^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 110, 999 (2009)	1-Nov-2008

Parent: ^{187}Hg: E=0.0; J^π=3/2$^{(-)}$; $T_{1/2}$=1.9 min *3*; Q(ε)=4890 *30*; %ε+%β^+ decay=100.0

^{187}Hg-$T_{1/2}$: 2.4 min in 1998Ru04, not measured (e-mail communication with Dr. Dubravka Rupnik).

Other references: 1995Ru07, 1988Pa15, 1988Ko22, 1986Be07, 1983Be48, 1975Ho03, and 1970Du09.

1998Ru04,1994RuZX,1995Ru07: Mass separated ^{187}Hg^g were obtained from the ^{187}Tl^{m,g} decay produced through ^{176}Hf(^{19}F,8n); Detector: Ge(Li), Se(Li); Measured: Eγ, Iγ, α(K)exp, γγ t, ce-γ-t, γ-x-t, and ce-x-t.

1978Bo05: On line mass separated ^{187}Hg from Au(p,xn)Hg; Detector: Ge(Li), Si(Li); Measured Eγ, Iγ, α, γγ coin, ce-γ coin, γ-ce-t, deduced levels, J, π, mult. Decay scheme includes both the metastable (1.9 min) and ground (2.4 min) states decay data together.

1988Pa15,1988Ko22: Mass-separated ^{187}Hg^g produced from ^{180}W(^{14}N,7n), E=160 MeV, 187Tl β^+ decay; ^{187}Hg^m from ^{180}W(^{12}C,5n), E=120 MeV; Measured: γγ(t), γ-x-t, γ-ce-t, ce-x-t.

1986Be07,1983Be48: ^{187}Hg produced from Au(p,xn), measured level $T_{1/2}$ by ce-ce(t), γ-ce(t).

1975Ho03, 1970Du09: Measured total absorption spectrum of ^{187}Hg ε decay. The spectrum (Fig. 3 of 1975Ho03) indicates level population in the ^{187}Hg ε Decay upto ≈4500 keV. 1970Du09 shows the total absorption of the ^{187}Hg decay upto ≈3000 keV (Fig. 8e – 1970Du09).

The ^{187}Hg decay scheme is presented as constructed by 1998Ru04.

^{187}Au Levels

E(level)[†]	J^π[‡]	$T_{1/2}$	Comments
0.0	1/2$^{(+)}$	8.3 min *2*	$T_{1/2}$: From Adopted Levels.
19.53[#] *9*	3/2$^{(+)}$	6.5 ns *7*	$T_{1/2}$: weighted average of 6 ns *1* ce(19.5L)(t)−1978Bo05 and 7 ns *1* (ce(220K)-ce(19.5M)(t)−1986Be07).
120.43[&] *15*	9/2$^{(-)}$	2.3 s *1*	$T_{1/2}$: From ce(t)−1983Br26. The uncertainty is at 95% confidence level (^{187}Au IT decay).
171.86[&] *17*	(5/2$^-$)	1.1 ns *1*	$T_{1/2}$: from ce(271.1K)-ce(51.2L)(t)−1983Be48.
203.28[#] *9*	(3/2$^+$)		
223.96[@] *19*	(11/2$^-$)	48 ns *2*	$T_{1/2}$: from γ-ce(103.3M)(t)−1983Be48. Other value: 50 ns *8* (γ-ce(103.3L(t)−1978Bo05).
240.17[#] *9*	(5/2$^+$)		
274.96[&] *17*	(1/2$^-$)		
290.98[#] *10*	(5/2$^+$)		
325.71[&] *17*	(7/2$^-$)		
428.17[&] *17*	(3/2$^-$)		
456.17[&] *17*	(5/2$^-$)		
476.59[@] *14*	(7/2$^-$)		
495.32[#] *12*	(7/2$^+$)		
503.73[#] *10*	(3/2$^+$)		
546.13[&] *16*	(1/2$^-$)		
590.80[#] *12*	(3/2$^+$)		
595.31[#] *12*	(3/2$^+$)		
598.24[&] *18*	(7/2$^-$)		
633.53[#] *13*	(7/2$^+$)		
638.60[#] *11*	(5/2$^+$)		
687.10[#] *13*	(5/2$^+$)		
705.9 *3*			
732.94[&] *19*	(5/2$^-$)		
754.58[&] *18*	(3/2$^-$)		

Continued on next page (footnotes at end of table)

^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05 (continued)

^{187}Au Levels (continued)

E(level)[†]	J^{π}[‡]	E(level)[†]	J^{π}[‡]	E(level)[†]	J^{π}[‡]
778.41[#] *16*	(1/2,3/2,5/2)$^+$	1811.1[#] *4*		2154.88[#] *12*	
822.36[#] *18*	(5/2$^+$)	1842.76 *20*	(5/2$^+$)	2172.39[&] *22*	
877.29[&] *18*	(5/2$^-$)	1876.3[#] *5*		2173.05[#] *12*	
948.2[&] *3*	(1/2$^-$,3/2$^-$)	1918.05[#] *14*		2178.04[#] *24*	
975.39[&] *18*	(3/2$^-$)	1919.19[@] *24*	(3/2$^-$)	2178.90[@] *24*	(3/2$^-$)
994.29[#] *22*		1995.19[@] *24*	(5/2$^-$)	2184.92[&] *22*	
1056.04[@] *11*	(3/2$^-$)	1997.3[#] *4*		2193.1 *5*	(5/2$^+$)
1161.2[#] *5*		2051.6[#] *4*		2230.0[#] *3*	
1233.89[@] *24*		2068.87[&] *20*		2253.18[#] *19*	
1237.59[@] *24*	(5/2$^-$)	2094.6[#] *3*		2283.0[&] *3*	
1260.39[@] *24*	(3/2$^-$)	2095.85[&] *21*		2293.17 *21*	
1291.3[&] *3*	(3/2$^-$)	2102.30[&] *21*		2322.0[&] *20*	
1362.69 *21*		2103.29[#] *22*		2334.8[#] *4*	
1419.63 *24*	(5/2$^+$)	2116.13[#] *24*		2345.86[#] *21*	
1498.3 *5*	(5/2$^+$)	2121.20[&] *21*		2403.2[#] *3*	
1737.49[#] *22*		2121.59[#] *23*		2431.07[#] *21*	
1751.79[#] *22*		2127.79[#] *22*		2486.0[#] *20*	
1776.1 *5*		2142.23[#] *19*		2504.3[#] *4*	
1786.4[#] *4*		2154.46[&] *19*	(3/2$^-$)	2524.3[#] *3*	

[†] From a least-squares fit to the γ-ray energies ignoring 1857.8γ from the 2184.9 keV level.
[‡] From Adopted Levels.
[#] $s_{1/2}\otimes d_{3/2}\otimes d_{5/2}$ bands.
[@] $h_{11/2}$ bands.
[&] $h_{9/2}\otimes f_{7/2}$ bands.

γ(^{187}Au)

E_γ[†]	I_γ[†]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[c]	$I_{(\gamma+ce)}$[†]	Comments
19.5 *4*		19.53	3/2$^{(+)}$	0.0	1/2$^{(+)}$	(M1+E2)[a]		7.×10^3 *6*		α(L)=5.E3 5; α(M)=1.3×10^3 *13*; α(N+..)=4.E2 4 α(N)=3.E2 3; α(O)=5.E1 5; α(P)=0.083 *9*
36.9		240.17	(5/2$^+$)	203.28	(3/2$^+$)	[M1+E2]		3.×10^2 *3*	15 *5*	ce(L)/(γ+ce)=0.7 *5*; ce(M)/(γ+ce)=0.19 *23*; ce(N+)/(γ+ce)=0.05 *7* ce(N)/(γ+ce)=0.05 *6*; ce(O)/(γ+ce)=0.008 *10*; ce(P)/(γ+ce)=3.E−5 *4*
50.7 *4*	0.19 *5*	290.98	(5/2$^+$)	240.17	(5/2$^+$)	[E2]		117 *3*	22 *6*	ce(L)/(γ+ce)=0.744 *13*; ce(M)/(γ+ce)=0.193 *6*; ce(N+)/(γ+ce)=0.0548 *18* ce(N)/(γ+ce)=0.0473 *16*; ce(O)/(γ+ce)=0.0075 *3*; ce(P)/(γ+ce)=7.37×10^{-6} *24* I_γ: Deduced by the evaluator from TI/(1+α).
51.2 *4*		171.86	(5/2$^-$)	120.43	9/2$^{(-)}$	[E2]		112 *3*		ce(L)/(γ+ce)=0.744 *13*; ce(M)/(γ+ce)=0.193 *6*; ce(N+)/(γ+ce)=0.0548 *18* ce(N)/(γ+ce)=0.0473 *16*; ce(O)/(γ+ce)=0.0075 *3*; ce(P)/(γ+ce)=7.42×10^{-6} *24* I_γ: could not be found using gated spectra in ^{187}Hg^g ε decay (1998Ru04).
89.7[‡] *4*	0.4 *2*	546.13	(1/2$^-$)	456.17	(5/2$^-$)	E2		8.25 *20*		α(K)=0.683 *10*; α(L)=5.67 *15*; α(M)=1.47 *4*; α(N+..)=0.421 *11* α(N)=0.362 *10*; α(O)=0.0579 *15*; α(P)=0.0001261 *24* Mult.: From α(L)exp=7 *4* (1998Ru04).
101.0 *2*	5.8 *5*	120.43	9/2$^{(-)}$	19.53	3/2$^{(+)}$	E3		120.4 *22*	699 *55*	ce(K)/(γ+ce)=0.00762 *18*; ce(L)/(γ+ce)=0.723 *10*; ce(M)/(γ+ce)=0.203 *5*; ce(N+)/(γ+ce)=0.0585 *15* ce(N)/(γ+ce)=0.0505 *13*; ce(O)/(γ+ce)=0.00803 *21*; ce(P)/(γ+ce)=1.52×10^{-5} *4* I_γ: Deduced by the evaluator from I(γ+ce)/(1+α). Iγ=6.5 *13* (1978Bo05). Mult.: α(L)exp=75 *20*, L1/L2<0.1, L2/L3≈1.3 (1978Bo05).
102.3[‡] *4*	0.2 *1*	428.17	(3/2$^-$)	325.71	(7/2$^-$)					
103.3[‡] *2*	23 *3*	274.96	(1/2$^-$)	171.86	(5/2$^-$)	(E2)		4.55 *8*		α(K)=0.645 *10*; α(L)=2.93 *5*; α(M)=0.761 *13*; α(N+..)=0.217 *4* α(N)=0.187 *4*; α(O)=0.0300 *5*; α(P)=8.69×10^{-5} *13* Mult.: 1998Ru04 assigned 81%M1+E2 from α(L1)exp+α(L2)exp=1.5 *5*, decay scheme requires E2.
103.4 *2*	8.7 *4*	223.96	(11/2$^-$)	120.43	9/2$^{(-)}$	M1+E2	0.0 *5*	6.6 *5*		α(K)=5.4 *10*; α(L)=0.9 *4*; α(M)=0.21 *11*; α(N+..)=0.06 *3* α(N)=0.05 *3*; α(O)=0.010 *4*; α(P)=0.00065 *12* α(K)exp=5.5 *10* (1978Bo05); α(L1)exp+α(L2)exp=0.99 *8* (1998Ru04).
129.7 *4*	0.75 *20*	633.53	(7/2$^+$)	503.73	(3/2$^+$)					α(K)exp=2.0 *7*, implies Mult: M1+E2.

γ(^{187}Au) (continued)

E_γ [†]	I_γ [†]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [&]	δ [b]	α [c]	Comments
130.4[‡] 2	4.0 10	456.17	(5/2⁻)	325.71	(7/2⁻)	M1+E2	1.0 4	2.6 4	α(K)=1.6 6; α(L)=0.73 13; α(M)=0.18 4; α(N+..)=0.053 10 α(N)=0.046 9; α(O)=0.0076 13; α(P)=0.00019 7 α(K)exp=1.6 4.
138.5 4	0.49 10	633.53	(7/2⁺)	495.32	(7/2⁺)				α(K)exp=0.6 3, implies Mult: M1+E2.
142.7[‡] 4	0.6 2	598.24	(7/2⁻)	456.17	(5/2⁻)	M1+E2	3.6 7	1.3 13	α(K)=0.5 17; α(L)=0.6 3; α(M)=0.17 9; α(N+..)=0.048 24 α(N)=0.041 21; α(O)=0.007 3; α(P)=5.E−5 21 α(K)exp=0.5 3.
153.3[‡] 2	17.8 22	428.17	(3/2⁻)	274.96	(1/2⁻)	M1+E2	2.3 4	1.15 7	α(K)=0.55 9; α(L)=0.455 13; α(M)=0.116 4; α(N+..)=0.0335 11 α(N)=0.0287 10; α(O)=0.00471 13; α(P)=6.1×10^{-5} 11 α(K)exp=0.55 17.
153.7 2	15.9 19	325.71	(7/2⁻)	171.86	(5/2⁻)	M1+E2	0.65 10	1.78 8	α(K)=1.32 10; α(L)=0.348 14; α(M)=0.085 4; α(N+..)=0.0248 11 α(N)=0.0210 10; α(O)=0.00365 13; α(P)=0.000157 12 α(K)exp=1.32 9.
156.7[‡] 4	0.5 3	754.58	(3/2⁻)	598.24	(7/2⁻)	E2		0.891 15	α(K)=0.304 5; α(L)=0.441 8; α(M)=0.1139 21; α(N+..)=0.0326 6 α(N)=0.0281 5; α(O)=0.00454 9; α(P)=3.12×10^{-5} 5
159.8[@] 2	2.1 5	705.9		546.13	(1/2⁻)				
170.4[‡] 4	0.6 2	598.24	(7/2⁻)	428.17	(3/2⁻)				
181.4[‡] 2	7.5 20	456.17	(5/2⁻)	274.96	(1/2⁻)	E2		0.526	α(K)=0.215 3; α(L)=0.233 4; α(M)=0.0600 9; α(N+..)=0.0172 3 α(N)=0.01478 22; α(O)=0.00241 4; α(P)=2.20×10^{-5} 4 Mult.: From α(K)exp=0.22 8 (1998Ru04).
183.2 4	0.6 2	687.10	(5/2⁺)	503.73	(3/2⁺)	(M1)		1.299 20	α(K)=1.067 17; α(L)=0.178 3; α(M)=0.0412 7; α(N+..)=0.01229 19 α(N)=0.01028 16; α(O)=0.00189 3; α(P)=0.0001277 20 α(K)exp=1.2 6 V.
183.7 4	1.4 6	203.28	(3/2⁺)	19.53	3/2⁽⁺⁾	M1+E2	2.3 4	0.63 5	α(K)=0.34 5; α(L)=0.214 5; α(M)=0.0543 13; α(N+..)=0.0157 4 α(N)=0.0134 4; α(O)=0.00222 5; α(P)=3.8×10^{-5} 7 Mult.: α(K)exp=0.34 10.
185.7 2	3.9 9	476.59	(7/2⁻)	290.98	(5/2⁺)	E1		0.0868	α(K)=0.0709 11; α(L)=0.01216 18; α(M)=0.00282 4; α(N+..)=0.000823 12 α(N)=0.000694 10; α(O)=0.0001223 18; α(P)=6.37×10^{-6} 9 α(K)exp=0.07 2.
192.3 4	0.9 2	687.10	(5/2⁺)	495.32	(7/2⁺)	M1+E2	2.1 4	0.56 6	α(K)=0.32 6; α(L)=0.177 4; α(M)=0.0447 11; α(N+..)=0.0129 3 α(N)=0.0110 3; α(O)=0.00184 4; α(P)=3.6×10^{-5} 7 α(K)exp=0.33 17.
203.4 2	100 7	203.28	(3/2⁺)	0.0	1/2⁽⁺⁾	M1		0.969	α(K)=0.797 12; α(L)=0.1325 19; α(M)=0.0307 5; α(N+..)=0.00916 13 α(N)=0.00766 11; α(O)=0.001408 20; α(P)=9.52×10^{-5} 14 α(K)exp=0.8 1 (1998Ru04), Other: α(K)exp=0.65 15 (1978Bo05).
205.4 2	42 4	325.71	(7/2⁻)	120.43	9/2⁽⁻⁾	M1+E2	0.73 23	0.73 9	α(K)=0.56 10; α(L)=0.1319 23; α(M)=0.0318 10; α(N+..)=0.00934 23 α(N)=0.00788 22; α(O)=0.001389 22; α(P)=6.6×10^{-5} 12 α(K)exp=0.56 10.

$^{187}_{79}$Au$_{108}$-4

γ(^{187}Au) (continued)

Eγ[†]	Iγ[†]	Ei(level)	J^{π}_{i}	E_f	J^{π}_{f}	Mult.[&]	δ[b]	α[c]	Comments
208.4[‡] 2	3.5 7	754.58	(3/2⁻)	546.13	(1/2⁻)	(M1+E2)	1.0 6	0.62 21	α(K)=0.45 22; α(L)=0.127 3; α(M)=0.0309 17; α(N+..)=0.0090 4 α(N)=0.0077 4; α(O)=0.001328 21; α(P)=5.E−5 3 α(K)exp=0.46 21 (using the running gate method – 1998Ru04).
212.7[@] 2	2.0 5	503.73	(3/2⁺)	290.98	(5/2⁺)	E2+M1	1.6 4	0.46 8	α(K)=0.30 8; α(L)=0.1184 18; α(M)=0.0295 6; α(N+..)=0.00857 16 α(N)=0.00730 15; α(O)=0.001234 18; α(P)=3.4×10^{-5} 9 α(K)exp=0.3 1.
220.8 2	47 3	240.17	(5/2⁺)	19.53	3/2$^{(+)}$	M1+E2	2.54 18	0.336 11	α(K)=0.200 10; α(L)=0.1024 15; α(M)=0.0258 4; α(N+..)=0.00747 11 α(N)=0.00638 10; α(O)=0.001064 16; α(P)=2.20×10^{-5} 12 α(K)exp=0.203 29 (1998Ru04); α(K)exp=0.28 6 (1978Bo05).
236.3 2	5.7 4	476.59	(7/2⁻)	240.17	(5/2⁺)	E1		0.0478	α(K)=0.0392 6; α(L)=0.00655 10; α(M)=0.001516 22; α(N+..)=0.000444 7 α(N)=0.000374 6; α(O)=6.64×10^{-5} 10; α(P)=3.63×10^{-6} 6 α(K)exp=0.05 2.
240.3 2	66 5	240.17	(5/2⁺)	0.0	1/2$^{(+)}$	E2		0.203	α(K)=0.1076 16; α(L)=0.0722 11; α(M)=0.0184 3; α(N+..)=0.00530 8 α(N)=0.00454 7; α(O)=0.000749 11; α(P)=1.119×10^{-5} 16 α(K)exp=0.12 3 (1978Bo05) and 0.12 2 (1998Ru04).
252.5 2	21 3	476.59	(7/2⁻)	223.96	(11/2⁻)	E2		0.1737	α(K)=0.0951 14; α(L)=0.0592 9; α(M)=0.01506 22; α(N+..)=0.00434 7 α(N)=0.00372 6; α(O)=0.000615 9; α(P)=9.94×10^{-6} 14 α(K)exp=0.09 2 (1998Ru04).
255.2 2	6.3 4	495.32	(7/2⁺)	240.17	(5/2⁺)	M1+E2	0.3 7	0.49 15	α(K)=0.40 14; α(L)=0.069 6; α(M)=0.0162 9; α(N+..)=0.0048 3 α(N)=0.00402 22; α(O)=0.00073 7; α(P)=4.7×10^{-5} 17 α(K)exp=0.40 6, δ from 78%M1 (1998Ru04).
256.4[‡] 2	15.7 13	428.17	(3/2⁻)	171.86	(5/2⁻)	M1+E2	1.6 5	0.26 6	α(K)=0.18 6; α(L)=0.060 3; α(M)=0.0147 4; α(N+..)=0.00429 14 α(N)=0.00364 11; α(O)=0.00062 3; α(P)=2.1×10^{-5} 7 α(K)exp=0.18 6.
263.8[‡] 2	2.0 5	503.73	(3/2⁺)	240.17	(5/2⁺)	(M1)		0.472	α(K)=0.388 6; α(L)=0.0642 9; α(M)=0.01489 21; α(N+..)=0.00444 7 α(N)=0.00371 6; α(O)=0.000682 10; α(P)=4.62×10^{-5} 7 α(K)exp=0.53 20 (using the running gate method – 1998Ru04).
270.9[‡] 2	19.9 25	546.13	(1/2⁻)	274.96	(1/2⁻)	E0+M1		≈0.77	Mult.: From α(K)exp=0.59 7 (using the running gate method – 1998Ru04). E0+M1(+E2) in 1998Ru04, 270.9γ is a 1/2⁻ to 1/2⁻ transition and so E2 component is forbidden and dropped out by the evaluator. α: Estimated by the evaluator from the α(K)exp value.
271.5 2	83 8	290.98	(5/2⁺)	19.53	3/2$^{(+)}$	M1+E2	0.0 3	0.44 3	α(K)=0.359 24; α(L)=0.0593 15; α(M)=0.0138 3; α(N+..)=0.00410 9 α(N)=0.00343 8; α(O)=0.000630 17; α(P)=4.3×10^{-5} 3 α(K)exp=0.42 8.
272.1 2	3.3 6	598.24	(7/2⁻)	325.71	(7/2⁻)	M1		0.433	α(K)=0.357 5; α(L)=0.0590 9; α(M)=0.01367 20; α(N+..)=0.00407

γ(^{187}Au) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[b]	α[c]	Comments
									6 α(N)=0.00341 5; α(O)=0.000626 9; α(P)=4.24×10^{-5} 6 α(K)exp=0.37 8 (using the running gate method – 1998Ru04).
275.4[‡] 2	2.7 5	778.41	(1/2,3/2,5/2)$^+$	503.73	(3/2$^+$)	M1+E2	2.7 4	0.167 12	α(K)=0.109 11; α(L)=0.0439 9; α(M)=0.01098 19; α(N+..)=0.00318 6 α(N)=0.00271 5; α(O)=0.000458 10; α(P)=1.21×10^{-5} 13 α(K)exp=0.11 3, δ 76%E2 (1998Ru04).
276.6[‡] 2	4.8 7	732.94	(5/2$^-$)	456.17	(5/2$^-$)	(M1)		0.414	α(K)=0.341 5; α(L)=0.0564 8; α(M)=0.01306 19; α(N+..)=0.00389 6 α(N)=0.00325 5; α(O)=0.000599 9; α(P)=4.05×10^{-5} 6 α(K)exp=0.4 1.
278.7[‡] 2	4.2 6	877.29	(5/2$^-$)	598.24	(7/2$^-$)	M1		0.406	α(K)=0.334 5; α(L)=0.0552 8; α(M)=0.01279 18; α(N+..)=0.00381 6 α(N)=0.00319 5; α(O)=0.000586 9; α(P)=3.97×10^{-5} 6 α(K)exp=0.36 7.
284.5[‡] 2	18.4 21	456.17	(5/2$^-$)	171.86	(5/2$^-$)	E0+M1+E2		≈0.67	α(K)exp=0.52 6 (using the running gate method – 1998Ru04). α: Estimated by the evaluator from the α(K)exp value.
291.0 4	1.9 6	290.98	(5/2$^+$)	0.0	1/2$^{(+)}$				
292.2 4	0.9 2	495.32	(7/2$^+$)	203.28	(3/2$^+$)	E2		0.1107	α(K)=0.0662 10; α(L)=0.0336 5; α(M)=0.00848 13; α(N+..)=0.00245 4 α(N)=0.00209 4; α(O)=0.000349 6; α(P)=7.04×10^{-6} 11 εK(exp)=0.07 2.
298.4[‡] 2	5.8 8	754.58	(3/2$^-$)	456.17	(5/2$^-$)	M1+E2	0.7 15	0.26 12	α(K)=0.21 11; α(L)=0.041 8; α(M)=0.0097 14; α(N+..)=0.0029 5 α(N)=0.0024 4; α(O)=0.00043 9; α(P)=2.4×10^{-5} 14 α(K)exp=0.21 15.
299.6 2	3.0 5	590.80	(3/2$^+$)	290.98	(5/2$^+$)	M1+E2	1.5 7	0.17 7	α(K)=0.13 7; α(L)=0.035 5; α(M)=0.0086 9; α(N+..)=0.0025 3 α(N)=0.00212 22; α(O)=0.00037 5; α(P)=1.5×10^{-5} 8 α(K)exp=0.13 7.
300.3[‡] 2	4.2 2	503.73	(3/2$^+$)	203.28	(3/2$^+$)	(E2+M1)	3 3	0.12 21	α(K)=0.08 19; α(L)=0.032 14; α(M)=0.008 3; α(N+..)=0.0023 9 α(N)=0.0020 7; α(O)=0.00033 15; α(P)=9.E−6 24 α(K)exp=0.08 4.
304.5[‡] 4	1.8 2	595.31	(3/2$^+$)	290.98	(5/2$^+$)	(M1)		0.319	α(K)=0.262 4; α(L)=0.0433 7; α(M)=0.01003 15; α(N+..)=0.00299 5 α(N)=0.00250 4; α(O)=0.000460 7; α(P)=3.11×10^{-5} 5 α(K)exp=0.25 15.
326.2[‡] 2	6.3 7	754.58	(3/2$^-$)	428.17	(3/2$^-$)	M1		0.264	α(K)=0.218 3; α(L)=0.0359 5; α(M)=0.00831 12;

$^{187}_{79}$Au$_{108}$-6

γ(^{187}Au) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[c]	Comments
									α(N+..)=0.00248 *4* α(N)=0.00207 *3*; α(O)=0.000381 *6*; α(P)=2.58×10^{-5} *4* α(K)exp=0.21 *5*.
327.0 *4*	0.9 *1*	822.36	(5/2$^+$)	495.32	(7/2$^+$)	M1+E2	0.7 *12*	0.20 *9*	α(K)=0.16 *8*; α(L)=0.031 *7*; α(M)=0.0074 *13*; α(N+..)=0.0022 *4* α(N)=0.0018 *4*; α(O)=0.00033 *7*; α(P)=1.9×10^{-5} *10* α(K)exp=0.16 *9*.
330.9[‡] *2*	4.2 *4*	877.29	(5/2$^-$)	546.13	(1/2$^-$)				
335.7[‡] *2*	3.3 *9*	456.17	(5/2$^-$)	120.43	9/2$^{(-)}$				
342.6 *4*	1.5 *3*	633.53	(7/2$^+$)	290.98	(5/2$^+$)	E2+M1	0.8 *4*	0.17 *4*	α(K)=0.13 *4*; α(L)=0.026 *4*; α(M)=0.0063 *7*; α(N+..)=0.00185 *21* α(N)=0.00155 *17*; α(O)=0.00028 *4*; α(P)=1.6×10^{-5} *5* α(K)exp=0.13 *4*.
347.9[‡] *2*	1.1 *2*	638.60	(5/2$^+$)	290.98	(5/2$^+$)	(M1)		0.222	α(K)=0.183 *3*; α(L)=0.0301 *5*; α(M)=0.00697 *10*; α(N+..)=0.00208 *3* α(N)=0.001736 *25*; α(O)=0.000319 *5*; α(P)=2.17×10^{-5} *3* α(K)exp=0.20 *7*.
350.0 *4*	1.5 *3*	590.80	(3/2$^+$)	240.17	(5/2$^+$)	(M1+E2)	1.2 *9*	0.13 *8*	α(K)=0.10 *7*; α(L)=0.022 *7*; α(M)=0.0054 *13*; α(N+..)=0.0016 *4* α(N)=0.0013 *4*; α(O)=0.00023 *7*; α(P)=1.1×10^{-5} *9* α(K)exp=0.10 *6*.
355.3[‡] *2*	2.1 *6*	595.31	(3/2$^+$)	240.17	(5/2$^+$)	(M1)		0.210	α(K)=0.1730 *25*; α(L)=0.0284 *4*; α(M)=0.00658 *10*; α(N+..)=0.00196 *3* α(N)=0.001640 *23*; α(O)=0.000302 *5*; α(P)=2.05×10^{-5} *3* α(K)exp=0.20 *8* (1998Ru04).
374.2[‡] *2*	26 *4*	546.13	(1/2$^-$)	171.86	(5/2$^-$)	(E2)		0.0545	α(K)=0.0365 *6*; α(L)=0.01364 *20*; α(M)=0.00340 *5*; α(N+..)=0.000986 *14* α(N)=0.000839 *12*; α(O)=0.0001423 *20*; α(P)=3.97×10^{-6} *6* α(K)exp=0.04 *2* (1998Ru04).
387.7 *4*	0.9 *2*	590.80	(3/2$^+$)	203.28	(3/2$^+$)	(E0+M1+E2)		≈0.28	α(K)exp=0.22 *8* (using the running gate method − 1998Ru04). α: Estimated by the evaluator from the α(K)exp value.
391.9[‡] *2*	8.4 *15*	595.31	(3/2$^+$)	203.28	(3/2$^+$)	(E0+M1+E2)		≈0.26	α(K)exp=0.20 *3* (using the running gate method − 1998Ru04). α: Estimated by the evaluator from the α(K)exp value.
393.4 *2*	14.2 *6*	633.53	(7/2$^+$)	240.17	(5/2$^+$)	M1		0.1597	α(K)=0.1317 *19*; α(L)=0.0216 *3*; α(M)=0.00499 *7*; α(N+..)=0.001489 *21* α(N)=0.001244 *18*; α(O)=0.000229 *4*; α(P)=1.555×10^{-5} *22* α(K)exp=0.15 *3*.
395.9 *4*	1.2 *3*	687.10	(5/2$^+$)	290.98	(5/2$^+$)	M1		0.1571	α(K)=0.1295 *19*; α(L)=0.0212 *3*; α(M)=0.00491 *7*; α(N+..)=0.001463 *21* α(N)=0.001223 *18*; α(O)=0.000225 *4*; α(P)=1.529×10^{-5} *22* α(K)exp=0.14 *6* (using the running gate method − 1998Ru04).
398.3[‡] *2*	6.6 *5*	638.60	(5/2$^+$)	240.17	(5/2$^+$)				α(K)exp=0.21 *10* and mult shown >M1 in 1998Ru04.
402.1[‡] *2*	3.3 *6*	948.2	(1/2$^-$,3/2$^-$)	546.13	(1/2$^-$)	(M1+E2)	0.9 *11*	0.10 *5*	α(K)=0.08 *5*; α(L)=0.016 *5*; α(M)=0.0038 *10*; α(N+..)=0.0011 *3*

$^{187}_{79}$Au$_{108}$-7

γ(^{187}Au) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.&	δ b	α c	Comments
									α(N)=0.00094 *24*; α(O)=0.00017 *5*; α(P)=1.0×10^{-5} *5* α(K)exp=0.08 *5*.
407.8‡ *2*	7.8 *5*	732.94	(5/2$^-$)	325.71	(7/2$^-$)	M1		0.1451	α(K)=0.1196 *17*; α(L)=0.0196 *3*; α(M)=0.00453 *7*; α(N+..)=0.001351 *19* α(N)=0.001129 *16*; α(O)=0.000208 *3*; α(P)=1.412×10^{-5} *20* α(K)exp=0.12 *3*.
421.5‡ *2*	4.2 *5*	877.29	(5/2$^-$)	456.17	(5/2$^-$)	(M1)		0.1329	α(K)=0.1096 *16*; α(L)=0.0179 *3*; α(M)=0.00415 *6*; α(N+..)=0.001236 *18* α(N)=0.001033 *15*; α(O)=0.000190 *3*; α(P)=1.292×10^{-5} *19* α(K)exp=0.10 *2*.
426.1 *2*	14 *2*	598.24	(7/2$^-$)	171.86	(5/2$^-$)	M1+E2	0.5 *4*	0.111 *23*	α(K)=0.091 *20*; α(L)=0.0157 *22*; α(M)=0.0037 *5*; α(N+..)=0.00109 *15* α(N)=0.00091 *12*; α(O)=0.000166 *23*; α(P)=1.06×10^{-5} *24* α(K)exp=0.09 *2*.
428.6‡ *2*	2.7 *9*	754.58	(3/2$^-$)	325.71	(7/2$^-$)	E2		0.0380	α(K)=0.0266 *4*; α(L)=0.00862 *13*; α(M)=0.00213 *3*; α(N+..)=0.000619 *9* α(N)=0.000526 *8*; α(O)=9.01×10^{-5} *13*; α(P)=2.93×10^{-6} *5* α(K)exp=0.026 *15*.
429.5‡ *4*	1.8 *5*	975.39	(3/2$^-$)	546.13	(1/2$^-$)	(M1)		0.1264	α(K)=0.1042 *15*; α(L)=0.01704 *25*; α(M)=0.00394 *6*; α(N+..)=0.001175 *17* α(N)=0.000982 *14*; α(O)=0.000181 *3*; α(P)=1.229×10^{-5} *18* α(K)exp=0.12 *4*.
429.9 *4*	1.8 *3*	633.53	(7/2$^+$)	203.28	(3/2$^+$)	(E2)		0.0377	α(K)=0.0264 *4*; α(L)=0.00854 *13*; α(M)=0.00211 *3*; α(N+..)=0.000613 *9* α(N)=0.000521 *8*; α(O)=8.92×10^{-5} *13*; α(P)=2.91×10^{-6} *5* α(K)exp=0.025 *15*.
435.5‡ *2*	9 *1*	638.60	(5/2$^+$)	203.28	(3/2$^+$)	M1+E2	0.65 *23*	0.096 *13*	α(K)=0.078 *11*; α(L)=0.0140 *13*; α(M)=0.0033 *3*; α(N+..)=0.00097 *9* α(N)=0.00081 *7*; α(O)=0.000148 *14*; α(P)=9.2×10^{-6} *14* α(K)exp=0.078 *12*.
446.9 *2*	3.0 *2*	687.10	(5/2$^+$)	240.17	(5/2$^+$)	M1		0.1138	α(K)=0.0938 *14*; α(L)=0.01532 *22*; α(M)=0.00354 *5*; α(N+..)=0.001056 *15* α(N)=0.000883 *13*; α(O)=0.0001625 *23*; α(P)=1.105×10^{-5} *16* α(K)exp=0.09 *3*.
457.8‡ *2*	9 *2*	732.94	(5/2$^-$)	274.96	(1/2$^-$)	(E2)		0.0321	α(K)=0.0229 *4*; α(L)=0.00696 *10*; α(M)=0.001711 *24*; α(N+..)=0.000499 *7* α(N)=0.000423 *6*; α(O)=7.28×10^{-5} *11*; α(P)=2.53×10^{-6} *4* α(K)exp=0.04 *3*.
476.0 *2*	22.6 *21*	495.32	(7/2$^+$)	19.53	3/2$^{(+)}$	E2		0.0291	α(K)=0.0210 *3*; α(L)=0.00616 *9*; α(M)=0.001509 *22*; α(N+..)=0.000440 *7* α(N)=0.000373 *6*; α(O)=6.44×10^{-5} *9*; α(P)=2.32×10^{-6} *4* α(K)exp=0.024 *5*.
478.0 *2*	11.4 *5*	598.24	(7/2$^-$)	120.43	9/2$^{(-)}$	E2+M1	1.0 *7*	0.06 *3*	α(K)=0.050 *25*; α(L)=0.009 *3*; α(M)=0.0022 *7*; α(N+..)=0.00066 *19*

$^{187}_{79}$Au$_{108}$-8

γ(^{187}Au) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[b]	α[c]	Comments
									α(N)=0.00055 16; α(O)=0.00010 3; α(P)=6.E−6 3 α(K)exp=0.05 2.
480.1[‡] 2	3.6 5	754.58	(3/2⁻)	274.96	(1/2⁻)	M1+E2	0.7 8	0.073 24	α(K)=0.059 21; α(L)=0.0105 25; α(M)=0.0024 6; α(N+..)=0.00073 17 α(N)=0.00061 14; α(O)=0.00011 3; α(P)=6.9×10^{-6} 25 α(K)exp=0.06 2.
483.7 2	2.4 3	687.10	(5/2⁺)	203.28	(3/2⁺)	E2(+M1)	2.2 5	0.039 6	α(K)=0.030 5; α(L)=0.0070 6; α(M)=0.00168 13; α(N+..)=0.00049 4 α(N)=0.00042 4; α(O)=7.3×10^{-5} 7; α(P)=3.4×10^{-6} 6 α(K)exp=0.03 1.
484.3[‡] 2	6.9 9	503.73	(3/2⁺)	19.53	3/2$^{(+)}$	M1		0.0920	α(K)=0.0759 11; α(L)=0.01236 18; α(M)=0.00286 4; α(N+..)=0.000852 12 α(N)=0.000712 10; α(O)=0.0001311 19; α(P)=8.92×10^{-6} 13 α(K)exp=0.08 3.
503.6[‡] 2	9.3 4	503.73	(3/2⁺)	0.0	1/2$^{(+)}$	(M1)		0.0830	α(K)=0.0685 10; α(L)=0.01114 16; α(M)=0.00258 4; α(N+..)=0.000768 11 α(N)=0.000642 9; α(O)=0.0001181 17; α(P)=8.04×10^{-6} 12 α(K)exp=0.08 4.
519.4[‡] 2	2.1 5	975.39	(3/2⁻)	456.17	(5/2⁻)	M1		0.0765	α(K)=0.0632 9; α(L)=0.01026 15; α(M)=0.00237 4; α(N+..)=0.000707 10 α(N)=0.000591 9; α(O)=0.0001088 16; α(P)=7.41×10^{-6} 11 α(K)exp=0.07 4.
545.9[‡] 2	5.1 9	546.13	(1/2⁻)	0.0	1/2$^{(+)}$	E1		0.00714 10	α=0.00714 10; α(K)=0.00594 9; α(L)=0.000919 13; α(M)=0.000211 3; α(N+..)=6.23×10^{-5} 9 α(N)=5.23×10^{-5} 8; α(O)=9.47×10^{-6} 14; α(P)=5.93×10^{-7} 9 α(K)exp=0.008 3.
551.8[‡] 2	2.1 9	877.29	(5/2⁻)	325.71	(7/2⁻)	M1		0.0653	α(K)=0.0539 8; α(L)=0.00875 13; α(M)=0.00202 3; α(N+..)=0.000603 9 α(N)=0.000504 7; α(O)=9.27×10^{-5} 13; α(P)=6.32×10^{-6} 9 α(K)exp=0.05 3.
565.9[@] 4	1.3 4	1161.2		595.31	(3/2⁺)				
571.4 2	9.6 15	590.80	(3/2⁺)	19.53	3/2$^{(+)}$	M1+E2	1.2 3	0.036 6	α(K)=0.029 5; α(L)=0.0054 7; α(M)=0.00126 15; α(N+..)=0.00037 5 α(N)=0.00031 4; α(O)=5.7×10^{-5} 7; α(P)=3.3×10^{-6} 6 α(K)exp=0.029 5.
575.8[‡] 2	2.9 7	595.31	(3/2⁺)	19.53	3/2$^{(+)}$				α(K)exp=0.09 6.
579.3[‡] 2	7.8 6	1056.04	(3/2⁻)	476.59	(7/2⁻)	(E2)		0.0182	α(K)=0.01374 20; α(L)=0.00341 5; α(M)=0.000826 12; α(N+..)=0.000242 4 α(N)=0.000205 3; α(O)=3.58×10^{-5} 5; α(P)=1.527×10^{-6} 22 α(K)exp=0.019 10.
582.4 2	3.0 2	822.36	(5/2⁺)	240.17	(5/2⁺)	M1+E2	0.4 7	0.051 16	α(K)=0.042 14; α(L)=0.0070 18; α(M)=0.0016 4; α(N+..)=0.00048 12 α(N)=0.00040 10; α(O)=7.4×10^{-5} 19; α(P)=4.9×10^{-6} 17 α(K)exp=0.043 7.
582.6[‡] 4	1.9 6	754.58	(3/2⁻)	171.86	(5/2⁻)				

$^{187}_{79}Au_{108}$-9

^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05 (continued)

γ(^{187}Au) (continued)

Eγ[†]	Iγ[†]	Ei(level)	J^{π}_{i}	Ef	J^{π}_{f}	Mult.[&]	δ[b]	α[c]	Comments
591.0 2	3.3 5	590.80	(3/2$^+$)	0.0	1/2$^{(+)}$	M1		0.0546	α(K)=0.0451 7; α(L)=0.00730 11; α(M)=0.001687 24; α(N+..)=0.000503 7 α(N)=0.000420 6; α(O)=7.74×10^{-5} 11; α(P)=5.28×10^{-6} 8 α(K)exp=0.05 2.
595.2[‡] 2	2.4 7	595.31	(3/2$^+$)	0.0	1/2$^{(+)}$	(M1)		0.0536	α(K)=0.0443 7; α(L)=0.00716 10; α(M)=0.001656 24; α(N+..)=0.000493 7 α(N)=0.000412 6; α(O)=7.59×10^{-5} 11; α(P)=5.18×10^{-6} 8 α(K)exp=0.05 2.
614.1 2	3.0 14	633.53	(7/2$^+$)	19.53	3/2$^{(+)}$				α(K)exp=0.03 2, implies Mult: M1+E2.
618.7 4	0.7 3	822.36	(5/2$^+$)	203.28	(3/2$^+$)	M1		0.0484	α(K)=0.0400 6; α(L)=0.00647 10; α(M)=0.001495 21; α(N+..)=0.000446 7 α(N)=0.000372 6; α(O)=6.86×10^{-5} 10; α(P)=4.68×10^{-6} 7 α(K)exp=0.05 2.
619.0[‡] 2	3.0 5	638.60	(5/2$^+$)	19.53	3/2$^{(+)}$	(M1)		0.0484	α(K)=0.0400 6; α(L)=0.00646 9; α(M)=0.001493 21; α(N+..)=0.000445 7 α(N)=0.000372 6; α(O)=6.85×10^{-5} 10; α(P)=4.68×10^{-6} 7 α(K)exp=0.05 2.
638.7[‡] 2	3.4 5	638.60	(5/2$^+$)	0.0	1/2$^{(+)}$				
667.8 2	2.4 3	687.10	(5/2$^+$)	19.53	3/2$^{(+)}$	M1		0.0397	α(K)=0.0329 5; α(L)=0.00530 8; α(M)=0.001224 18; α(N+..)=0.000365 6 α(N)=0.000305 5; α(O)=5.61×10^{-5} 8; α(P)=3.84×10^{-6} 6 α(K)exp=0.04 2.
686.7 4	0.9 2	687.10	(5/2$^+$)	0.0	1/2$^{(+)}$				
700.3[‡] 2	15.1 15	975.39	(3/2$^-$)	274.96	(1/2$^-$)	M1		0.0352	α(K)=0.0291 4; α(L)=0.00468 7; α(M)=0.001081 16; α(N+..)=0.000322 5 α(N)=0.000269 4; α(O)=4.96×10^{-5} 7; α(P)=3.39×10^{-6} 5 α(K)exp=0.030 4.
732.5[@] 4	1.2 2	2094.6		1362.69					α(K)exp=0.03 2.
745.2[‡] 2	2.1 2	1291.3	(3/2$^-$)	546.13	(1/2$^-$)	E2+M1	1.8 8	0.015 6	α(K)=0.012 5; α(L)=0.0023 6; α(M)=0.00053 14; α(N+..)=0.00016 4 α(N)=0.00013 4; α(O)=2.4×10^{-5} 7; α(P)=1.4×10^{-6} 6 α(K)exp=0.012 5.
757.3[‡] 2	2.9 4	1233.89		476.59	(7/2$^-$)				α(K)exp=0.011 6, mult (E2+M1) (1998Ru04).
758.1[@] 2	2.1 6	778.41	(1/2,3/2,5/2)$^+$	19.53	3/2$^{(+)}$	(M1)			α(K)exp=0.03 2.
761.0[‡] 2	3.5 5	1237.59	(5/2$^-$)	476.59	(7/2$^-$)	(M1)		0.0284	α(K)=0.0235 4; α(L)=0.00377 6; α(M)=0.000870 13; α(N+..)=0.000259 4 α(N)=0.000217 3; α(O)=3.99×10^{-5} 6; α(P)=2.73×10^{-6} 4 α(K)exp=0.020 7.
764.4[‡] 4	1.5 3	1056.04	(3/2$^-$)	290.98	(5/2$^+$)				
778.6[@] 4	1.8 2	778.41	(1/2,3/2,5/2)$^+$	0.0	1/2$^{(+)}$				

γ(^{187}Au) (continued)

Eγ[†]	Iγ[†]	Ei(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[c]	Comments
783.8[‡] 2	2.2 4	1260.39	(3/2⁻)	476.59	(7/2⁻)	(E2)		0.00941 14	α=0.00941 14; α(K)=0.00742 11; α(L)=0.001520 22; α(M)=0.000361 5; α(N+..)=0.0001064 α(N)=8.96×10^{-5} 13; α(O)=1.595×10^{-5} 23; α(P)=8.23×10^{-7} 12 α(K)exp=0.008 4.
786.1[@] 2	2.0 3	1419.63	(5/2⁺)	633.53	(7/2⁺)	(M1+E2)	0.8 13	0.020 8	α(K)=0.016 6; α(L)=0.0027 9; α(M)=0.00063 19; α(N+..)=0.00019 6 α(N)=0.00016 5; α(O)=2.9×10^{-5} 9; α(P)=1.9×10^{-6} 8 α(K)exp=0.016 9.
791.0[‡] 2	3.3 2	994.29		203.28	(3/2⁺)				α(K)exp=0.05 3.
803.5[‡] 4	1.1 2	975.39	(3/2⁻)	171.86	(5/2⁻)	E2+M1	2.4 24	0.011 14	α(K)=0.009 12; α(L)=0.0017 16; α(M)=0.0004 4; α(N+..)=0.00012 11 α(N)=0.00010 9; α(O)=1.8×10^{-5} 17; α(P)=1.0×10^{-6} 14 α(K)exp=0.009 4.
816.1[‡] 2	2.4 4	1056.04	(3/2⁻)	240.17	(5/2⁺)				
853.3[‡] 2	3.0 4	1056.04	(3/2⁻)	203.28	(3/2⁺)				
1003.0[@] 4	1.5 2	1498.3	(5/2⁺)	495.32	(7/2⁺)				
1036.1[‡] 2	2.7 9	1056.04	(3/2⁻)	19.53	3/2$^{(+)}$	(E1)		0.00207 3	α=0.00207 3; α(K)=0.001738 25; α(L)=0.000257 4; α(M)=5.87×10^{-5} 9; α(N+..)=1.742×10^{-5} 25 α(N)=1.457×10^{-5} 21; α(O)=2.67×10^{-6} 4; α(P)=1.780×10^{-7} 25 α(K)exp=0.003 2.
1056.0[‡] 2	7.5 23	1056.04	(3/2⁻)	0.0	1/2$^{(+)}$	(E1)		0.00200 3	α=0.00200 3; α(K)=0.001680 24; α(L)=0.000248 4; α(M)=5.67×10^{-5} 8; α(N+..)=1.681×10^{-5} 24 α(N)=1.407×10^{-5} 20; α(O)=2.57×10^{-6} 4; α(P)=1.721×10^{-7} 24 α(K)exp=0.0020 8.
1093.5[@] 2	3.2 5	2068.87		975.39	(3/2⁻)				α(K)exp=0.015 10.
1179.0[@] 2	6.6 10	2154.46	(3/2⁻)	975.39	(3/2⁻)				α(K)exp=0.008 3 M1.
1196.9[@] 2	4.2 5	2172.39		975.39	(3/2⁻)				α(K)exp=0.009 7.
1230.0[@] 4	1.1 2	1776.1		546.13	(1/2⁻)				α(K)exp=0.01 1.
1284.6[@] 2	3.7 2	1918.05		633.53	(7/2⁺)				
1318.0[@] 2	3.6 9	2293.17		975.39	(3/2⁻)				
1343.3[@] 2	3.9 6	1362.69		19.53	3/2$^{(+)}$				
1347.3[@] 4	1.5 3	1842.76	(5/2⁺)	495.32	(7/2⁺)				
1381.0[@] 4	1.1 2	1876.3		495.32	(7/2⁺)				
1407.6[@] 2	3.5 7	2230.0		822.36	(5/2⁺)				
1421.5[@] 2	2.7 4	2154.46	(3/2⁻)	732.94	(5/2⁻)				
1422.5[@] 4	1.5 3	1918.05		495.32	(7/2⁺)				
1431.2[@] 4	1.5 4	2253.18		822.36	(5/2⁺)				
1442.6[@] 2	4.8 4	1919.19	(3/2⁻)	476.59	(7/2⁻)				

γ(^{187}Au) (continued)

Eγ[†]	Iγ[†]	Ei(level)	J^π_i	E_f	J^π_f	Mult.[&]	α[c]	Comments
1452.2[@] 2	3.0 9	2184.92		732.94	(5/2⁻)			
1455.4[@] 4	1.9 2	2094.6		638.60	(5/2⁺)			
1516.8[@] 2	4.5 9	2154.88		638.60	(5/2⁺)			
1518.6[@] 2	3.0 4	1995.19	(5/2⁻)	476.59	(7/2⁻)	M1	0.00504 7	α=0.00504 7; α(K)=0.00410 6; α(L)=0.000644 9; α(M)=0.0001483 21; α(N+..)=0.0001565 2 α(N)=3.69×10^{-5} 6; α(O)=6.81×10^{-6} 10; α(P)=4.71×10^{-7} 7; α(IPF)=0.0001123 16 α(K)exp=0.005 3.
1522.9[@] 2	2.2 4	2068.87		546.13	(1/2⁻)			
1534.2[@] 2	3.0 4	1737.49		203.28	(3/2⁺)			
1539.6[@] 4	1.0 2	2173.05		633.53	(7/2⁺)			
1544.5[@] 2	2.7 4	2178.04		633.53	(7/2⁺)			
1548.5[@] 2	2.7 6	1751.79		203.28	(3/2⁺)			
1549.6[@] 2	7.1 13	2095.85		546.13	(1/2⁻)			
1556.2[@] 2	6.0 9	2102.30		546.13	(1/2⁻)			
1575.1[@] 2	7.1 11	2121.20		546.13	(1/2⁻)			
1583.1[@] 4	1.5 2	1786.4		203.28	(3/2⁺)			
1607.8[@] 4	1.8 4	1811.1		203.28	(3/2⁺)			
1608.1[@] 2	3.1 5	2154.46	(3/2⁻)	546.13	(1/2⁻)			
1620.8[@] 2	2.0 2	2116.13		495.32	(7/2⁺)			
1627.1[@] 2	15.4 19	1918.05		290.98	(5/2⁺)			
1639.5[@] 2	2.2 5	1842.76	(5/2⁺)	203.28	(3/2⁺)			
1640.5[@] 2	3.1 9	2068.87		428.17	(3/2⁻)			
1646.7[@] 2	2.1 9	2142.23		495.32	(7/2⁺)			
[x]1647.3[#] 5	4.7[#] 9							
1650.5[@] 2	7.8 9	2154.88		503.73	(3/2⁺)			
1667.8[@] 2	9.6 16	2095.85		428.17	(3/2⁻)			
1669.3[@] 2	2.3 4	2173.05		503.73	(3/2⁺)			
1674.1[@] 2	3.1 9	2102.30		428.17	(3/2⁻)			
1678.2[@] 2	6.0 19	2173.05		495.32	(7/2⁺)			
1693.0[@] 2	3.3 7	2121.20		428.17	(3/2⁻)			
1697.8[@] 4	1.8 2	2193.1	(5/2⁺)	495.32	(7/2⁺)			
1702.3[@] 2	7.1 16	2178.90	(3/2⁻)	476.59	(7/2⁻)			
1714.7[@] 2	3.0 3	1918.05		203.28	(3/2⁺)			
1726.6[@] 2	10.6 19	2154.46	(3/2⁻)	428.17	(3/2⁻)			

$^{187}_{79}Au_{108}$-12

γ(^{187}Au) (continued)

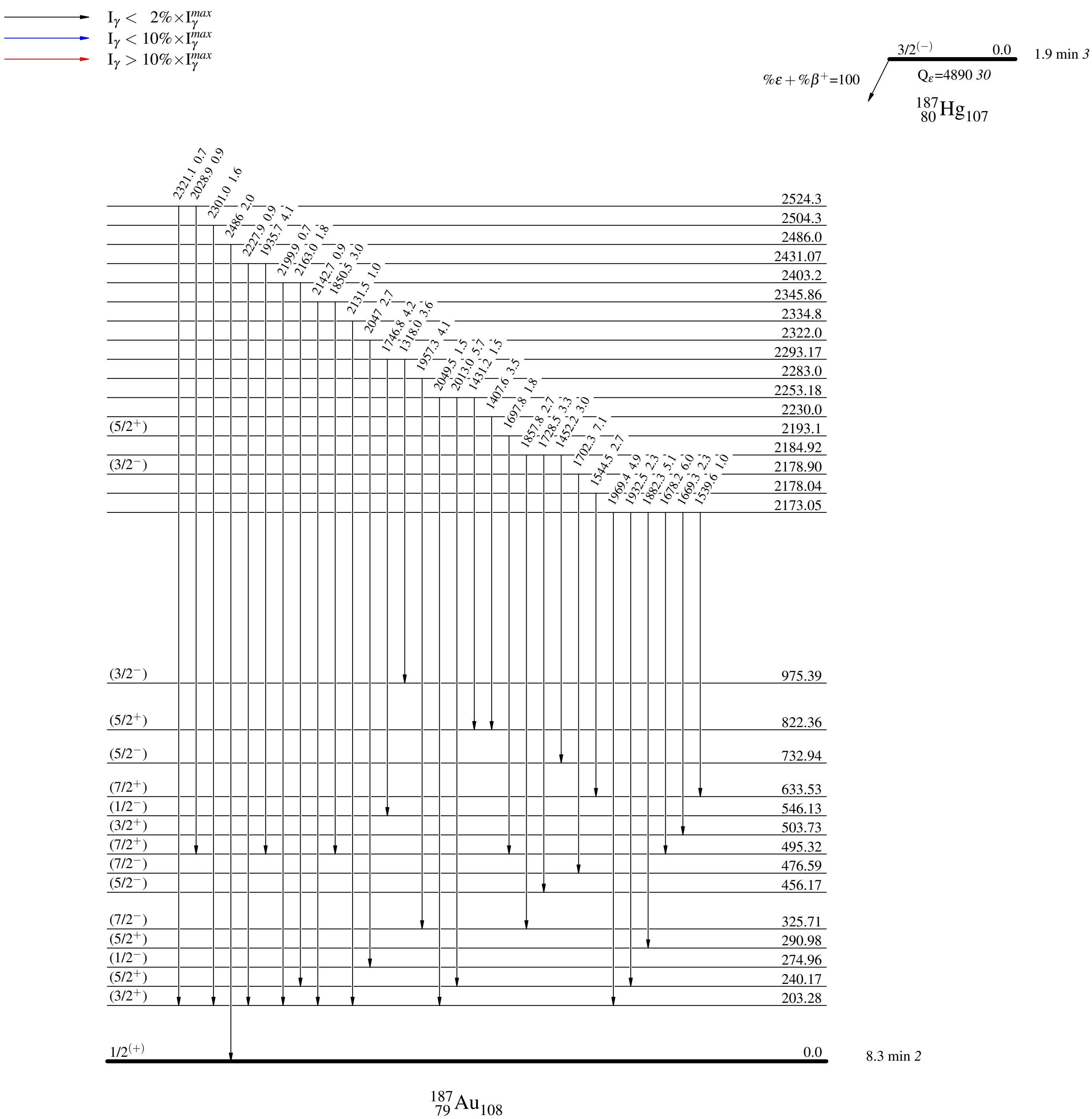
Eγ[†]	Iγ[†]	Ei(level)	$J^π_i$	Ef	$J^π_f$
1728.5[@] 2	3.3 9	2184.92		456.17	(5/2⁻)
1744.3[@] 2	8.1 14	2172.39		428.17	(3/2⁻)
1746.8[@] 2	4.2 8	2293.17		546.13	(1/2⁻)
1794.0[@] 4	1.8 2	1997.3		203.28	(3/2⁺)
1830.6[@] 2	2.7 3	2121.59		290.98	(5/2⁺)
1848.3[@] 4	1.8 2	2051.6		203.28	(3/2⁺)
1850.5[@] 2	3.0 8	2345.86		495.32	(7/2⁺)
1857.8[@] 2	2.7 6	2184.92		325.71	(7/2⁻)
1863.7[@] 2	13.6 22	2154.88		290.98	(5/2⁺)
1882.3[@] 2	5.1 5	2173.05		290.98	(5/2⁺)
1900.0[@] 2	6.8 11	2103.29		203.28	(3/2⁺)
1902.3[@] 4	0.9 2	2142.23		240.17	(5/2⁺)
1914.9[@] 2	5.1 13	2154.88		240.17	(5/2⁺)
1924.5[@] 2	3.4 9	2127.79		203.28	(3/2⁺)
1932.5[@] 2	2.3 4	2173.05		240.17	(5/2⁺)
1935.7[@] 2	4.1 9	2431.07		495.32	(7/2⁺)
1939.5[@] 4	1.8 4	2142.23		203.28	(3/2⁺)
1951.7[@] 2	5.1 11	2154.88		203.28	(3/2⁺)
1957.3[@] 2	4.1 7	2283.0		325.71	(7/2⁻)
1969.4[@] 2	4.9 9	2173.05		203.28	(3/2⁺)
[x]1998.1[#] 8	10.8[#] 22				
2013.0[@] 2	5.7 16	2253.18		240.17	(5/2⁺)
2028.9[@] 4	0.9 2	2524.3		495.32	(7/2⁺)
2047[@] 2	2.7 6	2322.0		274.96	(1/2⁻)
2049.5[@] 4	1.5 2	2253.18		203.28	(3/2⁺)
2131.5[@] 4	1.0 2	2334.8		203.28	(3/2⁺)
2142.7[@] 4	0.9 2	2345.86		203.28	(3/2⁺)
2163.0[@] 4	1.8 4	2403.2		240.17	(5/2⁺)
[x]2176.5[#] 10	20[#] 4				
2199.9[@] 4	0.7 2	2403.2		203.28	(3/2⁺)
2227.9[@] 4	0.9 2	2431.07		203.28	(3/2⁺)
2301.0[@] 4	1.6 2	2504.3		203.28	(3/2⁺)
2321.1[@] 4	0.7 2	2524.3		203.28	(3/2⁺)
2486[@] 2	2.0 4	2486.0		0.0	1/2$^{(+)}$

† From 1998Ru04, except otherwise noted. ΔE=0.2 for Iγ≥2 and ΔE=0.4 for Iγ<2 are assigned based on a private communication with J. L. Wood, a 1998Ru04 co-author.
‡ Only seen in the ^{187}Hg^g decay.
# From 1978Bo05.
@ From 1994RuZX.
& Assigned by 1998Ru04 based on α(K)exp or α(L)exp value, except where noted. The α(K)exp and α(L)exp values (1998Ru04) are listed in the comment section.
a Assigned from an estimated M/N subshell ratio, observing a conversion electron spectrum (fig 5-1978Bo05) by the evaluator.
b Calculated by the evaluator using α(K)exp value, except otherwise noted.
c Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
x γ ray not placed in level scheme.

^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05

Decay Scheme

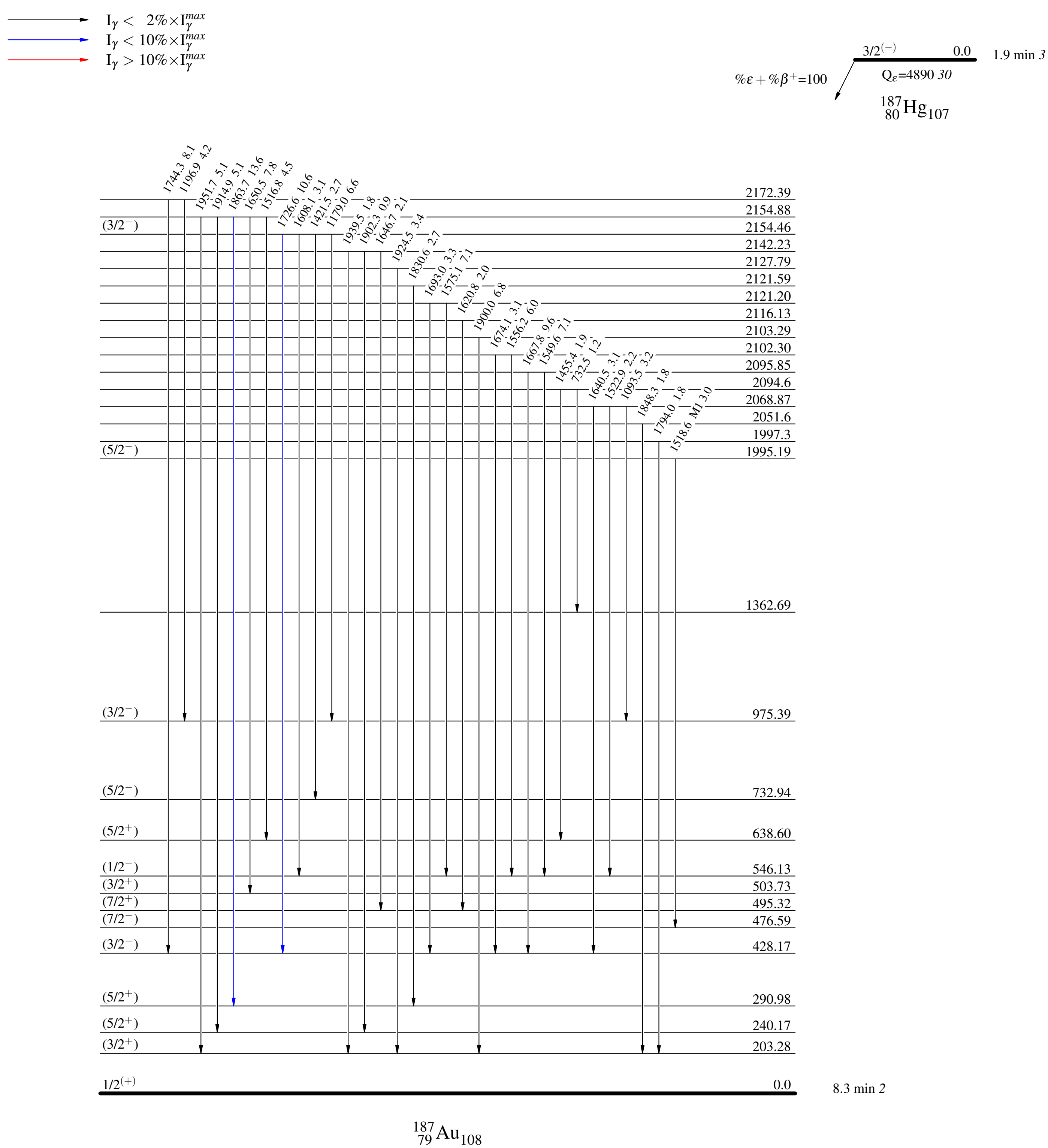
Intensities: Relative I_γ



^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05

Decay Scheme (continued)

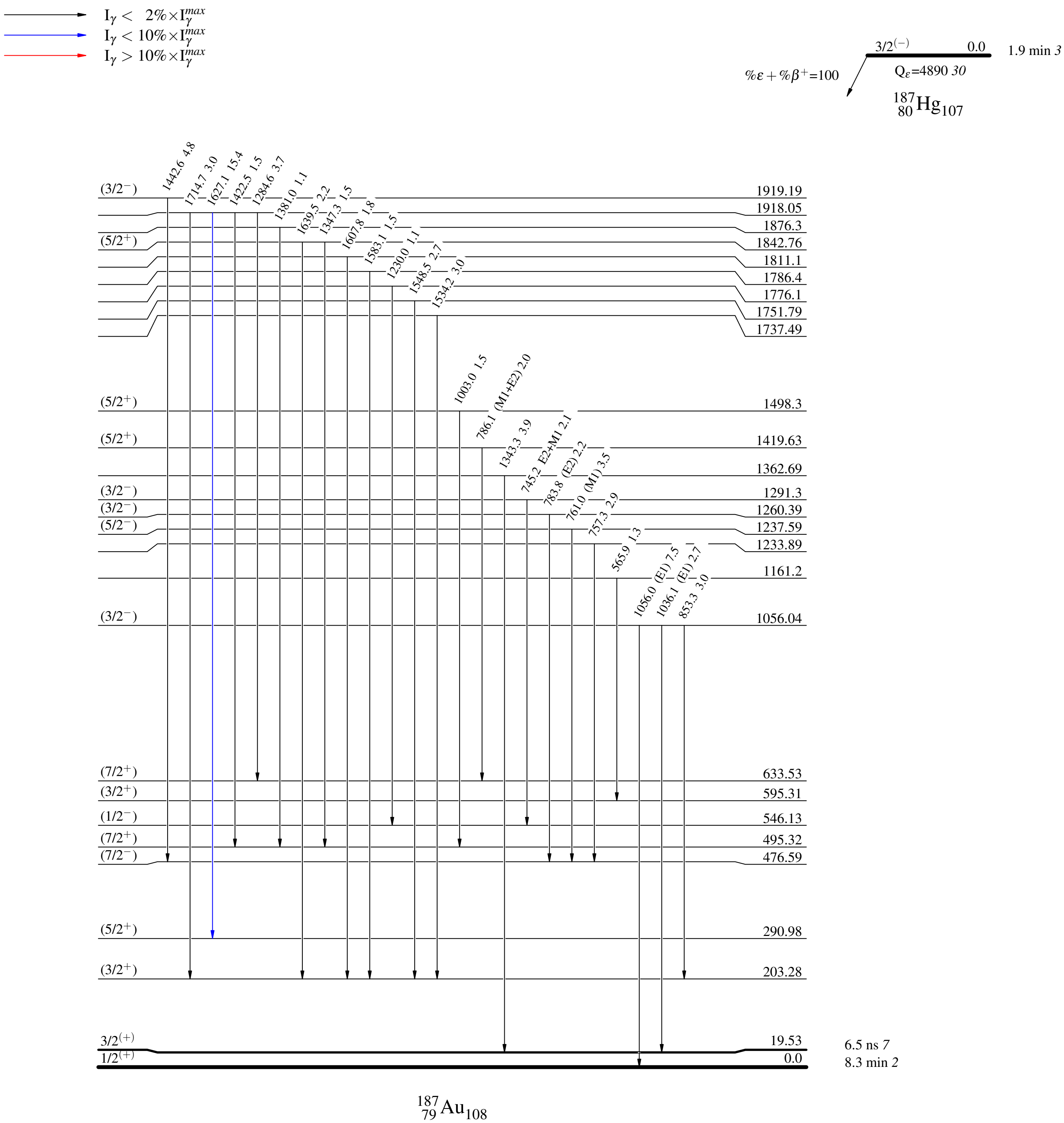
Intensities: Relative I_γ



^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05

Decay Scheme (continued)

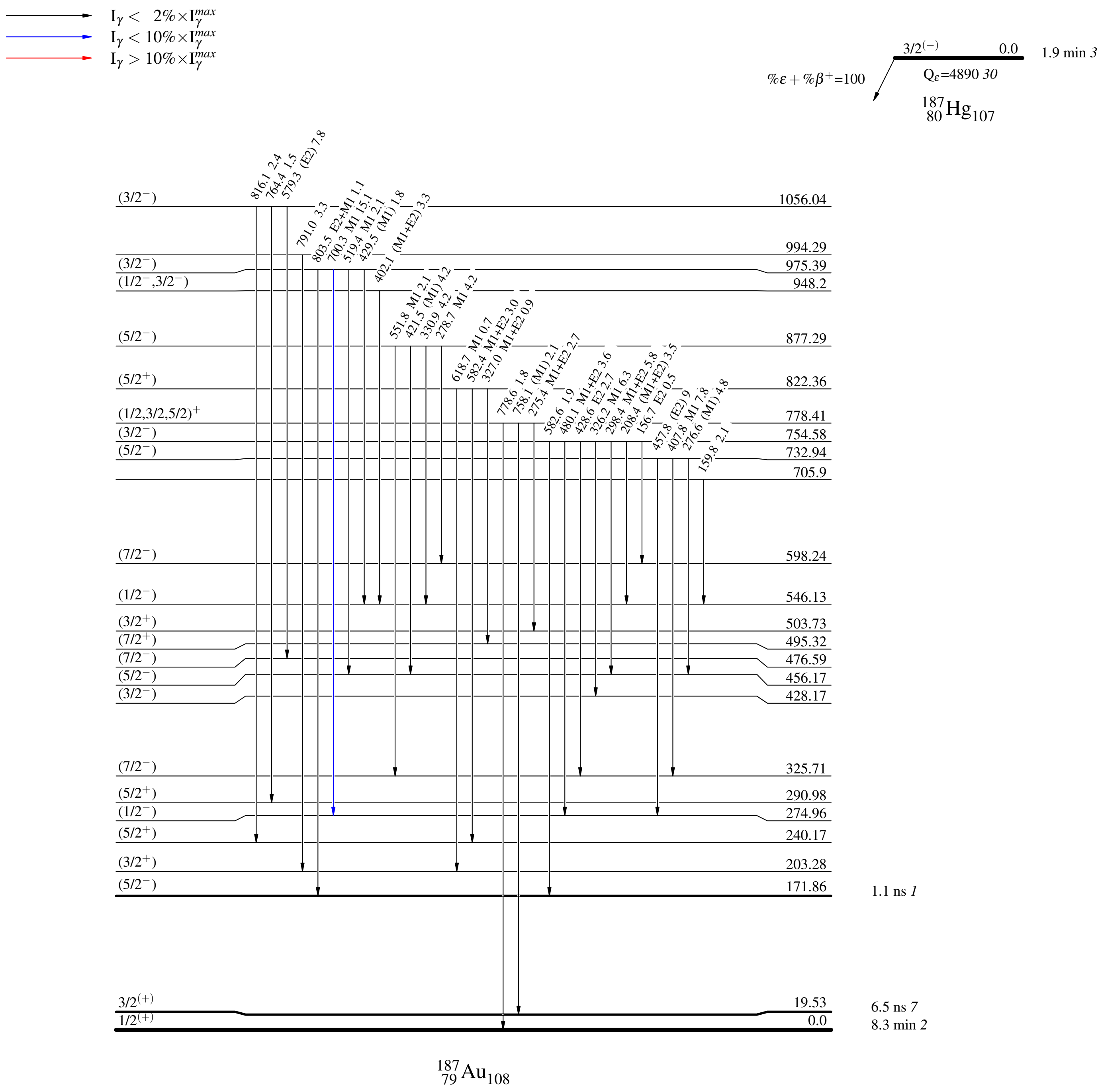
Intensities: Relative I_γ



^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05

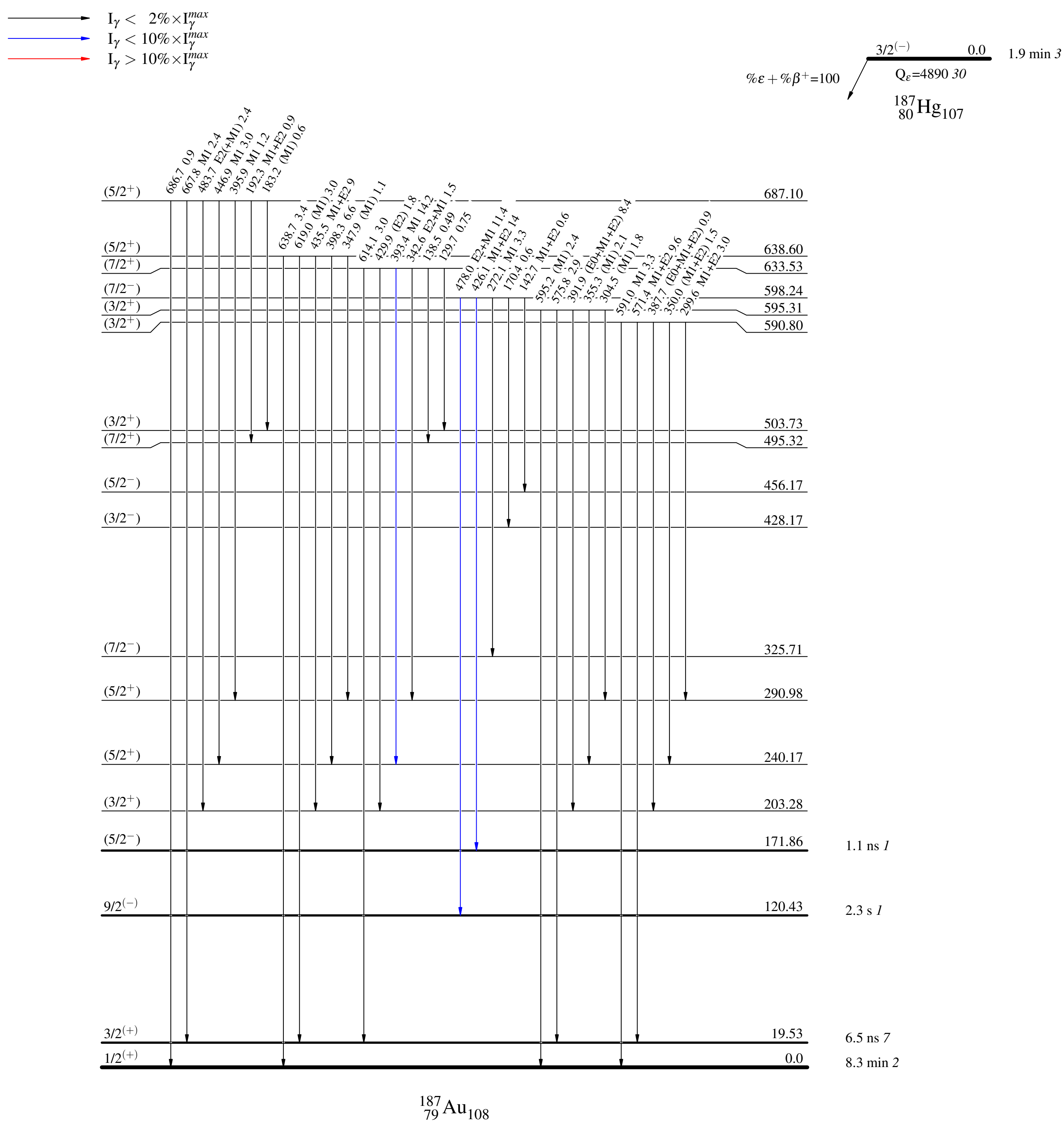
Decay Scheme (continued)

Intensities: Relative I_γ



^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05

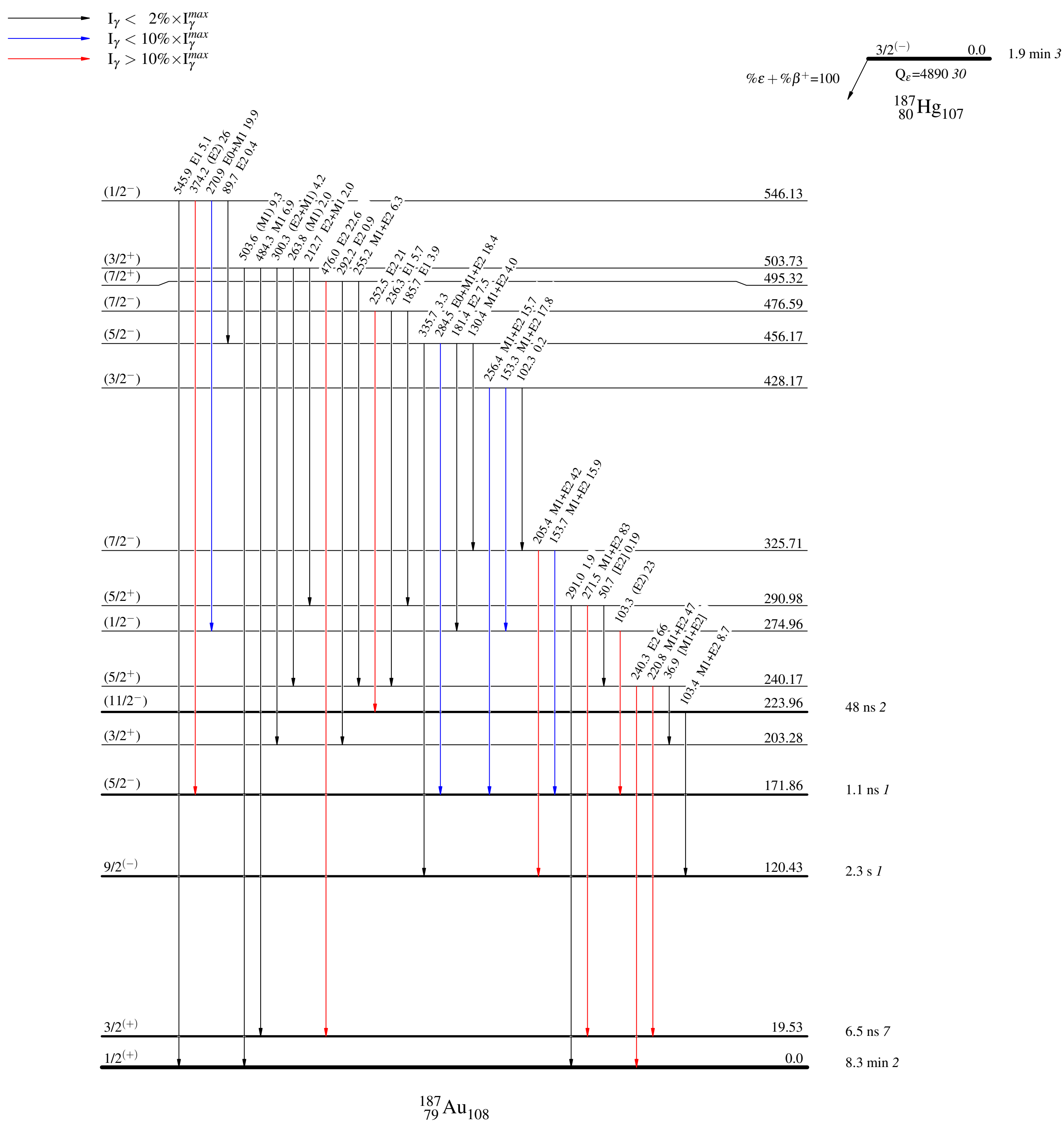
Decay Scheme (continued)



^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05

Decay Scheme (continued)

Intensities: Relative I_γ



^{187}Hg ε decay (1.9 min) 1998Ru04,1994RuZX,1978Bo05

Decay Scheme (continued)

Intensities: Relative I_γ