^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 143, 1 (2017)	31-Mar-2017

Parent: ^{193}Hg: E=140.76 *5*; J$^{\pi}$=13/2$^{(+)}$; $T_{1/2}$=11.8 h *2*; Q(ε)=2343 *14*; %ε+%β^+ decay=92.9 *7*

^{193}Hg-%ε+%β^+ decay: From 100 − 7.1% *7* (^{193}Hg IT decay).

1974ViZS: source: from (p,xn) reactions on gold, E(p)=70, 80 MeV, ms; measured Eγ, Iγ, E(ce), Ice, (Ge(Li), Si(Li), mag spect), Eβ+, Iβ^+ (mag spect), $\gamma\gamma$ coin.

1970Pl01: source: from spallation of Pb by 660-MeV protons, chem; measured Eγ, Iγ (Ge(Li), NaI(Tl)), $\gamma\gamma$ coin.

Others: 1970Fo08, 1962Di03, 1962Di05, 1958Br88, 1957Br53, 1955Br12, 1954Gi04.

Two β^+ groups have been reported by 1958Br88: Eβ+=1.17 *3* MeV, Iβ^+/(I(ce(K) 913γ)+I(ce(K) 932γ))=3.1; and Eβ+=0.42 keV, no intensity given. The 1.17 MeV β^+ group to the 290 keV level would give Q(g.s.)=2.34 and a 19% ε+β^+ decay to the 290 keV level. This is in contradiction to the data as reported by 1974ViZS. It is possible that the 1.17 MeV seen by 1958Br88 (it is an inner group in a F-K plot which also includes ^{192}Au β^+ spectrum) is the same as the 1.287 MeV β^+ group seen by 1974ViZS (also reported in 1976Di15, 1976ViZM) and assigned to ^{193}Hg (3.80 h) decay.

It is interesting to note that in the proposed decay scheme there is no direct ε+β^+ branch to the 11/2$^+$ level in ^{193}Au. This is contrary to the situation in A=191, 195, and 197, where the log *ft*′s for this transition are ≈7.0, 7.3, and 6.8, respectively.

Decay scheme is not normalized due to difficulty with separating the decays of the two ^{193}Hg isomers in an equilibrium source.

^{193}Au Levels

The decay scheme is deduced from that proposed by 1974ViZS from the decay of the ^{193}Hg (11.8 h, 13/2$^+$) in equilibrium with ^{193}Hg (3.80 h, 3/2$^-$). The levels which are fed directly by ε and which are then deexcited by γ′s observed to have a composite half-life (in the pre-equilibrium source) are omitted from this level scheme. The γ′s from such levels have also been omitted. The levels which are not fed directly by ε, but are fed by γ′s arising from both the 11.8 h and 3.80 h decays are included and the intensities of the deexciting γ′s have been divided according to the feeding pattern.

E(level)†	J$^{\pi}$‡	$T_{1/2}$‡	Comments
0.0	3/2$^+$	17.65 h *15*	
38.24 *3*	(1/2)$^+$	3.81 ns *18*	
257.99 *3*	5/2$^+$	45 ps *20*	
290.19 *4*	11/2$^-$	3.9 s *3*	
381.63 *4*	5/2$^+$		
508.24 *5*	7/2$^-$	0.29 ns *2*	$T_{1/2}$: from (ce(K) 382.47)(ce(K) 218.07)t (1970Ba56).
539.00 *4*	(7/2$^+$)		
687.45 *5*	(7/2$^+$,9/2$^+$)		
697.79 *5*	(15/2)$^-$		
789.93 *5*	9/2$^-$	1.2 ns *1*	$T_{1/2}$: from γce(t) (1975Be29).
808.58 *6*	(9/2)$^+$		
863.34 *5*	(13/2)$^-$		
890.79 *5*	9/2$^-$		
929.12 *5*	(9/2$^+$)		
1131.82 *6*	9/2$^-$,11/2$^-$		
1153.54 *7*	(11/2$^+$)		
1194.29 *7*	(9/2$^-$,11/2$^-$,13/2$^-$)		
1284.80 *5*	9/2$^-$,11/2$^-$		
1355.30 *9*	(11/2 to 15/2$^-$)		
1372.92 *10*	(17/2)$^-$		
1379.96 *11*	(11/2$^+$)		
1398.49 *6*	(13/2)$^-$		
1400.37 *6*	11/2$^-$		
1413.05 *16*	(9/2$^-$,11/2)		
1433.49 *12*	(11/2$^+$,13/2$^+$)		
1455.17 *9*	(11/2 to 15/2$^-$)		

Continued on next page (footnotes at end of table)

^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01 (continued)

^{193}Au Levels (continued)

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
1477.18 *12*	(7/2,9/2,11/2)$^-$	1829.90 *6*	(11/2$^-$,13/2$^-$)	2139.76 *19*	(13/2$^-$,15/2$^-$)
1496.28 *7*	(9/2)$^-$	1869.26 *17*	(11/2$^-$ to 15/2$^-$)	2157.63 *17*	(11/2$^-$)
1514.19 *16*	(7/2$^-$)	1876.27 *17*	(11/2$^-$,13/2$^-$)	2159.13 *8*	(11/2$^-$ to 15/2$^-$)
1572.53 *13*	(9/2$^-$,11/2,13/2$^+$)	1915.18 *17*	(11/2$^-$ to 15/2$^-$)	2196.87 *20*	(11/2$^-$,13/2,15/2$^-$)
1575.62 *6*	11/2$^-$,13/2$^-$	1930.00 *6*	11/2$^-$,13/2$^-$	2201.73 *10*	(11/2$^-$)
1630.23 *6*	11/2$^-$,13/2$^-$	1939.18 *11*	(11/2,13/2)$^-$	2206.37 *22*	(11/2$^-$)
1654.72 *16*	(9/2$^-$,11/2,13/2$^+$)	2012.18 *17*	(13/2$^-$,15/2$^-$)	2215.18 *17*	(13/2$^-$,15/2$^-$)
1680.33 *17*	(11/2$^-$,13/2$^-$)	2023.45 *10*	(11/2 to 15/2$^-$)	2255.10 *13*	(11/2$^-$ to 15/2$^-$)
1684.73 *19*	(9/2$^-$ to 13/2$^-$)	2037.47 *7*	(11/2,13/2)$^-$	2279.38 *17*	(11/2$^-$)
1733.42 *10*	(15/2$^-$)	2063.04 *7*	11/2$^-$,13/2$^-$,15/2$^-$	2285.28 *16*	(11/2$^+$)
1776.03 *8*	11/2$^-$	2104.42 *15*	(11/2,13/2)$^-$	2291.01 *16*	(11/2$^+$)
1794.84 *21*	(13/2$^-$)	2125.37 *20*	(11/2$^-$)		
1815.40 *23*	(9/2$^-$,11/2$^-$,13/2$^-$)	2130.38 *12*	(11/2$^-$ to 15/2$^-$)		

† From least-squares fit to γ-ray energies.
‡ From Adopted Levels.

$\gamma(^{193}Au)$

E_γ[†]	I_γ[†]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[‡]	δ[‡d]	α[c]	$I_{(\gamma+ce)}$	Comments
32.21 *3*		290.19	$11/2^-$	257.99	$5/2^+$	E3		9.29×10^4	88 *10*	ce(L)/(γ+ce)=0.699 *9*; ce(M)/(γ+ce)=0.232 *5* ce(N)/(γ+ce)=0.0592 *13*; ce(O)/(γ+ce)=0.00907 *20*; ce(P)/(γ+ce)=7.33×10^{-6} *16* α(L)=6.50×10^4 *10*; α(M)=2.16×10^4 *4* α(N)=5.50×10^3 *9*; α(O)=843 *13*; α(P)=0.681 *10* Mult.: α(L1)exp=280 *110*, L1:L2:L3=0.28 *11*: 29.7 *30*: 34.3 *34*, M2:M3:M4:M5=8.3 *10*: 8.1 *10*: 0.65 *16*: 0.95 *24* (1974ViZS). $I_{(\gamma+ce)}$: from ΣIce.
38.24 *3*		38.24	$(1/2)^+$	0.0	$3/2^+$	M1+E2	0.41 *8*	86 *23*	4.1 *7*	ce(L)/(γ+ce)=0.75 *14*; ce(M)/(γ+ce)=0.188 *62* ce(N)/(γ+ce)=0.046 *17*; ce(O)/(γ+ce)=0.0076 *28*; ce(P)/(γ+ce)=1.23×10^{-4} *32* α(L)=65 *17*; α(M)=16.3 *44* α(N)=4.0 *11*; α(O)=0.66 *17*; α(P)=0.0107 *5* Mult.: from ce subshell ratios (see ^{193}Hg 3.80 h decay). δ: from L1/L3=0.50 *10*, weighted average from 1974ViZS and 1970Fo08 (^{193}Au IT decay). $I_{(\gamma+ce)}$: deduced from intensity balance at 38.2 level. I(γ+ce)=I(γ+ce)(219.75γ).
126.56 *10*	0.11[&] *3*	508.24	$7/2^-$	381.63	$5/2^+$	(E1)		0.229		α(K)=0.185 *3*; α(L)=0.0336 *5*; α(M)=0.00781 *11* α(N)=0.00191 *3*; α(O)=0.000332 *5*; α(P)=1.574×10^{-5} *23* I_γ: measured Iγ=0.12 *3* adjusted for contribution from 3.80 h ^{193}Hg decay. Mult.: α(K)exp=0.008 *4* (1974ViZS).
157.40 *10*	0.037[@] *7*	539.00	$(7/2^+)$	381.63	$5/2^+$	(E2)		0.877		α(K)=0.301 *5*; α(L)=0.432 *7*; α(M)=0.1117 *16* α(N)=0.0275 *4*; α(O)=0.00446 *7*; α(P)=3.09×10^{-5} *5* Mult.: α(K)exp=0.59 *30* (1974ViZS).
165.53 *4*	0.086 *21*	863.34	$(13/2)^-$	697.79	$(15/2)^-$	M1		1.728		α(K)=1.419 *20*; α(L)=0.237 *4*; α(M)=0.0549 *8* α(N)=0.01369 *20*; α(O)=0.00252 *4*; α(P)=0.0001700 *24* Mult.: α(K)exp=1.7 *7*, K/L1=4.7 *16* (1974ViZS).
200.30 *7*		1776.03	$11/2^-$	1575.62	$11/2^-,13/2^-$					I_γ: γ not seen, Ice(K)=0.021 *3* (1974ViZS).
218.07 *4*	5.6[&] *8*	508.24	$7/2^-$	290.19	$11/2^-$	E2		0.280		α(K)=0.1370 *20*; α(L)=0.1073 *15*; α(M)=0.0274 *4* α(N)=0.00677 *10*; α(O)=0.001111 *16*; α(P)=1.411×10^{-5} *20* I_γ: measured Iγ=6.0 *8* adjusted for contribution from 3.80 h ^{193}Hg decay.

$^{193}_{79}Au_{114}$-3

γ(^{193}Au) (continued)

E_γ [†]	I_γ [†]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [‡]	δ [‡d]	α [c]	Comments
									Mult.: K:L1:L2=83 *6*: 10.2 *12*: 37 *4*, M2:M3=12.3 *12*: 7.6 *12* (1974ViZS); K/L12=1.4, L12/L3>1.3 (1958Br88).
219.75 *4*	3.2 [@] *5*	257.99	5/2$^+$	38.24	(1/2)$^+$	E2		0.273	α(K)=0.1344 *19*; α(L)=0.1039 *15*; α(M)=0.0266 *4* α(N)=0.00655 *10*; α(O)=0.001076 *15*; α(P)=1.385×10^{-5} *20* I_γ: measured Iγ=3.3 *5* adjusted for contribution the ^{193}Hg (3.80 h) decay. Mult.: α(K)exp=0.12 *3*, L1:L2:L3=4.6 *4*: 15.2 *30*: 10.0 *10* (1974ViZS).
241.70 *4*	0.17 *4*	929.12	(9/2$^+$)	687.45	(7/2$^+$,9/2$^+$)	(M1)		0.601	α(K)=0.494 *7*; α(L)=0.0819 *12*; α(M)=0.0190 *3* α(N)=0.00473 *7*; α(O)=0.000870 *13*; α(P)=5.88×10^{-5} *9* Mult.: α(K)exp=0.53 *16* (1974ViZS).
258.00 *4*	57 [@] *6*	257.99	5/2$^+$	0.0	3/2$^+$	M1+E2	0.52 *15*	0.43 *4*	α(K)=0.34 *4*; α(L)=0.0654 *17*; α(M)=0.0154 *3* α(N)=0.00383 *8*; α(O)=0.000691 *19*; α(P)=4.1×10^{-5} *4* I_γ: measured Iγ=58 *6* adjusted for contribution from the ^{193}Hg (3.80 h) decay. Mult.: α(K)exp=0.40 *8*, K/L=6.6 *10*, L1:L2:L3=260 *13*:67 *3*:24 *2* (1974ViZS). δ: from ce(L) ratios from 1974ViZS and L1/L2=4.5 *8* (1970Fo08 (^{193}Au IT decay)).
274.95 *7*	0.082 *21*	1630.23	11/2$^-$,13/2$^-$	1355.30	(11/2 to 15/2$^-$)	(M1+E2)	1.2 *+8−5*	0.251 *76*	α(K)=0.19 *6*; α(L)=0.050 *9*; α(M)=0.0120 *15*; α(N+..)=0.00376 *21* α(K)=0.188 *71*; α(L)=0.049 *4*; α(M)=0.0118 *7* α(N)=0.00292 *18*; α(O)=0.00051 *5*; α(P)=2.17×10^{-5} *87* Mult.: α(K)exp=0.19 *6* (1974ViZS).
280.94 *5*	0.22 [@] *18*	539.00	(7/2$^+$)	257.99	5/2$^+$	(M1,E2)		0.26 *14*	α(K)=0.20 *13*; α(L)=0.047 *8*; α(M)=0.0112 *14* α(N)=0.0028 *4*; α(O)=0.00049 *9*; α(P)=2.3×10^{-5} *16* Mult.: α(K)exp=0.41 *36*, K/L1=4.5 *7* (1974ViZS).
281.76 *4*	0.91 *11*	789.93	9/2$^-$	508.24	7/2$^-$	M1+E2	0.66 *+17−12*	0.31 *3*	α(K)=0.25 *3*; α(L)=0.0490 *18*; α(M)=0.0116 *4* α(N)=0.00289 *9*; α(O)=0.000518 *19*; α(P)=2.9×10^{-5} *4* I_γ: Iγ calculated from Ice(K)=0.24 *2* and α(K)=0.265 *21*. Mult.,δ: K/L12=4.4 *6*, L1/L2=4.6 *9* (1974ViZS).
290.75 *5*	1.9 *4*	1575.62	11/2$^-$,13/2$^-$	1284.80	9/2$^-$,11/2$^-$	M1		0.362	α(K)=0.298 *5*; α(L)=0.0491 *7*; α(M)=0.01139

$^{193}_{79}$Au$_{114}$-4

γ(^{193}Au) (continued)

E_γ †	I_γ †	E_i(level)	J^π_i	E_f	J^π_f	Mult.‡	δ‡d	αc	Comments
									16 α(N)=0.00284 *4*; α(O)=0.000522 *8*; α(P)=3.53×10^{-5} *5* Mult.: α(K)exp=0.26 *6*, K/L12=4.3 *6*, L12/M12=3.3 *5* (1974ViZS); other: α(K)exp=0.145 (1970Pl01), K/L1=9.8 (1958Br88).
295.4 *4*	0.040 *16*	2125.37	(11/2$^-$)	1829.90	(11/2$^-$,13/2$^-$)				
299.82 *4*	0.62 *10*	1930.00	11/2$^-$,13/2$^-$	1630.23	11/2$^-$,13/2$^-$	M1		0.333	α(K)=0.274 *4*; α(L)=0.0452 *7*; α(M)=0.01046 *15* α(N)=0.00261 *4*; α(O)=0.000480 *7*; α(P)=3.25×10^{-5} *5* Mult.: α(K)exp=0.27 *7*, K/L12=6.1 *12*, L1/L2=8.1 *18* (1974ViZS); α(K)exp=0.14 (1970Pl01).
330.0 *5*	0.059 *18*	2063.04	11/2$^-$,13/2$^-$,15/2$^-$	1733.42	(15/2$^-$)				
341.91 *4*	3.0 *5*	1131.82	9/2$^-$,11/2$^-$	789.93	9/2$^-$	M1+E2	0.77 *25*	0.17 *3*	α(K)=0.137 *24*; α(L)=0.0268 *21*; α(M)=0.0063 *5* α(N)=0.00157 *11*; α(O)=0.000283 *23*; α(P)=1.6×10^{-5} *3* Mult.,δ: from α(K)exp=0.13 *3*, K/L=3.6 *6*, L1:L2:L3=9.2 *14*: 1.2 *3*: 0.56 *10* (1974ViZS); Other: α(K)exp=0.0555 (1970Pl01).
345.00 *4*	0.7 *3*	1153.54	(11/2$^+$)	808.58	(9/2)$^+$				Mult.: α(K)exp=0.052 *33* (1974ViZS) indicates dominant E2 (>90%) component. See comments in adopted gammas.
345.46 *4*	1.25 *13*	1630.23	11/2$^-$,13/2$^-$	1284.80	9/2$^-$,11/2$^-$	M1+E2	0.24 *3*	0.218 *4*	α(K)=0.179 *4*; α(L)=0.0300 *5*; α(M)=0.00696 *11* α(N)=0.00173 *3*; α(O)=0.000318 *5*; α(P)=2.11×10^{-5} *4* I_γ: from Ice(K)=0.220 *15* (1974ViZS) and α(K)=0.176 *13*. Mult.,δ: K/L12=5.7 *7*, L1/L2=9.0 *2* (1974ViZS).
354.5 *5*	0.09 *4*	1930.00	11/2$^-$,13/2$^-$	1575.62	11/2$^-$,13/2$^-$				
360.51 *5*	0.40 *10*	1733.42	(15/2$^-$)	1372.92	(17/2)$^-$	(M1+E2)	0.9 *+6−4*	0.139 *35*	α(K)=0.110 *32*; α(L)=0.022 *3*; α(M)=0.0052 *7* α(N)=0.00130 *16*; α(O)=0.00023 *4*; α(P)=1.28×10^{-5} *38* Mult.,δ: α(K)exp=0.11 *3* (1974ViZS).
364.47 *4*	2.8 *4*	1496.28	(9/2)$^-$	1131.82	9/2$^-$,11/2$^-$	M1+E2	1.2 *+5−4*	0.11 *3*	α(K)=0.089 *25*; α(L)=0.0197 *24*; α(M)=0.0047 *5* α(N)=0.00117 *13*; α(O)=0.00021 *3*; α(P)=1.03×10^{-5} *30* Mult.,δ: α(K)exp=0.089 *19*, K/L1=7.1 *13* (1974ViZS); other: α(K)exp=0.041 (1970Pl01).
381.60 *4*	0.8 *2*	381.63	5/2$^+$	0.0	3/2$^+$	M1+E2	1.2 *+5−3*	0.102 *19*	α(K)=0.079 *17*; α(L)=0.0171 *17*; α(M)=0.0041 *4* α(N)=0.00102 *9*; α(O)=0.000180 *18*; α(P)=9.2×10^{-6} *20*

^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01 (continued)

$\gamma(^{193}Au)$ (continued)

E_{γ} [†]	I_{γ} [†]	E_i(level)	J_i^{π}	E_f	J_f^{π}	Mult. [‡]	δ [‡d]	α [c]	Comments
									I_{γ}: deduced from intensity balance at 381.6 level. Mult.,δ: from ^{193}Hg (3.80 h) decay.
382.47 *4*	4.7 *10*	890.79	$9/2^-$	508.24	$7/2^-$	M1		0.1723	α(K)=0.1420 *20*; α(L)=0.0233 *4*; α(M)=0.00539 *8* α(N)=0.001343 *19*; α(O)=0.000247 *4*; α(P)=1.677×10^{-5} *24* Mult.: α(K)exp=0.12 *3*, K/L1=5.9 *3* (1974ViZS).
394.00 *4*	5.7 *7*	1284.80	$9/2^-,11/2^-$	890.79	$9/2^-$	M1+E2	0.75 *22*	0.119 *16*	α(K)=0.096 *14*; α(L)=0.0179 *15*; α(M)=0.0042 *3* α(N)=0.00105 *8*; α(O)=0.000189 *16*; α(P)=1.12×10^{-5} *17* Mult.: α(K)exp=0.089 *15*, K/L12=5.0 *7*, L1/L2=6.2 *16* (1974ViZS); K/L1=2.5 (1958Br88).
404.36 *5*	1.4 *3*	1194.29	$(9/2^-,11/2^-,13/2^-)$	789.93	$9/2^-$	(E2)		0.0442	α(K)=0.0304 *5*; α(L)=0.01046 *15*; α(M)=0.00259 *4* α(N)=0.000641 *9*; α(O)=0.0001093 *16*; α(P)=3.34×10^{-6} *5* Mult.: α(K)exp=0.030 *10* (1974ViZS).
407.63 *4*	37 *6*	697.79	$(15/2)^-$	290.19	$11/2^-$	E2		0.0433	α(K)=0.0299 *5*; α(L)=0.01018 *15*; α(M)=0.00252 *4* α(N)=0.000624 *9*; α(O)=0.0001063 *15*; α(P)=3.28×10^{-6} *5* Mult.: α(K)exp=0.024 *6*, K/L=2.6 *3*, L1:L2:L3=15.2 *18*: 14.0 *17*: 5.6 *7* (1974ViZS); K/L=3.13, L12/L3=2.6 (1958Br88).
421.8 *4*	0.40 *10*	1794.84	$(13/2^-)$	1372.92	$(17/2)^-$				
429.51 [e] *5*	0.70 [e] *12*	687.45	$(7/2^+,9/2^+)$	257.99	$5/2^+$				I_{γ}: deduced from intensity balance at 687.4 level. γ shows composite $T_{1/2}$ in pre-equilibrium source, therefore, some of measured Iγ=1.6 *3* belongs in the 3.80 h decay.
429.51 [e] *5*	0.33 [e] *17*	1829.90	$(11/2^-,13/2^-)$	1400.37	$11/2^-$				I_{γ}: intensity divided on the basis of coincidence data (1974ViZS). Mult.: α(K)exp=0.046 *12* for the multiplet (1974ViZS).
431.46 *5*	0.19 *5*	1829.90	$(11/2^-,13/2^-)$	1398.49	$(13/2)^-$	(M1)		0.1249	α(K)=0.1030 *15*; α(L)=0.01683 *24*; α(M)=0.00389 *6* α(N)=0.000970 *14*; α(O)=0.000179 *3*; α(P)=1.214×10^{-5} *17* Mult.: α(K)exp=0.10 *7* (1974ViZS).
444.0 *4*	0.17 *5*	1575.62	$11/2^-,13/2^-$	1131.82	$9/2^-,11/2^-$				
461.83 *6*	1.9 *3*	2037.47	$(11/2,13/2)^-$	1575.62	$11/2^-,13/2^-$	M1+E2	0.9 *6*	0.072 *27*	α(K)=0.058 *24*; α(L)=0.011 *3*; α(M)=0.0025 *6* α(N)=0.00063 *15*; α(O)=1.14×10^{-4} *29*; α(P)=6.7×10^{-6} *28* Mult.: α(K)exp=0.055 *14*, K/L1=5.5 *10* (1974ViZS); α(K)exp=0.075 (1970Pl01).
487.41 *6*	0.77 *16*	2063.04	$11/2^-,13/2^-,15/2^-$	1575.62	$11/2^-,13/2^-$	M1+E2	1.1 *3*	0.056 *10*	α(K)=0.045 *9*; α(L)=0.0086 *11*; α(M)=0.00204 *23*

$^{193}_{79}Au_{114}$-6

γ(^{193}Au) (continued)

E_γ [†]	I_γ [†]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [‡]	δ [‡d]	α [c]	Comments
									α(N)=0.00051 *6*; α(O)=9.1×10^{-5} *11*; α(P)=5.2×10^{-6} *11* Mult.: α(K)exp=0.040 *22*, K/L12=5.3 *24*, L1/L2=4.3 *12* (1974ViZS).
491.3 *4*	0.38 *19*	1776.03	11/2$^-$	1284.80	9/2$^-$,11/2$^-$				I_γ: deduced from γγ spectrum (1974ViZS).
499.65 *5*	5.5 *7*	789.93	9/2$^-$	290.19	11/2$^-$	M1+E2	0.8 *4*	0.062 *15*	α(K)=0.050 *13*; α(L)=0.0090 *16*; α(M)=0.0021 *4* α(N)=0.00052 *9*; α(O)=9.5×10^{-5} *17*; α(P)=5.8×10^{-6} *16* Mult.,δ: α(K)exp=0.055 *10*, K:L1:L2=30 *2*: 4.7 *5*: 1.0 *2* (1974ViZS).
509.43 *6*	2.9 *14*	1400.37	11/2$^-$	890.79	9/2$^-$	M1+E2	1.4 *+8−4*	0.044 *10*	α(K)=0.034 *8*; α(L)=0.0070 *10*; α(M)=0.00165 *22* α(N)=0.00041 *6*; α(O)=7.3×10^{-5} *11*; α(P)=4.0×10^{-6} *10* Mult.,δ: K/L12=5.2 *9*, L1/L2=3.4 *11* (1974ViZS).
516.7 *4*	0.17 *5*	1379.96	(11/2$^+$)	863.34	(13/2)$^-$				E_γ: Placement not confirmed by 2014Th02 (p,2nγ). Not adopted by evaluator.
529.51 *7*	1.2 *7*	1930.00	11/2$^-$,13/2$^-$	1400.37	11/2$^-$	(E2)		0.0225	α(K)=0.01665 *24*; α(L)=0.00444 *7*; α(M)=0.001081 *16* α(N)=0.000268 *4*; α(O)=4.65×10^{-5} *7*; α(P)=1.85×10^{-6} *3* Mult.: α(K)exp=0.010 *7* (1974ViZS).
535.15 *5*	4.5 *9*	1398.49	(13/2)$^-$	863.34	(13/2)$^-$	M1+E2	1.3 *+8−4*	0.040 *12*	α(K)=0.032 *10*; α(L)=0.0062 *13*; α(M)=0.0015 *3* α(N)=0.00037 *7*; α(O)=6.6×10^{-5} *14*; α(P)=3.7×10^{-6} *12* Mult.: α(K)exp=0.032 *9*, K/L1=6.9 *11* (1974ViZS).
537.08 *5*	7.9 *10*	1400.37	11/2$^-$	863.34	(13/2)$^-$	M1+E2	0.8 *+6−5*	0.051 *15*	α(K)=0.042 *13*; α(L)=0.0074 *16*; α(M)=0.0017 *4* α(N)=0.00043 *9*; α(O)=7.8×10^{-5} *17*; α(P)=4.8×10^{-6} *16* Mult.: α(K)exp=0.042 *11*, K/L12=7.1 (1974ViZS).
539.03 *6*	1.5[@] *4*	539.00	(7/2$^+$)	0.0	3/2$^+$	(E2)		0.0216	α(K)=0.01603 *23*; α(L)=0.00421 *6*; α(M)=0.001024 *15* α(N)=0.000254 *4*; α(O)=4.41×10^{-5} *7*; α(P)=1.778×10^{-6} *25* Mult.: α(K)exp=0.011 *5* (1974ViZS).
545.05 *6*	0.90 *20*	1829.90	(11/2$^-$,13/2$^-$)	1284.80	9/2$^-$,11/2$^-$	(E2)		0.0210	α(K)=0.01565 *22*; α(L)=0.00408 *6*; α(M)=0.000990 *14* α(N)=0.000245 *4*; α(O)=4.27×10^{-5} *6*; α(P)=1.736×10^{-6} *25* Mult.: α(K)exp=0.024 *7* (1974ViZS).
547.43 *6*	0.43 *11*	929.12	(9/2$^+$)	381.63	5/2$^+$	(E2)		0.0208	α(K)=0.01550 *22*; α(L)=0.00402 *6*; α(M)=0.000977 *14* α(N)=0.000242 *4*; α(O)=4.21×10^{-5} *6*; α(P)=1.720×10^{-6} *24* Mult.: α(K)exp=0.011 *4* (1974ViZS).
^{x}548.59 *7*	0.8 *6*					(E1)		0.00706	α(K)=0.00588 *9*; α(L)=0.000909 *13*; α(M)=0.000209 *3* α(N)=5.17×10^{-5} *8*; α(O)=9.37×10^{-6} *14*; α(P)=5.87×10^{-7} *9* Mult.: α(K)exp=0.0018 *12* (1974ViZS).
550.63 *6*	1.5 *8*	808.58	(9/2)$^+$	257.99	5/2$^+$	E2		0.0205	α(K)=0.01531 *22*; α(L)=0.00396 *6*; α(M)=0.000960 *14* α(N)=0.000238 *4*; α(O)=4.14×10^{-5} *6*; α(P)=1.699×10^{-6} *24*

γ(^{193}Au) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.‡	δ‡d	α c	Comments
									I_γ: calculated from Ice(K)=0.023 *12* and α(K)=0.0154. Mult.: K/L=3.5 *19*, L1:L2:L3=0.35 *3*: 0.22 *3*: 0.08 *2* (1974ViZS).
560.0 *4*	0.40 *19*	2037.47	(11/2,13/2)⁻	1477.18	(7/2,9/2,11/2)⁻				I_γ: intensity deduced from γγ data.
573.25 *6*	30.8 *31*	863.34	(13/2)⁻	290.19	11/2⁻	M1+E2	+0.36 *7*	0.0545 *19*	α(K)=0.0448 *16*; α(L)=0.00740 *21*; α(M)=0.00172 *5* α(N)=0.000427 *12*; α(O)=7.84×10^{-5} *23*; α(P)=5.24×10^{-6} *19* Mult.: α(K)exp=0.032 *5*, K/L12=5.7 *32* (1974ViZS); K/L1=4.6 (1958Br88). δ: from γ(θ) (α,xnγ); δ=1.0 *3* from ce data.
583.32 *8*	0.20 *6*	2159.13	(11/2⁻ to 15/2⁻)	1575.62	11/2⁻,13/2⁻	(E2)		0.0179	α(K)=0.01355 *19*; α(L)=0.00335 *5*; α(M)=0.000810 *12* α(N)=0.000201 *3*; α(O)=3.51×10^{-5} *5*; α(P)=1.505×10^{-6} *21* Mult.: α(K)exp=0.027 *12* (1974ViZS). δ: from α(K)exp δ=1.3 +*37*−*7*.
591.72 *8*	0.24 *7*	1455.17	(11/2 to 15/2⁻)	863.34	(13/2)⁻	M1+E2	1.0 *7*	0.036 *16*	α(K)=0.029 *14*; α(L)=0.0052 *17*; α(M)=0.00123 *38* α(N)=3.06×10^{-4} *95*; α(O)=5.5×10^{-5} *19*; α(P)=3.4×10^{-6} *16* Mult.: α(K)exp=0.029 *12*, K/L12=5.8 *12* (1974ViZS). δ: From α(K)exp and K/L12 data.
600.65 *6*	4.7 *5*	890.79	9/2⁻	290.19	11/2⁻	M1+E2	1.4 +*6*−*4*	0.029 *6*	α(K)=0.023 *5*; α(L)=0.0044 *7*; α(M)=0.00104 *15* α(N)=0.00026 *4*; α(O)=4.6×10^{-5} *7*; α(P)=2.6×10^{-6} *6* Mult.,δ: α(K)exp=0.021 *4*, K/L12=5.9 *9*, L1/L2=4.8 *12* (1974ViZS).
608.70 *10*	0.21 *6*	1398.49	(13/2)⁻	789.93	9/2⁻	(E2)		0.01628	α(K)=0.01239 *18*; α(L)=0.00297 *5*; α(M)=0.000716 *10* α(N)=0.0001774 *25*; α(O)=3.11×10^{-5} *5*; α(P)=1.376×10^{-6} *20* Mult.: α(K)exp=0.023 *10* (1974ViZS).
614.32 *10*	0.77 *12*	1153.54	(11/2⁺)	539.00	(7/2⁺)	(E2)		0.01595	α(K)=0.01215 *17*; α(L)=0.00289 *4*; α(M)=0.000697 *10* α(N)=0.0001728 *25*; α(O)=3.03×10^{-5} *5*; α(P)=1.350×10^{-6} *19* Mult.,δ: α(K)exp=0.021 *5* (1974ViZS) indicates M1+E2 with δ=1.5 *4*. See comments in adopted gammas. Evaluator assign from level scheme.
623.10 *10*	0.57 *14*	2023.45	(11/2 to 15/2⁻)	1400.37	11/2⁻	M1+E2	1.0 *9*	0.032 *16*	α(K)=0.026 *14*; α(L)=0.0046 *18*;

$^{193}_{79}$Au$_{114}$-8

γ(^{193}Au) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[‡]	δ[‡d]	α[c]	Comments
									α(M)=0.00107 *40* α(N)=2.66×10^{-4} *98*; α(O)=4.8×10^{-5} *19*; α(P)=3.0×10^{-6} *17* Mult.,δ: From α(K)exp=0.022 *8*, K/L12=7.7 *13* (1974ViZS).
624.91 *10*	0.48 *12*	1433.49	(11/2$^+$,13/2$^+$)	808.58	(9/2)$^+$	(E2)		0.01535	α(K)=0.01173 *17*; α(L)=0.00276 *4*; α(M)=0.000664 *10* α(N)=0.0001647 *23*; α(O)=2.89×10^{-5} *4*; α(P)=1.303×10^{-6} *19* Mult.: α(K)exp=0.013 *5* (1974ViZS).
626.22 *10*	0.16 *5*	2201.73	(11/2$^-$)	1575.62	11/2$^-$,13/2$^-$	(M1)		0.0469	α(K)=0.0388 *6*; α(L)=0.00627 *9*; α(M)=0.001448 *21* α(N)=0.000361 *5*; α(O)=6.64×10^{-5} *10*; α(P)=4.54×10^{-6} *7* Mult.: α(K)exp=0.046 *20* (1974ViZS).
639.0[e] *4*	0.28[e] *14*	2012.18	(13/2$^-$,15/2$^-$)	1372.92	(17/2)$^-$				I_γ: intensity divided on the basis of coincidence data (1974ViZS).
639.0[e] *4*	0.51[e] *18*	2037.47	(11/2,13/2)$^-$	1398.49	(13/2)$^-$				I_γ: division of intensity based on $\gamma\gamma$ data.
643.41[e] *12*	0.09[e] *4*	1572.53	(9/2$^-$,11/2,13/2$^+$)	929.12	(9/2$^+$)				I_γ: intensity divided on the basis of $\gamma\gamma$ data (1974ViZS).
643.41[e] *12*	0.20[e] *8*	2157.63	(11/2$^-$)	1514.19	(7/2$^-$)				I_γ: intensity division based on $\gamma\gamma$ data, Iγ(multiplet)=0.30 *10* (1974ViZS). Mult.: α(K)exp=0.014 *6* for the multiplet (1974ViZS).
645.23 *12*	0.28 *8*	1930.00	11/2$^-$,13/2$^-$	1284.80	9/2$^-$,11/2$^-$	(E2)		0.01429	α(K)=0.01098 *16*; α(L)=0.00253 *4*; α(M)=0.000607 *9* α(N)=0.0001505 *21*; α(O)=2.65×10^{-5} *4*; α(P)=1.220×10^{-6} *17* Mult.: α(K)exp=0.015 *7* (1974ViZS).
654.51 *15*	0.21 *6*	1939.18	(11/2,13/2)$^-$	1284.80	9/2$^-$,11/2$^-$	(E2)		0.01385	α(K)=0.01066 *15*; α(L)=0.00243 *4*; α(M)=0.000584 *9* α(N)=0.0001447 *21*; α(O)=2.55×10^{-5} *4*; α(P)=1.185×10^{-6} *17* Mult.: α(K)exp=0.020 *10* (1974ViZS).
657.62 *15*	0.23 *7*	1355.30	(11/2 to 15/2$^-$)	697.79	(15/2)$^-$	(E2)		0.01370	α(K)=0.01056 *15*; α(L)=0.00240 *4*; α(M)=0.000576 *8* α(N)=0.0001428 *20*; α(O)=2.52×10^{-5} *4*; α(P)=1.173×10^{-6} *17* Mult.: α(K)exp=0.0061 *32*, K/L12=1.8 *6* (1974ViZS).
661.7 *4*	0.32 *10*	2157.63	(11/2$^-$)	1496.28	(9/2)$^-$				
662.73 *12*	0.57 *14*	2063.04	11/2$^-$,13/2$^-$,15/2$^-$	1400.37	11/2$^-$	(E2)		0.01347	α(K)=0.01039 *15*; α(L)=0.00235 *4*; α(M)=0.000564 *8* α(N)=0.0001398 *20*; α(O)=2.46×10^{-5} *4*; α(P)=1.155×10^{-6} *17* Mult.: α(K)exp=0.011 *4*, K/L12=5.9 *22* (1974ViZS).
668.48 *12*	0.83 *14*	1477.18	(7/2,9/2,11/2)$^-$	808.58	(9/2)$^+$			0.00477	α=0.00477; α(K)=0.00396; α(L)=0.00060 Mult.: From α(K)exp=0.0043 *12*, K/L12=3.6 *8* (1974ViZS).

γ(^{193}Au) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[‡]	δ[‡d]	α[c]	Comments
675.17 *12*	1.7 *3*	1372.92	(17/2)$^-$	697.79	(15/2)$^-$	M1+E2	1.5 *+10−5*	0.021 *5*	α(K)=0.0168 *43*; α(L)=0.0031 *6*; α(M)=0.00074 *13* α(N)=0.00018 *4*; α(O)=3.3×10^{-5} *6*; α(P)=1.92×10^{-6} *51* Mult.,δ: α(K)exp=0.017 *4*, K/L12=5.5 *7* (1974ViZS).
684.77 *12*	1.4 *4*	1575.62	11/2$^-$,13/2$^-$	890.79	9/2$^-$	(E2)		0.01254	α(K)=0.00972 *14*; α(L)=0.00215 *3*; α(M)=0.000516 *8* α(N)=0.0001278 *18*; α(O)=2.26×10^{-5} *4*; α(P)=1.080×10^{-6} *16* Mult.: α(K)exp=0.0077 *31* (1974ViZS).
692.54 *12*	0.32 *10*	1379.96	(11/2$^+$)	687.45	(7/2$^+$,9/2$^+$)	(E2)		0.01224	α(K)=0.00950 *14*; α(L)=0.00209 *3*; α(M)=0.000500 *7* α(N)=0.0001240 *18*; α(O)=2.19×10^{-5} *3*; α(P)=1.056×10^{-6} *15* Mult.: α(K)exp=0.012 *5*, K/L12=3.3 *8* (1974ViZS).
700.88 *12*	0.68 *14*	1398.49	(13/2)$^-$	697.79	(15/2)$^-$	(M1+E2)	1.1 *+10−5*	0.0224 *66*	α(K)=0.0182 *56*; α(L)=0.0032 *8*; α(M)=0.00075 *17* α(N)=0.00019 *5*; α(O)=3.4×10^{-5} *8*; α(P)=2.09×10^{-6} *67* Mult.: α(K)exp=0.018 *5* (1974ViZS).
706.30 *12*	1.10 *20*	1496.28	(9/2)$^-$	789.93	9/2$^-$	(E2)		0.01173	α(K)=0.00913 *13*; α(L)=0.00198 *3*; α(M)=0.000474 *7* α(N)=0.0001176 *17*; α(O)=2.08×10^{-5} *3*; α(P)=1.014×10^{-6} *15* Mult.: α(K)exp=0.009 *3* (1974ViZS).
712.15 *12*	0.83 *14*	1575.62	11/2$^-$,13/2$^-$	863.34	(13/2)$^-$	M1+E2	1.3 *5*	0.0198 *53*	α(K)=0.0160 *45*; α(L)=0.0029 *6*; α(M)=0.00068 *14* α(N)=0.00017 *4*; α(O)=3.0×10^{-5} *7*; α(P)=1.83×10^{-6} *54* Mult.,δ: From α(K)exp=0.016 *4* (1974ViZS).
725.60[e] *15*	0.10[e] *5*	1413.05	(9/2$^-$,11/2)	687.45	(7/2$^+$,9/2$^+$)	[a]			I_γ: intensity division from coincidence data (1974ViZS).
725.60[e] *15*	0.7[e] *4*	1654.72	(9/2$^-$,11/2,13/2$^+$)	929.12	(9/2$^+$)	[a]			I_γ: Iγ=80 *14* divided on the basis of coincidence data (1974ViZS).
[x]727.2[#] *10*	0.26[#] *11*								
731.95 *12*	0.46 *9*	2130.38	(11/2$^-$ to 15/2$^-$)	1398.49	(13/2)$^-$	(E2)		0.01087	α(K)=0.00850 *12*; α(L)=0.00181 *3*; α(M)=0.000431 *6* α(N)=0.0001070 *15*; α(O)=1.90×10^{-5} *3*; α(P)=9.44×10^{-7} *14* Mult.: α(K)exp=0.014 *4* (1974ViZS).

$^{193}_{79}$Au$_{114}$-10

γ(^{193}Au) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult. ‡	δ ‡d	α c	Comments
738.60 f *17*	0.5 *3*	2023.45	(11/2 to 15/2⁻)	1284.80	9/2⁻,11/2⁻				Mult.: α(K)exp=0.0028 *21* (1974ViZS). Theory: α(K)(E1)=0.00327, α(K)(E2)=0.00840. α(K)exp indicates E1, but level scheme requires M1,E2.
739.47 *17*	0.19 *11*	1630.23	11/2⁻,13/2⁻	890.79	9/2⁻	(E2,M1)		0.021 *10*	α(K)=0.0168 *85*; α(L)=0.0029 *12*; α(M)=6.8×10^{-4} *26* α(N)=1.69×10^{-4} *65*; α(O)=3.1×10^{-5} *13*; α(P)=1.9×10^{-6} *11* I_γ: from Ice(K)=0.0033 *6* (1974ViZS) and α(K)=0.017 *9*. Mult.: K/L12=4.7 *16* (1974ViZS).
746.11 b *20*	0.11 *4*	2201.73	(11/2⁻)	1455.17	(11/2 to 15/2⁻)				Mult.: α(K)exp(doublet)=0.010 *5* (1974ViZS).
752.70 *15*	0.55 *11*	2037.47	(11/2,13/2)⁻	1284.80	9/2⁻,11/2⁻	(M1+E2)	0.9 *7*	0.0207 *78*	α(K)=0.0169 *66*; α(L)=0.00290 *90*; α(M)=6.7×10^{-4} *21* α(N)=1.68×10^{-4} *51*; α(O)=3.06×10^{-5} *96*; α(P)=1.95×10^{-6} *79* Mult.: α(K)exp=0.017 *5* (1974ViZS).
757.63 *20*	0.30 *6*	1455.17	(11/2 to 15/2⁻)	697.79	(15/2)⁻	(E2)		0.01010	α(K)=0.00794 *12*; α(L)=0.001656 *24*; α(M)=0.000394 *6* α(N)=9.78×10^{-5} *14*; α(O)=1.737×10^{-5} *25*; α(P)=8.81×10^{-7} *13* Mult.: α(K)exp=0.007 *3* (1974ViZS).
766.97 *20*	0.45 *9*	1630.23	11/2⁻,13/2⁻	863.34	(13/2)⁻	(E2)		0.00985	α(K)=0.00775 *11*; α(L)=0.001606 *23*; α(M)=0.000382 *6* α(N)=9.48×10^{-5} *14*; α(O)=1.684×10^{-5} *24*; α(P)=8.59×10^{-7} *12* Mult.: α(K)exp=0.012 *5* (1974ViZS).
776.57 *20*	1.5 *6*	1284.80	9/2⁻,11/2⁻	508.24	7/2⁻	[M1,E2]		0.0183 *87*	α(K)=0.0149 *74*; α(L)=0.0026 *11*; α(M)=6.0×10^{-4} *23* α(N)=1.49×10^{-4} *57*; α(O)=2.7×10^{-5} *11*; α(P)=1.72×10^{-6} *88* Mult.: α(K)exp=0.0040 *14* (1974ViZS).
778.37 *20*	0.40 *20*	2063.04	11/2⁻,13/2⁻,15/2⁻	1284.80	9/2⁻,11/2⁻	(M1,E2)		0.0182 *87*	α(K)=0.0148 *74*; α(L)=0.0026 *10*; α(M)=5.9×10^{-4} *23* α(N)=1.48×10^{-4} *57*; α(O)=2.7×10^{-5} *11*; α(P)=1.71×10^{-6} *88* I_γ: intensity deduced from γγ data. Mult.: α(K)exp=0.018 *14* (1974ViZS).
790.6 *4*	0.12 *5*	1680.33	(11/2⁻,13/2⁻)	890.79	9/2⁻				
798.39 *25*	0.07 *3*	2196.87	(11/2⁻,13/2,15/2⁻)	1398.49	(13/2)⁻				Mult.: 0.013 *10* (1974ViZS).
801.73 *25*	0.19 *5*	2279.38	(11/2⁻)	1477.18	(7/2,9/2,11/2)⁻	(E2)		0.00898	α(K)=0.00710 *10*; α(L)=0.001437 *21*; α(M)=0.000341 *5*

γ(^{193}Au) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult. ‡	α c	Comments
								α(N)=8.46×10^{-5} *12*; α(O)=1.508×10^{-5} *22*; α(P)=7.87×10^{-7} *11* Mult.: α(K)exp=0.009 *4* (1974ViZS).
803.22 *25*	0.045 *18*	2201.73	(11/2$^-$)	1398.49	(13/2)$^-$	(M1)	0.0247	α(K)=0.0204 *3*; α(L)=0.00328 *5*; α(M)=0.000757 *11* α(N)=0.000188 *3*; α(O)=3.47×10^{-5} *5*; α(P)=2.38×10^{-6} *4* Mult.: α(K)exp=0.031 *18* (1974ViZS).
808.3 *6*	0.045 *13*	2285.28	(11/2$^+$)	1477.18	(7/2,9/2,11/2)$^-$			
816.81 *20*	0.53 *9*	1680.33	(11/2$^-$,13/2$^-$)	863.34	(13/2)$^-$	(E2)	0.00864	α(K)=0.00684 *10*; α(L)=0.001373 *20*; α(M)=0.000325 *5* α(N)=8.08×10^{-5} *12*; α(O)=1.440×10^{-5} *21*; α(P)=7.58×10^{-7} *11* Mult.: α(K)exp=0.0093 *34*, K/L12=9.8 *25* (1974ViZS).
840.9 *3*	0.33 *7*	1379.96	(11/2$^+$)	539.00	(7/2$^+$)			
854.80 *25*	0.22 *7*	2255.10	(11/2$^-$ to 15/2$^-$)	1400.37	11/2$^-$			Mult.: α(K)exp=0.0036 *14* (1974ViZS).
^{x}855.8 *4*	0.31 *9*							
870.05 *17*	2.9 *4*	1733.42	(15/2$^-$)	863.34	(13/2)$^-$	(E2)	0.00759	α(K)=0.00605 *9*; α(L)=0.001178 *17*; α(M)=0.000278 *4* α(N)=6.91×10^{-5} *10*; α(O)=1.236×10^{-5} *18*; α(P)=6.70×10^{-7} *10* Mult.: α(K)exp=0.0060 *16*, K/L12=8.8 *20* (1974ViZS); other: α(K)exp=0.0111 (1970Pl01).
877.76 *17*	4.8 *6*	1575.62	11/2$^-$,13/2$^-$	697.79	(15/2)$^-$	E2	0.00746	α(K)=0.00595 *9*; α(L)=0.001153 *17*; α(M)=0.000272 *4* α(N)=6.76×10^{-5} *10*; α(O)=1.210×10^{-5} *17*; α(P)=6.58×10^{-7} *10* Mult.: α(K)exp=0.0067 *18*, K/L12=7.1 *16* (1974ViZS); other: α(K)exp=0.0108 (1970Pl01).
883.6 *4*	0.16 *5*	2037.47	(11/2,13/2)$^-$	1153.54	(11/2$^+$)			
885.3 *4*	0.26 *8*	1776.03	11/2$^-$	890.79	9/2$^-$			
^{x}890.5 *4*	0.057 *17*							
895.0 *5*	0.032 *11*	1684.73	(9/2$^-$ to 13/2$^-$)	789.93	9/2$^-$			
900.4 *6*	0.024 *10*	2279.38	(11/2$^-$)	1379.96	(11/2$^+$)			
^{x}902.4 *6*	0.032 *13*							
905.1 *5*	0.044 *18*	2285.28	(11/2$^+$)	1379.96	(11/2$^+$)			
913.06 *15*	3.6 *4*	1776.03	11/2$^-$	863.34	(13/2)$^-$	E2	0.00689	α(K)=0.00552 *8*; α(L)=0.001050 *15*; α(M)=0.000248 *4* α(N)=6.15×10^{-5} *9*; α(O)=1.102×10^{-5} *16*; α(P)=6.10×10^{-7} *9* Mult.: α(K)exp=0.0060 *11*, K/L12=5.8 *9* (1974ViZS).
932.37 *15*	14.6 *15*	1630.23	11/2$^-$,13/2$^-$	697.79	(15/2)$^-$	(E2)	0.00660	α(K)=0.00530 *8*; α(L)=0.001000 *14*; α(M)=0.000236 *4* α(N)=5.85×10^{-5} *9*; α(O)=1.049×10^{-5} *15*; α(P)=5.86×10^{-7} *9* Mult.: α(K)exp=0.0064 *10*, K/L12=7.4 *7* (1974ViZS).
939.1 *4*	0.16 *4*	1829.90	(11/2$^-$,13/2$^-$)	890.79	9/2$^-$			
952.0 *4*	0.12 *4*	1815.40	(9/2$^-$,11/2$^-$,13/2$^-$)	863.34	(13/2)$^-$			
957.42 *25*	0.35 *7*	1496.28	(9/2)$^-$	539.00	(7/2$^+$)	(E1)	0.00239	α(K)=0.00201 *3*; α(L)=0.000298 *5*; α(M)=6.81×10^{-5} *10* α(N)=1.689×10^{-5} *24*; α(O)=3.09×10^{-6} *5*; α(P)=2.05×10^{-7} *3* Mult.: α(K)exp=0.0026 *15* (1974ViZS).

$^{193}_{79}$Au$_{114}$-12

γ(^{193}Au) (continued)

E_γ [†]	I_γ [†]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [‡]	α [c]	Comments
963.1 *6*	0.044 *18*	2157.63	$(11/2^-)$	1194.29	$(9/2^-,11/2^-,13/2^-)$			
966.1 *4*	0.13 *4*	1829.90	$(11/2^-,13/2^-)$	863.34	$(13/2)^-$			
970.0 *4*	0.084 *15*	2255.10	$(11/2^-$ to $15/2^-)$	1284.80	$9/2^-,11/2^-$			
982.2 *4*	0.09 *3*	1680.33	$(11/2^-,13/2^-)$	697.79	$(15/2)^-$			
985.9 *4*	0.13 *4*	1776.03	$11/2^-$	789.93	$9/2^-$			
994.61 *15*	3.5 *4*	1284.80	$9/2^-,11/2^-$	290.19	$11/2^-$	E2	0.00581	α(K)=0.00469 *7*; α(L)=0.000862 *12*; α(M)=0.000202 *3* α(N)=5.03×10^{-5} *7*; α(O)=9.04×10^{-6} *13*; α(P)=5.17×10^{-7} *8* Mult.: α(K)exp=0.0047 *9*, K/L12=5.5 *9* (1974ViZS); K/L1=4.4 (1958Br88).
[x]1003.5 *5*	0.20 *6*							
1004.6 *6*	0.23 *7*	1794.84	$(13/2^-)$	789.93	$9/2^-$			
1007.8 *4*	0.12 *3*	2139.76	$(13/2^-,15/2^-)$	1131.82	$9/2^-,11/2^-$			
1013.3 *4*	0.15 *4*	1876.27	$(11/2^-,13/2^-)$	863.34	$(13/2)^-$			
1026.0 *6*	0.032 *13*	1815.40	$(9/2^-,11/2^-,13/2^-)$	789.93	$9/2^-$			
1035.54 *17*	1.8 *3*	1733.42	$(15/2^-)$	697.79	$(15/2)^-$	(E2)	0.00537	α(K)=0.00434 *6*; α(L)=0.000787 *11*; α(M)=0.000184 *3* α(N)=4.58×10^{-5} *7*; α(O)=8.25×10^{-6} *12*; α(P)=4.79×10^{-7} *7* Mult.: α(K)exp=0.0037 *11* (1974ViZS).
[x]1037.22 *25*	0.19 *7*							Mult.: α(K)exp=0.005 *4* (1974ViZS). Theory: α(K)(E1)=0.00173, α(K)(E2)=0.00433.
1040.5 *6*	<0.33	1930.00	$11/2^-,13/2^-$	890.79	$9/2^-$			γ placed also in 3.80 h decay. Placement here confirmed by coincidence data (1974ViZS).
1048.5 *4*	0.10 *3*	1939.18	$(11/2,13/2)^-$	890.79	$9/2^-$			
1052.00 *20*	1.20 *20*	1915.18	$(11/2^-$ to $15/2^-)$	863.34	$(13/2)^-$	(E2)	0.00520	α(K)=0.00421 *6*; α(L)=0.000759 *11*; α(M)=0.0001779 *25* α(N)=4.42×10^{-5} *7*; α(O)=7.97×10^{-6} *12*; α(P)=4.64×10^{-7} *7* Mult.: α(K)exp=0.0043 *13* (1974ViZS).
1066.0 *6*	0.046 *18*	1930.00	$11/2^-,13/2^-$	863.34	$(13/2)^-$			
1070.6 *6*	0.017 *9*	2201.73	$(11/2^-)$	1131.82	$9/2^-,11/2^-$			
1075.90 *25*	0.82 *12*	1939.18	$(11/2,13/2)^-$	863.34	$(13/2)^-$	(E2)	0.00498	α(K)=0.00404 *6*; α(L)=0.000722 *11*; α(M)=0.0001691 *24* α(N)=4.20×10^{-5} *6*; α(O)=7.58×10^{-6} *11*; α(P)=4.45×10^{-7} *7* Mult.: α(K)exp=0.0046 *21* (1974ViZS).
1085.7 *6*	0.053 *21*	1876.27	$(11/2^-,13/2^-)$	789.93	$9/2^-$			
1097.15 *25*	0.23 *6*	1794.84	$(13/2^-)$	697.79	$(15/2)^-$			Mult.: α(K)exp=0.0029 *15* (1974ViZS).
1109.80[f] *17*	2.5 *4*	1400.37	$11/2^-$	290.19	$11/2^-$			Mult.: α(K)exp=0.0015 *4* (1974ViZS). Placement in level scheme by 1970Pl01. From α(K)exp 1974ViZS suggest that γ is E1 and does not place it in level scheme.
1123.2 *3*	0.09 *4*	2255.10	$(11/2^-$ to $15/2^-)$	1131.82	$9/2^-,11/2^-$			Mult.: α(K)exp=0.0041 *28* (1974ViZS).

$^{193}_{79}Au_{114}$-13

γ(^{193}Au) (continued)

E_γ [†]	I_γ [†]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [‡]	α [c]	Comments
1132.50 *20*	0.26 *5*	1514.19	(7/2⁻)	381.63	5/2⁺			Mult.: α(K)exp=0.0025 *10* (1974ViZS).
1137.80 *25*	0.10 *3*	2291.01	(11/2⁺)	1153.54	(11/2⁺)			Mult.: α(K)exp=0.0042 *23* (1974ViZS).
1139.5 *5*	0.10 *3*	1930.00	11/2⁻,13/2⁻	789.93	9/2⁻			
1147.20 *20*	0.30 *6*	2037.47	(11/2,13/2)⁻	890.79	9/2⁻	(E2)	0.00440	α(K)=0.00358 *5*; α(L)=0.000627 *9*; α(M)=0.0001465 *21* α(N)=3.64×10⁻⁵ *5*; α(O)=6.58×10⁻⁶ *10*; α(P)=3.94×10⁻⁷ *6*; α(IPF)=1.004×10⁻⁶ *16* Mult.: α(K)exp=0.0037 *14* (1974ViZS).
1149.3 *6*	0.048 *19*	2012.18	(13/2⁻,15/2⁻)	863.34	(13/2)⁻			
1160.18 *20*	0.86 *12*	2023.45	(11/2 to 15/2⁻)	863.34	(13/2)⁻	(E2)	0.00431	α(K)=0.00351 *5*; α(L)=0.000612 *9*; α(M)=0.0001429 *20* α(N)=3.55×10⁻⁵ *5*; α(O)=6.42×10⁻⁶ *9*; α(P)=3.86×10⁻⁷ *6*; α(IPF)=1.505×10⁻⁶ *23* Mult.: α(K)exp=0.0039 *10* (1974ViZS).
1171.50 *17*	1.35 *30*	1869.26	(11/2⁻ to 15/2⁻)	697.79	(15/2)⁻	(E2)	0.00423	α(K)=0.00345 *5*; α(L)=0.000600 *9*; α(M)=0.0001399 *20* α(N)=3.47×10⁻⁵ *5*; α(O)=6.29×10⁻⁶ *9*; α(P)=3.79×10⁻⁷ *6*; α(IPF)=2.07×10⁻⁶ *3* Mult.: α(K)exp=0.0035 *11* (1974ViZS).
1174.00 *17*	2.5 *4*	2037.47	(11/2,13/2)⁻	863.34	(13/2)⁻	(E2)	0.00421	α(K)=0.00343 *5*; α(L)=0.000597 *9*; α(M)=0.0001393 *20* α(N)=3.46×10⁻⁵ *5*; α(O)=6.26×10⁻⁶ *9*; α(P)=3.77×10⁻⁷ *6*; α(IPF)=2.22×10⁻⁶ *4* Mult.: α(K)exp=0.0047 *16* (1974ViZS).
1178.60 *20*	0.30 *7*	1876.27	(11/2⁻,13/2⁻)	697.79	(15/2)⁻	(E2)	0.00418	α(K)=0.00341 *5*; α(L)=0.000592 *9*; α(M)=0.0001381 *20* α(N)=3.43×10⁻⁵ *5*; α(O)=6.21×10⁻⁶ *9*; α(P)=3.75×10⁻⁷ *6*; α(IPF)=2.50×10⁻⁶ *4* Mult.: α(K)exp=0.0053 *22* (1974ViZS).
[x]1184.0 *5*	0.08 *3*							
[x]1189.5 *7*	0.017 *9*							
1196.4 *3*	0.17 *4*	2125.37	(11/2⁻)	929.12	(9/2⁺)			Mult.: α(K)exp=0.0039 *24* (1974ViZS).
1199.5 *3*	0.085 *25*	2063.04	11/2⁻,13/2⁻,15/2⁻	863.34	(13/2)⁻	(M1)	0.00892	α(K)=0.00740 *11*; α(L)=0.001171 *17*; α(M)=0.000270 *4* α(N)=6.72×10⁻⁵ *10*; α(O)=1.239×10⁻⁵ *18*; α(P)=8.54×10⁻⁷ *12*; α(IPF)=6.64×10⁻⁶ *11* Mult.: α(K)exp=0.013 *7* (1974ViZS).
1205.3 *6*	0.035 *14*	1496.28	(9/2)⁻	290.19	11/2⁻			
[x]1212.2 *6*	0.019 *6*							
1217.7 *5*	0.036 *11*	1915.18	(11/2⁻ to 15/2⁻)	697.79	(15/2)⁻			
1232.20 *20*	2.3 *3*	1930.00	11/2⁻,13/2⁻	697.79	(15/2)⁻	E2	0.00385	α(K)=0.00314 *5*; α(L)=0.000538 *8*; α(M)=0.0001253 *18* α(N)=3.11×10⁻⁵ *5*; α(O)=5.64×10⁻⁶ *8*; α(P)=3.45×10⁻⁷ *5*; α(IPF)=7.32×10⁻⁶ *11* Mult.: α(K)exp=0.0028 *7*, K/L12=5.4 *15* (1974ViZS).
1241.30 *20*	5.6 *7*	1939.18	(11/2,13/2)⁻	697.79	(15/2)⁻	E2	0.00379	α(K)=0.00310 *5*; α(L)=0.000530 *8*; α(M)=0.0001234 *18* α(N)=3.06×10⁻⁵ *5*; α(O)=5.56×10⁻⁶ *8*; α(P)=3.40×10⁻⁷ *5*; α(IPF)=8.36×10⁻⁶ *12* Mult.: α(K)exp=0.0034 *7*, K/L12=4.6 *5* (1974ViZS).

$^{193}_{79}Au_{114}$-14

γ(^{193}Au) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.‡	δ‡d	αc	Comments
x1254.1 *3*	0.22 *5*								Mult.: α(K)exp=0.0021 *16* (1974ViZS). Theory: α(K)(E1)=0.00124, α(K)(E2)=0.00304.
1261.9 *3*	0.32 *8*	2125.37	(11/2$^-$)	863.34	(13/2)$^-$	(E2)		0.00368	α(K)=0.00300 *5*; α(L)=0.000512 *8*; α(M)=0.0001191 *17* α(N)=2.96×10^{-5} *5*; α(O)=5.37×10^{-6} *8*; α(P)=3.29×10^{-7} *5*; α(IPF)=1.091×10^{-5} *16* Mult.: α(K)exp=0.0027 *12* (1974ViZS).
x1265.4 *5*	0.22 *4*								
1267.90 *20*	0.68 *10*	1776.03	11/2$^-$	508.24	7/2$^-$	(E2)		0.00365	α(K)=0.00298 *5*; α(L)=0.000506 *7*; α(M)=0.0001178 *17* α(N)=2.93×10^{-5} *4*; α(O)=5.31×10^{-6} *8*; α(P)=3.27×10^{-7} *5*; α(IPF)=1.170×10^{-5} *17* Mult.: α(K)exp=0.0035 *11* (1974ViZS).
1285.20 *20*	1.40 *20*	1575.62	11/2$^-$,13/2$^-$	290.19	11/2$^-$	M1+E2	1.3 *7*	0.0050 *15*	α(K)=0.0041 *12*; α(L)=6.7×10^{-4} *18*; α(M)=1.56×10^{-4} *41* α(N)=3.9×10^{-5} *11*; α(O)=7.1×10^{-6} *19*; α(P)=4.7×10^{-7} *15*; α(IPF)=1.7×10^{-5} *4* Mult.,δ: From α(K)exp=0.0041 *11* (1974ViZS).
x1288.7 *6*	0.08 *4*								
1294.3 *4*	0.13 *4*	2157.63	(11/2$^-$)	863.34	(13/2)$^-$				
x1296.80 *25*	0.30 *9*								Mult.: α(K)exp=0.0021 *12* (1974ViZS). Theory: α(K)(E1)=0.00117, α(K)(E2)=0.00286.
x1301.0 *4*	0.19 *5*								
x1309.5 *7*	0.016 *8*								
1314.51e *20*	0.8e *3*	2012.18	(13/2$^-$,15/2$^-$)	697.79	(15/2)$^-$				I_γ: intensity divided on the basis of coincidence data (1974ViZS).
1314.51e *20*	0.80e *32*	2104.42	(11/2,13/2)$^-$	789.93	9/2$^-$				I_γ: intensity division on the basis of γγ data (1974ViZS). Mult.: α(K)exp=0.0029 *8* for the multiplet (1974ViZS). Theory: α(K)(E2)=0.00279.
1325.50 *20*	4.9 *6*	2023.45	(11/2 to 15/2$^-$)	697.79	(15/2)$^-$	(E2)		0.00336	α(K)=0.00274 *4*; α(L)=0.000461 *7*; α(M)=0.0001072 *15* α(N)=2.66×10^{-5} *4*; α(O)=4.84×10^{-6} *7*; α(P)=3.01×10^{-7} *5*; α(IPF)=2.07×10^{-5} *3* Mult.: α(K)exp=0.0029 *6* (1974ViZS).
1339.60 *20*	4.7 *6*	2037.47	(11/2,13/2)$^-$	697.79	(15/2)$^-$	(E2)		0.00330	α(K)=0.00269 *4*; α(L)=0.000451 *7*; α(M)=0.0001048 *15* α(N)=2.60×10^{-5} *4*; α(O)=4.73×10^{-6} *7*; α(P)=2.95×10^{-7} *5*; α(IPF)=2.34×10^{-5} *4* Mult.: α(K)exp=0.0022 *4* (1974ViZS).
1351.52 *25*	0.40 *12*	2215.18	(13/2$^-$,15/2$^-$)	863.34	(13/2)$^-$	(E2,M1)		0.0049 *17*	α(K)=0.0041 *15*; α(L)=6.5×10^{-4} *21*; α(M)=1.51×10^{-4} *49* α(N)=3.8×10^{-5} *12*; α(O)=6.9×10^{-6} *23*; α(P)=4.6×10^{-7} *18*; α(IPF)=3.4×10^{-5} *8* Mult.: α(K)exp=0.0037 *18* (1974ViZS).
x1353.5 *3*	0.28 *8*								Mult.: α(K)exp=0.0019 *11* (1974ViZS). Theory: α(K)(E1)=0.00109, α(K)(E2)=0.00264.

γ(^{193}Au) (continued)

E_γ †	I_γ †	E_i(level)	J^π_i	E_f	J^π_f	Mult. ‡	α c	Comments
x1359.4 *6*	0.11 *5*							
1365.10 *22*	3.1 *4*	2063.04	11/2−,13/2−,15/2−	697.79	(15/2)−	(E2)	0.00319	α(K)=0.00260 *4*; α(L)=0.000434 *6*; α(M)=0.0001007 *15* α(N)=2.50×10^{-5} *4*; α(O)=4.55×10^{-6} *7*; α(P)=2.85×10^{-7} *4*; α(IPF)=2.89×10^{-5} *4* Mult.: α(K)exp=0.0027 *7* (1974ViZS).
x1387.6# *10*	0.12# *3*							
1392.00 *20*	0.45 *8*	2255.10	(11/2− to 15/2−)	863.34	(13/2)−	(M1)	0.00619	α(K)=0.00509 *8*; α(L)=0.000802 *12*; α(M)=0.000185 *3* α(N)=4.60×10^{-5} *7*; α(O)=8.48×10^{-6} *12*; α(P)=5.87×10^{-7} *9*; α(IPF)=5.60×10^{-5} *8* Mult.: α(K)exp=0.0044 *13* (1974ViZS).
1394.50 *20*	1.75 *26*	1684.73	(9/2− to 13/2−)	290.19	11/2−	(E2)	0.00307	α(K)=0.00250 *4*; α(L)=0.000415 *6*; α(M)=9.63×10^{-5} *14* α(N)=2.39×10^{-5} *4*; α(O)=4.35×10^{-6} *6*; α(P)=2.74×10^{-7} *4*; α(IPF)=3.58×10^{-5} *5* Mult.: α(K)exp=0.0031 *8* (1974ViZS).
1400.0 *3*	0.14 *4*	2291.01	(11/2+)	890.79	9/2−			Mult.: α(K)exp=0.004 *3* (1974ViZS). α(K)exp covers E1, E2, E3, M1.
1406.60 *20*	2.2 *3*	2104.42	(11/2,13/2)−	697.79	(15/2)−	(M1,E2)	0.0045 *15*	α(K)=0.0037 *13*; α(L)=5.9×10^{-4} *19*; α(M)=1.37×10^{-4} *43* α(N)=3.4×10^{-5} *11*; α(O)=6.3×10^{-6} *20*; α(P)=4.2×10^{-7} *16*; α(IPF)=5.0×10^{-5} *12* Mult.: α(K)exp=0.0038 *10*, K/L12=13 *5* (1974ViZS).
x1414.1 *4*	0.061 *15*							
1432.40 *20*	1.46 *22*	2130.38	(11/2− to 15/2−)	697.79	(15/2)−	(E2,M1)	0.0044 *15*	α(K)=0.0036 *12*; α(L)=5.7×10^{-4} *18*; α(M)=1.31×10^{-4} *41* α(N)=3.3×10^{-5} *10*; α(O)=6.0×10^{-6} *19*; α(P)=4.0×10^{-7} *15*; α(IPF)=5.9×10^{-5} *14* Mult.: α(K)exp=0.0035 *12* (1974ViZS).
1442.00 *20*	0.33 *7*	2139.76	(13/2−,15/2−)	697.79	(15/2)−	(M1)	0.00569	α(K)=0.00466 *7*; α(L)=0.000734 *11*; α(M)=0.0001690 *24* α(N)=4.21×10^{-5} *6*; α(O)=7.76×10^{-6} *11*; α(P)=5.37×10^{-7} *8*; α(IPF)=7.66×10^{-5} *11* Mult.: α(K)exp=0.0073 *29* (1974ViZS).
x1453.9 *5*	0.08 *3*							
1459.8 *4*	0.76 *23*	2157.63	(11/2−)	697.79	(15/2)−			
1461.60 *10*	0.73 *22*	2159.13	(11/2− to 15/2−)	697.79	(15/2)−	(M1,E2)	0.0042 *14*	α(K)=0.0034 *11*; α(L)=5.4×10^{-4} *17*; α(M)=1.25×10^{-4} *38* α(N)=3.12×10^{-5} *95*; α(O)=5.7×10^{-6} *18*; α(P)=3.8×10^{-7} *14*; α(IPF)=7.0×10^{-5} *16* Mult.: α(K)exp=0.0034 *21* (1974ViZS).
1476.70 *20*	0.85 *13*	2285.28	(11/2+)	808.58	(9/2)+			Mult.: α(K)exp=0.0022 *9* (1974ViZS).
1481.6 *4*	0.34 *9*	2291.01	(11/2+)	808.58	(9/2)+			Mult.: α(K)exp=0.0015 *11* (1974ViZS).
1486.10 *25*	3.4 *4*	1776.03	11/2−	290.19	11/2−	(E2)	0.00276	α(K)=0.00223 *4*; α(L)=0.000365 *6*; α(M)=8.44×10^{-5} *12* α(N)=2.10×10^{-5} *3*; α(O)=3.82×10^{-6} *6*; α(P)=2.43×10^{-7} *4*; α(IPF)=6.12×10^{-5} *9* Mult.: α(K)exp=0.0023 *6* (1974ViZS).
1499.2 *4*	0.23 *6*	2196.87	(11/2−,13/2,15/2−)	697.79	(15/2)−			

$^{193}_{79}$Au$_{114}$-16

γ(^{193}Au) (continued)

Eγ†	Iγ†	Ei(level)	J_i^π	E_f	J_f^π	Mult.‡	α^c	Comments
1503.80 25	1.20 20	2201.73	(11/2⁻)	697.79	(15/2)⁻	(E2)	0.00271	α(K)=0.00218 3; α(L)=0.000356 5; α(M)=8.24×10⁻⁵ 12 α(N)=2.05×10⁻⁵ 3; α(O)=3.73×10⁻⁶ 6; α(P)=2.38×10⁻⁷ 4; α(IPF)=6.67×10⁻⁵ 10 Mult.: α(K)exp=0.0027 8 (1974ViZS).
1517.50 25	0.80 12	2215.18	(13/2⁻,15/2⁻)	697.79	(15/2)⁻	(M1)	0.00505	α(K)=0.00410 6; α(L)=0.000645 9; α(M)=0.0001485 21 α(N)=3.70×10⁻⁵ 6; α(O)=6.82×10⁻⁶ 10; α(P)=4.72×10⁻⁷ 7; α(IPF)=0.0001118 16 Mult.: α(K)exp=0.0051 19 (1974ViZS).
1525.1 3	1.4 2	1815.40	(9/2⁻,11/2⁻,13/2⁻)	290.19	11/2⁻	(E2)	0.00265	α(K)=0.00212 3; α(L)=0.000346 5; α(M)=8.01×10⁻⁵ 12 α(N)=1.99×10⁻⁵ 3; α(O)=3.63×10⁻⁶ 5; α(P)=2.32×10⁻⁷ 4; α(IPF)=7.36×10⁻⁵ 11 Mult.: α(K)exp=0.0021 9 (1974ViZS).
ˣ1533.5 4	0.20 5							
1539.0 5	0.17 4	1829.90	(11/2⁻,13/2⁻)	290.19	11/2⁻			
ˣ1551.5 6	0.037 11							
1556.9 3	0.42 7	2255.10	(11/2⁻ to 15/2⁻)	697.79	(15/2)⁻			Mult.: α(K)exp=0.0045 27 (1974ViZS).
ˣ1562.2 4	0.056 14							
1578.9 4	0.072 21	1869.26	(11/2⁻ to 15/2⁻)	290.19	11/2⁻			
1581.9 3	0.33 7	2279.38	(11/2⁻)	697.79	(15/2)⁻			
1585.5 4	0.17 4	1876.27	(11/2⁻,13/2⁻)	290.19	11/2⁻			
ˣ1591.4 6	0.013 6							
ˣ1599.9 3	0.27 5							
ˣ1608.5 6	0.012 6							
1624.5 3	0.65 10	1915.18	(11/2⁻ to 15/2⁻)	290.19	11/2⁻			
1639.4 3	3.4 5	1930.00	11/2⁻,13/2⁻	290.19	11/2⁻			
1648.5 3	2.6 4	1939.18	(11/2,13/2)⁻	290.19	11/2⁻			Mult.: α(K)exp=0.0018 5 evaluated from given Iγ and ce data from 1958Br88.
ˣ1674.2 6	0.019 8							
ˣ1678.1 5	0.35 1							
ˣ1683.8 5	0.039 12							
1693.4 6	0.027 11	2201.73	(11/2⁻)	508.24	7/2⁻			
1697.9 3	0.18 4	2206.37	(11/2⁻)	508.24	7/2⁻			
ˣ1700.0 6	0.026 10							
1721.3 5	0.030 9	2012.18	(13/2⁻,15/2⁻)	290.19	11/2⁻			
ˣ1732.3 4	0.37 7							
ˣ1737.6 5	0.054 16							
1746.3 3	0.75 15	2285.28	(11/2⁺)	539.00	(7/2⁺)			
1752.2 3	0.14 4	2291.01	(11/2⁺)	539.00	(7/2⁺)			
ˣ1760.9 4	0.034 10							
ˣ1768.4 6	0.024 10							
1771.6 4	0.14 4	2279.38	(11/2⁻)	508.24	7/2⁻			
ˣ1783.7 6	0.023 9							
ˣ1785.2 5	0.09 3							

$^{193}_{79}Au_{114}$-17

γ(^{193}Au) (continued)

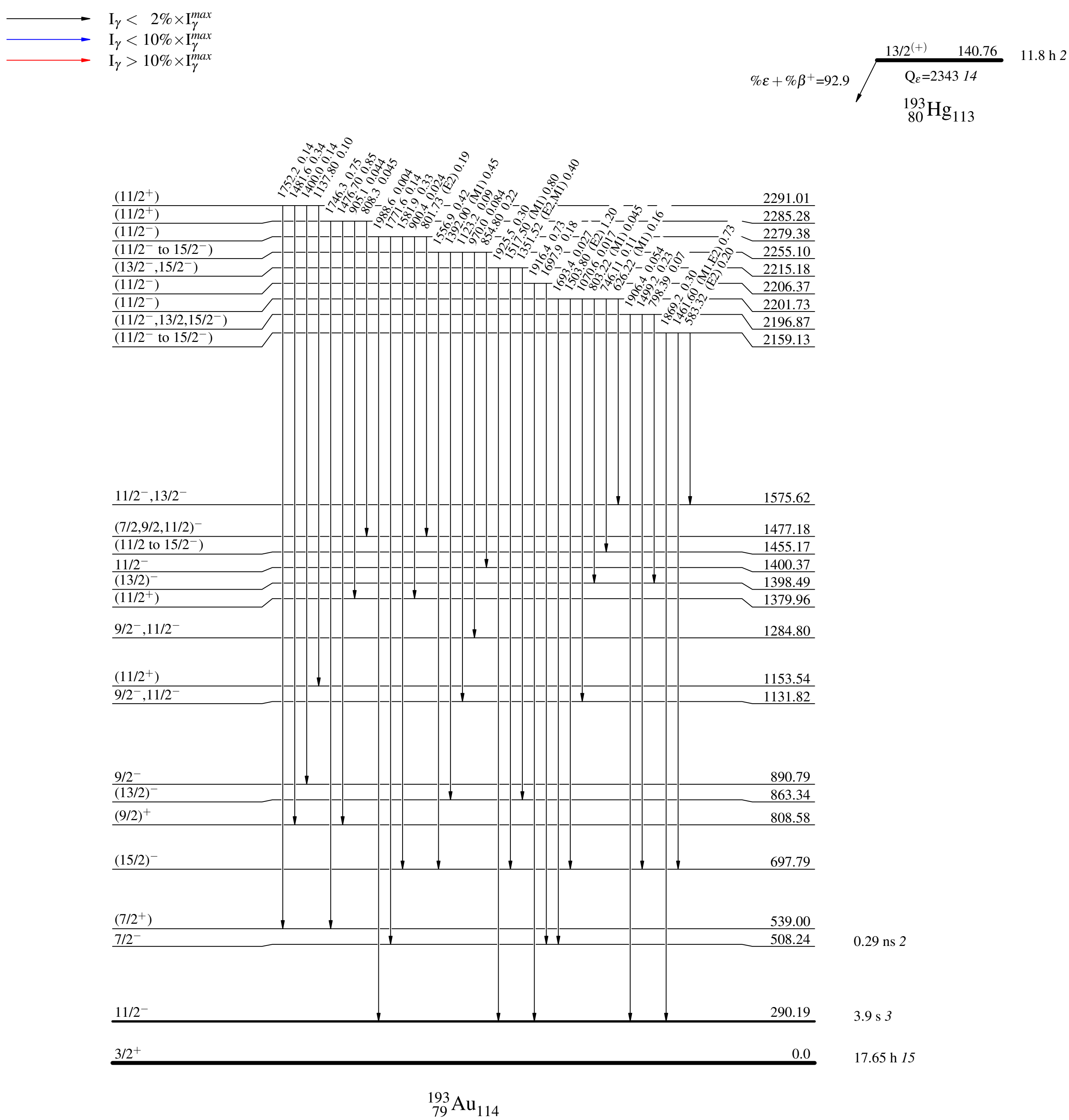
E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π
[x]1788.9 *6*	0.021 *8*				
[x]1795.3 *5*	0.040 *12*				
[x]1803.2 *6*	0.023 *9*				
[x]1806.9 *3*	0.075 *22*				
[x]1813.4 *6*	0.07 *3*				
[x]1827.5 *5*	0.11 *3*				
[x]1836.2 *4*	0.12 *3*				
[x]1848.5 *3*	0.32 *5*				
[x]1853.3 *5*	0.026 *10*				
[x]1856.0 *5*	0.025 *10*				
1869.2 *3*	0.30 *8*	2159.13	(11/2⁻ to 15/2⁻)	290.19	11/2⁻
[x]1878.1 *6*	0.021 *9*				
[x]1881.3 *5*	0.075 *22*				
[x]1885.4 *5*	0.056 *17*				
[x]1892.5 *4*	0.18 *5*				
[x]1898.4 *5*	0.040 *14*				
[x]1903.7 *5*	0.040 *14*				
1906.4 *5*	0.054 *19*	2196.87	(11/2⁻,13/2,15/2⁻)	290.19	11/2⁻
[x]1909.8 *4*	0.16 *4*				
1916.4 *3*	0.73 *15*	2206.37	(11/2⁻)	290.19	11/2⁻
[x]1919.8 *4*	0.20 *6*				
[x]1923.5 *4*	0.25 *7*				
1925.5 *4*	0.30 *9*	2215.18	(13/2⁻,15/2⁻)	290.19	11/2⁻
[x]1933.3 *6*	0.014 *5*				
[x]1954.9 *4*	0.14 *4*				
[x]1963.6 *4*	0.31 *8*				
[x]1968.2 *6*	0.013 *5*				
[x]1972.9 *6*	0.039 *12*				
1988.6 *6*	0.004 *2*	2279.38	(11/2⁻)	290.19	11/2⁻
[x]1997.3 *5*	0.008 *2*				
[x]2028.0 *7*	0.002 *1*				
[x]2032.6 *7*	0.002 *1*				
[x]2045.2 *7*	0.002 *1*				
[x]2060.1 *5*	0.010 *4*				

[†] From 1974ViZS.
[‡] From 1974ViZS and based on α(K)exp and/or ce subshell ratios, unless otherwise noted. The photon and ce intensity scales were normalized through α of 218.1γ, 129.8γ, 573.25γ, 932.37γ (1974ViZS). The α(K)exp from 1970Pl01 are based on I(ce) of 1958Br88 and Iγ of 1970Pl01 with the intensities normalized through α(K)(407.6γ E2)=0.0301.
[#] From 1970Pl01.
[@] From intensity balance, this level is not fed directly by ε. From feeding pattern 98% of the decay out of this level follows γ's seen in ^{193}Hg (11.8 h) ε.
[&] From intensity balance, this level is not fed directly by ε. From feeding pattern 93% of the decay out of this level follows γ's seen in ^{193}Hg (11.8 h) ε.
[a] α(K)exp=0.0044 *18*, K/L12=2.3 *9*. Theory: E1: α(K)=0.00337, K/L12=7.02; E2: α(K)=0.00865, K/L12=5.12; M1: α(K)=0.0265, K/L12=6.26; M2: α(K)=0.068, K/L12=5.46. From this it can be seen that numerous combinations of multipolarities are possible from the members of this doublet.
[b] 1974ViZS show this γ as a doublet with second placement from a 1004 level. The 1004 level is fed by a 1040γ which is shown as belonging to the 3.80 h decay, while the 746γ deexciting the level is not shown as being of composite $T_{1/2}$.
[c] Additional information 1.
[d] If no value given it was assumed δ=1.00 for E2/M1, δ=1.00 for E3/M2 and δ=0.10 for the other multipolarities.
[e] Multiply placed with intensity suitably divided.
[f] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

$^{193}_{79}$Au$_{114}$-18

^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01

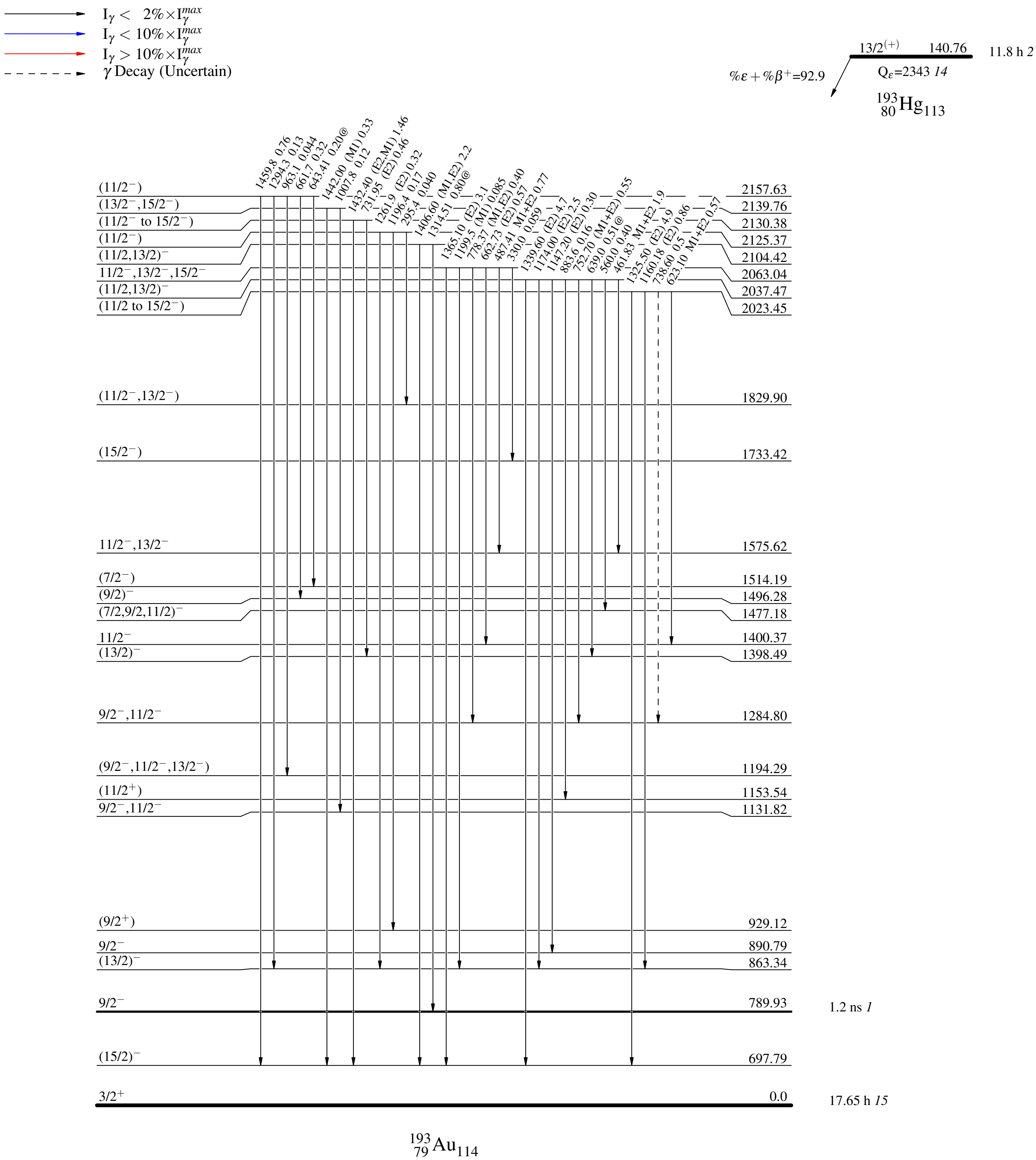
Decay Scheme



^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01

Decay Scheme (continued)

Intensities: Type not specified
@ Multiply placed: intensity suitably divided

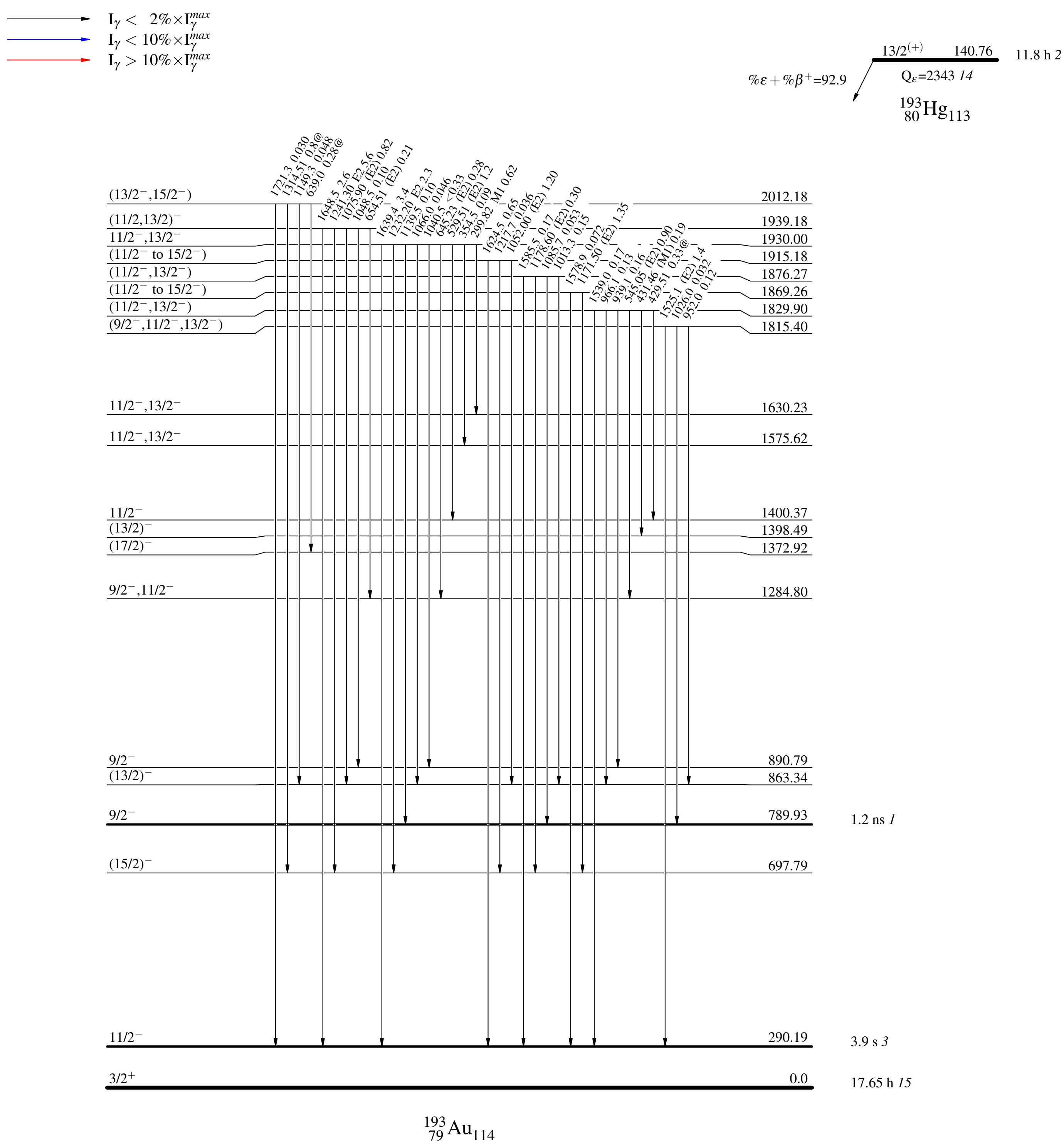


$^{193}_{79}Au_{114}$

^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01

Decay Scheme (continued)

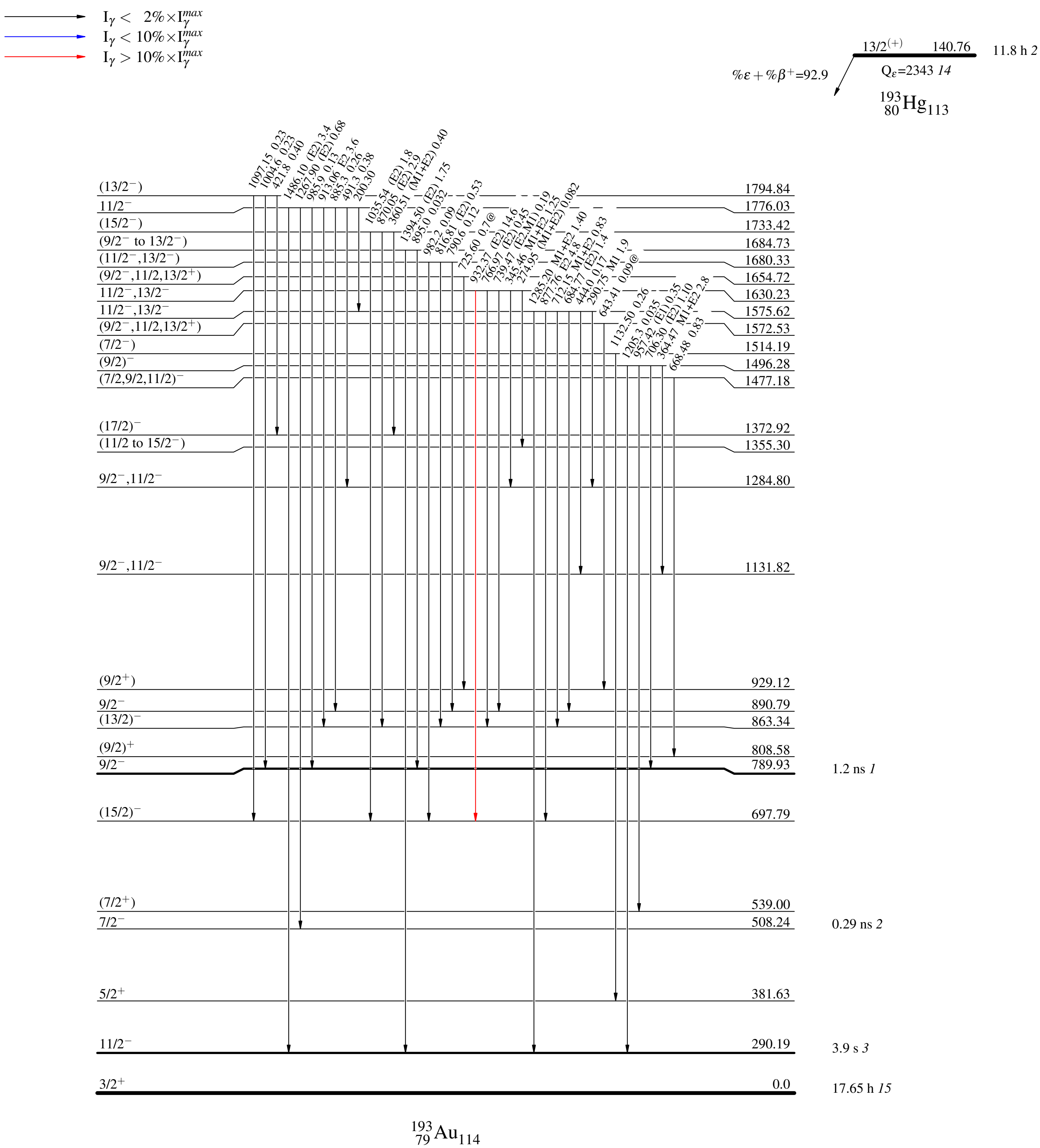
Intensities: Type not specified
@ Multiply placed: intensity suitably divided



^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01

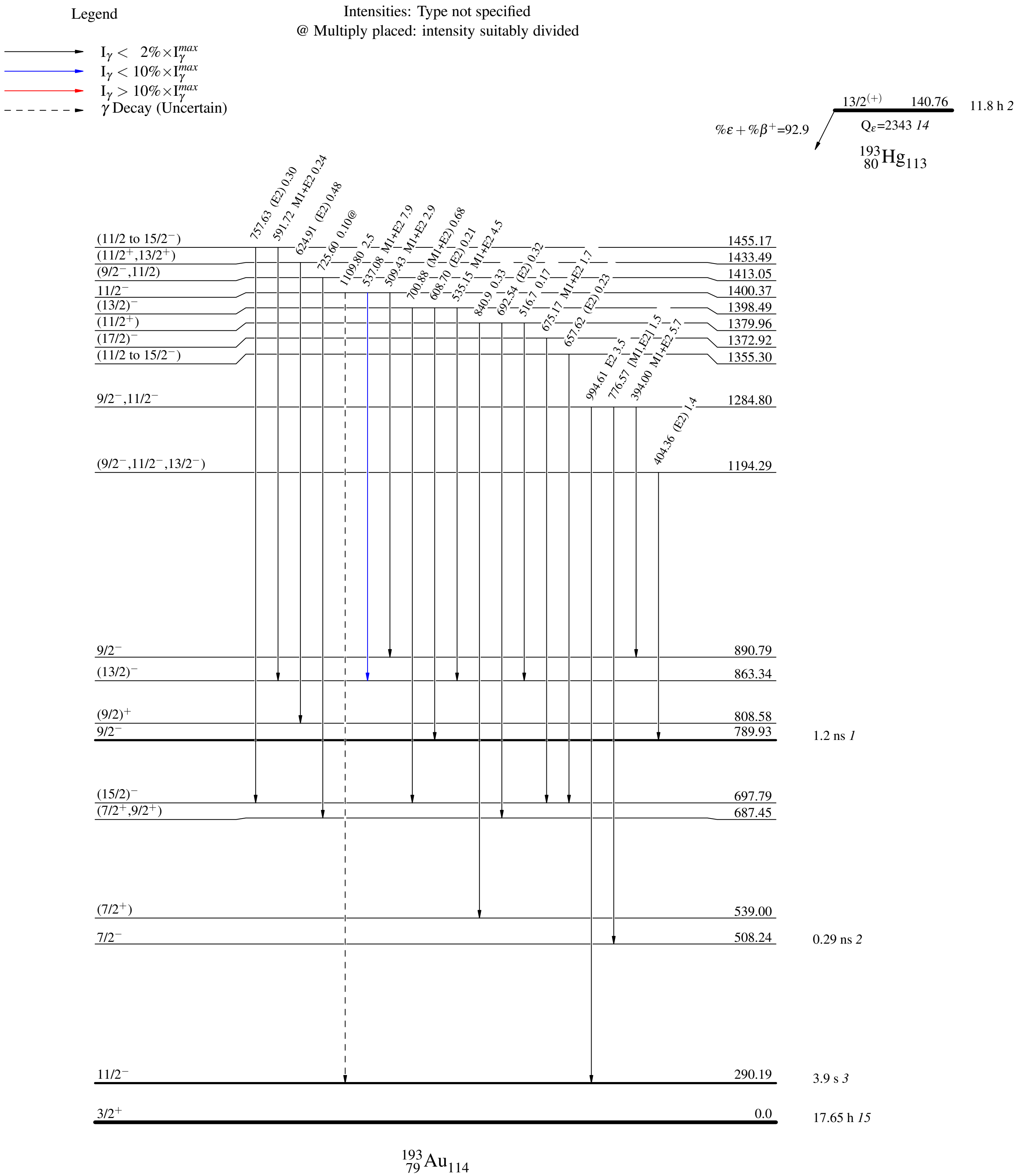
Decay Scheme (continued)

Intensities: Type not specified
@ Multiply placed: intensity suitably divided



^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01

Decay Scheme (continued)



^{193}Hg ε decay (11.8 h) 1974ViZS,1970Pl01

Decay Scheme (continued)

Intensities: Type not specified
@ Multiply placed: intensity suitably divided