *10*	0.37 *7*	2568.8	9/2$^+$	2078.9	(11/2)$^+$	[M1]		0.1138	%Iγ=0.110 *21* α(K)=0.0932 *14*; α(L)=0.01572 *24*; α(M)=0.00367 *6* α(N)=0.000934 *14*; α(O)=0.000186 *3*; α(P)=1.99×10^{-5} *3*
498.5 *10*	2.2 *4*	2870.5	(7/2,9/2)$^+$	2371.8	(7/2)$^+$	M1+E2	0.5 *2*	0.093 *11*	%Iγ=0.65 *12* α(K)=0.076 *9*; α(L)=0.0133 *12*; α(M)=0.00314 *25* α(N)=0.00080 *7*; α(O)=0.000158 *14*; α(P)=1.65×10^{-5} *17* Mult.: α(K)exp=0.077 *8* (1976Ri10).
501.4 *10*	0.63 *13*	2048.7	(9/2$^+$)	1547.7	9/2$^+$	[M1,E2]		0.1072 *16*	%Iγ=0.19 *4* α(K)=0.0878 *14*; α(L)=0.01480 *23*; α(M)=0.00346 *6* α(N)=0.000879 *14*; α(O)=0.000175 *3*; α(P)=1.88×10^{-5} *3*
[x]508.2 *10*	0.55								%Iγ=0.163 *4*
[x]511.0 *10*	1.04								%Iγ=0.309 *7* E_γ,I_γ: $\gamma^\pm$.
513.5 *10*	<3.37	1547.7	9/2$^+$	1033.8	7/2$^-$	E1		0.00905	%Iγ<1.000 α(K)=0.00748 *11*; α(L)=0.001200 *18*; α(M)=0.000279 *4* α(N)=7.04×10^{-5} *11*; α(O)=1.382×10^{-5} *21*; α(P)=1.359×10^{-6} *20* Mult.: α(K)exp=0.014 *3* (1976Ri10).
531.2 *10*	0.31 *6*	2078.9	(11/2)$^+$	1547.7	9/2$^+$	[M1,E2]		0.0920 *14*	%Iγ=0.092 *18*

$^{203}_{82}Pb_{121}$-6

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ[†]	I_γ[†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
									α(K)=0.0754 *12*; α(L)=0.01268 *19*; α(M)=0.00296 *5* α(N)=0.000753 *12*; α(O)=0.0001502 *23*; α(P)=1.610×10^{-5} *24*
542.8[e] *10*	0.76 *8*	2078.9	(11/2)$^+$	1536.5	(7/2)$^-$	[M2]		0.246	%Iγ=0.226 *24* α(K)=0.193 *3*; α(L)=0.0402 *7*; α(M)=0.00969 *15* α(N)=0.00247 *4*; α(O)=0.000491 *8*; α(P)=5.08×10^{-5} *8*
[x]547.0 *10*	0.58								%Iγ=0.172 *4*
558.9 *10*	0.55 *11*	1592.9	(7/2)$^-$	1033.8	7/2$^-$	M1		0.0805	%Iγ=0.163 *33* α(K)=0.0660 *10*; α(L)=0.01108 *17*; α(M)=0.00259 *4* α(N)=0.000658 *10*; α(O)=0.0001312 *20*; α(P)=1.407×10^{-5} *21* Mult.: α(K)exp=0.083 *21* (1976Ri10).
569.3 *10*	4.1 *8*	2371.8	(7/2)$^+$	1802.4	(7/2)$^+$	M1		0.0767	%Iγ=1.22 *24* α(K)=0.0629 *10*; α(L)=0.01055 *16*; α(M)=0.00247 *4* α(N)=0.000626 *10*; α(O)=0.0001249 *19*; α(P)=1.340×10^{-5} *20* Mult.: α(K)exp=0.068 *7* (1976Ri10).
[x]590.9 *10*	0.43					M1		0.0695	%Iγ=0.1276 *29* α(K)=0.0570 *9*; α(L)=0.00956 *14*; α(M)=0.00223 *4* α(N)=0.000567 *9*; α(O)=0.0001132 *17*; α(P)=1.214×10^{-5} *18* Mult.: α(K)exp=0.07 *3* (1976Ri10).
595.3 *10*	1.6 *3*	595.1	3/2$^-$	0	5/2$^-$	E2+M1	2.9 *3*	0.0247 *12*	%Iγ=0.47 *9* α(K)=0.0189 *10*; α(L)=0.00445 *14*; α(M)=0.00108 *4* α(N)=0.000274 *9*; α(O)=5.28×10^{-5} *17*; α(P)=4.69×10^{-6} *20* Mult.: α(K)exp=0.019 *3* (1976Ri10).
[x]609.3[‡] *6*	2.4[‡] *5*								%Iγ=0.71 *15*
618.7 *10*	1.21 *24*	3006.7	(9/2$^+$,11/2)	2388.0	(9/2)$^+$				%Iγ=0.36 *7*
[x]621.0 *10*	1.39								%Iγ=0.413 *10*
[x]623.9 *10*	0.57								%Iγ=0.169 *4*
[x]626.7 *10*	1.20					E2+M1		0.0596	%Iγ=0.356 *8* α(K)=0.0489 *8*; α(L)=0.00818 *12*; α(M)=0.00191 *3* α(N)=0.000486 *8*; α(O)=9.69×10^{-5} *15*; α(P)=1.039×10^{-5} *16* Mult.: α(K)exp=0.029 *8* (1976Ri10).
633.8[#e] *3*	≤4.6[#]	820.3	7/2$^-$	186.6	3/2$^-$	[E2]		0.01703	%Iγ≤1.37 α(K)=0.01276 *18*; α(L)=0.00324 *5*; α(M)=0.000793 *12* α(N)=0.000201 *3*; α(O)=3.85×10^{-5} *6*; α(P)=3.29×10^{-6} *5* E_γ: Placement based on γγ coin of 1970CrZY; data of 1976Ri10, however, suggest that most of Iγ deexcites the 2667 level.
633.8 *10*	4.5 *9*	2667.8	(7/2,9/2)$^+$	2034.2	(7/2)$^+$	E2+M1	1.9 *4*	0.026 *4*	%Iγ=1.34 *27* α(K)=0.020 *4*; α(L)=0.0043 *5*; α(M)=0.00102 *10* α(N)=0.000259 *25*; α(O)=5.1×10^{-5} *5*; α(P)=4.8×10^{-6} *7* Mult.: α(K)exp=0.020 *5* (1976Ri10).
[x]647.0 *10*	0.50								%Iγ=0.1484 *34*
651.5 *10*	0.15 *3*	1547.7	9/2$^+$	896.9	9/2$^-$	[E1]		0.00560	%Iγ=0.045 *9*

$^{203}_{82}Pb_{121}$-7

γ(^{203}Pb) (continued)

E_γ[†]	I_γ[†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
									α(K)=0.00465 *7*; α(L)=0.000730 *11*; α(M)=0.0001691 *25* α(N)=4.27×10^{-5} *7*; α(O)=8.42×10^{-6} *12*; α(P)=8.45×10^{-7} *13*
657.9[e] *10*	0.75 *15*	3045.0	(7/2,9/2)$^+$	2388.0	(9/2)$^+$				%Iγ=0.22 *4*
665.0 *10*	0.36 *7*	2713.3	9/2$^+$	2048.7	(9/2$^+$)	[M1,E2]		0.0510	%Iγ=0.107 *21* α(K)=0.0419 *6*; α(L)=0.00700 *11*; α(M)=0.001634 *24* α(N)=0.000415 *6*; α(O)=8.28×10^{-5} *12*; α(P)=8.89×10^{-6} *13*
674.8 *10*	0.34 *7*	2753.6	(9/2)$^+$	2078.9	(11/2)$^+$	[M1,E2]		0.0491 *8*	%Iγ=0.101 *21* α(K)=0.0403 *6*; α(L)=0.00673 *10*; α(M)=0.001572 *23* α(N)=0.000399 *6*; α(O)=7.97×10^{-5} *12*; α(P)=8.55×10^{-6} *13*
[x]697.4 *10*	0.54								%Iγ=0.160 *4*
704.4 *10*	0.48 *10*	2753.6	(9/2)$^+$	2048.7	(9/2$^+$)	[M1,E2]		0.0439	%Iγ=0.142 *30* α(K)=0.0361 *6*; α(L)=0.00602 *9*; α(M)=0.001404 *21* α(N)=0.000357 *6*; α(O)=7.12×10^{-5} *11*; α(P)=7.64×10^{-6} *11*
719.0 *10*	1.3 *3*	2753.6	(9/2)$^+$	2034.2	(7/2)$^+$	M1(+E2)	0.7 *7*	0.032 *10*	%Iγ=0.39 *9* α(K)=0.026 *8*; α(L)=0.0046 *12*; α(M)=0.0011 *3* α(N)=0.00027 *7*; α(O)=5.4×10^{-5} *14*; α(P)=5.7×10^{-6} *16* Mult.: α(K)exp=0.026 *8* (1976Ri10).
722.4 *5*	16.1 *8*	1547.7	9/2$^+$	825.2	13/2$^+$	E2		0.01285	%Iγ=4.78 *26* α(K)=0.00985 *14*; α(L)=0.00228 *4*; α(M)=0.000553 *8* α(N)=0.0001401 *20*; α(O)=2.70×10^{-5} *4*; α(P)=2.41×10^{-6} *4* Mult.: K/L=3.3 *10* (1958No30).
740.1 *10*	1.3 *3*	866.4	5/2$^-$	126.5	1/2$^-$	E2		0.01222	%Iγ=0.39 *9* α(K)=0.00940 *14*; α(L)=0.00214 *3*; α(M)=0.000519 *8* α(N)=0.0001314 *19*; α(O)=2.54×10^{-5} *4*; α(P)=2.28×10^{-6} *4* Mult.: α(K)exp=0.014 *7* (1976Ri10).
746.45[d] *2*	3.9[d] *8*	933.1	(5/2)$^-$	186.6	3/2$^-$	M1+E2	0.5 *4*	0.033 *7*	%Iγ=1.16 *24* α(K)=0.027 *6*; α(L)=0.0046 *8*; α(M)=0.00107 *18* α(N)=0.00027 *5*; α(O)=5.4×10^{-5} *9*; α(P)=5.7×10^{-6} *11* Mult.: α(K)exp=0.027 *5* (1976Ri10).
746.45[d] *2*	<3.9[d]	2388.0	(9/2)$^+$	1641.5	9/2$^+$	M1(+E2)	0.5 *4*	0.033 *7*	%Iγ<1.158 α(K)=0.027 *6*; α(L)=0.0046 *8*; α(M)=0.00107 *18* α(N)=0.00027 *5*; α(O)=5.4×10^{-5} *9*; α(P)=5.7×10^{-6} *11* Mult.: α(K)exp=0.027 *5* (1976Ri10).
[x]759.0 *10*	0.9								%Iγ=0.267 *6*
768.8 *10*	1.4 *3*	1802.4	(7/2)$^+$	1033.8	7/2$^-$	[E1]		0.00407	%Iγ=0.42 *9* α(K)=0.00338 *5*; α(L)=0.000525 *8*; α(M)=0.0001213 *18* α(N)=3.07×10^{-5} *5*; α(O)=6.06×10^{-6} *9*; α(P)=6.16×10^{-7} *9*
772.7 *10*	0.71 *14*	1592.9	(7/2)$^-$	820.3	7/2$^-$	[M1,E2]		0.0346	%Iγ=0.21 *4* α(K)=0.0284 *4*; α(L)=0.00472 *7*; α(M)=0.001101 *16* α(N)=0.000280 *4*; α(O)=5.58×10^{-5} *8*; α(P)=6.00×10^{-6} *9*
[x]779.9 *10*	0.39								%Iγ=0.1158 *27*
[x]788.2 *10*	0.31								%Iγ=0.0920 *21*

$^{203}_{82}$Pb$_{121}$-8

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ †	I_γ †c	E_i(level)	J_i^π	E_f	J_f^π	Mult.&	δa	αb	Comments
816.3 *5*	13.6 *7*	1641.5	$9/2^+$	825.2	$13/2^+$	E2		0.00998	%Iγ=4.04 *23* α(K)=0.00778 *11*; α(L)=0.001672 *24*; α(M)=0.000402 *6* α(N)=0.0001020 *15*; α(O)=1.98×10^{-5} *3*; α(P)=1.82×10^{-6} *3* Mult.: α(K)exp=0.0090 *14* (1976Ri10).
820.2 *5*	100 *5*	820.3	$7/2^-$	0	$5/2^-$	E2+M1	5.4 *3*	0.01053 *17*	%Iγ=29.7 *12* α(K)=0.00826 *14*; α(L)=0.00173 *3*; α(M)=0.000416 *7* α(N)=0.0001053 *16*; α(O)=2.05×10^{-5} *3*; α(P)=1.91×10^{-6} *3* Mult.,δ: α(K)exp=0.0083 *9* (1976Ri10), K/L=4.5 *15* (1958No30) and K/(L1+L2)=4.9 *10* (1960St21).
825.2 *5*	49.3 *25*	825.2	$13/2^+$	0	$5/2^-$	M4		0.299	%Iγ=14.6 *7* α(K)=0.216 *3*; α(L)=0.0628 *9*; α(M)=0.01586 *23* α(N)=0.00407 *6*; α(O)=0.000795 *12*; α(P)=7.35×10^{-5} *11* Mult.: K/L=3.4 *6* (1958No30); K/(L1+L2)=3.7 *3* (1960St21).
847.2 *5*	28.7 *14*	1033.8	$7/2^-$	186.6	$3/2^-$	E2		0.00925	%Iγ=8.5 *5* α(K)=0.00725 *11*; α(L)=0.001527 *22*; α(M)=0.000367 *6* α(N)=9.29×10^{-5} *13*; α(O)=1.80×10^{-5} *3*; α(P)=1.677×10^{-6} *24* Mult.: α(K)exp=0.0070 *16* (1976Ri10).
861.2 *10*	0.45 *9*	1894.9	$(9/2^+)$	1033.8	$7/2^-$	[E1]		0.00329	%Iγ=0.134 *27* α(K)=0.00274 *4*; α(L)=0.000421 *6*; α(M)=9.73×10^{-5} *14* α(N)=2.46×10^{-5} *4*; α(O)=4.87×10^{-6} *7*; α(P)=4.99×10^{-7} *7*
866.5 *10*	5.0 *10*	866.4	$5/2^-$	0	$5/2^-$	E2(+M1)		0.0257	%Iγ=1.48 *29* α(K)=0.0211 *3*; α(L)=0.00350 *5*; α(M)=0.000817 *12* α(N)=0.000207 *3*; α(O)=4.14×10^{-5} *6*; α(P)=4.45×10^{-6} *7* Mult.: α(K)exp=0.0070 *16* (1976Ri10).
869.2 *10*	1.7 *4*	1802.4	$(7/2)^+$	933.1	$(5/2)^-$	E1		0.00323	%Iγ=0.50 *12* α(K)=0.00269 *4*; α(L)=0.000414 *6*; α(M)=9.56×10^{-5} *14* α(N)=2.42×10^{-5} *4*; α(O)=4.79×10^{-6} *7*; α(P)=4.90×10^{-7} *7* Mult.: α(K)exp=0.006 *4* (1976Ri10).
x871.0 *10*	0.79								%Iγ=0.234 *5*
880.0e *10*	0.30 *6*	2774.6	$(7/2,9/2^-)$	1894.9	$(9/2^+)$				%Iγ=0.089 *18*
896.9 *5*	44.1 *22*	896.9	$9/2^-$	0	$5/2^-$	E2		0.00825	%Iγ=13.1 *6* α(K)=0.00651 *10*; α(L)=0.001331 *19*; α(M)=0.000319 *5* α(N)=8.07×10^{-5} *12*; α(O)=1.571×10^{-5} *22*; α(P)=1.481×10^{-6} *21* Mult.: α(K)exp=0.0075 *9* (1976Ri10).
x904.1 *10*	0.72								%Iγ=0.214 *5*
x906.7 *10*	0.84								%Iγ=0.249 *6*
x911.7 *10*	0.75								%Iγ=0.223 *5*
924.5 *10*	0.68 *14*	2472.3	$(9/2^+,11/2^-)$	1547.7	$9/2^+$				%Iγ=0.20 *4*
927.7 *10*	0.67 *13*	3006.7	$(9/2^+,11/2)$	2078.9	$(11/2)^+$				%Iγ=0.20 *4*
933.4 *10*	4.9 *10*	933.1	$(5/2)^-$	0	$5/2^-$	M1		0.0212	%Iγ=1.45 *29*

$^{203}_{82}Pb_{121}$-9

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ †	I_γ †c	E_i(level)	J_i^π	E_f	J_f^π	Mult.&	δa	αb	Comments
									α(K)=0.01746 *25*; α(L)=0.00289 *5*; α(M)=0.000673 *10* α(N)=0.0001709 *25*; α(O)=3.41×10^{-5} *5*; α(P)=3.67×10^{-6} *6* Mult.: α(K)exp=0.022 *3* (1976Ri10).
936.0 *10*	2.5 *5*	1802.4	(7/2)$^+$	866.4	5/2$^-$	E1		0.00282	%Iγ=0.74 *15* α(K)=0.00235 *4*; α(L)=0.000360 *5*; α(M)=8.31×10^{-5} *12* α(N)=2.10×10^{-5} *3*; α(O)=4.16×10^{-6} *6*; α(P)=4.28×10^{-7} *6* Mult.: α(K)exp=0.0045 *21* (1976Ri10).
951.6 *10*	0.77 *15*	2753.6	(9/2)$^+$	1802.4	(7/2)$^+$	[M1,E2]		0.0202	%Iγ=0.23 *4* α(K)=0.01662 *24*; α(L)=0.00274 *4*; α(M)=0.000640 *10* α(N)=0.0001626 *24*; α(O)=3.24×10^{-5} *5*; α(P)=3.49×10^{-6} *5*
974.3[e] *10*	0.28 *6*	1161.1	(7/2)$^-$	186.6	3/2$^-$	[E2]		0.00701	%Iγ=0.083 *18* α(K)=0.00557 *8*; α(L)=0.001096 *16*; α(M)=0.000261 *4* α(N)=6.62×10^{-5} *10*; α(O)=1.293×10^{-5} *19*; α(P)=1.240×10^{-6} *18*
982.3 *10*	0.61 *12*	3016.8	(7/2,9/2)$^-$	2034.2	(7/2)$^+$	[E1]		0.00258	%Iγ=0.18 *4* α(K)=0.00216 *3*; α(L)=0.000329 *5*; α(M)=7.59×10^{-5} *11* α(N)=1.92×10^{-5} *3*; α(O)=3.80×10^{-6} *6*; α(P)=3.93×10^{-7} *6*
985.0 *10*	1.0 *2*	2667.8	(7/2,9/2)$^+$	1682.6	(7/2)$^-$	[E1]		0.00257	%Iγ=0.30 *6* α(K)=0.00215 *3*; α(L)=0.000327 *5*; α(M)=7.55×10^{-5} *11* α(N)=1.91×10^{-5} *3*; α(O)=3.79×10^{-6} *6*; α(P)=3.91×10^{-7} *6*
x995.1 *10*	0.51								%Iγ=0.1514 *35*
1000.3 *10*	3.3 *7*	2034.2	(7/2)$^+$	1033.8	7/2$^-$	E1		0.00250	%Iγ=0.98 *21* α(K)=0.00209 *3*; α(L)=0.000318 *5*; α(M)=7.34×10^{-5} *11* α(N)=1.86×10^{-5} *3*; α(O)=3.68×10^{-6} *6*; α(P)=3.80×10^{-7} *6* Mult.: α(K)exp=0.0030 *16* (1976Ri10).
x1007.0 *10*	0.37								%Iγ=0.1098 *25*
x1024.3 *10*	0.41								%Iγ=0.1217 *28*
1033.7 *5*	29.8 *15*	1033.8	7/2$^-$	0	5/2$^-$	M1+E2	0.58 *25*	0.0138 *16*	%Iγ=8.8 *5* α(K)=0.0113 *14*; α(L)=0.00190 *20*; α(M)=0.00044 *5* α(N)=0.000113 *12*; α(O)=2.24×10^{-5} *24*; α(P)=2.4×10^{-6} *3* Mult.: α(K)exp=0.0114 *13* (1976Ri10); K/L=5.0 *10* (1958No30); K/L>4.8 (1960St21).
x1044.0 *10*	0.82								%Iγ=0.243 *6*
x1058.8 *10*	0.35								%Iγ=0.1039 *24*
1068.3 *10*	2.0 *4*	2870.5	(7/2,9/2)$^+$	1802.4	(7/2)$^+$	E2+M1	3.4 *9*	0.0066 *6*	%Iγ=0.59 *12* α(K)=0.0053 *5*; α(L)=0.00098 *7*; α(M)=0.000232 *16* α(N)=5.9×10^{-5} *4*; α(O)=1.16×10^{-5} *8*; α(P)=1.15×10^{-6} *10* Mult.: α(K)exp=0.0053 *17* (1976Ri10). Value interfered by that for the 1070.1γ.
1070.1[e] *10*	2.4 *5*	1894.9	(9/2$^+$)	825.2	13/2$^+$	(E2)		0.00584	%Iγ=0.71 *15* α(K)=0.00468 *7*; α(L)=0.000886 *13*; α(M)=0.000210 *3*

$^{203}_{82}Pb_{121}$-10

$\gamma(^{203}Pb)$ (continued)

E_γ [†]	I_γ [†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
									α(N)=5.33×10^{-5} *8*; α(O)=1.043×10^{-5} *15*; α(P)=1.019×10^{-6} *15*
									Mult.: α(K)exp=0.0053 *17* (1976Ri10). Value contaminated by 1068.3γ.
1074.8 *10*	0.97 *19*	2667.8	(7/2,9/2)$^+$	1592.9	(7/2)$^-$	[E1]		0.00220	%Iγ=0.29 *6*
									α(K)=0.00184 *3*; α(L)=0.000279 *4*; α(M)=6.43×10^{-5} *9*
									α(N)=1.625×10^{-5} *23*; α(O)=3.22×10^{-6} *5*; α(P)=3.34×10^{-7} *5*
1087.8 *10*	1.3 *3*	1682.6	(7/2)$^-$	595.1	3/2$^-$	[E2]		0.00566	%Iγ=0.39 *9*
									α(K)=0.00454 *7*; α(L)=0.000854 *12*; α(M)=0.000203 *3*
									α(N)=5.13×10^{-5} *8*; α(O)=1.006×10^{-5} *15*; α(P)=9.85×10^{-7} *14*
1091.7 *10*	0.57 *11*	2774.6	(7/2,9/2$^-$)	1682.6	(7/2)$^-$				%Iγ=0.169 *33*
[x]1096.6 *10*	0.39								%Iγ=0.1158 *27*
1112.0 *10*	2.4 *5*	2753.6	(9/2)$^+$	1641.5	9/2$^+$	M1(+E2)	<1.3	0.011 *3*	%Iγ=0.71 *15*
									α(K)=0.0090 *22*; α(L)=0.0015 *4*; α(M)=0.00035 *8*
									α(N)=9.0×10^{-5} *19*; α(O)=1.8×10^{-5} *4*; α(P)=1.9×10^{-6} *5*; α(IPF)=3.9×10^{-7} *7*
									Mult.: α(K)exp=0.010 *3* (1976Ri10).
1120.2 *10*	2.4 *5*	2667.8	(7/2,9/2)$^+$	1547.7	9/2$^+$	(M1)		0.01330	%Iγ=0.71 *15*
									α(K)=0.01095 *16*; α(L)=0.00180 *3*; α(M)=0.000419 *6*
									α(N)=0.0001065 *16*; α(O)=2.13×10^{-5} *3*; α(P)=2.29×10^{-6} *4*; α(IPF)=6.3×10^{-7} *3*
									Mult.: α(K)exp=0.018 *8* (1976Ri10).
[x]1123.9 *10*	1.02					M1		0.01319	%Iγ=0.303 *7*
									α(K)=0.01086 *16*; α(L)=0.00178 *3*; α(M)=0.000416 *6*
									α(N)=0.0001056 *15*; α(O)=2.11×10^{-5} *3*; α(P)=2.27×10^{-6} *4*; α(IPF)=7.3×10^{-7} *3*
									Mult.: α(K)exp=0.014 *5* (1976Ri10).
[x]1143.8 *10*	0.35								%Iγ=0.1039 *24*
1151.5 *10*	0.47 *9*	2048.7	(9/2$^+$)	896.9	9/2$^-$	[E1]		0.00195	%Iγ=0.140 *27*
									α(K)=0.001627 *23*; α(L)=0.000246 *4*; α(M)=5.67×10^{-5} *8*
									α(N)=1.434×10^{-5} *21*; α(O)=2.85×10^{-6} *4*; α(P)=2.96×10^{-7} *5*; α(IPF)=4.73×10^{-6} *16*
1153.5 *10*	0.66 *13*	2794.2	(9/2)$^+$	1641.5	9/2$^+$				%Iγ=0.20 *4*
1166.9[e] *10*	0.53 *11*	2034.2	(7/2)$^+$	866.4	5/2$^-$	[E1]		0.00191	%Iγ=0.157 *33*
									α(K)=0.001589 *23*; α(L)=0.000240 *4*; α(M)=5.53×10^{-5} *8*
									α(N)=1.400×10^{-5} *20*; α(O)=2.78×10^{-6} *4*; α(P)=2.89×10^{-7} *4*; α(IPF)=7.28×10^{-6} *22*
[x]1171.8[‡] *6*	3.0[‡] *7*								%Iγ=0.89 *21*
1177.0 *10*	0.37 *7*	2713.3	9/2$^+$	1536.5	(7/2)$^-$	[E1]		0.00188	%Iγ=0.110 *21*
									α(K)=0.001566 *22*; α(L)=0.000236 *4*; α(M)=5.45×10^{-5} *8*
									α(N)=1.378×10^{-5} *20*; α(O)=2.74×10^{-6} *4*; α(P)=2.85×10^{-7} *4*; α(IPF)=9.4×10^{-6} *3*
1184.4[e] *10*	1.7 *3*	2388.0	(9/2)$^+$	1203.1	(7/2)$^-$	[E1]		0.00186	%Iγ=0.50 *9*

$^{203}_{82}Pb_{121}$-11

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ[†]	I_γ[†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
									α(K)=0.001549 *22*; α(L)=0.000234 *4*; α(M)=5.39×10^{-5} *8* α(N)=1.363×10^{-5} *20*; α(O)=2.71×10^{-6} *4*; α(P)=2.82×10^{-7} *4*; α(IPF)=1.12×10^{-5} *3* Mult.: α(K)exp=0.007 *3* (1976Ri10). M1 and E2 multipolarities cannot be unambiguously excluded.
1188.2 *10*	0.43 *9*	2870.5	(7/2,9/2)$^+$	1682.6	(7/2)$^-$			0.01144 *17*	%Iγ=0.128 *27* α(K)=0.00942 *14*; α(L)=0.001546 *22*; α(M)=0.000360 *6* α(N)=9.15×10^{-5} *13*; α(O)=1.83×10^{-5} *3*; α(P)=1.97×10^{-6} *3*; α(IPF)=5.33×10^{-6} *15*
1198.6 *10*	6.8 *14*	1198.6	9/2$^-$	0	5/2$^-$	E2		0.00471	%Iγ=2.0 *4* α(K)=0.00380 *6*; α(L)=0.000691 *10*; α(M)=0.0001631 *23* α(N)=4.13×10^{-5} *6*; α(O)=8.13×10^{-6} *12*; α(P)=8.08×10^{-7} *12*; α(IPF)=3.73×10^{-6} *10* Mult.: α(K)exp=0.004 *1* (1976Ri10).
1203.1 *10*	5.2 *10*	1203.1	(7/2)$^-$	0	5/2$^-$	M1(+E2)	0.5 *5*	0.0098 *20*	%Iγ=1.54 *29* α(K)=0.0081 *17*; α(L)=0.00133 *25*; α(M)=0.00031 *6* α(N)=7.9×10^{-5} *15*; α(O)=1.6×10^{-5} *3*; α(P)=1.7×10^{-6} *4*; α(IPF)=6.7×10^{-6} *10* Mult.: α(K)exp=0.0080 *16* (1976Ri10).
1206.2 *10*	0.50 *10*	2753.6	(9/2)$^+$	1547.7	9/2$^+$	[M1,E2]		0.01102	%Iγ=0.148 *30* α(K)=0.00907 *13*; α(L)=0.001488 *21*; α(M)=0.000347 *5* α(N)=8.80×10^{-5} *13*; α(O)=1.757×10^{-5} *25*; α(P)=1.89×10^{-6} *3*; α(IPF)=7.87×10^{-6} *19*
1214.3 *10*	0.75 *15*	3016.8	(7/2,9/2)$^-$	1802.4	(7/2)$^+$	[E1]		0.00179	%Iγ=0.22 *4* α(K)=0.001483 *21*; α(L)=0.000224 *4*; α(M)=5.15×10^{-5} *8* α(N)=1.303×10^{-5} *19*; α(O)=2.59×10^{-6} *4*; α(P)=2.70×10^{-7} *4*; α(IPF)=1.99×10^{-5} *5*
1223.7 *10*	2.5 *5*	2048.7	(9/2$^+$)	825.2	13/2$^+$	E2		0.00453	%Iγ=0.74 *15* α(K)=0.00366 *6*; α(L)=0.000661 *10*; α(M)=0.0001559 *22* α(N)=3.95×10^{-5} *6*; α(O)=7.77×10^{-6} *11*; α(P)=7.75×10^{-7} *11*; α(IPF)=6.03×10^{-6} *14* Mult.: α(K)exp=0.0028 *12* (1976Ri10).
1228.4[e] *10*	0.74 *15*	2048.7	(9/2$^+$)	820.3	7/2$^-$	[E1]		1.76×10^{-3}	%Iγ=0.22 *4* α(K)=0.001454 *21*; α(L)=0.000219 *3*; α(M)=5.04×10^{-5} *8* α(N)=1.276×10^{-5} *18*; α(O)=2.54×10^{-6} *4*; α(P)=2.64×10^{-7} *4*; α(IPF)=2.47×10^{-5} *5*
1246.1 *10*	1.8 *4*	2794.2	(9/2)$^+$	1547.7	9/2$^+$	M1+E2	0.6 *4*	0.0086 *14*	%Iγ=0.53 *12*

$^{203}_{82}Pb_{121}$-12

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ[†]	I_γ[†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	α[b]	Comments
								α(K)=0.0071 *12*; α(L)=0.00117 *18*; α(M)=0.00027 *4* α(N)=7.0×10^{-5} *11*; α(O)=1.39×10^{-5} *21*; α(P)=1.48×10^{-6} *24*; α(IPF)=1.33×10^{-5} *16* Mult.: α(K)exp=0.0072 *10* (1976Ri10).
1253.8 *10*	4.2 *8*	2078.9	(11/2)$^+$	825.2	13/2$^+$	M1	0.00999 *15*	%Iγ=1.25 *24* α(K)=0.00822 *12*; α(L)=0.001346 *19*; α(M)=0.000314 *5* α(N)=7.96×10^{-5} *12*; α(O)=1.590×10^{-5} *23*; α(P)=1.713×10^{-6} *25*; α(IPF)=1.67×10^{-5} *4* Mult.: α(K)exp=0.0067 *32* (1976Ri10).
[x]1261.9 *10*	0.39							%Iγ=0.1158 *27*
1274.2 *10*	0.32 *6*	2472.3	(9/2$^+$,11/2$^-$)	1198.6	9/2$^-$			%Iγ=0.095 *18*
[x]1303.3 *10*	1.65							%Iγ=0.490 *11*
[x]1307.5 *10*	0.57							%Iγ=0.169 *4*
1311.0 *10*	0.42 *8*	2472.3	(9/2$^+$,11/2$^-$)	1161.1	(7/2)$^-$			%Iγ=0.125 *24*
1337.3 *10*	1.26 *25*	2371.8	(7/2)$^+$	1033.8	7/2$^-$	[E1]	1.57×10^{-3}	%Iγ=0.37 *7* α(K)=0.001255 *18*; α(L)=0.000188 *3*; α(M)=4.34×10^{-5} *6* α(N)=1.097×10^{-5} *16*; α(O)=2.18×10^{-6} *3*; α(P)=2.28×10^{-7} *4*; α(IPF)=7.03×10^{-5} *12*
[x]1343.4 *10*	0.57							%Iγ=0.169 *4*
1350.3 *10*	0.37 *7*	1536.5	(7/2)$^-$	186.6	3/2$^-$	[E2]	0.00378	%Iγ=0.110 *21* α(K)=0.00306 *5*; α(L)=0.000536 *8*; α(M)=0.0001261 *18* α(N)=3.20×10^{-5} *5*; α(O)=6.30×10^{-6} *9*; α(P)=6.37×10^{-7} *9*; α(IPF)=2.46×10^{-5} *4*
[x]1358.1 *10*	0.20							%Iγ=0.0594 *14*
1365.5 *10*	0.42 *8*	2568.8	9/2$^+$	1203.1	(7/2)$^-$	[E1]	1.53×10^{-3}	%Iγ=0.125 *24* α(K)=0.001211 *17*; α(L)=0.000182 *3*; α(M)=4.18×10^{-5} *6* α(N)=1.058×10^{-5} *15*; α(O)=2.10×10^{-6} *3*; α(P)=2.20×10^{-7} *3*; α(IPF)=8.56×10^{-5} *14*
1370.1 *10*	1.22 *24*	2568.8	9/2$^+$	1198.6	9/2$^-$	[E1]	1.53×10^{-3}	%Iγ=0.36 *7* α(K)=0.001205 *17*; α(L)=0.000181 *3*; α(M)=4.16×10^{-5} *6* α(N)=1.051×10^{-5} *15*; α(O)=2.09×10^{-6} *3*; α(P)=2.19×10^{-7} *3*; α(IPF)=8.82×10^{-5} *14*
[x]1374.2 *10*	0.36							%Iγ=0.1069 *25*
[x]1381.3 *10*	0.95							%Iγ=0.282 *7*
[x]1385.6 *10*	1.27							%Iγ=0.377 *9*
[x]1395.6 *10*	1.04							%Iγ=0.309 *7*
1407.9 *10*	3.2 *6*	2568.8	9/2$^+$	1161.1	(7/2)$^-$	[E1]	1.48×10^{-3}	%Iγ=0.95 *18* α(K)=0.001150 *17*; α(L)=0.0001721 *25*; α(M)=3.96×10^{-5} *6* α(N)=1.003×10^{-5} *14*; α(O)=1.99×10^{-6} *3*; α(P)=2.09×10^{-7} *3*; α(IPF)=0.0001108 *17*
[x]1409.9 *10*	2.40							%Iγ=0.712 *16*
1417.1 *10*	0.65 *13*	2620.1	(7/2$^+$,9/2$^+$)	1203.1	(7/2)$^-$	[E1]	1.48×10^{-3}	%Iγ=0.19 *4*

$^{203}_{82}Pb_{121}$-13

$\gamma(^{203}Pb)$ (continued)

E_γ [†]	I_γ [†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [&]	δ [a]	α [b]	$I_{(\gamma+ce)}$ [c]	Comments
										α(K)=0.001137 *16*; α(L)=0.0001702 *24*; α(M)=3.92×10^{-5} *6* α(N)=9.91×10^{-6} *14*; α(O)=1.97×10^{-6} *3*; α(P)=2.07×10^{-7} *3*; α(IPF)=0.0001166 *18*
1421.1 *10*	0.85 *17*	2620.1	(7/2$^+$,9/2$^+$)	1198.6	9/2$^-$	[E1]		1.47×10^{-3}		%Iγ=0.25 *5* α(K)=0.001132 *16*; α(L)=0.0001694 *24*; α(M)=3.90×10^{-5} *6* α(N)=9.86×10^{-6} *14*; α(O)=1.96×10^{-6} *3*; α(P)=2.06×10^{-7} *3*; α(IPF)=0.0001191 *18*
[x]1431.0 *10*	0.41									%Iγ=0.1217 *28*
1438.1 *10*	2.2 *4*	2371.8	(7/2)$^+$	933.1	(5/2)$^-$	(E1)		1.46×10^{-3}		%Iγ=0.65 *12* α(K)=0.001109 *16*; α(L)=0.0001659 *24*; α(M)=3.82×10^{-5} *6* α(N)=9.66×10^{-6} *14*; α(O)=1.92×10^{-6} *3*; α(P)=2.02×10^{-7} *3*; α(IPF)=0.0001298 *20* Mult.: α(K)exp=0.00036 *20* (1976Ri10). E2 multipolarity cannot be unambiguously excluded.
1464.8 *10*	2.1 *4*	2667.8	(7/2,9/2)$^+$	1203.1	(7/2)$^-$	[E1]		1.43×10^{-3}		%Iγ=0.62 *12* α(K)=0.001076 *16*; α(L)=0.0001607 *23*; α(M)=3.70×10^{-5} *6* α(N)=9.36×10^{-6} *14*; α(O)=1.86×10^{-6} *3*; α(P)=1.96×10^{-7} *3*; α(IPF)=0.0001470 *22*
1469.2 *10*	1.5 *3*	2667.8	(7/2,9/2)$^+$	1198.6	9/2$^-$	[E1]		1.43×10^{-3}		%Iγ=0.45 *9* α(K)=0.001070 *15*; α(L)=0.0001599 *23*; α(M)=3.68×10^{-5} *6* α(N)=9.31×10^{-6} *13*; α(O)=1.85×10^{-6} *3*; α(P)=1.95×10^{-7} *3*; α(IPF)=0.0001499 *22*
1496.2 *10*	1.8 *4*	1682.6	(7/2)$^-$	186.6	3/2$^-$	[E2]		0.00317		%Iγ=0.53 *12* α(K)=0.00254 *4*; α(L)=0.000434 *7*; α(M)=0.0001018 *15* α(N)=2.58×10^{-5} *4*; α(O)=5.10×10^{-6} *8*; α(P)=5.21×10^{-7} *8*; α(IPF)=6.25×10^{-5} *10*
1506.7 *5*	12.4 *6*	2667.8	(7/2,9/2)$^+$	1161.1	(7/2)$^-$	E1		1.40×10^{-3}		%Iγ=3.68 *20* α(K)=0.001026 *15*; α(L)=0.0001531 *22*; α(M)=3.52×10^{-5} *5* α(N)=8.91×10^{-6} *13*; α(O)=1.774×10^{-6} *25*; α(P)=1.87×10^{-7} *3*; α(IPF)=0.0001748 *25*
1510.4 *10*	1.19 *24*	2713.3	9/2$^+$	1203.1	(7/2)$^-$	[E1]		1.40×10^{-3}		Mult.: α(K)exp=0.0011 *3* (1976Ri10). %Iγ=0.35 *7* α(K)=0.001022 *15*; α(L)=0.0001525 *22*; α(M)=3.51×10^{-5} *5*

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ [†]	I_γ [†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
									α(N)=8.88×10^{-6} *13*; α(O)=1.766×10^{-6} *25*; α(P)=1.86×10^{-7} *3*; α(IPF)=0.000177 *3*
1536.5 *5*	25.5 *13*	1536.5	(7/2)$^-$	0	5/2$^-$	M1(+E2)	0.7 *7*	0.0051 *11*	%Iγ=7.6 *4* α(K)=0.0041 *9*; α(L)=0.00067 *13*; α(M)=0.00016 *3* α(N)=4.0×10^{-5} *8*; α(O)=7.9×10^{-6} *16*; α(P)=8.5×10^{-7} *18*; α(IPF)=0.000111 *18* Mult.: α(K)exp=0.0041 *8* (1976Ri10); K/L=6.0 *15* (1958No30).
x1546.8‡ *10*	≤2.0‡								%Iγ≤0.594
1550.6 *10*	2.6 *5*	2753.6	(9/2)$^+$	1203.1	(7/2)$^-$	(E1)		1.37×10^{-3}	%Iγ=0.77 *15* α(K)=0.000978 *14*; α(L)=0.0001458 *21*; α(M)=3.35×10^{-5} *5* α(N)=8.48×10^{-6} *12*; α(O)=1.689×10^{-6} *24*; α(P)=1.778×10^{-7} *25*; α(IPF)=0.000205 *3* Mult.: α(K)exp=0.00074 *5* (1976Ri10). Value interfered by that for the 1552.6γ.
1552.6 *10*	5.0 *10*	2713.3	9/2$^+$	1161.1	(7/2)$^-$	(E1)		1.37×10^{-3}	%Iγ=1.48 *30* α(K)=0.000976 *14*; α(L)=0.0001454 *21*; α(M)=3.35×10^{-5} *5* α(N)=8.47×10^{-6} *12*; α(O)=1.685×10^{-6} *24*; α(P)=1.774×10^{-7} *25*; α(IPF)=0.000206 *3* Mult.: α(K)exp=0.00074 *5* (1976Ri10). Value interfered by that for the 1550.6γ.
x1554.8‡ *10*	≤1.4‡								%Iγ≤0.416
1562.5 *10*	0.47 *9*	2388.0	(9/2)$^+$	825.2	13/2$^+$	[E2]		0.00295	%Iγ=0.140 *27* α(K)=0.00235 *4*; α(L)=0.000398 *6*; α(M)=9.31×10^{-5} *13* α(N)=2.36×10^{-5} *4*; α(O)=4.67×10^{-6} *7*; α(P)=4.79×10^{-7} *7*; α(IPF)=8.40×10^{-5} *13*
1576.0 *10*	0.46 *10*	2774.6	(7/2,9/2$^-$)	1198.6	9/2$^-$				%Iγ=0.137 *30*
x1578.5 *10*	0.13								%Iγ=0.0386 *9*
x1582.0 *10*	0.10								%Iγ=0.0297 *7*
x1589.3 *10*	0.67								%Iγ=0.199 *5*
1592.7 *10*	3.7 *7*	1592.9	(7/2)$^-$	0	5/2$^-$	M1+E2	1.3 *8*	0.0039 *12*	%Iγ=1.10 *21* α(K)=0.0031 *10*; α(L)=0.00051 *15*; α(M)=0.00012 *4* α(N)=3.0×10^{-5} *9*; α(O)=6.0×10^{-6} *18*; α(P)=6.4×10^{-7} *20*; α(IPF)=0.00012 *3* Mult.: α(K)exp=0.0031 *8* (1976Ri10).
x1608.4 *10*	0.41								%Iγ=0.1217 *28*
x1615.0‡ *8*	≤1.6‡								%Iγ≤0.475
1634.0 *10*	2.2 *4*	2667.8	(7/2,9/2)$^+$	1033.8	7/2$^-$	[E1]		1.33×10^{-3}	%Iγ=0.65 *12*

$^{203}_{82}Pb_{121}$-15

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ[†]	I_γ[†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	α[b]	Comments
								α(K)=0.000896 *13*; α(L)=0.0001333 *19*; α(M)=3.06×10^{-5} *5* α(N)=7.76×10^{-6} *11*; α(O)=1.544×10^{-6} *22*; α(P)=1.629×10^{-7} *23*; α(IPF)=0.000264 *4*
1646.8 *10*	0.35 *7*	2472.3	(9/2$^+$,11/2$^-$)	825.2	13/2$^+$			%Iγ=0.104 *21*
1679.6 *5*	29.6 *15*	2713.3	9/2$^+$	1033.8	7/2$^-$	E1	1.32×10^{-3}	%Iγ=8.8 *5* α(K)=0.000856 *12*; α(L)=0.0001272 *18*; α(M)=2.92×10^{-5} *4* α(N)=7.40×10^{-6} *11*; α(O)=1.474×10^{-6} *21*; α(P)=1.556×10^{-7} *22*; α(IPF)=0.000297 *5* Mult.: α(K)exp=0.00073 *12* (1976Ri10).
[x]1689.9[‡] *6*	0.62[‡] *19*							%Iγ=0.18 *6*
[x]1716.3 *10*	1.87							%Iγ=0.555 *13*
1719.7 *5*	11.5 *5*	2753.6	(9/2)$^+$	1033.8	7/2$^-$	E1	1.31×10^{-3}	%Iγ=3.41 *17* α(K)=0.000823 *12*; α(L)=0.0001222 *18*; α(M)=2.81×10^{-5} *4* α(N)=7.11×10^{-6} *10*; α(O)=1.416×10^{-6} *20*; α(P)=1.496×10^{-7} *21*; α(IPF)=0.000327 *5* Mult.: α(K)exp=0.00068 *24* (1976Ri10).
[x]1739.0 *10*	0.86							%Iγ=0.255 *6*
1743.5 *10*	0.85 *17*	2568.8	9/2$^+$	825.2	13/2$^+$	[E2]	0.00250	%Iγ=0.25 *5* α(K)=0.00193 *3*; α(L)=0.000319 *5*; α(M)=7.45×10^{-5} *11* α(N)=1.89×10^{-5} *3*; α(O)=3.74×10^{-6} *6*; α(P)=3.88×10^{-7} *6*; α(IPF)=0.0001524 *22*
1748.5 *10*	6.4 *13*	2568.8	9/2$^+$	820.3	7/2$^-$	E1	1.30×10^{-3}	%Iγ=1.9 *4* α(K)=0.000801 *12*; α(L)=0.0001188 *17*; α(M)=2.73×10^{-5} *4* α(N)=6.91×10^{-6} *10*; α(O)=1.376×10^{-6} *20*; α(P)=1.455×10^{-7} *21*; α(IPF)=0.000348 *5* Mult.: α(K)exp=0.00034 *17* (1976Ri10).
1770.7 *10*	1.7 *4*	2667.8	(7/2,9/2)$^+$	896.9	9/2$^-$	[E1]	1.30×10^{-3}	%Iγ=0.50 *12* α(K)=0.000784 *11*; α(L)=0.0001163 *17*; α(M)=2.67×10^{-5} *4* α(N)=6.76×10^{-6} *10*; α(O)=1.347×10^{-6} *19*; α(P)=1.425×10^{-7} *20*; α(IPF)=0.000364 *6*
1779.1 *10*	0.14 *3*	2713.3	9/2$^+$	933.1	(5/2)$^-$	[M2]	0.00980	%Iγ=0.042 *9* α(K)=0.00791 *12*; α(L)=0.001357 *20*; α(M)=0.000318 *5* α(N)=8.10×10^{-5} *12*; α(O)=1.616×10^{-5} *23*; α(P)=1.730×10^{-6} *25*; α(IPF)=0.0001180 *17*
1787.6 *10*	0.64 *13*	2821.1	(7/2,9/2)$^+$	1033.8	7/2$^-$	[E1]	1.30×10^{-3}	%Iγ=0.19 *4* α(K)=0.000772 *11*; α(L)=0.0001144 *16*; α(M)=2.63×10^{-5} *4* α(N)=6.66×10^{-6} *10*; α(O)=1.326×10^{-6} *19*; α(P)=1.402×10^{-7} *20*; α(IPF)=0.000376 *6*
1800.1 *10*	3.1 *6*	2620.1	(7/2$^+$,9/2$^+$)	820.3	7/2$^-$	(E1)	1.30×10^{-3}	Mult.: α(K)exp=0.0053 *20* (1976Ri10) requires M1 or E2 mult. %Iγ=0.92 *18* α(K)=0.000763 *11*; α(L)=0.0001131 *16*; α(M)=2.60×10^{-5} *4*

$^{203}_{82}Pb_{121}$-16

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ †	I_γ †c	E_i(level)	J_i^π	E_f	J_f^π	Mult.&	α b	Comments
								α(N)=6.58×10^{-6} *10*; α(O)=1.311×10^{-6} *19*; α(P)=1.386×10^{-7} *20*; α(IPF)=0.000385 *6*
								Mult.: α(K)exp=0.00066 *25* (1976Ri10). Value interfered by that for the 1802.3γ.
1802.3 *10*	3.1 *6*	1802.4	(7/2)$^+$	0	5/2$^-$	[E1]	1.30×10^{-3}	%Iγ=0.92 *18*
								α(K)=0.000761 *11*; α(L)=0.0001129 *16*; α(M)=2.59×10^{-5} *4*
								α(N)=6.57×10^{-6} *10*; α(O)=1.308×10^{-6} *19*; α(P)=1.384×10^{-7} *20*; α(IPF)=0.000387 *6*
x1812.3 *10*	0.27							%Iγ=0.0801 *18*
1816.4 *10*	1.4 *3*	2713.3	9/2$^+$	896.9	9/2$^-$	[E1]	1.29×10^{-3}	%Iγ=0.42 *9*
								α(K)=0.000752 *11*; α(L)=0.0001114 *16*; α(M)=2.56×10^{-5} *4*
								α(N)=6.48×10^{-6} *9*; α(O)=1.291×10^{-6} *19*; α(P)=1.366×10^{-7} *20*; α(IPF)=0.000397 *6*
1841.9 *10*	1.6 *3*	2774.6	(7/2,9/2$^-$)	933.1	(5/2)$^-$			%Iγ=0.47 *9*
1847.3 *5*	38.6 *19*	2667.8	(7/2,9/2)$^+$	820.3	7/2$^-$	E1	1.29×10^{-3}	%Iγ=11.5 *6*
								α(K)=0.000731 *11*; α(L)=0.0001083 *16*; α(M)=2.49×10^{-5} *4*
								α(N)=6.30×10^{-6} *9*; α(O)=1.255×10^{-6} *18*; α(P)=1.328×10^{-7} *19*; α(IPF)=0.000420 *6*
								Mult.: α(K)exp=0.00053 *9* (1976Ri10); α(K)exp=0.00074 *21* (1958No30).
1856.5 *10*	0.98 *20*	2753.6	(9/2)$^+$	896.9	9/2$^-$	[E1]	1.29×10^{-3}	%Iγ=0.29 *6*
								α(K)=0.000725 *11*; α(L)=0.0001074 *15*; α(M)=2.47×10^{-5} *4*
								α(N)=6.25×10^{-6} *9*; α(O)=1.244×10^{-6} *18*; α(P)=1.317×10^{-7} *19*; α(IPF)=0.000426 *6*
1888.0 *10*	6.5 *13*	2713.3	9/2$^+$	825.2	13/2$^+$	E2	0.00224	%Iγ=1.9 *4*
								α(K)=0.001670 *24*; α(L)=0.000273 *4*; α(M)=6.36×10^{-5} *9*
								α(N)=1.612×10^{-5} *23*; α(O)=3.20×10^{-6} *5*; α(P)=3.34×10^{-7} *5*; α(IPF)=0.000214 *3*
								Mult.: α(K)exp=0.0015 *2* (1976Ri10).
1893.0 *5*	27.6 *14*	2713.3	9/2$^+$	820.3	7/2$^-$	(E1)	1.29×10^{-3}	%Iγ=8.2 *5*
								α(K)=0.000702 *10*; α(L)=0.0001039 *15*; α(M)=2.39×10^{-5} *4*
								α(N)=6.04×10^{-6} *9*; α(O)=1.205×10^{-6} *17*; α(P)=1.276×10^{-7} *18*; α(IPF)=0.000453 *7*
								Mult.: α(K)exp=0.00056 *9* (1976Ri10).
1908.2 *10*	1.15 *23*	2774.6	(7/2,9/2$^-$)	866.4	5/2$^-$			%Iγ=0.34 *7*
1928.2 *10*	3.8 *8*	2748.5	(11/2$^-$)	820.3	7/2$^-$	(E2)	0.00218	%Iγ=1.13 *24*
								α(K)=0.001608 *23*; α(L)=0.000262 *4*; α(M)=6.10×10^{-5} *9*
								α(N)=1.546×10^{-5} *22*; α(O)=3.07×10^{-6} *5*; α(P)=3.21×10^{-7} *5*; α(IPF)=0.000232 *4*
								Mult.: α(K)exp=0.0013 *4* (1976Ri10).
x1930.9 *10*	0.55							%Iγ=0.163 *4*
x1939.3 *10*	0.43							%Iγ=0.1276 *29*
x1951.8 *10*	0.11							%Iγ=0.0327 *8*
x1968.0 *10*	0.10							%Iγ=0.0297 *7*

$^{203}_{82}Pb_{121}$-17

^{203}Bi ε decay 1976Ri10 (continued)

γ(^{203}Pb) (continued)

E_γ †	I_γ †c	E_i(level)	J_i^π	E_f	J_f^π	Mult.&	δa	αb	Comments
1983.1 *10*	3.0 *6*	3016.8	(7/2,9/2)$^-$	1033.8	7/2$^-$	M1+E2	4 *3*	0.0022 *7*	%Iγ=0.89 *18* α(K)=0.0016 *5*; α(L)=0.00026 *8*; α(M)=6.0×10^{-5} *18* α(N)=1.5×10^{-5} *5*; α(O)=3.0×10^{-6} *9*; α(P)=3.2×10^{-7} *10*; α(IPF)=0.00027 *8* Mult.: α(K)exp=0.0016 *7* (1976Ri10).
x1991.0 *10*	0.40					E2,M1		0.00351	%Iγ=0.1187 *27* α(K)=0.00254 *4*; α(L)=0.000412 *6*; α(M)=9.57×10^{-5} *14* α(N)=2.43×10^{-5} *4*; α(O)=4.86×10^{-6} *7*; α(P)=5.24×10^{-7} *8*; α(IPF)=0.000427 *6* Mult.: α(K)exp=0.0020 *13* (1976Ri10).
2000.7 *10*	2.8 *6*	2821.1	(7/2,9/2)$^+$	820.3	7/2$^-$	E1		1.30×10^{-3}	%Iγ=0.83 *18* α(K)=0.000642 *9*; α(L)=9.48×10^{-5} *14*; α(M)=2.18×10^{-5} *3* α(N)=5.51×10^{-6} *8*; α(O)=1.098×10^{-6} *16*; α(P)=1.165×10^{-7} *17*; α(IPF)=0.000530 *8* Mult.: α(K)exp=0.00046 *21* (1976Ri10).
2011.4 *10*	6.0 *12*	3045.0	(7/2,9/2)$^+$	1033.8	7/2$^-$	E1		1.30×10^{-3}	%Iγ=1.8 *4* α(K)=0.000636 *9*; α(L)=9.39×10^{-5} *14*; α(M)=2.16×10^{-5} *3* α(N)=5.46×10^{-6} *8*; α(O)=1.089×10^{-6} *16*; α(P)=1.155×10^{-7} *17*; α(IPF)=0.000538 *8* Mult.: α(K)exp=0.00052 *14* (1976Ri10).
x2075.2 *10*	0.12								%Iγ=0.0356 *8*
x2078.2 *10*	1.57								%Iγ=0.466 *11*
2084.0 *10*	0.20 *4*	3016.8	(7/2,9/2)$^-$	933.1	(5/2)$^-$	[M1,E2]		0.00324	%Iγ=0.059 *12* α(K)=0.00226 *4*; α(L)=0.000366 *6*; α(M)=8.52×10^{-5} *12* α(N)=2.16×10^{-5} *3*; α(O)=4.32×10^{-6} *6*; α(P)=4.67×10^{-7} *7*; α(IPF)=0.000493 *7*
x2113.2 *10*	0.39								%Iγ=0.1158 *27*
2118.2e *10*	0.59 *12*	2713.3	9/2$^+$	595.1	3/2$^-$	[E3]		0.00336	%Iγ=0.18 *4* α(K)=0.00256 *4*; α(L)=0.000462 *7*; α(M)=0.0001090 *16* α(N)=2.77×10^{-5} *4*; α(O)=5.47×10^{-6} *8*; α(P)=5.63×10^{-7} *8*; α(IPF)=0.000194 *3*
2144.2 *10*	0.79 *16*	2964.5?	(7/2,9/2,11/2$^-$)	820.3	7/2$^-$				%Iγ=0.23 *5*
2158.9 *10*	0.13 *3*	2753.6	(9/2)$^+$	595.1	3/2$^-$	[E3]		0.00326	%Iγ=0.039 *9* α(K)=0.00247 *4*; α(L)=0.000443 *7*; α(M)=0.0001045 *15* α(N)=2.65×10^{-5} *4*; α(O)=5.24×10^{-6} *8*; α(P)=5.40×10^{-7} *8*; α(IPF)=0.000208 *3*
2181.6 *10*	0.46 *9*	3006.7	(9/2$^+$,11/2)	825.2	13/2$^+$				%Iγ=0.137 *27*
2196.3@ *10*	0.08 *2*	3016.8	(7/2,9/2)$^-$	820.3	7/2$^-$	[M1]		0.00297	%Iγ=0.024 *6* α(K)=0.00198 *3*; α(L)=0.000320 *5*; α(M)=7.45×10^{-5} *11* α(N)=1.89×10^{-5} *3*; α(O)=3.78×10^{-6} *6*; α(P)=4.08×10^{-7} *6*; α(IPF)=0.000574 *8*

$^{203}_{82}Pb_{121}$-18

$\gamma(^{203}Pb)$ (continued)

E_γ [†]	I_γ [†c]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	α[b]	Comments
[x]2204.0[‡] *5*	0.57[‡] *19*							%Iγ=0.17 *6*
2224.8 *10*	0.56 *11*	3045.0	(7/2,9/2)$^+$	820.3	7/2$^-$			%Iγ=0.166 *33*
[x]2270.2 *10*	0.11							%Iγ=0.0327 *8*
[x]2331.6 *10*	1.1							%Iγ=0.327 *8*
[x]2362.2 *10*	0.14							%Iγ=0.0416 *10*
2372.3 *10*	0.14 *3*	2371.8	(7/2)$^+$	0	5/2$^-$	[E1]	1.36×10^{-3}	%Iγ=0.042 *9* α(K)=0.000487 *7*; α(L)=7.16×10^{-5} *10*; α(M)=1.644×10^{-5} *23* α(N)=4.16×10^{-6} *6*; α(O)=8.30×10^{-7} *12*; α(P)=8.84×10^{-8} *13*; α(IPF)=0.000781 *11*
[x]2428.9 *10*	0.87							%Iγ=0.258 *6*
2527.2[e] *10*	0.10 *2*	2713.3	9/2$^+$	186.6	3/2$^-$	[E3]	0.00257	%Iγ=0.030 *6* α(K)=0.00182 *3*; α(L)=0.000314 *5*; α(M)=7.37×10^{-5} *11* α(N)=1.87×10^{-5} *3*; α(O)=3.71×10^{-6} *6*; α(P)=3.87×10^{-7} *6*; α(IPF)=0.000339 *5*
2567.4[@] *10*	0.10 *2*	2753.6	(9/2)$^+$	186.6	3/2$^-$	[E3]	0.00252	%Iγ=0.030 *6* α(K)=0.001769 *25*; α(L)=0.000304 *5*; α(M)=7.12×10^{-5} *10* α(N)=1.81×10^{-5} *3*; α(O)=3.59×10^{-6} *5*; α(P)=3.75×10^{-7} *6*; α(IPF)=0.000353 *5*
[x]2584.2 *10*	0.22							%Iγ=0.0653 *15*
[x]2651.0 *10*	0.08							%Iγ=0.0237 *5*
2668.3 *10*	0.20 *4*	2667.8	(7/2,9/2)$^+$	0	5/2$^-$	[E1,M2]	0.00147 *4*	%Iγ=0.059 *12* α(K)=0.00043 *3*; α(L)=6.3×10^{-5} *5*; α(M)=1.46×10^{-5} *10* α(N)=3.7×10^{-6} *3*; α(O)=7.4×10^{-7} *6*; α(P)=7.9×10^{-8} *6*; α(IPF)=0.000957 *15*
[x]2682.8 *10*	0.03							%Iγ=0.00890 *21*
2713.0 *10*	0.08 *2*	2713.3	9/2$^+$	0	5/2$^-$	[M2]	0.00395	%Iγ=0.024 *6* α(K)=0.00282 *4*; α(L)=0.000467 *7*; α(M)=0.0001089 *16* α(N)=2.77×10^{-5} *4*; α(O)=5.53×10^{-6} *8*; α(P)=5.96×10^{-7} *9*; α(IPF)=0.000522 *8*
[x]2716.7 *10*	0.01							%Iγ=0.00297 *7*
[x]2884.3 *10*	0.02							%Iγ=0.00594 *14*
[x]2945.4 *10*	0.07							%Iγ=0.0208 *5*

[†] From 1976Ri10, unless otherwise stated. The uncertainties are the upper limits given by 1976Ri10. Others: 1970CrZY, 1972Hn01. Note that Iγ for Eγ<250 keV of 1970CrZY are larger by a factor of 2-10 when compared to values in 1972Hn01 and 1976Ri10.
[‡] From 1972Hn01.
[#] From 1970CrZY.
[@] Placed by the evaluator based only on energy fit.
[&] From α(K)exp and sub-shell ratios of 1976Ri10, 1958No30 and 1960St21.

$^{203}_{82}Pb_{121}$-19

$\gamma(^{203}\text{Pb})$ (continued)

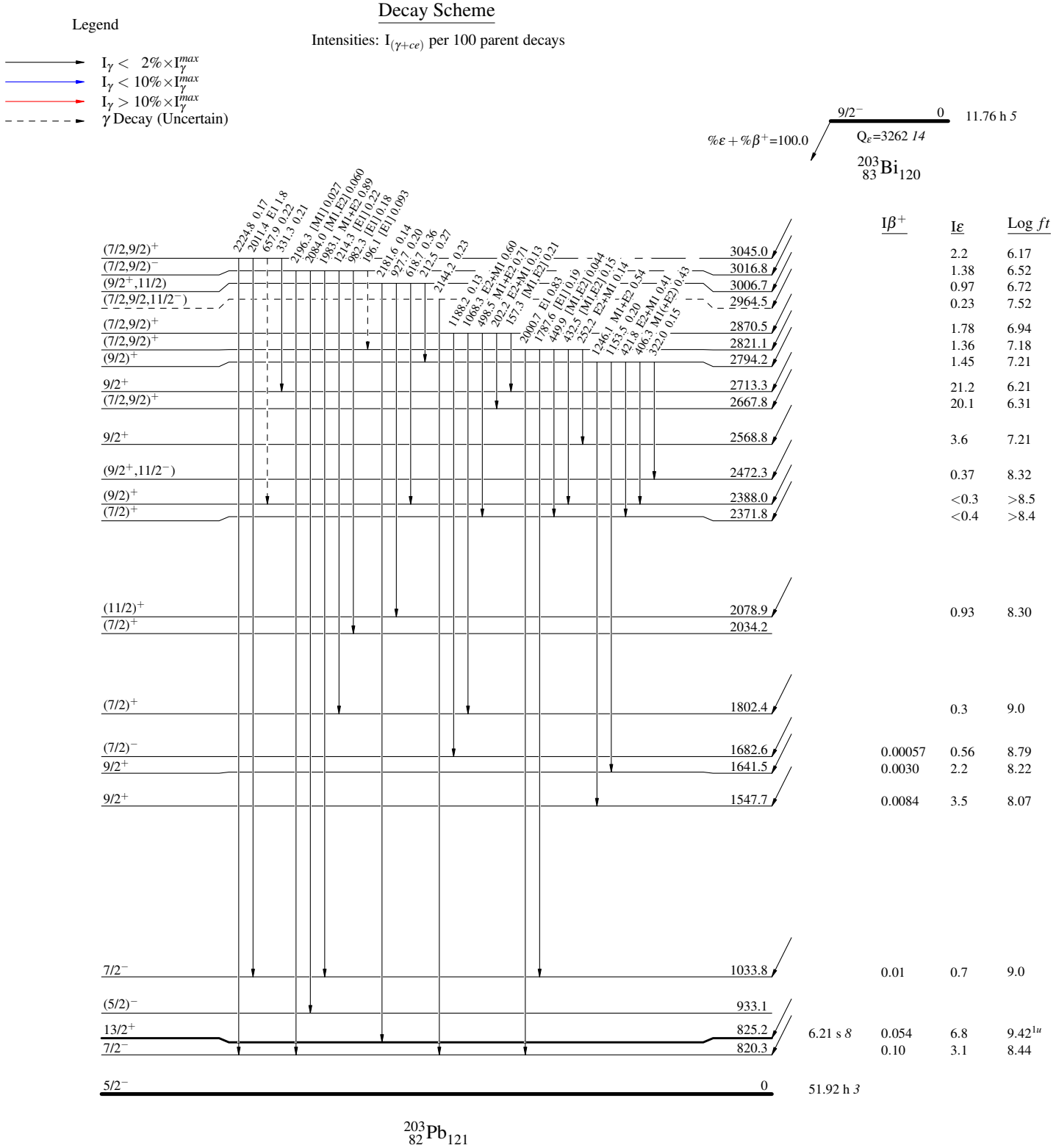
[a] Using the briccmixing program and the α(K)exp and subshell ratios data.
[b] Additional information 1.
[c] For absolute intensity per 100 decays, multiply by 0.297 *7*.
[d] Multiply placed with undivided intensity.
[e] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

$^{203}_{82}Pb_{121}$-20

^{203}Bi ε decay 1976Ri10

Decay Scheme

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



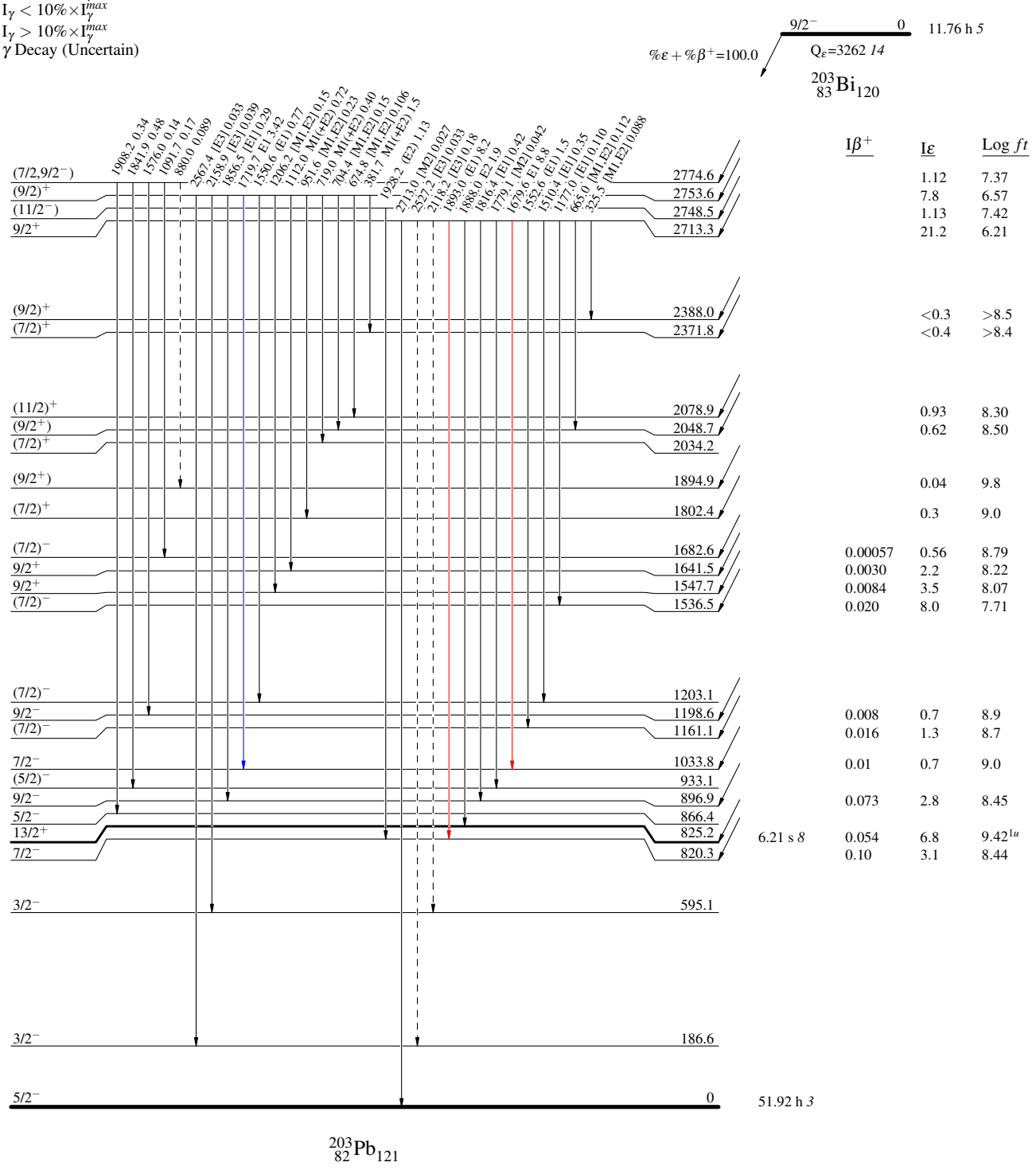
^{203}Bi ε decay 1976Ri10

Decay Scheme (continued)

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)

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



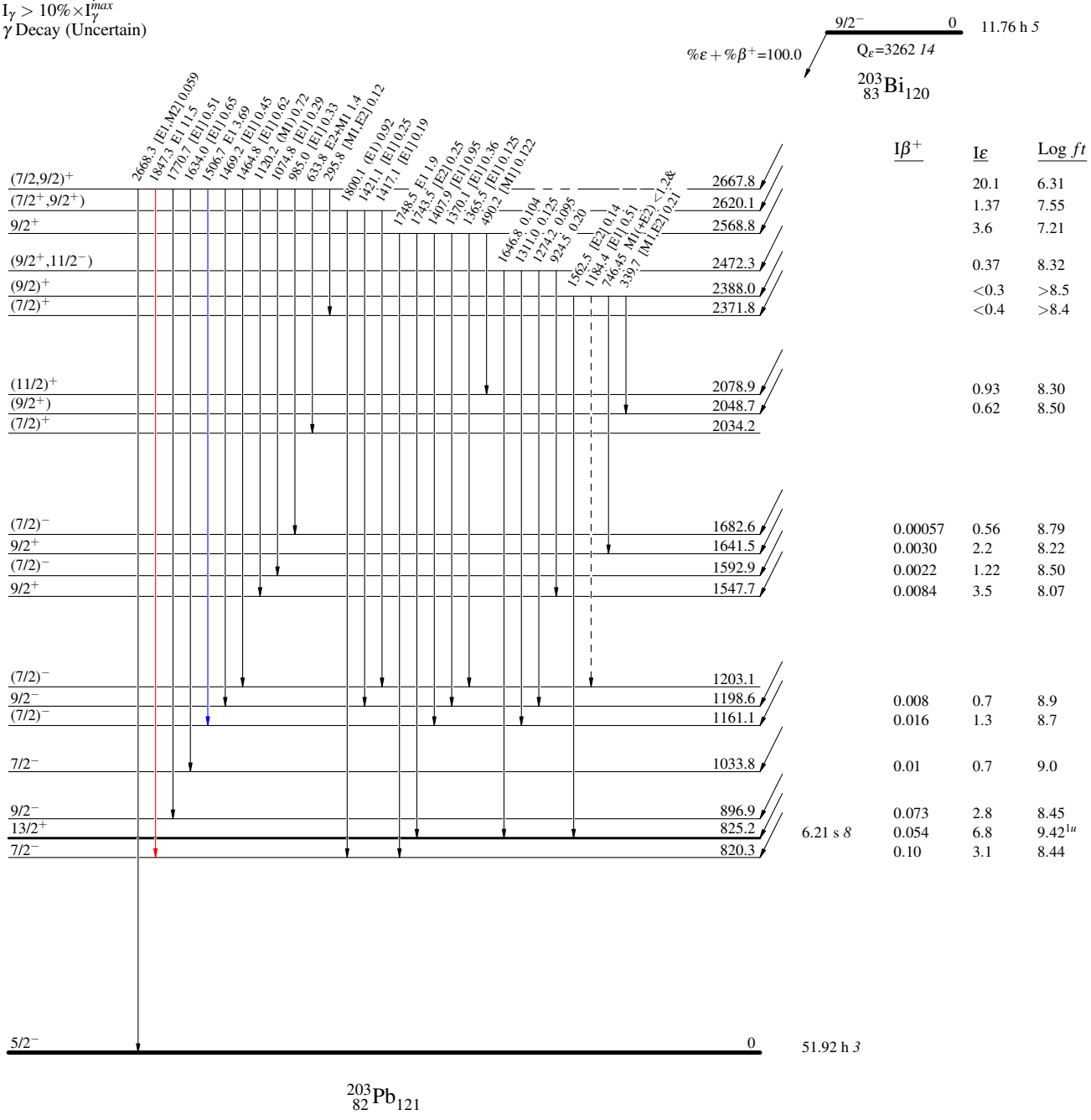
$^{203}_{82}Pb_{121}$

^{203}Bi ε decay 1976Ri10

Decay Scheme (continued)

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

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)



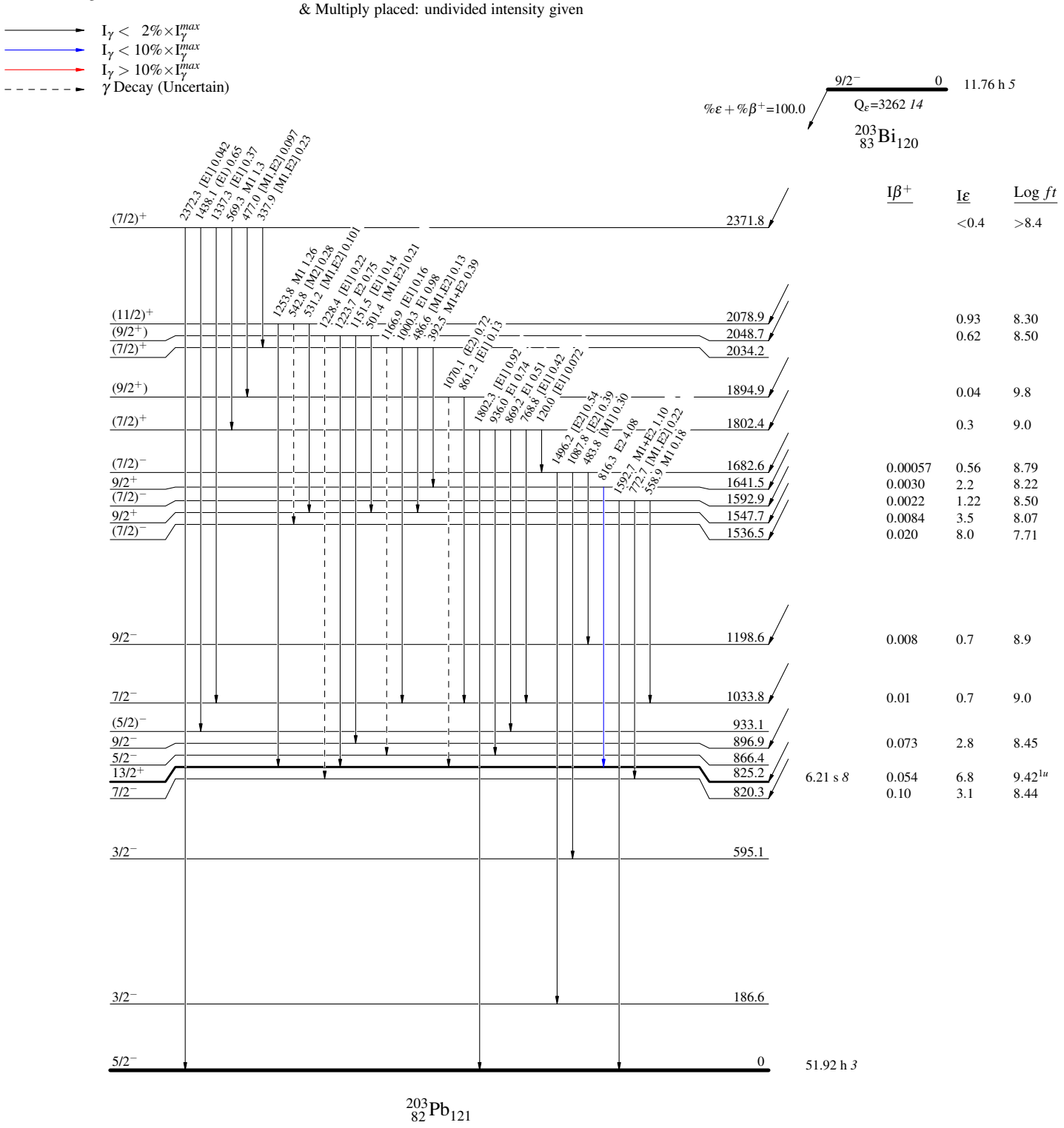
	Iβ+	Iε	Log *ft*
2667.8		20.1	6.31
2620.1		1.37	7.55
2568.8		3.6	7.21
2472.3		0.37	8.32
2388.0		<0.3	>8.5
2371.8		<0.4	>8.4
2078.9		0.93	8.30
2048.7		0.62	8.50
2034.2			
1682.6	0.00057	0.56	8.79
1641.5	0.0030	2.2	8.22
1592.9	0.0022	1.22	8.50
1547.7	0.0084	3.5	8.07
1203.1			
1198.6	0.008	0.7	8.9
1161.1	0.016	1.3	8.7
1033.8	0.01	0.7	9.0
896.9	0.073	2.8	8.45
825.2	0.054	6.8	9.42[1u]
820.3	0.10	3.1	8.44

$^{203}_{82}Pb_{121}$

^{203}Bi ε decay 1976Ri10

Decay Scheme (continued)

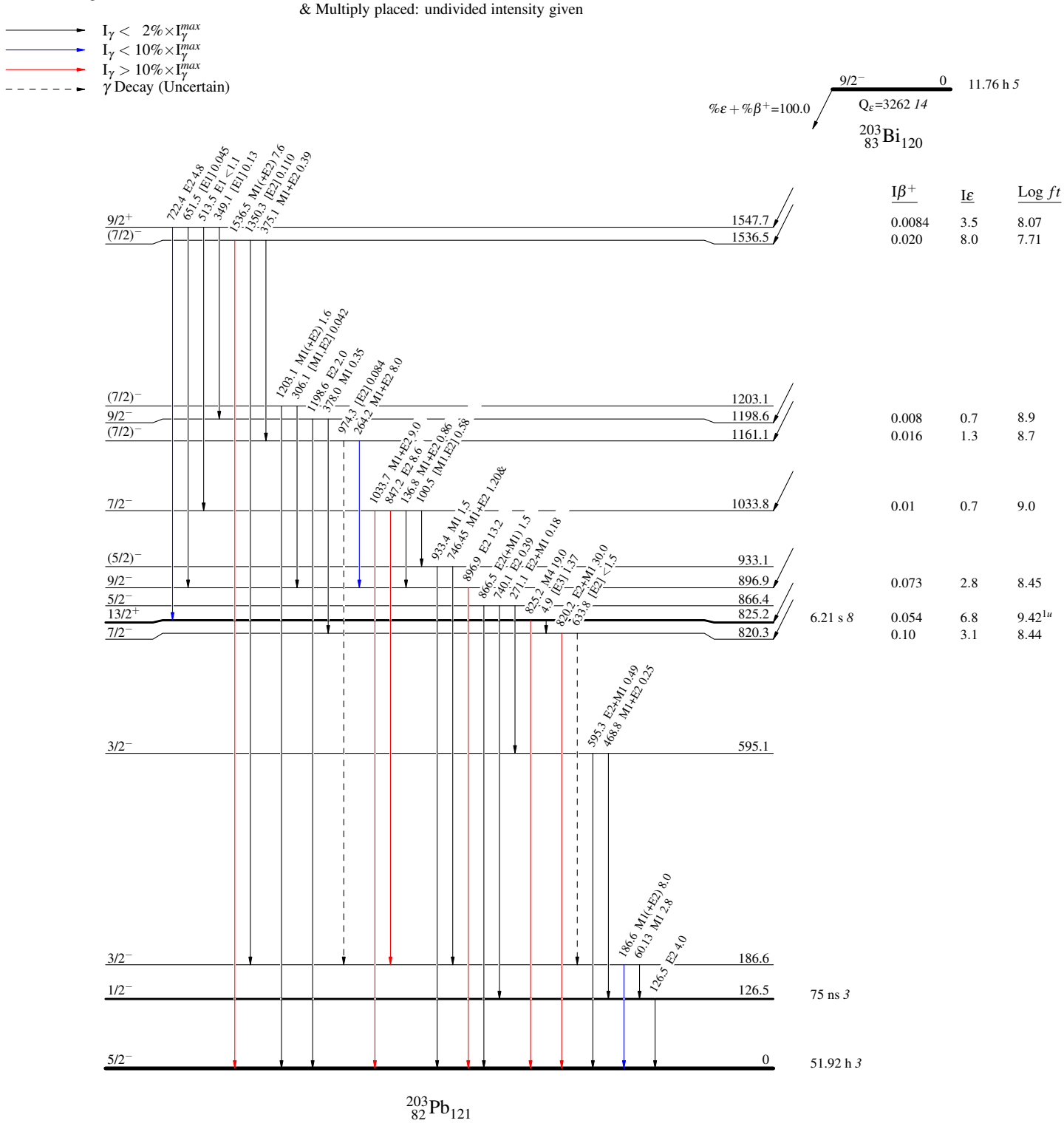
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
& Multiply placed: undivided intensity given



^{203}Bi ε decay 1976Ri10

Decay Scheme (continued)

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



$^{203}_{82}Pb_{121}$