

^{187}Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#)

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

Parent: ^{187}Hg : $E=0.0+x$; $J^\pi=13/2^{+}$; $T_{1/2}=2.4$ min 3; $Q(\varepsilon)=4890$ 30; $\% \varepsilon + \% \beta^+$ decay=100.0

^{187}Hg - $T_{1/2}$: 2.2 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 $^{187}\text{Hg}^g$ were obtained from the $^{187}\text{Tl}^{m,g}$ decay produced through $^{176}\text{Hf}(^{19}\text{F},8n)$;

Detector: Ge(Li), Se(Li); Measured: $E\gamma$, $I\gamma$, $\alpha(K)\text{exp}$, $\gamma\gamma$ 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 $E\gamma$, $I\gamma$, α , $\gamma\gamma$ coin, ce- γ coin, γ -ce-t, deduced levels, J, π , mult.

[1988Pa15](#),[1988Ko22](#): Mass-separated $^{187}\text{Hg}^g$ produced from $^{180}\text{W}(^{14}\text{N},7n)$, $E=160$ MeV, ^{187}Tl β^+ decay; $^{187}\text{Hg}^m$ from $^{180}\text{W}(^{12}\text{C},5n)$, $E=120$ MeV; Measured: $\gamma\gamma(t)$, 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.
19.44 16	$3/2^{+}$	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).
120.40 22	$9/2^{-}$	2.3 s 1	$T_{1/2}$: From ce(t)– 1983Br26 . The uncertainty is at 95% confidence level (^{187}Au IT decay).
172.0 3	$(5/2^{-})$	1.1 ns 1	$T_{1/2}$: from ce(271.1K)-ce(51.2L)(t)– 1983Be48 .
203.40 [#] 20	$(3/2^{+})$		
223.93 [@] 22	$(11/2^{-})$	48 ns 2	$T_{1/2}$: from γ -ce(103.3M)(t)– 1983Be48 . Other value: 50 ns 8 (γ -ce(103.3L)(t)– 1978Bo05).
240.27 [#] 15	$(5/2^{+})$		
290.97 [#] 17	$(5/2^{+})$		
325.72 ^{&} 24	$(7/2^{-})$		
353.78 ^{&} 23	$(13/2^{-})$		
443.30 ^{&} 24	$9/2^{-}$		
476.59 [@] 23	$(7/2^{-})$		
495.37 [#] 16	$(7/2^{+})$		
496.79 ^{&} 23	$(11/2^{-})$		
503.73 10	$(3/2^{+})$		E(level): From Adopted Levels.
590.80 [#] 18	$(3/2^{+})$		
598.1 ^{&} 3	$(7/2^{-})$		
619.86 ^{&} 24	$(11/2^{-})$		
633.68 [#] 18	$(7/2^{+})$		
673.24 [@] 24	$(15/2^{-})$		
674.1 [@] 3	$(9/2^{-}, 11/2^{-})$		
687.12 [#] 19	$(5/2^{+})$		
688.68 ^{&} 25	$(17/2^{-})$		
710.48 [#] 18	$(9/2^{+})$		
741.96 ^{&} 25	$(13/2^{-})$		
749.30 [@] 25	$(13/2^{-})$		

Continued on next page (footnotes at end of table)

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05 (continued) ^{187}Au Levels (continued)

E(level) [†]	J ^π [‡]
755.3 & 3	(9/2 ⁻)
767.11 # 19	(9/2 ⁺)
815.89 & 24	(15/2 ⁻)
822.47 # 24	(5/2 ⁺)
829.13 & 25	(11/2 ⁻)
840.1 @ 3	(9/2 ⁻)
880.03 # 23	(7/2 ⁺)
881.22 @ 25	(11/2 ⁻)
934.39 # 23	(5/2 ⁺)
950.3 & 3	(7/2 ⁻ , 9/2 ⁻)
956.52 & 24	(13/2 ⁻)
965.6 # 5	(7/2 ⁺)
968.01 # 21	(11/2 ⁺)
985.0 & 3	(9/2 ⁻)
993.2 & 3	(15/2 ⁻)
1015.35 # 23	(7/2 ⁺)
1047.6 5	
1120.4 4	
1120.95 # 20	(11/2 ⁺)
1121.68 & 24	(13/2 ⁺)
1126.7 & 4	(7/2, 9/2, 11/2) ⁻
1147.8 & 3	(11/2 ⁻ , 13/2 ⁻)
1148.6 # 5	(11/2 ⁺)
1149.27 # 22	(13/2 ⁺)
1155.9 & 4	(11/2 ⁻)
1159.0 & 3	(17/2 ⁻)
1164.51 # 24	(11/2 ⁺)
1166.9 & 4	(17/2 ⁻)
1184.8 & 5	(7/2 ⁻ , 9/2 ⁻)
1187.1 @ 3	(13/2 ⁻)
1197.6 @ 3	(11/2 ⁻)
1205.19 # 20	(9/2 ⁺)
1228.7 @ 4	(9/2 ⁻)
1232.6 & 4	(19/2 ⁻)
1249.5 & 3	(11/2 ⁻)
1276.9 & 3	(7/2 ⁻ , 9/2 ⁻)
1280.07 # 21	(11/2 ⁺)
1304.5 #	(9/2 ⁺ , 11/2 ⁺)
1316.1 @ 4	(17/2 ⁻)
1316.87 & 25	(9/2 ⁻)
1357.7 & 3	(15/2 ⁻)
1367.3 & 4	(15/2 ⁻)
1369.54 # 24	(7/2 ⁺)
1380.7 & 3	(17/2 ⁺)
1393.4 & 3	(13/2 ⁻)

Continued on next page (footnotes at end of table)

^{187}Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#) (continued) ^{187}Au Levels (continued)

E(level) [†]	J ^π [‡]	Comments
1397.9 & 5		
1398.2 # 3	(15/2 ⁺)	
1400.3 & 5	(13/2 ⁻ , 15/2 ⁻)	
1405.3 @ 5	(19/2 ⁻)	
1405.4 @ 5		
1405.4 & 3	(13/2 ⁺)	
1418.5 @ 3	(13/2 ⁻)	
1420.6 3	(9/2 ⁺ , 11/2 ⁺)	
1420.7 @ 5	(11/2 ⁻)	
1464.4 & 5		
1471.0 & 3	(13/2 ⁺ , 15/2 ⁺)	
1540.7 @ 4	(13/2 ⁻ , 15/2 ⁻)	
1557.5 4		
1562.8 & 5		
1568.2 4	(11/2, 13/2, 15/2) ⁺	
1589.65 & 25	(11/2, 13/2) ⁺	J ^π : (11/2, 13/2) ⁻ in 1998Ru04 , decay scheme requires (11/2, 13/2) ⁺ .
1590.0 @ 4	(11/2 ⁻ , 13/2 ⁻)	
1600.9 3		
1604.6 # 5	(17/2 ⁺)	
1637.6 3		
1711.0 & 3		
1778.9 5	(11/2 ⁻)	
1791.5 & 5		
1807.6 @ 3	(15/2 ⁻)	
1815.9 @ 3	(15/2 ⁻)	
1816.2 4	(11/2 ⁻)	
1819.8 @ 5		
1864.1 # 5		
1905.3 @ 4	(15/2 ⁻)	
1930.4 @ 4	(17/2 ⁻)	
1994.3 5	(11/2 ⁻)	
2029.8 & 5		
2065.7 @ 5		
2073.3 & 5		
2082.1 & 5		
2099.7 5		
2117.2 5		
2145.4 # 4		
2149.8 & 5	(13/2 ⁻)	
2180.1 # 5	(9/2 ⁺)	
2183.9 & 5		
2186.1 & 3		
2191.4 5		
2201.9 & 3		
2206.0 @ 4		
2206.6 # 4		
2221.8 & 5		

Continued on next page (footnotes at end of table)

^{187}Hg ε decay (2.4 min) **1998Ru04,1994RuZX,1978Bo05** (continued) ^{187}Au Levels (continued)

E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]
2223.3 [@] 3		2300.44 ^{&} 24		2348.9 [@] 5		2474.2 ^{&} 5
2237.6 ^{&} 3	(13/2 ⁻)	2300.7 [@] 3		2350.8 ^{&} 4		2513.6 [@] 5
2237.8 [@] 3		2306.2 ^{&} 5		2354.2 [@] 5		2541.5 ^{&} 5
2246.5 ^{&} 3	(13/2 ⁻)	2306.8 [@] 5		2365.3 [@] 5	(13/2 ⁻)	2551.1 ^{&} 5
2248.2 ^{&} 5		2313.6 4	(13/2 ⁺)	2369.1 5	(13/2 ⁺)	2572.8 [@] 5
2253.3 [@] 3		2319.1 [@] 4		2384.7 [#] 5		2606.8 ^{&} 5
2262.9 [@] 5		2319.2 ^{&} 3	(15/2 ⁻)	2389.2 5		2625.3 [@] 5
2266.3 5		2319.2 [#] 4		2390.0 ^{&} 4		2633.1 ^{&} 5
2268.2 ^{&} 3	(13/2 ⁻)	2327.9 ^{&} 3		2395.7 [@] 4	(13/2 ⁺)	2688.4 ^{&} 5
2279.9 [@] 4		2334.1 5		2396.1 ^{&} 4	(15/2 ⁺)	2749.3 ^{&} 5
2285.0 5		2337.2 [@] 4		2400.7 [@] 5		2768.2 ^{&} 5
2289.0 5		2343.0 ^{&} 4		2400.9 ^{&} 4		2828.0 ^{&} 5
2291.1 6	(11/2 ⁺)	2343.2 [@] 4		2410.9 [@] 4		
2300.28 [#] 21		2345.8 4	(11/2 ⁺)	2471.1 5	(11/2 ⁻)	

[†] From a least-squares fit to the γ -ray energies.[‡] From Adopted Levels.[#] s_{1/2}⊗d_{3/2}⊗d_{5/2} bands.[@] h_{11/2} bands.[&] h_{9/2}⊗f_{7/2} bands.

$\gamma(^{187}\text{Au})$										
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	$I_{(\gamma+ce)}$ [†]	Comments
19.5 @ 4		19.44	3/2 ⁽⁺⁾	0.0	1/2 ⁽⁺⁾	(M1+E2)		7.×10 ³ 6		ce(L)/(γ+ce)=0.8 6; ce(M)/(γ+ce)=0.19 24; ce(N+)/(γ+ce)=0.05 8 ce(N)/(γ+ce)=0.05 7; ce(O)/(γ+ce)=0.007 11; ce(P)/(γ+ce)=1.3×10 ⁻⁵ 13 Mult.: Assigned from an estimated M/N subshell ratio, observing a conversion electron spectrum (fig 5-1978Bo05) by the evaluator.
36.9 @		240.27	(5/2 ⁺)	203.40	(3/2 ⁺)				4.7 20	
50.7 @ 4		290.97	(5/2 ⁺)	240.27	(5/2 ⁺)				0.9 4	
51.2 @ 4	0.26 13	172.0	(5/2 ⁻)	120.40	9/2 ⁽⁻⁾	[E2]		112 5	30 15	ce(L)/(γ+ce)=0.744 22; ce(M)/(γ+ce)=0.193 10; ce(N+)/(γ+ce)=0.055 4 ce(N)/(γ+ce)=0.047 3; ce(O)/(γ+ce)=0.0075 5; ce(P)/(γ+ce)=7.4×10 ⁻⁶ 4 I _γ : Deduced by the evaluator from TI/(1+α).
90.5 ^a 4		1471.0	(13/2 ⁺ , 15/2 ⁺)	1380.7	(17/2 ⁺)				3 1	
101.0 @ 2		120.40	9/2 ⁽⁻⁾	19.44	3/2 ⁽⁺⁾	E3		120.4 22	678 50	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 Mult.: α(L)exp=75 20, L1/L2<0.1, L2/L3≈1.3. 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(L12)exp=0.99 8 (1998Ru04), α(K)exp=5.5 10 (1978Bo05).
103.4 @ 2	22.0 15	223.93	(11/2 ⁻)	120.40	9/2 ⁽⁻⁾	M1+E2	0.0 5	6.6 5		α(K)=0.7 6; α(L)=1.57 17; α(M)=0.41 5; α(N+..)=0.117 13 α(N)=0.100 11; α(O)=0.0162 17; α(P)=8.E-5 7 α(K)exp=0.68 21. α(K)=1.0 7; α(L)=1.22 19; α(M)=0.31 6; α(N+..)=0.090 15 α(N)=0.077 13; α(O)=0.0126 20; α(P)=0.00012 9 α(K)exp=1.0 4. α(K)=0.7 4; α(L)=1.06 11; α(M)=0.27 3; α(N+..)=0.078 8 α(N)=0.067 7; α(O)=0.0109 11; α(P)=8.E-5 5 α(K)exp=0.7 2.
117.5 4	0.50 15	443.30	9/2 ⁽⁻⁾	325.72	(7/2 ⁻)	E2+M1	5 3	2.8 3		α(K)exp=2.0 7, implies Mult: M1+E2.
122.0 4	0.45 15	741.96	(13/2 ⁻)	619.86	(11/2 ⁻)	M1+E2	2.2 10	2.6 5		
127.4 4	0.8 2	815.89	(15/2 ⁻)	688.68	(17/2 ⁻)	E2+M1	3.1 14	2.1 3		
129.7 [‡] 4	0.27 10	633.68	(7/2 ⁺)	503.73	(3/2 ⁺)					

γ(¹⁸⁷Au) (continued)

<u>E_γ[†]</u>	<u>I_γ[†]</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.^b</u>	<u>δ^c</u>	<u>α^d</u>	<u>Comments</u>
131.8 4	0.55 10	881.22	(11/2 ⁻)	749.30	(13/2 ⁻)	E2+M1	2.3 7	1.97 20	α(K)=0.8 3; α(L)=0.88 7; α(M)=0.225 18; α(N+..)=0.065 5 α(N)=0.055 5; α(O)=0.0090 7; α(P)=9.E-5 4 α(K)exp=0.8 2.
133.7 4	0.7 3	767.11	(9/2 ⁺)	633.68	(7/2 ⁺)	E2+M1	2.2 7	1.89 22	α(K)=0.8 3; α(L)=0.82 7; α(M)=0.210 19; α(N+..)=0.060 5 α(N)=0.052 5; α(O)=0.0084 7; α(P)=9.E-5 4 α(K)exp=0.8 5.
135.4 4	0.45 15	1015.35	(7/2 ⁺)	880.03	(7/2 ⁺)				α(K)exp=0.5 3, implies Mult: M1+E2.
138.5 @ 4	0.20 10	633.68	(7/2 ⁺)	495.37	(7/2 ⁺)				α(K)exp=0.6 3, implies Mult: M1+E2.
140.7 4	0.15 5	956.52	(13/2 ⁻)	815.89	(15/2 ⁻)	(M1+E2)	0.0 3	2.74 13	α(K)=2.25 16; α(L)=0.38 3; α(M)=0.087 9; α(N+..)=0.0260 23 α(N)=0.0217 20; α(O)=0.0040 3; α(P)=0.000270 20 α(K)exp=2.2 9.
142.6 2	2.05 20	496.79	(11/2 ⁻)	353.78	(13/2 ⁻)	M1(+E2)	0.4 8	2.4 7	α(K)=1.9 8; α(L)=0.40 14; α(M)=0.10 4; α(N+..)=0.028 12 α(N)=0.024 10; α(O)=0.0043 14; α(P)=0.00023 10 α(K)exp=1.9 5 (1998Ru04) and α(K)exp=3 1 (1978Bo05).
148.3 4	0.55 20	1380.7	(17/2 ⁺)	1232.6	(19/2 ⁻)				
148.8 4	1.1 2	1164.51	(11/2 ⁺)	1015.35	(7/2 ⁺)	(E2)		1.080 19	α(K)=0.341 6; α(L)=0.554 11; α(M)=0.143 3; α(N+..)=0.0411 8 α(N)=0.0353 7; α(O)=0.00571 11; α(P)=3.54×10 ⁻⁵ 6 α(K)exp=0.3 1.
153.7 @ 4	1.1 3	325.72	(7/2 ⁻)	172.0	(5/2 ⁻)	M1+E2	0.65 10	1.78 9	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 14; α(P)=0.000157 12 α(K)exp=1.32 9.
154.0 4	0.3 1	1120.95	(11/2 ⁺)	968.01	(11/2 ⁺)	(E2)		0.950 17	α(K)=0.316 5; α(L)=0.476 9; α(M)=0.1231 23; α(N+..)=0.0352 7 α(N)=0.0303 6; α(O)=0.00490 9; α(P)=3.26×10 ⁻⁵ 5 α(K)exp=0.40 18.
171.7 4	0.55 15	496.79	(11/2 ⁻)	325.72	(7/2 ⁻)				α(K)exp=0.5 3, implies Mult: M1+E2.
176.5 4	0.3 1	619.86	(11/2 ⁻)	443.30	9/2 ⁽⁻⁾	M1+E2	0.5 16	1.3 6	α(K)=1.0 6; α(L)=0.21 4; α(M)=0.050 14; α(N+..)=0.015 4 α(N)=0.012 4; α(O)=0.0022 4; α(P)=0.00012 8 α(K)exp=1.0 6.
181.0 4	0.45 10	1149.27	(13/2 ⁺)	968.01	(11/2 ⁺)	E2+M1	6.1 10	0.551 13	α(K)=0.240 11; α(L)=0.234 4; α(M)=0.0601 11; α(N+..)=0.0173 3 α(N)=0.0148 3; α(O)=0.00242 5; α(P)=2.49×10 ⁻⁵ 13 α(K)exp=0.24 14.
183.7 @ 4	0.02 1	203.40	(3/2 ⁺)	19.44	3/2 ⁽⁺⁾	E2+M1	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 α(K)exp=0.34 10.
185.7 @ 4	0.6 1	476.59	(7/2 ⁻)	290.97	(5/2 ⁺)	E1		0.0868	α(K)=0.0709 11; α(L)=0.01216 19; α(M)=0.00282 5; α(N+..)=0.000823 13 α(N)=0.000694 11; α(O)=0.0001223 19; α(P)=6.37×10 ⁻⁶ 10 α(K)exp=0.07 2.
192.3 @ 4	0.51 20	687.12	(5/2 ⁺)	495.37	(7/2 ⁺)	E2+M1	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.
192.6 4	0.8 2	880.03	(7/2 ⁺)	687.12	(5/2 ⁺)	(E2+M1)	2.0 7	0.57 12	α(K)=0.33 13; α(L)=0.175 6; α(M)=0.0443 20; α(N+..)=0.0128 5

γ(¹⁸⁷Au) (continued)

<u>E_γ[†]</u>	<u>I_γ[†]</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.^b</u>	<u>δ^c</u>	<u>α^d</u>	<u>Comments</u>
196.0 4	0.65 20	815.89	(15/2 ⁻)	619.86	(11/2 ⁻)	E2		0.401 7	α(N)=0.0109 5; α(O)=0.00182 5; α(P)=3.7×10 ⁻⁵ 16 α(K)exp=0.33 20. α(K)=0.178 3; α(L)=0.168 3; α(M)=0.0430 8; α(N+..)=0.01236 21 α(N)=0.01061 18; α(O)=0.00173 3; α(P)=1.82×10 ⁻⁵ 3 α(K)exp=0.17 9.
196.9 4	0.8 2	1164.51	(11/2 ⁺)	968.01	(11/2 ⁺)	E2+M1	1.6 6	0.58 15	α(K)=0.37 16; α(L)=0.159 5; α(M)=0.0398 20; α(N+..)=0.0115 5 α(N)=0.0098 5; α(O)=0.00166 5; α(P)=4.2×10 ⁻⁵ 19 α(K)exp=0.37 11.
203.4 @ 4	1.9 6	203.40	(3/2 ⁺)	0.0	1/2 ⁽⁺⁾	M1		0.969	α(K)=0.797 12; α(L)=0.1325 20; α(M)=0.0307 5; α(N+..)=0.00916 14 α(N)=0.00766 12; α(O)=0.001408 22; α(P)=9.52×10 ⁻⁵ 15 I _γ 18.9 (1978Bo05), α(K)exp=0.8 1 (1998Ru04), α(K)exp=0.65 15 (1978Bo05).
205.4 @ 2	2.8 7	325.72	(7/2 ⁻)	120.40	9/2 ⁽⁻⁾	E2+M1	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.
207.8 4	0.45 10	881.22	(11/2 ⁻)	673.24	(15/2 ⁻)	(E2)		0.329	α(K)=0.1544 23; α(L)=0.1310 22; α(M)=0.0336 6; α(N+..)=0.00965 16 α(N)=0.00828 14; α(O)=0.001356 22; α(P)=1.584×10 ⁻⁵ 24 α(K)exp=0.16 6.
215.3 4	0.6 1	710.48	(9/2 ⁺)	495.37	(7/2 ⁺)	M1+E2	0.7 8	0.65 20	α(K)=0.50 20; α(L)=0.1130 18; α(M)=0.0271 11; α(N+..)=0.00798 23 α(N)=0.00673 25; α(O)=0.001191 22; α(P)=5.9×10 ⁻⁵ 25 α(K)exp=0.50 19.
220.8 @ 2	16.5 20	240.27	(5/2 ⁺)	19.44	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 I _γ : 24 (1978Bo05).
233.4 2	100 4	353.78	(13/2 ⁻)	120.40	9/2 ⁽⁻⁾	E2		0.224	α(K)exp=0.203 29 (1998Ru04) and α(K)exp=0.28 6 (1978Bo05). α(K)=0.1157 17; α(L)=0.0812 12; α(M)=0.0207 3; α(N+..)=0.00597 9 α(N)=0.00511 8; α(O)=0.000842 13; α(P)=1.199×10 ⁻⁵ 17 α(K)exp=0.116 14 (1998Ru04), α(K)exp=0.11 3 (1978Bo05).
236.3 @ 4	0.7 1	476.59	(7/2 ⁻)	240.27	(5/2 ⁺)	E1		0.0478	α(K)=0.0392 6; α(L)=0.00655 10; α(M)=0.001516 23; 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	21 2	240.27	(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 2 (1998Ru04), α(K)exp=0.12 3 (1978Bo05).

$\gamma(^{187}\text{Au})$ (continued)

E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ ^c	α ^d	Comments
245.1 4	1.1 2	741.96	(13/2 ⁻)	496.79	(11/2 ⁻)	E2+M1	1.2 3	0.35 6	$\alpha(\text{K})=0.26$ 6; $\alpha(\text{L})=0.0716$ 21; $\alpha(\text{M})=0.0175$ 4; $\alpha(\text{N}+..)=0.00512$ 11 $\alpha(\text{N})=0.00434$ 9; $\alpha(\text{O})=0.000751$ 24; $\alpha(\text{P})=3.0\times 10^{-5}$ 7 $\alpha(\text{K})_{\text{exp}}=0.26$ 6.
247.6 4	1.45 20	934.39	(5/2 ⁺)	687.12	(5/2 ⁺)	M1+E2	1.2 5	0.34 10	$\alpha(\text{K})=0.25$ 10; $\alpha(\text{L})=0.069$ 4; $\alpha(\text{M})=0.0169$ 5; $\alpha(\text{N}+..)=0.00494$ 18 $\alpha(\text{N})=0.00419$ 13; $\alpha(\text{O})=0.00073$ 4; $\alpha(\text{P})=2.9\times 10^{-5}$ 12 $\alpha(\text{K})_{\text{exp}}=0.25$ 8.
252.5 @ 2	3.7 9	476.59	(7/2 ⁻)	223.93	(11/2 ⁻)	E2		0.1737	$\alpha(\text{K})=0.0951$ 14; $\alpha(\text{L})=0.0592$ 9; $\alpha(\text{M})=0.01506$ 22; $\alpha(\text{N}+..)=0.00434$ 7 $\alpha(\text{N})=0.00372$ 6; $\alpha(\text{O})=0.000615$ 9; $\alpha(\text{P})=9.94\times 10^{-6}$ 14 $I_\gamma=8.0$ 16 (1978Bo05), $\alpha(\text{K})_{\text{exp}}=0.09$ 2.
255.2 @ 2	6.2 3	495.37	(7/2 ⁺)	240.27	(5/2 ⁺)	M1+E2	0.3 7	0.49 15	$\alpha(\text{K})=0.40$ 14; $\alpha(\text{L})=0.069$ 6; $\alpha(\text{M})=0.0162$ 9; $\alpha(\text{N}+..)=0.0048$ 3 $\alpha(\text{N})=0.00402$ 22; $\alpha(\text{O})=0.00073$ 7; $\alpha(\text{P})=4.7\times 10^{-5}$ 17 $\alpha(\text{K})_{\text{exp}}=0.40$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.38$ 10 (1978Bo05).
257.4 4	1.85 10	968.01	(11/2 ⁺)	710.48	(9/2 ⁺)	E2+M1	1.8 6	0.24 6	$\alpha(\text{K})=0.17$ 6; $\alpha(\text{L})=0.058$ 3; $\alpha(\text{M})=0.0144$ 4; $\alpha(\text{N}+..)=0.00419$ 15 $\alpha(\text{N})=0.00357$ 11; $\alpha(\text{O})=0.00061$ 3; $\alpha(\text{P})=1.9\times 10^{-5}$ 7 $\alpha(\text{K})_{\text{exp}}=0.17$ 4 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.38$ 10 (1978Bo05).
258.7 4	0.3 1	755.3	(9/2 ⁻)	496.79	(11/2 ⁻)	(M1)		0.498	$\alpha(\text{K})=0.410$ 6; $\alpha(\text{L})=0.0678$ 10; $\alpha(\text{M})=0.01572$ 23; $\alpha(\text{N}+..)=0.00469$ 7 $\alpha(\text{N})=0.00392$ 6; $\alpha(\text{O})=0.000720$ 11; $\alpha(\text{P})=4.88\times 10^{-5}$ 8 $\alpha(\text{K})_{\text{exp}}=0.5$ 2.
259.2 4	1.35 20	1380.7	(17/2 ⁺)	1121.68	(13/2 ⁺)	E2		0.1600	$\alpha(\text{K})=0.0891$ 13; $\alpha(\text{L})=0.0534$ 9; $\alpha(\text{M})=0.01356$ 21; $\alpha(\text{N}+..)=0.00391$ 6 $\alpha(\text{N})=0.00335$ 6; $\alpha(\text{O})=0.000554$ 9; $\alpha(\text{P})=9.34\times 10^{-6}$ 14 $\alpha(\text{K})_{\text{exp}}=0.09$ 6 (1998Ru04). Other: $\alpha(\text{K})_{\text{exp}}=0.42$ 15 (1978Bo05).
265.9 4	1.1 2	619.86	(11/2 ⁻)	353.78	(13/2 ⁻)	E2+M1	1.2 6	0.28 11	$\alpha(\text{K})=0.21$ 10; $\alpha(\text{L})=0.054$ 5; $\alpha(\text{M})=0.0132$ 8; $\alpha(\text{N}+..)=0.0039$ 3 $\alpha(\text{N})=0.00327$ 21; $\alpha(\text{O})=0.00057$ 6; $\alpha(\text{P})=2.4\times 10^{-5}$ 12 $\alpha(\text{K})_{\text{exp}}=0.20$ 8.
271.2 2	7.5 7	443.30	9/2 ⁽⁻⁾	172.0	(5/2 ⁻)	E2		0.1389	$\alpha(\text{K})=0.0796$ 12; $\alpha(\text{L})=0.0447$ 7; $\alpha(\text{M})=0.01134$ 17; $\alpha(\text{N}+..)=0.00327$ 5 $\alpha(\text{N})=0.00280$ 4; $\alpha(\text{O})=0.000465$ 7; $\alpha(\text{P})=8.40\times 10^{-6}$ 12 $\alpha(\text{K})_{\text{exp}}=0.09$ 3.
271.5 @ 2	3.3 9	290.97	(5/2 ⁺)	19.44	3/2 ⁽⁺⁾	M1+E2	0.0 3	0.44 3	$\alpha(\text{K})=0.359$ 24; $\alpha(\text{L})=0.0593$ 15; $\alpha(\text{M})=0.0138$ 3; $\alpha(\text{N}+..)=0.00410$ 9 $\alpha(\text{N})=0.00343$ 8; $\alpha(\text{O})=0.000630$ 17; $\alpha(\text{P})=4.3\times 10^{-5}$ 3 $I_\gamma=30.8$ (1978Bo05), $\alpha(\text{K})_{\text{exp}}=0.42$ 8 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.30$ 6 (1978Bo05).
271.6 2	4.2 5	767.11	(9/2 ⁺)	495.37	(7/2 ⁺)	E2+M1	2.1 7	0.19 5	$\alpha(\text{K})=0.13$ 5; $\alpha(\text{L})=0.0472$ 24; $\alpha(\text{M})=0.0117$ 5; $\alpha(\text{N}+..)=0.00341$ 14 $\alpha(\text{N})=0.00290$ 11; $\alpha(\text{O})=0.00049$ 3; $\alpha(\text{P})=1.5\times 10^{-5}$ 6 $\alpha(\text{K})_{\text{exp}}=0.13$ 3.
272.1 @ 4	0.37 10	598.1	(7/2 ⁻)	325.72	(7/2 ⁻)	M1		0.433	$\alpha(\text{K})=0.357$ 6; $\alpha(\text{L})=0.0590$ 9; $\alpha(\text{M})=0.01367$ 20; $\alpha(\text{N}+..)=0.00407$ 6 $\alpha(\text{N})=0.00341$ 5; $\alpha(\text{O})=0.000626$ 10; $\alpha(\text{P})=4.24\times 10^{-5}$ 7 $\alpha(\text{K})_{\text{exp}}=0.37$ 8.
283.7 2	2.8 4	1405.4	(13/2 ⁺)	1121.68	(13/2 ⁺)	M1+E2	0.49 23	0.34 4	$\alpha(\text{K})=0.27$ 4; $\alpha(\text{L})=0.0497$ 24; $\alpha(\text{M})=0.0117$ 5; $\alpha(\text{N}+..)=0.00346$ 14

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)										Comments
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	$I_{(\gamma+ce)}$ [†]	
284.2 4	0.9 2	1164.51	(11/2 ⁺)	880.03	(7/2 ⁺)	E2		0.1204		$\alpha(\text{N})=0.00290$ 11; $\alpha(\text{O})=0.00053$ 3; $\alpha(\text{P})=3.2\times 10^{-5}$ 5 $\alpha(\text{K})_{\text{exp}}=0.27$ 4. $\alpha(\text{K})=0.0709$ 11; $\alpha(\text{L})=0.0373$ 6; $\alpha(\text{M})=0.00944$ 15; $\alpha(\text{N}+..)=0.00273$ 4 $\alpha(\text{N})=0.00233$ 4; $\alpha(\text{O})=0.000388$ 6; $\alpha(\text{P})=7.52\times 10^{-6}$ 11 $\alpha(\text{K})_{\text{exp}}=0.075$ 23. $\alpha(\text{K})=0.0677$ 10; $\alpha(\text{L})=0.0348$ 6; $\alpha(\text{M})=0.00879$ 14; $\alpha(\text{N}+..)=0.00254$ 4 $\alpha(\text{N})=0.00217$ 4; $\alpha(\text{O})=0.000362$ 6; $\alpha(\text{P})=7.20\times 10^{-6}$ 11 $\alpha(\text{K})_{\text{exp}}=0.10$ 4.
289.5 4	1.55 20	880.03	(7/2 ⁺)	590.80	(3/2 ⁺)	(E2)		0.1139		$\alpha(\text{N})=0.00233$ 4; $\alpha(\text{O})=0.000388$ 6; $\alpha(\text{P})=7.52\times 10^{-6}$ 11 $\alpha(\text{K})_{\text{exp}}=0.075$ 23. $\alpha(\text{K})=0.0677$ 10; $\alpha(\text{L})=0.0348$ 6; $\alpha(\text{M})=0.00879$ 14; $\alpha(\text{N}+..)=0.00254$ 4 $\alpha(\text{N})=0.00217$ 4; $\alpha(\text{O})=0.000362$ 6; $\alpha(\text{P})=7.20\times 10^{-6}$ 11 $\alpha(\text{K})_{\text{exp}}=0.10$ 4.
291.0 @ 4	0.06 2	290.97	(5/2 ⁺)	0.0	1/2 ⁽⁺⁾	E1		0.0287		$\alpha(\text{K})=0.0236$ 4; $\alpha(\text{L})=0.00386$ 6; $\alpha(\text{M})=0.000893$ 13; $\alpha(\text{N}+..)=0.000262$ 4 $\alpha(\text{N})=0.000220$ 4; $\alpha(\text{O})=3.94\times 10^{-5}$ 6; $\alpha(\text{P})=2.24\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.028$ 14.
292.1 4	0.7 1	1121.68	(13/2 ⁺)	829.13	(11/2 ⁻)					$\alpha(\text{K})=0.0662$ 10; $\alpha(\text{L})=0.0336$ 5; $\alpha(\text{M})=0.00848$ 13; $\alpha(\text{N}+..)=0.00245$ 4 $\alpha(\text{N})=0.00209$ 4; $\alpha(\text{O})=0.000349$ 6; $\alpha(\text{P})=7.04\times 10^{-6}$ 11 $\alpha(\text{K})=0.0650$ 10; $\alpha(\text{L})=0.0326$ 5; $\alpha(\text{M})=0.00822$ 13; $\alpha(\text{N}+..)=0.00238$ 4 $\alpha(\text{N})=0.00203$ 3; $\alpha(\text{O})=0.000339$ 5; $\alpha(\text{P})=6.91\times 10^{-6}$ 10 $\alpha(\text{K})_{\text{exp}}=0.05$ 2.
292.2 @ 4	0.3 1	495.37	(7/2 ⁺)	203.40	(3/2 ⁺)	E2		0.1107		$\alpha(\text{K})=0.0662$ 10; $\alpha(\text{L})=0.0336$ 5; $\alpha(\text{M})=0.00848$ 13; $\alpha(\text{N}+..)=0.00245$ 4 $\alpha(\text{N})=0.00209$ 4; $\alpha(\text{O})=0.000349$ 6; $\alpha(\text{P})=7.04\times 10^{-6}$ 11 $\alpha(\text{K})=0.0650$ 10; $\alpha(\text{L})=0.0326$ 5; $\alpha(\text{M})=0.00822$ 13; $\alpha(\text{N}+..)=0.00238$ 4 $\alpha(\text{N})=0.00203$ 3; $\alpha(\text{O})=0.000339$ 5; $\alpha(\text{P})=6.91\times 10^{-6}$ 10 $\alpha(\text{K})_{\text{exp}}=0.05$ 2.
294.5 4	0.6 1	619.86	(11/2 ⁻)	325.72	(7/2 ⁻)	E2		0.1081		$\alpha(\text{K})=0.0650$ 10; $\alpha(\text{L})=0.0326$ 5; $\alpha(\text{M})=0.00822$ 13; $\alpha(\text{N}+..)=0.00238$ 4 $\alpha(\text{N})=0.00203$ 3; $\alpha(\text{O})=0.000339$ 5; $\alpha(\text{P})=6.91\times 10^{-6}$ 10 $\alpha(\text{K})_{\text{exp}}=0.05$ 2.
298.6 2	9.9 4	741.96	(13/2 ⁻)	443.30	9/2 ⁽⁻⁾	E2		0.1038		$\alpha(\text{K})=0.0628$ 9; $\alpha(\text{L})=0.0309$ 5; $\alpha(\text{M})=0.00780$ 12; $\alpha(\text{N}+..)=0.00225$ 4 $\alpha(\text{N})=0.00193$ 3; $\alpha(\text{O})=0.000322$ 5; $\alpha(\text{P})=6.69\times 10^{-6}$ 10 $\alpha(\text{K})_{\text{exp}}=0.08$ 2.
299.6 @ 4	1.2 2	590.80	(3/2 ⁺)	290.97	(5/2 ⁺)	M1+E2	1.5 7	0.17 7		$\alpha(\text{K})=0.13$ 7; $\alpha(\text{L})=0.035$ 5; $\alpha(\text{M})=0.0086$ 9; $\alpha(\text{N}+..)=0.0025$ 3 $\alpha(\text{N})=0.00212$ 22; $\alpha(\text{O})=0.00037$ 5; $\alpha(\text{P})=1.5\times 10^{-5}$ 8 $\alpha(\text{K})_{\text{exp}}=0.13$ 7. $\alpha(\text{K})=0.262$ 4; $\alpha(\text{L})=0.0433$ 7; $\alpha(\text{M})=0.01002$ 15; $\alpha(\text{N}+..)=0.00299$ 5 $\alpha(\text{N})=0.00250$ 4; $\alpha(\text{O})=0.000459$ 7; $\alpha(\text{P})=3.11\times 10^{-5}$ 5 $\alpha(\text{K})=0.0213$ 3; $\alpha(\text{L})=0.00347$ 5; $\alpha(\text{M})=0.000801$ 12; $\alpha(\text{N}+..)=0.000235$ 4 $\alpha(\text{N})=0.000198$ 3; $\alpha(\text{O})=3.54\times 10^{-5}$ 5; $\alpha(\text{P})=2.03\times 10^{-6}$ 3 $I_\gamma=4$ (1978Bo05), $\alpha(\text{K})_{\text{exp}}=0.03$ 1 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.04$ (1978Bo05).
304.6 4	0.4 1	993.2	(15/2 ⁻)	688.68	(17/2 ⁻)	(M1)		0.319		$\alpha(\text{K})=0.15$ 4; $\alpha(\text{L})=0.0348$ 24; $\alpha(\text{M})=0.0084$ 5; $\alpha(\text{N}+..)=0.00246$ 15 $\alpha(\text{N})=0.00208$ 12; $\alpha(\text{O})=0.00037$ 3; $\alpha(\text{P})=1.7\times 10^{-5}$ 4 $\alpha(\text{K})_{\text{exp}}=0.15$ 3. $\alpha(\text{K})=0.0534$ 8; $\alpha(\text{L})=0.0241$ 4; $\alpha(\text{M})=0.00606$ 9;
305.4 4	1.5 2	1121.68	(13/2 ⁺)	815.89	(15/2 ⁻)	(E1)		0.0258		$\alpha(\text{N})=0.00250$ 4; $\alpha(\text{O})=0.000459$ 7; $\alpha(\text{P})=3.11\times 10^{-5}$ 5 $\alpha(\text{K})=0.0213$ 3; $\alpha(\text{L})=0.00347$ 5; $\alpha(\text{M})=0.000801$ 12; $\alpha(\text{N}+..)=0.000235$ 4 $\alpha(\text{N})=0.000198$ 3; $\alpha(\text{O})=3.54\times 10^{-5}$ 5; $\alpha(\text{P})=2.03\times 10^{-6}$ 3 $I_\gamma=4$ (1978Bo05), $\alpha(\text{K})_{\text{exp}}=0.03$ 1 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.04$ (1978Bo05).
305.8 4	1.8 2	1187.1	(13/2 ⁻)	881.22	(11/2 ⁻)	M1+E2	1.1 3	0.20 4		$\alpha(\text{K})=0.15$ 4; $\alpha(\text{L})=0.0348$ 24; $\alpha(\text{M})=0.0084$ 5; $\alpha(\text{N}+..)=0.00246$ 15 $\alpha(\text{N})=0.00208$ 12; $\alpha(\text{O})=0.00037$ 3; $\alpha(\text{P})=1.7\times 10^{-5}$ 4 $\alpha(\text{K})_{\text{exp}}=0.15$ 3. $\alpha(\text{K})=0.0534$ 8; $\alpha(\text{L})=0.0241$ 4; $\alpha(\text{M})=0.00606$ 9;
319.2 2	7.0 2	815.89	(15/2 ⁻)	496.79	(11/2 ⁻)	E2		0.0853		$\alpha(\text{K})=0.0534$ 8; $\alpha(\text{L})=0.0241$ 4; $\alpha(\text{M})=0.00606$ 9;

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
322.9 2	13.4 5	443.30	9/2 ⁽⁻⁾	120.40	9/2 ⁽⁻⁾	E0+M1+E2		≈0.83	$\alpha(\text{N}+..)=0.001753$ 25 $\alpha(\text{N})=0.001496$ 22; $\alpha(\text{O})=0.000251$ 4; $\alpha(\text{P})=5.73\times 10^{-6}$ 8 $\alpha(\text{K})_{\text{exp}}=0.057$ 15 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.07$ (1978Bo05). Mult.: $\alpha(\text{K})_{\text{exp}}=0.66$ 17 (1988Pa15), %E0≈76, $\alpha(\text{K})_{\text{exp}}=0.62$ 7 (1998Ru04). α : Estimated by the evaluator from the $\alpha(\text{K})_{\text{exp}}$ values.
327.0 @ 4	0.4 1	822.47	(5/2 ⁺)	495.37	(7/2 ⁺)	M1+E2	0.7 12	0.20 9	$\alpha(\text{K})=0.16$ 8; $\alpha(\text{L})=0.031$ 7; $\alpha(\text{M})=0.0074$ 13; $\alpha(\text{N}+..)=0.0022$ 4 $\alpha(\text{N})=0.0018$ 4; $\alpha(\text{O})=0.00033$ 7; $\alpha(\text{P})=1.9\times 10^{-5}$ 10 $\alpha(\text{K})_{\text{exp}}=0.16$ 9.
328.1 ^a 4	0.95 11	1015.35	(7/2 ⁺)	687.12	(5/2 ⁺)	M1		0.260	$\alpha(\text{K})=0.214$ 3; $\alpha(\text{L})=0.0353$ 5; $\alpha(\text{M})=0.00818$ 12; $\alpha(\text{N}+..)=0.00244$ 4 $\alpha(\text{N})=0.00204$ 3; $\alpha(\text{O})=0.000375$ 6; $\alpha(\text{P})=2.54\times 10^{-5}$ 4 $\alpha(\text{K})_{\text{exp}}=0.22$ 9.
331.8 4	0.55 20	1147.8	(11/2 ⁻ ,13/2 ⁻)	815.89	(15/2 ⁻)	(M1)		0.253	$\alpha(\text{K})=0.208$ 3; $\alpha(\text{L})=0.0342$ 5; $\alpha(\text{M})=0.00793$ 12; $\alpha(\text{N}+..)=0.00236$ 4 $\alpha(\text{N})=0.00198$ 3; $\alpha(\text{O})=0.000364$ 6; $\alpha(\text{P})=2.46\times 10^{-5}$ 4 $\alpha(\text{K})_{\text{exp}}=0.22$ 19.
331.9 4	0.85 10	965.6	(7/2 ⁺)	633.68	(7/2 ⁺)	M1+E2	0.6 14	0.21 10	$\alpha(\text{K})=0.17$ 9; $\alpha(\text{L})=0.031$ 8; $\alpha(\text{M})=0.0072$ 15; $\alpha(\text{N}+..)=0.0021$ 5 $\alpha(\text{N})=0.0018$ 4; $\alpha(\text{O})=0.00032$ 8; $\alpha(\text{P})=1.9\times 10^{-5}$ 11 $\alpha(\text{K})_{\text{exp}}=0.17$ 9.
332.3 4	1.6 2	829.13	(11/2 ⁻)	496.79	(11/2 ⁻)	M1		0.252	$\alpha(\text{K})=0.207$ 3; $\alpha(\text{L})=0.0341$ 5; $\alpha(\text{M})=0.00790$ 12; $\alpha(\text{N}+..)=0.00235$ 4 $\alpha(\text{N})=0.00197$ 3; $\alpha(\text{O})=0.000362$ 6; $\alpha(\text{P})=2.45\times 10^{-5}$ 4 $\alpha(\text{K})_{\text{exp}}=0.19$ 6.
334.8 2	17.5 3	688.68	(17/2 ⁻)	353.78	(13/2 ⁻)	E2		0.0743	$\alpha(\text{K})=0.0475$ 7; $\alpha(\text{L})=0.0203$ 3; $\alpha(\text{M})=0.00507$ 8; $\alpha(\text{N}+..)=0.001470$ 21 $\alpha(\text{N})=0.001254$ 18; $\alpha(\text{O})=0.000211$ 3; $\alpha(\text{P})=5.13\times 10^{-6}$ 8 $\alpha(\text{K})_{\text{exp}}=0.054$ 9 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.042$ 12 (1978Bo05).
336.7 2	2.3 1	956.52	(13/2 ⁻)	619.86	(11/2 ⁻)	M1+E2	0.60 18	0.198 20	$\alpha(\text{K})=0.159$ 18; $\alpha(\text{L})=0.0294$ 16; $\alpha(\text{M})=0.0069$ 4; $\alpha(\text{N}+..)=0.00205$ 10 $\alpha(\text{N})=0.00172$ 8; $\alpha(\text{O})=0.000312$ 17; $\alpha(\text{P})=1.88\times 10^{-5}$ 22 $\alpha(\text{K})_{\text{exp}}=0.16$ 2 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.14$ (1978Bo05).
342.6 @ 4	0.65 10	633.68	(7/2 ⁺)	290.97	(5/2 ⁺)	E2+M1	0.8 4	0.17 4	$\alpha(\text{K})=0.13$ 4; $\alpha(\text{L})=0.026$ 4; $\alpha(\text{M})=0.0063$ 7; $\alpha(\text{N}+..)=0.00185$ 21 $\alpha(\text{N})=0.00155$ 17; $\alpha(\text{O})=0.00028$ 4; $\alpha(\text{P})=1.6\times 10^{-5}$ 5 $\alpha(\text{K})_{\text{exp}}=0.13$ 4.
342.8 4	0.7 1	1159.0	(17/2 ⁻)	815.89	(15/2 ⁻)	(E2)		0.0695	$\alpha(\text{K})=0.0449$ 7; $\alpha(\text{L})=0.0186$ 3; $\alpha(\text{M})=0.00465$ 7; $\alpha(\text{N}+..)=0.001348$ 20 $\alpha(\text{N})=0.001150$ 17; $\alpha(\text{O})=0.000194$ 3; $\alpha(\text{P})=4.86\times 10^{-6}$ 7 $\alpha(\text{K})_{\text{exp}}=0.06$ 3.

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									Comments
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	
343.6 4	1.25 15	934.39	(5/2 ⁺)	590.80	(3/2 ⁺)	M1+E2	1.0 5	0.15 5	$\alpha(\text{K})=0.12$ 5; $\alpha(\text{L})=0.025$ 4; $\alpha(\text{M})=0.0059$ 8; $\alpha(\text{N}+..)=0.00174$ 25 $\alpha(\text{N})=0.00147$ 20; $\alpha(\text{O})=0.00026$ 5; $\alpha(\text{P})=1.4\times 10^{-5}$ 6 $\alpha(\text{K})_{\text{exp}}=0.12$ 4.
349.5 2	4.5 6	1471.0	(13/2 ⁺ ,15/2 ⁺)	1121.68	(13/2 ⁺)	M1		0.219	$\alpha(\text{K})=0.181$ 3; $\alpha(\text{L})=0.0297$ 5; $\alpha(\text{M})=0.00688$ 10; $\alpha(\text{N}+..)=0.00205$ 3 $\alpha(\text{N})=0.001715$ 25; $\alpha(\text{O})=0.000316$ 5; $\alpha(\text{P})=2.14\times 10^{-5}$ 3 $\alpha(\text{K})_{\text{exp}}=0.18$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.22$ 5 (1978Bo05).
350.0 [@] 4	0.45 9	590.80	(3/2 ⁺)	240.27	(5/2 ⁺)	(M1+E2)	1.2 9	0.13 8	$\alpha(\text{K})=0.10$ 7; $\alpha(\text{L})=0.022$ 7; $\alpha(\text{M})=0.0054$ 13; $\alpha(\text{N}+..)=0.0016$ 4 $\alpha(\text{N})=0.0013$ 4; $\alpha(\text{O})=0.00023$ 7; $\alpha(\text{P})=1.1\times 10^{-5}$ 9 $\alpha(\text{K})_{\text{exp}}=0.10$ 6.
351.9 4	0.8 1	950.3	(7/2 ⁻ ,9/2 ⁻)	598.1	(7/2 ⁻)	M1		0.215	$\alpha(\text{K})=0.178$ 3; $\alpha(\text{L})=0.0292$ 5; $\alpha(\text{M})=0.00676$ 10; $\alpha(\text{N}+..)=0.00201$ 3 $\alpha(\text{N})=0.001683$ 25; $\alpha(\text{O})=0.000310$ 5; $\alpha(\text{P})=2.10\times 10^{-5}$ 3 $\alpha(\text{K})_{\text{exp}}=0.20$ 3.
360.4 4	1.3 2	1316.87	(9/2 ⁻)	956.52	(13/2 ⁻)	E2		0.0604	$\alpha(\text{K})=0.0399$ 6; $\alpha(\text{L})=0.01556$ 23; $\alpha(\text{M})=0.00388$ 6; $\alpha(\text{N}+..)=0.001126$ 17 $\alpha(\text{N})=0.000959$ 14; $\alpha(\text{O})=0.0001622$ 24; $\alpha(\text{P})=4.33\times 10^{-6}$ 7 $\alpha(\text{K})_{\text{exp}}=0.035$ 10.
363.3 2	2.1 2	840.1	(9/2 ⁻)	476.59	(7/2 ⁻)	(E2+M1)	3.2 9	0.071 10	$\alpha(\text{K})=0.050$ 9; $\alpha(\text{L})=0.0162$ 9; $\alpha(\text{M})=0.00399$ 18; $\alpha(\text{N}+..)=0.00116$ 6 $\alpha(\text{N})=0.00099$ 5; $\alpha(\text{O})=0.000169$ 10; $\alpha(\text{P})=5.6\times 10^{-6}$ 11 $\alpha(\text{K})_{\text{exp}}=0.05$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.23$ 6 (1978Bo05).
364.0 [#] 4	0.7 2	1357.7	(15/2 ⁻)	993.2	(15/2 ⁻)	E2+M1	1.0 7	0.13 6	$\alpha(\text{K})=0.10$ 6; $\alpha(\text{L})=0.021$ 5; $\alpha(\text{M})=0.0050$ 11; $\alpha(\text{N}+..)=0.0015$ 4 $\alpha(\text{N})=0.0012$ 3; $\alpha(\text{O})=0.00022$ 6; $\alpha(\text{P})=1.2\times 10^{-5}$ 7 $\alpha(\text{K})_{\text{exp}}=0.10$ 4.
366.5 4	0.95 15	1316.87	(9/2 ⁻)	950.3	(7/2 ⁻ ,9/2 ⁻)	E2+M1	1.2 7	0.11 6	$\alpha(\text{K})=0.09$ 5; $\alpha(\text{L})=0.019$ 5; $\alpha(\text{M})=0.0046$ 10; $\alpha(\text{N}+..)=0.0014$ 3 $\alpha(\text{N})=0.00115$ 24; $\alpha(\text{O})=0.00020$ 5; $\alpha(\text{P})=1.0\times 10^{-5}$ 6 $\alpha(\text{K})_{\text{exp}}=0.09$ 4.
371.3 4	1.4 3	1126.7	(7/2,9/2,11/2) ⁻	755.3	(9/2 ⁻)	(E2+M1)	2.8 6	0.070 8	$\alpha(\text{K})=0.050$ 7; $\alpha(\text{L})=0.0153$ 7; $\alpha(\text{M})=0.00376$ 15; $\alpha(\text{N}+..)=0.00110$ 5 $\alpha(\text{N})=0.00093$ 4; $\alpha(\text{O})=0.000160$ 8; $\alpha(\text{P})=5.6\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.05$ 2.
373.6 4	0.95 15	993.2	(15/2 ⁻)	619.86	(11/2 ⁻)	(E2)		0.0547	$\alpha(\text{K})=0.0366$ 6; $\alpha(\text{L})=0.01372$ 20; $\alpha(\text{M})=0.00341$ 5; $\alpha(\text{N}+..)=0.000991$ 15 $\alpha(\text{N})=0.000844$ 13; $\alpha(\text{O})=0.0001431$ 21; $\alpha(\text{P})=3.99\times 10^{-6}$ 6 $\alpha(\text{K})_{\text{exp}}=0.04$ 1.

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									Comments
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	
376.3 2	41.0 9	496.79	(11/2 ⁻)	120.40	9/2 ⁽⁻⁾	M1+E2	0.6 3	0.147 24	$\alpha(\text{K})=0.119$ 21; $\alpha(\text{L})=0.0214$ 21; $\alpha(\text{M})=0.0050$ 5; $\alpha(\text{N}+..)=0.00149$ 14 $\alpha(\text{N})=0.00125$ 11; $\alpha(\text{O})=0.000227$ 22; $\alpha(\text{P})=1.39\times 10^{-5}$ 25 $\alpha(\text{K})_{\text{exp}}=0.119$ 15 (1998Ru04), and 0.11 3 (1978Bo05).
381.7 4	0.75 15	1015.35	(7/2 ⁺)	633.68	(7/2 ⁺)	(M1)		0.1732	$\alpha(\text{K})=0.1427$ 21; $\alpha(\text{L})=0.0234$ 4; $\alpha(\text{M})=0.00542$ 8; $\alpha(\text{N}+..)=0.001615$ 23 $\alpha(\text{N})=0.001350$ 20; $\alpha(\text{O})=0.000248$ 4; $\alpha(\text{P})=1.687\times 10^{-5}$ 24 $\alpha(\text{K})_{\text{exp}}=0.14$ 5.
381.8 4	0.85 20	1149.27	(13/2 ⁺)	767.11	(9/2 ⁺)	(E2)		0.0516	$\alpha(\text{K})=0.0348$ 5; $\alpha(\text{L})=0.01273$ 19; $\alpha(\text{M})=0.00316$ 5; $\alpha(\text{N}+..)=0.000919$ 14 $\alpha(\text{N})=0.000782$ 12; $\alpha(\text{O})=0.0001328$ 20; $\alpha(\text{P})=3.80\times 10^{-6}$ 6 Mult.: 1998Ru04 assigned E2(+M1) from $\alpha(\text{K})_{\text{exp}}=0.06$ 3 (indicates $\delta=1.8$ 7), decay scheme requires E2.
382.8 4	1.0 1	1205.19	(9/2 ⁺)	822.47	(5/2 ⁺)	E2		0.0512	$\alpha(\text{K})=0.0346$ 5; $\alpha(\text{L})=0.01261$ 19; $\alpha(\text{M})=0.00313$ 5; $\alpha(\text{N}+..)=0.000910$ 14 $\alpha(\text{N})=0.000775$ 12; $\alpha(\text{O})=0.0001316$ 19; $\alpha(\text{P})=3.77\times 10^{-6}$ 6 $\alpha(\text{K})_{\text{exp}}=0.03$ 1.
384.6 4	0.85 2	880.03	(7/2 ⁺)	495.37	(7/2 ⁺)	E2+M1	2.4 8	0.068 16	$\alpha(\text{K})=0.050$ 14; $\alpha(\text{L})=0.0140$ 15; $\alpha(\text{M})=0.0034$ 3; $\alpha(\text{N}+..)=0.00100$ 10 $\alpha(\text{N})=0.00085$ 8; $\alpha(\text{O})=0.000146$ 16; $\alpha(\text{P})=5.6\times 10^{-6}$ 17 $\alpha(\text{K})_{\text{exp}}=0.05$ 1.
385.8 2	2.3 3	829.13	(11/2 ⁻)	443.30	9/2 ⁽⁻⁾	M1		0.1683	$\alpha(\text{K})=0.1387$ 20; $\alpha(\text{L})=0.0227$ 4; $\alpha(\text{M})=0.00526$ 8; $\alpha(\text{N}+..)=0.001569$ 22 $\alpha(\text{N})=0.001312$ 19; $\alpha(\text{O})=0.000241$ 4; $\alpha(\text{P})=1.639\times 10^{-5}$ 23 $\alpha(\text{K})_{\text{exp}}=0.17$ 4.
387.5 4	0.50 15	1380.7	(17/2 ⁺)	993.2	(15/2 ⁻)	(E1)		0.01494	$\alpha(\text{K})=0.01238$ 18; $\alpha(\text{L})=0.00197$ 3; $\alpha(\text{M})=0.000454$ 7; $\alpha(\text{N}+..)=0.0001338$ 19 $\alpha(\text{N})=0.0001124$ 16; $\alpha(\text{O})=2.02\times 10^{-5}$ 3; $\alpha(\text{P})=1.206\times 10^{-6}$ 17 $\alpha(\text{K})_{\text{exp}}=0.020$ 12.
387.7 [@] 4	0.32 8	590.80	(3/2 ⁺)	203.40	(3/2 ⁺)	E0+M1+E2		≈0.28	$\alpha(\text{K})_{\text{exp}}=0.22$ 8. α : Estimated by the evaluator from the $\alpha(\text{K})_{\text{exp}}$ value.
388.1 2	3.0 2	741.96	(13/2 ⁻)	353.78	(13/2 ⁻)	E0+M1+E2		≈1.0	$\alpha(\text{K})_{\text{exp}}=0.96$ 11 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.64$ 9 (1988Pa15). δ : %E0=81 4 (1988Pa15). α : Estimated by the evaluator from the weighted average $\alpha(\text{K})_{\text{exp}}=0.77$ 7.
388.5 4	0.7 1	1228.7	(9/2 ⁻)	840.1	(9/2 ⁻)	M1		0.1652	$\alpha(\text{K})=0.1362$ 20; $\alpha(\text{L})=0.0223$ 4; $\alpha(\text{M})=0.00517$ 8; $\alpha(\text{N}+..)=0.001540$ 22 $\alpha(\text{N})=0.001287$ 19; $\alpha(\text{O})=0.000237$ 4; $\alpha(\text{P})=1.608\times 10^{-5}$ 23 $\alpha(\text{K})_{\text{exp}}=0.18$ 5.
392.5 4	0.55 15	1590.0	(11/2 ⁻ ,13/2 ⁻)	1197.6	(11/2 ⁻)	E2+M1	1.3 7	0.09 5	$\alpha(\text{K})=0.07$ 4; $\alpha(\text{L})=0.015$ 4; $\alpha(\text{M})=0.0037$ 8; $\alpha(\text{N}+..)=0.00108$ 25

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									Comments
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	
									$\alpha(\text{N})=0.00091$ 20; $\alpha(\text{O})=0.00016$ 4; $\alpha(\text{P})=8.\text{E}-6$ 5 $\alpha(\text{K})_{\text{exp}}=0.07$ 3.
393.4 [@] 2	5.1 2	633.68	(7/2 ⁺)	240.27	(5/2 ⁺)	M1		0.1597	$\alpha(\text{K})=0.1317$ 19; $\alpha(\text{L})=0.0216$ 3; $\alpha(\text{M})=0.00499$ 7; $\alpha(\text{N}+..)=0.001489$ 21 $\alpha(\text{N})=0.001244$ 18; $\alpha(\text{O})=0.000229$ 4; $\alpha(\text{P})=1.555\times 10^{-5}$ 22 $\alpha(\text{K})_{\text{exp}}=0.15$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.16$ 4 (1978Bo05).
395.9 [@] 4	0.5 2	687.12	(5/2 ⁺)	290.97	(5/2 ⁺)	M1		0.1571	$\alpha(\text{K})=0.1295$ 19; $\alpha(\text{L})=0.0212$ 3; $\alpha(\text{M})=0.00491$ 7; $\alpha(\text{N}+..)=0.001463$ 21 $\alpha(\text{N})=0.001223$ 18; $\alpha(\text{O})=0.000225$ 4; $\alpha(\text{P})=1.529\times 10^{-5}$ 22 $\alpha(\text{K})_{\text{exp}}=0.14$ 6.
404.6 4	0.55 15	881.22	(11/2 ⁻)	476.59	(7/2 ⁻)	(E2)		0.0442	$\alpha(\text{K})=0.0304$ 5; $\alpha(\text{L})=0.01044$ 15; $\alpha(\text{M})=0.00259$ 4; $\alpha(\text{N}+..)=0.000752$ 11 $\alpha(\text{N})=0.000640$ 10; $\alpha(\text{O})=0.0001090$ 16; $\alpha(\text{P})=3.33\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.031$ 18.
410.6 2	3.6 2	1120.95	(11/2 ⁺)	710.48	(9/2 ⁺)	M1		0.1425	$\alpha(\text{K})=0.1175$ 17; $\alpha(\text{L})=0.0192$ 3; $\alpha(\text{M})=0.00445$ 7; $\alpha(\text{N}+..)=0.001326$ 19 $\alpha(\text{N})=0.001109$ 16; $\alpha(\text{O})=0.000204$ 3; $\alpha(\text{P})=1.386\times 10^{-5}$ 20 $\alpha(\text{K})_{\text{exp}}=0.13$ 3 (both in 1998Ru04 , 1978Bo05).
416.9 4	0.5 1	1232.6	(19/2 ⁻)	815.89	(15/2 ⁻)	(E2)		0.0408	$\alpha(\text{K})=0.0284$ 4; $\alpha(\text{L})=0.00945$ 14; $\alpha(\text{M})=0.00234$ 4; $\alpha(\text{N}+..)=0.000679$ 10 $\alpha(\text{N})=0.000578$ 9; $\alpha(\text{O})=9.87\times 10^{-5}$ 15; $\alpha(\text{P})=3.12\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.04$ 2.
417.1 4	0.8 2	1159.0	(17/2 ⁻)	741.96	(13/2 ⁻)	(E2)		0.0408	$\alpha(\text{K})=0.0283$ 4; $\alpha(\text{L})=0.00943$ 14; $\alpha(\text{M})=0.00233$ 4; $\alpha(\text{N}+..)=0.000678$ 10 $\alpha(\text{N})=0.000577$ 9; $\alpha(\text{O})=9.85\times 10^{-5}$ 15; $\alpha(\text{P})=3.11\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.04$ 2.
419.5 4	0.4 1	710.48	(9/2 ⁺)	290.97	(5/2 ⁺)	(E2)		0.0402	$\alpha(\text{K})=0.0280$ 4; $\alpha(\text{L})=0.00925$ 14; $\alpha(\text{M})=0.00229$ 4; $\alpha(\text{N}+..)=0.000665$ 10 $\alpha(\text{N})=0.000566$ 9; $\alpha(\text{O})=9.67\times 10^{-5}$ 14; $\alpha(\text{P})=3.07\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.04$ 2.
424.1 4	1.0 2	1015.35	(7/2 ⁺)	590.80	(3/2 ⁺)	(E2)		0.0390	$\alpha(\text{K})=0.0273$ 4; $\alpha(\text{L})=0.00893$ 13; $\alpha(\text{M})=0.00220$ 4; $\alpha(\text{N}+..)=0.000642$ 10 $\alpha(\text{N})=0.000545$ 8; $\alpha(\text{O})=9.33\times 10^{-5}$ 14; $\alpha(\text{P})=3.00\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.032$ 9.
425.0 4	1.6 4	1166.9	(17/2 ⁻)	741.96	(13/2 ⁻)	(E2)		0.0388	$\alpha(\text{K})=0.0271$ 4; $\alpha(\text{L})=0.00886$ 13; $\alpha(\text{M})=0.00219$ 4; $\alpha(\text{N}+..)=0.000637$ 10 $\alpha(\text{N})=0.000541$ 8; $\alpha(\text{O})=9.26\times 10^{-5}$ 14; $\alpha(\text{P})=2.98\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.029$ 6.
426.1 [@] 4	1.3 1	598.1	(7/2 ⁻)	172.0	(5/2 ⁻)	M1+E2	0.5 4	0.111 23	$\alpha(\text{K})=0.091$ 20; $\alpha(\text{L})=0.0157$ 22; $\alpha(\text{M})=0.0037$ 5; $\alpha(\text{N}+..)=0.00109$ 15 $\alpha(\text{N})=0.00091$ 12; $\alpha(\text{O})=0.000166$ 24; $\alpha(\text{P})=1.06\times 10^{-5}$ 24 $\alpha(\text{K})_{\text{exp}}=0.09$ 2.
429.6 2	2.1 4	755.3	(9/2 ⁻)	325.72	(7/2 ⁻)	M1+E2	1.1 4	0.078 20	$\alpha(\text{K})=0.062$ 17; $\alpha(\text{L})=0.0124$ 19; $\alpha(\text{M})=0.0029$ 4; $\alpha(\text{N}+..)=0.00087$ 13 $\alpha(\text{N})=0.00073$ 10; $\alpha(\text{O})=0.000131$ 20; $\alpha(\text{P})=7.2\times 10^{-6}$ 21 $\alpha(\text{K})_{\text{exp}}=0.061$ 15.
429.9 [@] 4	0.6 1	633.68	(7/2 ⁺)	203.40	(3/2 ⁺)	(E2)		0.0377	$\alpha(\text{K})=0.0264$ 4; $\alpha(\text{L})=0.00854$ 13; $\alpha(\text{M})=0.00211$ 3; $\alpha(\text{N}+..)=0.000613$ 9

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
430.2 2	4.4 1	1398.2	(15/2 ⁺)	968.01	(11/2 ⁺)	E2		0.0376	$\alpha(\text{N})=0.000521$ 8; $\alpha(\text{O})=8.92\times 10^{-5}$ 13; $\alpha(\text{P})=2.91\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.025$ 15. $\alpha(\text{K})=0.0264$ 4; $\alpha(\text{L})=0.00852$ 12; $\alpha(\text{M})=0.00210$ 3; $\alpha(\text{N}+..)=0.000612$ 9 $\alpha(\text{N})=0.000520$ 8; $\alpha(\text{O})=8.90\times 10^{-5}$ 13; $\alpha(\text{P})=2.90\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.027$ 7 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.088$ 10 (1978Bo05). $\alpha(\text{K})_{\text{exp}}=0.9$ 3, mult: (E2).
433.4 ^a 4	0.9 3	1120.4		687.12	(5/2 ⁺)				
436.6 4	1.45 20	1393.4	(13/2 ⁻)	956.52	(13/2 ⁻)	M1+E2	0.8 6	0.09 3	$\alpha(\text{K})=0.07$ 3; $\alpha(\text{L})=0.013$ 3; $\alpha(\text{M})=0.0031$ 7; $\alpha(\text{N}+..)=0.00091$ 20 $\alpha(\text{N})=0.00077$ 16; $\alpha(\text{O})=0.00014$ 4; $\alpha(\text{P})=8.\text{E}-6$ 4 $\alpha(\text{K})_{\text{exp}}=0.07$ 2. $\alpha(\text{K})_{\text{exp}}=0.22$ 7. α : Estimated by the evaluator from the $\alpha(\text{K})_{\text{exp}}$ value.
437.9 4	0.4 1	1187.1	(13/2 ⁻)	749.30	(13/2 ⁻)	E0+M1+E2		≈0.28	$\alpha(\text{K})=0.0252$ 4; $\alpha(\text{L})=0.00798$ 12; $\alpha(\text{M})=0.00197$ 3; $\alpha(\text{N}+..)=0.000573$ 8 $\alpha(\text{N})=0.000487$ 7; $\alpha(\text{O})=8.34\times 10^{-5}$ 12; $\alpha(\text{P})=2.78\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.023$ 5 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.034$ 8 (1978Bo05).
438.8 2	10.0 3	1149.27	(13/2 ⁺)	710.48	(9/2 ⁺)	E2		0.0358	$\alpha(\text{K})=0.042$ 10; $\alpha(\text{L})=0.0099$ 11; $\alpha(\text{M})=0.00238$ 24; $\alpha(\text{N}+..)=0.00070$ 8 $\alpha(\text{N})=0.00059$ 6; $\alpha(\text{O})=0.000104$ 12; $\alpha(\text{P})=4.9\times 10^{-6}$ 12 $\alpha(\text{K})_{\text{exp}}=0.043$ 15. $\alpha(\text{K})=0.050$ 9; $\alpha(\text{L})=0.0104$ 11; $\alpha(\text{M})=0.00249$ 22; $\alpha(\text{N}+..)=0.00073$ 7 $\alpha(\text{N})=0.00062$ 6; $\alpha(\text{O})=0.000110$ 11; $\alpha(\text{P})=5.8\times 10^{-6}$ 11 $\alpha(\text{K})_{\text{exp}}=0.05$ 1.
438.9 4	1.5 1	934.39	(5/2 ⁺)	495.37	(7/2 ⁺)	E2+M1	1.8 5	0.055 12	$\alpha(\text{K})=0.0938$ 14; $\alpha(\text{L})=0.01532$ 22; $\alpha(\text{M})=0.00354$ 5; $\alpha(\text{N}+..)=0.001056$ 15 $\alpha(\text{N})=0.000883$ 13; $\alpha(\text{O})=0.0001625$ 23; $\alpha(\text{P})=1.105\times 10^{-5}$ 16 $\alpha(\text{K})_{\text{exp}}=0.09$ 3. $\alpha(\text{K})=0.06$ 4; $\alpha(\text{L})=0.011$ 4; $\alpha(\text{M})=0.0027$ 9; $\alpha(\text{N}+..)=0.0008$ 3 $\alpha(\text{N})=0.00066$ 21; $\alpha(\text{O})=0.00012$ 4; $\alpha(\text{P})=7.\text{E}-6$ 4 $\alpha(\text{K})_{\text{exp}}=0.06$ 3.
446.5 2	2.1 2	1568.2	(11/2,13/2,15/2) ⁺	1121.68	(13/2 ⁺)	E2+M1	1.3 3	0.064 11	$\alpha(\text{K})=0.0239$ 4; $\alpha(\text{L})=0.00740$ 11; $\alpha(\text{M})=0.00182$ 3;
446.9 [@] 4	1.5 1	687.12	(5/2 ⁺)	240.27	(5/2 ⁺)	M1		0.1138	
448.3 2	4.0 5	1197.6	(11/2 ⁻)	749.30	(13/2 ⁻)	M1+E2	1.0 9	0.07 4	
449.2 2	26.0 15	673.24	(15/2 ⁻)	223.93	(11/2 ⁻)	E2		0.0337	

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									Comments
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	
450.1 2	3.5 15	674.1	(9/2 ⁻ , 11/2 ⁻)	223.93	(11/2 ⁻)	(M1)		0.1116	$\alpha(\text{N}+..)=0.000531$ 8 $\alpha(\text{N})=0.000451$ 7; $\alpha(\text{O})=7.74\times 10^{-5}$ 11; $\alpha(\text{P})=2.64\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.024$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.027$ 6 (1978Bo05). $\alpha(\text{K})=0.0921$ 13; $\alpha(\text{L})=0.01503$ 22; $\alpha(\text{M})=0.00348$ 5; $\alpha(\text{N}+..)=0.001036$ 15 $\alpha(\text{N})=0.000866$ 13; $\alpha(\text{O})=0.0001594$ 23; $\alpha(\text{P})=1.084\times 10^{-5}$ 16 $\alpha(\text{K})_{\text{exp}}=0.09$ 6.
455.3 4	1.55 20	1604.6	(17/2 ⁺)	1149.27	(13/2 ⁺)	(E2)		0.0326	$\alpha(\text{K})=0.0232$ 4; $\alpha(\text{L})=0.00709$ 11; $\alpha(\text{M})=0.001742$ 25; $\alpha(\text{N}+..)=0.000508$ 8 $\alpha(\text{N})=0.000431$ 7; $\alpha(\text{O})=7.41\times 10^{-5}$ 11; $\alpha(\text{P})=2.56\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.038$ 25.
459.4 2	4.7 2	956.52	(13/2 ⁻)	496.79	(11/2 ⁻)	E2+M1	0.9 7	0.07 3	$\alpha(\text{K})=0.06$ 3; $\alpha(\text{L})=0.011$ 3; $\alpha(\text{M})=0.0026$ 7; $\alpha(\text{N}+..)=0.00076$ 20 $\alpha(\text{N})=0.00064$ 17; $\alpha(\text{O})=0.00012$ 4; $\alpha(\text{P})=7.\text{E}-6$ 4 $\alpha(\text{K})_{\text{exp}}=0.06$ 2 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.12$ 3 (1978Bo05). $\alpha(\text{K})=0.051$ 10; $\alpha(\text{L})=0.0100$ 12; $\alpha(\text{M})=0.0024$ 3; $\alpha(\text{N}+..)=0.00070$ 8 $\alpha(\text{N})=0.00059$ 7; $\alpha(\text{O})=0.000106$ 13; $\alpha(\text{P})=5.9\times 10^{-6}$ 12 $\alpha(\text{K})_{\text{exp}}=0.050$ 9 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha(\text{K})=0.05$ 3; $\alpha(\text{L})=0.010$ 3; $\alpha(\text{M})=0.0023$ 7; $\alpha(\text{N}+..)=0.00068$ 20 $\alpha(\text{N})=0.00057$ 16; $\alpha(\text{O})=0.00010$ 4; $\alpha(\text{P})=6.\text{E}-6$ 3 $\alpha(\text{K})_{\text{exp}}=0.05$ 2.
462.1 2	11.8 6	815.89	(15/2 ⁻)	353.78	(13/2 ⁻)	M1+E2	1.1 3	0.064 12	$\alpha(\text{K})=0.07$ 4; $\alpha(\text{L})=0.012$ 4; $\alpha(\text{M})=0.0028$ 9; $\alpha(\text{N}+..)=0.0008$ 3 $\alpha(\text{N})=0.00069$ 22; $\alpha(\text{O})=0.00013$ 5; $\alpha(\text{P})=8.\text{E}-6$ 4 $\alpha(\text{K})_{\text{exp}}=0.07$ 3.
467.7 4	1.0 2	1589.65	(11/2, 13/2) ⁺	1121.68	(13/2 ⁺)	E2+M1	1.1 7	0.06 3	$\alpha(\text{K})=0.0216$ 3; $\alpha(\text{L})=0.00639$ 9; $\alpha(\text{M})=0.001568$ 22; $\alpha(\text{N}+..)=0.000457$ 7 $\alpha(\text{N})=0.000388$ 6; $\alpha(\text{O})=6.69\times 10^{-5}$ 10; $\alpha(\text{P})=2.39\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.023$ 4 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.026$ 7 (1978Bo05). $\alpha(\text{K})=0.0213$ 3; $\alpha(\text{L})=0.00629$ 9; $\alpha(\text{M})=0.001542$ 22; $\alpha(\text{N}+..)=0.000450$ 7 $\alpha(\text{N})=0.000382$ 6; $\alpha(\text{O})=6.58\times 10^{-5}$ 10; $\alpha(\text{P})=2.36\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.020$ 5.
470.2 4	0.9 2	1159.0	(17/2 ⁻)	688.68	(17/2 ⁻)	M1+E2	0.5 13	0.09 4	$\alpha(\text{K})=0.0797$ 12; $\alpha(\text{L})=0.01299$ 19; $\alpha(\text{M})=0.00300$ 5; $\alpha(\text{N}+..)=0.000895$ 13 $\alpha(\text{N})=0.000748$ 11; $\alpha(\text{O})=0.0001378$ 20; $\alpha(\text{P})=9.37\times 10^{-6}$ 14 $\alpha(\text{K})_{\text{exp}}=0.08$ 3.
470.3 2	27.1 2	710.48	(9/2 ⁺)	240.27	(5/2 ⁺)	E2		0.0300	$\alpha(\text{K})=0.0210$ 3; $\alpha(\text{L})=0.00616$ 9; $\alpha(\text{M})=0.001509$ 22; $\alpha(\text{N}+..)=0.000440$ 7 $\alpha(\text{N})=0.000373$ 6; $\alpha(\text{O})=6.44\times 10^{-5}$ 9; $\alpha(\text{P})=2.32\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.024$ 5 (1998Ru04), and 0.043 10 (1978Bo05). $\alpha(\text{K})=0.0210$ 3; $\alpha(\text{L})=0.00614$ 9; $\alpha(\text{M})=0.001506$ 22;
472.8 2	11.3 2	968.01	(11/2 ⁺)	495.37	(7/2 ⁺)	E2		0.0296	
475.4 2	2.0 3	829.13	(11/2 ⁻)	353.78	(13/2 ⁻)	M1		0.0966	
476.0 [@] 2	23 2	495.37	(7/2 ⁺)	19.44	3/2 ⁽⁺⁾	E2		0.0291	
476.3 2	3.6 4	767.11	(9/2 ⁺)	290.97	(5/2 ⁺)	E2		0.0291	

¹⁸⁷Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05 (continued)

$\gamma(^{187}\text{Au})$ (continued)									Comments
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	
478.0 [@] 4	0.8 1	598.1	(7/2 ⁻)	120.40	9/2 ⁽⁻⁾	E2+M1	1.0 7	0.06 3	$\alpha(\text{N}+..)=0.000439$ 7 $\alpha(\text{N})=0.000373$ 6; $\alpha(\text{O})=6.43\times 10^{-5}$ 9; $\alpha(\text{P})=2.32\times 10^{-6}$ 4 $I_\gamma=11.1$ 22 (1978Bo05), $\alpha(\text{K})_{\text{exp}}=0.022$ 9 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.085$ 20 (1978Bo05). $\alpha(\text{K})=0.050$ 25; $\alpha(\text{L})=0.009$ 3; $\alpha(\text{M})=0.0022$ 7; $\alpha(\text{N}+..)=0.00066$ 19 $\alpha(\text{N})=0.00055$ 16; $\alpha(\text{O})=0.00010$ 3; $\alpha(\text{P})=6.\text{E}-6$ 3 $\alpha(\text{K})_{\text{exp}}=0.05$ 2. $\alpha(\text{K})_{\text{exp}}=0.24$ 10. α : Estimated by the evaluator from the $\alpha(\text{K})_{\text{exp}}$ value. $\alpha(\text{K})=0.0207$ 3; $\alpha(\text{L})=0.00601$ 9; $\alpha(\text{M})=0.001473$ 21; $\alpha(\text{N}+..)=0.000430$ 7 $\alpha(\text{N})=0.000365$ 6; $\alpha(\text{O})=6.29\times 10^{-5}$ 9; $\alpha(\text{P})=2.29\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.03$ 2. $\alpha(\text{K})_{\text{exp}}=0.031$ 13, E2(+M1) in 1994RuZX.
478.1 4	0.25 10	1166.9	(17/2 ⁻)	688.68	(17/2 ⁻)	E0+M1+E2		≈0.31	$\alpha(\text{K})=0.030$ 5; $\alpha(\text{L})=0.0070$ 6; $\alpha(\text{M})=0.00168$ 13; $\alpha(\text{N}+..)=0.00049$ 4 $\alpha(\text{N})=0.00042$ 4; $\alpha(\text{O})=7.3\times 10^{-5}$ 7; $\alpha(\text{P})=3.4\times 10^{-6}$ 6 I_γ 2.6 (1978Bo05), $\alpha(\text{K})_{\text{exp}}=0.03$ 1. $\alpha(\text{K})=0.0200$ 3; $\alpha(\text{L})=0.00575$ 9; $\alpha(\text{M})=0.001408$ 20; $\alpha(\text{N}+..)=0.000411$ 6 $\alpha(\text{N})=0.000349$ 5; $\alpha(\text{O})=6.02\times 10^{-5}$ 9; $\alpha(\text{P})=2.22\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.023$ 6. $\alpha(\text{K})=0.042$ 22; $\alpha(\text{L})=0.008$ 3; $\alpha(\text{M})=0.0020$ 6; $\alpha(\text{N}+..)=0.00058$ 17 $\alpha(\text{N})=0.00049$ 14; $\alpha(\text{O})=9.\text{E}-5$ 3; $\alpha(\text{P})=5.\text{E}-6$ 3 $\alpha(\text{K})_{\text{exp}}=0.042$ 16. $\alpha(\text{K})_{\text{exp}}=0.024$ 15, Mult: E2+M1 in 1994RuZX. $\alpha(\text{K})=0.0718$ 11; $\alpha(\text{L})=0.01169$ 17; $\alpha(\text{M})=0.00270$ 4; $\alpha(\text{N}+..)=0.000806$ 12 $\alpha(\text{N})=0.000673$ 10; $\alpha(\text{O})=0.0001240$ 18; $\alpha(\text{P})=8.44\times 10^{-6}$ 12 $\alpha(\text{K})_{\text{exp}}=0.07$ 2.
479.6 4	0.55 10	1228.7	(9/2 ⁻)	749.30	(13/2 ⁻)	(E2)		0.0286	$\alpha(\text{K})_{\text{exp}}=0.031$ 13, E2(+M1) in 1994RuZX.
480.6 ^a 4	1.30 15	1600.9		1120.4					$\alpha(\text{K})=0.030$ 5; $\alpha(\text{L})=0.0070$ 6; $\alpha(\text{M})=0.00168$ 13; $\alpha(\text{N}+..)=0.00049$ 4 $\alpha(\text{N})=0.00042$ 4; $\alpha(\text{O})=7.3\times 10^{-5}$ 7; $\alpha(\text{P})=3.4\times 10^{-6}$ 6 I_γ 2.6 (1978Bo05), $\alpha(\text{K})_{\text{exp}}=0.03$ 1. $\alpha(\text{K})=0.0200$ 3; $\alpha(\text{L})=0.00575$ 9; $\alpha(\text{M})=0.001408$ 20; $\alpha(\text{N}+..)=0.000411$ 6 $\alpha(\text{N})=0.000349$ 5; $\alpha(\text{O})=6.02\times 10^{-5}$ 9; $\alpha(\text{P})=2.22\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.023$ 6. $\alpha(\text{K})=0.042$ 22; $\alpha(\text{L})=0.008$ 3; $\alpha(\text{M})=0.0020$ 6; $\alpha(\text{N}+..)=0.00058$ 17 $\alpha(\text{N})=0.00049$ 14; $\alpha(\text{O})=9.\text{E}-5$ 3; $\alpha(\text{P})=5.\text{E}-6$ 3 $\alpha(\text{K})_{\text{exp}}=0.042$ 16. $\alpha(\text{K})_{\text{exp}}=0.024$ 15, Mult: E2+M1 in 1994RuZX. $\alpha(\text{K})=0.0718$ 11; $\alpha(\text{L})=0.01169$ 17; $\alpha(\text{M})=0.00270$ 4; $\alpha(\text{N}+..)=0.000806$ 12 $\alpha(\text{N})=0.000673$ 10; $\alpha(\text{O})=0.0001240$ 18; $\alpha(\text{P})=8.44\times 10^{-6}$ 12 $\alpha(\text{K})_{\text{exp}}=0.07$ 2.
483.7 [@] 4	0.8 2	687.12	(5/2 ⁺)	203.40	(3/2 ⁺)	E2(+M1)	2.2 5	0.039 6	$\alpha(\text{K})=0.0718$ 11; $\alpha(\text{L})=0.01169$ 17; $\alpha(\text{M})=0.00270$ 4; $\alpha(\text{N}+..)=0.000806$ 12 $\alpha(\text{N})=0.000673$ 10; $\alpha(\text{O})=0.0001240$ 18; $\alpha(\text{P})=8.44\times 10^{-6}$ 12 $\alpha(\text{K})_{\text{exp}}=0.07$ 2.
486.4 4	1.75 20	1120.95	(11/2 ⁺)	633.68	(7/2 ⁺)	E2		0.0276	$\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.035$ 8; $\alpha(\text{L})=0.0072$ 9; $\alpha(\text{M})=0.00171$ 20; $\alpha(\text{N}+..)=0.00050$ 6 $\alpha(\text{N})=0.00042$ 5; $\alpha(\text{O})=7.6\times 10^{-5}$ 10; $\alpha(\text{P})=4.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.034$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha=0.00851$ 12; $\alpha(\text{K})=0.00708$ 10; $\alpha(\text{L})=0.001102$ 16; $\alpha(\text{M})=0.000253$ 4; $\alpha(\text{N}+..)=7.48\times 10^{-5}$ 11 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.135\times 10^{-5}$ 16; $\alpha(\text{P})=7.02\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.007$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.1$ (1978Bo05).
487.7 4	1.4 2	985.0	(9/2 ⁻)	496.79	(11/2 ⁻)	E2+M1	1.2 7	0.053 25	$\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.035$ 8; $\alpha(\text{L})=0.0072$ 9; $\alpha(\text{M})=0.00171$ 20; $\alpha(\text{N}+..)=0.00050$ 6 $\alpha(\text{N})=0.00042$ 5; $\alpha(\text{O})=7.6\times 10^{-5}$ 10; $\alpha(\text{P})=4.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.034$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha=0.00851$ 12; $\alpha(\text{K})=0.00708$ 10; $\alpha(\text{L})=0.001102$ 16; $\alpha(\text{M})=0.000253$ 4; $\alpha(\text{N}+..)=7.48\times 10^{-5}$ 11 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.135\times 10^{-5}$ 16; $\alpha(\text{P})=7.02\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.007$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.1$ (1978Bo05).
493.2 ^a 4	0.67 15	2300.7		1807.6	(15/2 ⁻)				$\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.035$ 8; $\alpha(\text{L})=0.0072$ 9; $\alpha(\text{M})=0.00171$ 20; $\alpha(\text{N}+..)=0.00050$ 6 $\alpha(\text{N})=0.00042$ 5; $\alpha(\text{O})=7.6\times 10^{-5}$ 10; $\alpha(\text{P})=4.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.034$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha=0.00851$ 12; $\alpha(\text{K})=0.00708$ 10; $\alpha(\text{L})=0.001102$ 16; $\alpha(\text{M})=0.000253$ 4; $\alpha(\text{N}+..)=7.48\times 10^{-5}$ 11 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.135\times 10^{-5}$ 16; $\alpha(\text{P})=7.02\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.007$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.1$ (1978Bo05).
494.6 4	0.7 1	1205.19	(9/2 ⁺)	710.48	(9/2 ⁺)	M1		0.0870	$\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.035$ 8; $\alpha(\text{L})=0.0072$ 9; $\alpha(\text{M})=0.00171$ 20; $\alpha(\text{N}+..)=0.00050$ 6 $\alpha(\text{N})=0.00042$ 5; $\alpha(\text{O})=7.6\times 10^{-5}$ 10; $\alpha(\text{P})=4.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.034$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha=0.00851$ 12; $\alpha(\text{K})=0.00708$ 10; $\alpha(\text{L})=0.001102$ 16; $\alpha(\text{M})=0.000253$ 4; $\alpha(\text{N}+..)=7.48\times 10^{-5}$ 11 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.135\times 10^{-5}$ 16; $\alpha(\text{P})=7.02\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.007$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.1$ (1978Bo05).
496.5 4	0.2 1	993.2	(15/2 ⁻)	496.79	(11/2 ⁻)				$\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.035$ 8; $\alpha(\text{L})=0.0072$ 9; $\alpha(\text{M})=0.00171$ 20; $\alpha(\text{N}+..)=0.00050$ 6 $\alpha(\text{N})=0.00042$ 5; $\alpha(\text{O})=7.6\times 10^{-5}$ 10; $\alpha(\text{P})=4.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.034$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha=0.00851$ 12; $\alpha(\text{K})=0.00708$ 10; $\alpha(\text{L})=0.001102$ 16; $\alpha(\text{M})=0.000253$ 4; $\alpha(\text{N}+..)=7.48\times 10^{-5}$ 11 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.135\times 10^{-5}$ 16; $\alpha(\text{P})=7.02\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.007$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.1$ (1978Bo05).
499.0 ^{a#} 4	0.9 2	1380.7	(17/2 ⁺)	881.22	(11/2 ⁻)				$\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.035$ 8; $\alpha(\text{L})=0.0072$ 9; $\alpha(\text{M})=0.00171$ 20; $\alpha(\text{N}+..)=0.00050$ 6 $\alpha(\text{N})=0.00042$ 5; $\alpha(\text{O})=7.6\times 10^{-5}$ 10; $\alpha(\text{P})=4.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.034$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha=0.00851$ 12; $\alpha(\text{K})=0.00708$ 10; $\alpha(\text{L})=0.001102$ 16; $\alpha(\text{M})=0.000253$ 4; $\alpha(\text{N}+..)=7.48\times 10^{-5}$ 11 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.135\times 10^{-5}$ 16; $\alpha(\text{P})=7.02\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.007$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.1$ (1978Bo05).
499.4 2	19.6 9	619.86	(11/2 ⁻)	120.40	9/2 ⁽⁻⁾	E2+M1	1.5 4	0.044 9	$\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.035$ 8; $\alpha(\text{L})=0.0072$ 9; $\alpha(\text{M})=0.00171$ 20; $\alpha(\text{N}+..)=0.00050$ 6 $\alpha(\text{N})=0.00042$ 5; $\alpha(\text{O})=7.6\times 10^{-5}$ 10; $\alpha(\text{P})=4.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.034$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha=0.00851$ 12; $\alpha(\text{K})=0.00708$ 10; $\alpha(\text{L})=0.001102$ 16; $\alpha(\text{M})=0.000253$ 4; $\alpha(\text{N}+..)=7.48\times 10^{-5}$ 11 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.135\times 10^{-5}$ 16; $\alpha(\text{P})=7.02\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.007$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.1$ (1978Bo05).
501.9 2	3.1 2	1121.68	(13/2 ⁺)	619.86	(11/2 ⁻)	E1		0.00851 12	$\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.035$ 8; $\alpha(\text{L})=0.0072$ 9; $\alpha(\text{M})=0.00171$ 20; $\alpha(\text{N}+..)=0.00050$ 6 $\alpha(\text{N})=0.00042$ 5; $\alpha(\text{O})=7.6\times 10^{-5}$ 10; $\alpha(\text{P})=4.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.034$ 6 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.08$ 2 (1978Bo05). $\alpha=0.00851$ 12; $\alpha(\text{K})=0.00708$ 10; $\alpha(\text{L})=0.001102$ 16; $\alpha(\text{M})=0.000253$ 4; $\alpha(\text{N}+..)=7.48\times 10^{-5}$ 11 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.135\times 10^{-5}$ 16; $\alpha(\text{P})=7.02\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.007$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.1$ (1978Bo05).

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
502.9 ^a 4	0.80 ¹⁵	2319.1		1816.2	(11/2 ⁻)				$\alpha(\text{K})_{\text{exp}} < 0.09$ 5.
503.0 [#] 4	0.60 ¹⁵	829.13	(11/2 ⁻)	325.72	(7/2 ⁻)				
513.0 [#] 4	0.55 ¹⁵	956.52	(13/2 ⁻)	443.30	9/2 ⁽⁻⁾				$\alpha(\text{K})_{\text{exp}} = 0.03$ 2, implies Mult: M1+E2.
513.6 4	0.75 ¹⁰	1187.1	(13/2 ⁻)	673.24	(15/2 ⁻)	(E2+M1)	0.9 8	0.054 ²⁴	$\alpha(\text{K}) = 0.044$ 21; $\alpha(\text{L}) = 0.0080$ 25; $\alpha(\text{M}) = 0.0019$ 6; $\alpha(\text{N}+..) = 0.00056$ 17 $\alpha(\text{N}) = 0.00047$ 14; $\alpha(\text{O}) = 8.5 \times 10^{-5}$ 3; $\alpha(\text{P}) = 5.1 \times 10^{-6}$ 25 $\alpha(\text{K})_{\text{exp}} = 0.043$ 18. $\alpha(\text{K})_{\text{exp}} = 0.09$ 5.
515.9 ^a 4	0.70 ¹⁵	1637.6		1121.68	(13/2 ⁺)				$\alpha(\text{K}) = 0.0629$ 9; $\alpha(\text{L}) = 0.01023$ 15; $\alpha(\text{M}) = 0.00237$ 4; $\alpha(\text{N}+..) = 0.000705$ 10
520.1 4	0.75 ¹⁵	1015.35	(7/2 ⁺)	495.37	(7/2 ⁺)	M1		0.0762	$\alpha(\text{N}) = 0.000589$ 9; $\alpha(\text{O}) = 0.0001085$ 16; $\alpha(\text{P}) = 7.39 \times 10^{-6}$ 11 $\alpha(\text{K})_{\text{exp}} = 0.057$ 14.
524.5 2	3.5 4	1197.6	(11/2 ⁻)	673.24	(15/2 ⁻)	E2		0.0230	$\alpha(\text{K}) = 0.01700$ 24; $\alpha(\text{L}) = 0.00457$ 7; $\alpha(\text{M}) = 0.001113$ 16; $\alpha(\text{N}+..) = 0.000325$ 5 $\alpha(\text{N}) = 0.000276$ 4; $\alpha(\text{O}) = 4.78 \times 10^{-5}$ 7; $\alpha(\text{P}) = 1.88 \times 10^{-6}$ 3 $\alpha(\text{K})_{\text{exp}} = 0.016$ 6 (1998Ru04), 0.065 10 (1978Bo05).
^x 524.6 ^a 4	0.6 ¹								
525.4 2	24 ¹	749.30	(13/2 ⁻)	223.93	(11/2 ⁻)	M1+E2	0.8 4	0.054 ¹³	$\alpha(\text{K}) = 0.044$ 12; $\alpha(\text{L}) = 0.0078$ 14; $\alpha(\text{M}) = 0.0018$ 3; $\alpha(\text{N}+..) = 0.00054$ 10 $\alpha(\text{N}) = 0.00046$ 8; $\alpha(\text{O}) = 8.3 \times 10^{-5}$ 15; $\alpha(\text{P}) = 5.1 \times 10^{-6}$ 14 $\alpha(\text{K})_{\text{exp}} = 0.044$ 11 (1998Ru04), $\alpha(\text{K})_{\text{exp}} = 0.065$ 10 (1978Bo05).
526.7 4	1.9 2	767.11	(9/2 ⁺)	240.27	(5/2 ⁺)	(E2)		0.0228	E_γ : 1978Bo05 placed this γ feeding the 674 level. $\alpha(\text{K}) = 0.01685$ 24; $\alpha(\text{L}) = 0.00451$ 7; $\alpha(\text{M}) = 0.001099$ 16; $\alpha(\text{N}+..) = 0.000321$ 5 $\alpha(\text{N}) = 0.000272$ 4; $\alpha(\text{O}) = 4.73 \times 10^{-5}$ 7; $\alpha(\text{P}) = 1.87 \times 10^{-6}$ 3 $\alpha(\text{K})_{\text{exp}} = 0.021$ 10.
527.8 2	2.2 2	1147.8	(11/2 ⁻ , 13/2 ⁻)	619.86	(11/2 ⁻)	M1+E2	0.8 3	0.054 ¹⁰	$\alpha(\text{K}) = 0.043$ 9; $\alpha(\text{L}) = 0.0077$ 11; $\alpha(\text{M}) = 0.00181$ 23; $\alpha(\text{N}+..) = 0.00054$ 7 $\alpha(\text{N}) = 0.00045$ 6; $\alpha(\text{O}) = 8.2 \times 10^{-5}$ 11; $\alpha(\text{P}) = 5.1 \times 10^{-6}$ 10 $\alpha(\text{K})_{\text{exp}} = 0.043$ 8.
537.3 4	1.1 ¹	1304.5	(9/2 ⁺ , 11/2 ⁺)	767.11	(9/2 ⁺)	M1+E2	0.9 ¹⁰	0.048 ²²	$\alpha(\text{K}) = 0.039$ 19; $\alpha(\text{L}) = 0.0071$ 23; $\alpha(\text{M}) = 0.0017$ 5; $\alpha(\text{N}+..) = 0.00049$ 16 $\alpha(\text{N}) = 0.00041$ 13; $\alpha(\text{O}) = 7.5 \times 10^{-5}$ 25; $\alpha(\text{P}) = 4.5 \times 10^{-6}$ 23 $\alpha(\text{K})_{\text{exp}} = 0.04$ 2.
537.5 4	0.8 2	1418.5	(13/2 ⁻)	881.22	(11/2 ⁻)	M1+E2	0.9 ¹⁰	0.048 ²²	$\alpha(\text{K}) = 0.039$ 19; $\alpha(\text{L}) = 0.0071$ 23; $\alpha(\text{M}) = 0.0017$ 5; $\alpha(\text{N}+..) = 0.00049$ 16 $\alpha(\text{N}) = 0.00041$ 13; $\alpha(\text{O}) = 7.5 \times 10^{-5}$ 25; $\alpha(\text{P}) = 4.5 \times 10^{-6}$ 23 $\alpha(\text{K})_{\text{exp}} = 0.04$ 2.
542.0 4	0.8 2	1357.7	(15/2 ⁻)	815.89	(15/2 ⁻)	M1+E2	0.8 ¹⁰	0.050 ¹⁹	$\alpha(\text{K}) = 0.041$ 16; $\alpha(\text{L}) = 0.0072$ 20; $\alpha(\text{M}) = 0.0017$ 5; $\alpha(\text{N}+..) = 0.00050$ 14 $\alpha(\text{N}) = 0.00042$ 11; $\alpha(\text{O}) = 7.6 \times 10^{-5}$ 21; $\alpha(\text{P}) = 4.7 \times 10^{-6}$ 19 $\alpha(\text{K})_{\text{exp}} = 0.04$ 2.

$\gamma(^{187}\text{Au})$ (continued)									
E_γ ^{†}	I_γ ^{†}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^{b}	δ ^{c}	α ^{d}	Comments
544.0 ⁴	0.6 ¹	1232.6	(19/2 ⁻)	688.68	(17/2 ⁻)	M1(+E2)	0.4 ²¹	0.06 ⁴	$\alpha(\text{K})=0.05$ ³ ; $\alpha(\text{L})=0.008$ ⁴ ; $\alpha(\text{M})=0.0019$ ⁸ ; $\alpha(\text{N}+..)=0.00058$ ²⁵ $\alpha(\text{N})=0.00048$ ²⁰ ; $\alpha(\text{O})=9.\text{E}-5$ ⁴ ; $\alpha(\text{P})=6.\text{E}-6$ ⁴ $\alpha(\text{K})_{\text{exp}}=0.05$ ³ .
546.7 ⁴	0.6 ¹	1369.54	(7/2 ⁺)	822.47	(5/2 ⁺)	(M1)		0.0669	$\alpha(\text{K})=0.0552$ ⁸ ; $\alpha(\text{L})=0.00896$ ¹³ ; $\alpha(\text{M})=0.00207$ ³ ; $\alpha(\text{N}+..)=0.000618$ ⁹ $\alpha(\text{N})=0.000516$ ⁸ ; $\alpha(\text{O})=9.50\times 10^{-5}$ ¹⁴ ; $\alpha(\text{P})=6.48\times 10^{-6}$ ¹⁰ $\alpha(\text{K})_{\text{exp}}=0.06$ ³ .
550.8 ^{a} ⁴	0.7 ²	1047.6		496.79	(11/2 ⁻)				$\alpha(\text{K})_{\text{exp}}=0.07$ ² .
551.1 ⁴	0.5 ¹	1367.3	(15/2 ⁻)	815.89	(15/2 ⁻)	M1		0.0655	$\alpha(\text{K})=0.0541$ ⁸ ; $\alpha(\text{L})=0.00877$ ¹³ ; $\alpha(\text{M})=0.00203$ ³ ; $\alpha(\text{N}+..)=0.000605$ ⁹ $\alpha(\text{N})=0.000505$ ⁸ ; $\alpha(\text{O})=9.30\times 10^{-5}$ ¹⁴ ; $\alpha(\text{P})=6.34\times 10^{-6}$ ⁹ $\alpha(\text{K})_{\text{exp}}=0.05$ ³ .
564.8 ²	3.75 ²⁰	1380.7	(17/2 ⁺)	815.89	(15/2 ⁻)	E1		0.00665 ¹⁰	$\alpha=0.00665$ ¹⁰ ; $\alpha(\text{K})=0.00554$ ⁸ ; $\alpha(\text{L})=0.000855$ ¹² ; $\alpha(\text{M})=0.000196$ ³ ; $\alpha(\text{N}+..)=5.80\times 10^{-5}$ ⁹ $\alpha(\text{N})=4.86\times 10^{-5}$ ⁷ ; $\alpha(\text{O})=8.81\times 10^{-6}$ ¹³ ; $\alpha(\text{P})=5.54\times 10^{-7}$ ⁸ $\alpha(\text{K})_{\text{exp}}=0.007$ ² (1998Ru04), $\alpha(\text{K})_{\text{exp}}<0.01$ (1978Bo05).
566.9 ⁴	0.5 ¹	1316.1	(17/2 ⁻)	749.30	(13/2 ⁻)				
569.5 ⁴	1.2 ¹	1280.07	(11/2 ⁺)	710.48	(9/2 ⁺)	E2+M1	0.9 ⁴	0.042 ¹¹	$\alpha(\text{K})=0.034$ ⁹ ; $\alpha(\text{L})=0.0061$ ¹¹ ; $\alpha(\text{M})=0.00142$ ²⁵ ; $\alpha(\text{N}+..)=0.00042$ ⁸ $\alpha(\text{N})=0.00035$ ⁷ ; $\alpha(\text{O})=6.4\times 10^{-5}$ ¹² ; $\alpha(\text{P})=3.9\times 10^{-6}$ ¹¹ $\alpha(\text{K})_{\text{exp}}=0.033$ ⁹ .
571.4 ^{@} ²	2.8 ²	590.80	(3/2 ⁺)	19.44	3/2 ⁽⁺⁾	M1+E2	1.2 ³	0.036 ⁶	$\alpha(\text{K})=0.029$ ⁵ ; $\alpha(\text{L})=0.0054$ ⁷ ; $\alpha(\text{M})=0.00126$ ¹⁵ ; $\alpha(\text{N}+..)=0.00037$ ⁵ $\alpha(\text{N})=0.00031$ ⁴ ; $\alpha(\text{O})=5.7\times 10^{-5}$ ⁷ ; $\alpha(\text{P})=3.3\times 10^{-6}$ ⁶ $\alpha(\text{K})_{\text{exp}}=0.029$ ⁵ .
578.8 ⁴	0.7 ²	1393.4	(13/2 ⁻)	815.89	(15/2 ⁻)	M1		0.0576	$\alpha(\text{K})=0.0476$ ⁷ ; $\alpha(\text{L})=0.00771$ ¹¹ ; $\alpha(\text{M})=0.00178$ ³ ; $\alpha(\text{N}+..)=0.000531$ ⁸ $\alpha(\text{N})=0.000444$ ⁷ ; $\alpha(\text{O})=8.17\times 10^{-5}$ ¹² ; $\alpha(\text{P})=5.57\times 10^{-6}$ ⁸ $\alpha(\text{K})_{\text{exp}}=0.050$ ¹⁶ .
582.4 ^{@} ⁴	1.3 ¹	822.47	(5/2 ⁺)	240.27	(5/2 ⁺)	M1+E2	0.4 ⁷	0.051 ¹⁶	$\alpha(\text{K})=0.042$ ¹⁴ ; $\alpha(\text{L})=0.0070$ ¹⁸ ; $\alpha(\text{M})=0.0016$ ⁴ ; $\alpha(\text{N}+..)=0.00048$ ¹² $\alpha(\text{N})=0.00040$ ¹⁰ ; $\alpha(\text{O})=7.4\times 10^{-5}$ ¹⁹ ; $\alpha(\text{P})=4.9\times 10^{-6}$ ¹⁷ $\alpha(\text{K})_{\text{exp}}=0.043$ ⁷ .
583.4 ⁴	0.4 ¹	755.3	(9/2 ⁻)	172.0	(5/2 ⁻)				
584.4 ⁴	0.80 ¹⁵	1400.3	(13/2 ⁻ ,15/2 ⁻)	815.89	(15/2 ⁻)	M1+E2	0.8 ⁸	0.041 ¹⁵	$\alpha(\text{K})=0.034$ ¹³ ; $\alpha(\text{L})=0.0059$ ¹⁷ ; $\alpha(\text{M})=0.0014$ ⁴ ; $\alpha(\text{N}+..)=0.00041$ ¹¹ $\alpha(\text{N})=0.00034$ ¹⁰ ; $\alpha(\text{O})=6.2\times 10^{-5}$ ¹⁸ ; $\alpha(\text{P})=3.9\times 10^{-6}$ ¹⁶ $\alpha(\text{K})_{\text{exp}}=0.033$ ¹² .
586.7 ⁴	0.9 ³	1184.8	(7/2 ⁻ ,9/2 ⁻)	598.1	(7/2 ⁻)	M1+E2	1.0 ⁷	0.037 ¹⁶	$\alpha(\text{K})=0.030$ ¹⁴ ; $\alpha(\text{L})=0.0054$ ¹⁸ ; $\alpha(\text{M})=0.0013$ ⁴ ; $\alpha(\text{N}+..)=0.00037$ ¹² $\alpha(\text{N})=0.00031$ ¹⁰ ; $\alpha(\text{O})=5.7\times 10^{-5}$ ¹⁹ ; $\alpha(\text{P})=3.4\times 10^{-6}$ ¹⁷ $\alpha(\text{K})_{\text{exp}}=0.03$ ¹ .

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04](#),[1994RuZX](#),[1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ ^c	α ^d	Comments
591.0 @ 4	0.8 1	590.80	(3/2 ⁺)	0.0	1/2 ⁽⁺⁾	M1		0.0546	$\alpha(\text{K})=0.0451$ 7; $\alpha(\text{L})=0.00730$ 11; $\alpha(\text{M})=0.001687$ 24; $\alpha(\text{N}+..)=0.000503$ 7 $\alpha(\text{N})=0.000420$ 6; $\alpha(\text{O})=7.74\times 10^{-5}$ 11; $\alpha(\text{P})=5.28\times 10^{-6}$ 8 $\alpha(\text{K})\text{exp}=0.05$ 2.
594.2 4	1.2 1	1304.5	(9/2 ⁺ , 11/2 ⁺)	710.48	(9/2 ⁺)	E2(+M1)	3.1 4	0.0206 10	$\alpha(\text{K})=0.0160$ 9; $\alpha(\text{L})=0.00356$ 12; $\alpha(\text{M})=0.00085$ 3; $\alpha(\text{N}+..)=0.000250$ 8 $\alpha(\text{N})=0.000211$ 7; $\alpha(\text{O})=3.73\times 10^{-5}$ 13; $\alpha(\text{P})=1.80\times 10^{-6}$ 11 $\alpha(\text{K})\text{exp}=0.016$ 3.
602.9 2	2.35 15	956.52	(13/2 ⁻)	353.78	(13/2 ⁻)	M1+E2	0.9 3	0.036 7	$\alpha(\text{K})=0.029$ 6; $\alpha(\text{L})=0.0052$ 8; $\alpha(\text{M})=0.00121$ 16; $\alpha(\text{N}+..)=0.00036$ 5 $\alpha(\text{N})=0.00030$ 4; $\alpha(\text{O})=5.5\times 10^{-5}$ 8; $\alpha(\text{P})=3.4\times 10^{-6}$ 7 $\alpha(\text{K})\text{exp}=0.029$ 5 (1998Ru04), $\alpha(\text{K})\text{exp}=0.040$ 8 (1978Bo05).
608.4 ^a 4	1.1 2	2319.2	(15/2 ⁻)	1711.0					$\alpha(\text{K})\text{exp}=0.023$ 8.
614.1 @ 4	1.7 8	633.68	(7/2 ⁺)	19.44	3/2 ⁽⁺⁾				$\alpha(\text{K})\text{exp}=0.03$ 2, implies Mult: M1+E2.
616.4 2	3.1 3	840.1	(9/2 ⁻)	223.93	(11/2 ⁻)	M1		0.0489	$\alpha(\text{K})=0.0404$ 6; $\alpha(\text{L})=0.00653$ 10; $\alpha(\text{M})=0.001510$ 22; $\alpha(\text{N}+..)=0.000450$ 7 $\alpha(\text{N})=0.000376$ 6; $\alpha(\text{O})=6.92\times 10^{-5}$ 10; $\alpha(\text{P})=4.73\times 10^{-6}$ 7 $\alpha(\text{K})\text{exp}=0.047$ 10 (1998Ru04), $\alpha(\text{K})\text{exp}=0.045$ 15 (1978Bo05).
618.7 @ 4	0.28 5	822.47	(5/2 ⁺)	203.40	(3/2 ⁺)	M1		0.0484	$\alpha(\text{K})=0.0400$ 6; $\alpha(\text{L})=0.00647$ 10; $\alpha(\text{M})=0.001495$ 21; $\alpha(\text{N}+..)=0.000446$ 7 $\alpha(\text{N})=0.000372$ 6; $\alpha(\text{O})=6.86\times 10^{-5}$ 10; $\alpha(\text{P})=4.68\times 10^{-6}$ 7 $\alpha(\text{K})\text{exp}=0.05$ 2.
621.8 4	1.7 2	741.96	(13/2 ⁻)	120.40	9/2 ⁽⁻⁾	E2		0.01552	$\alpha(\text{K})=0.01185$ 17; $\alpha(\text{L})=0.00280$ 4; $\alpha(\text{M})=0.000674$ 10; $\alpha(\text{N}+..)=0.000198$ 3 $\alpha(\text{N})=0.0001670$ 24; $\alpha(\text{O})=2.93\times 10^{-5}$ 5; $\alpha(\text{P})=1.317\times 10^{-6}$ 19 $\alpha(\text{K})\text{exp}=0.012$ 6.
624.9 4	0.25 8	1367.3	(15/2 ⁻)	741.96	(13/2 ⁻)	M1		0.0472	$\alpha(\text{K})=0.0390$ 6; $\alpha(\text{L})=0.00630$ 9; $\alpha(\text{M})=0.001456$ 21; $\alpha(\text{N}+..)=0.000434$ 7 $\alpha(\text{N})=0.000363$ 6; $\alpha(\text{O})=6.68\times 10^{-5}$ 10; $\alpha(\text{P})=4.56\times 10^{-6}$ 7 $\alpha(\text{K})\text{exp}=0.04$ 3.
625.0 2	12.6 4	1121.68	(13/2 ⁺)	496.79	(11/2 ⁻)	E1		0.00541 8	$\alpha=0.00541$ 8; $\alpha(\text{K})=0.00452$ 7; $\alpha(\text{L})=0.000691$ 10; $\alpha(\text{M})=0.0001586$ 23; $\alpha(\text{N}+..)=4.69\times 10^{-5}$ 7 $\alpha(\text{N})=3.93\times 10^{-5}$ 6; $\alpha(\text{O})=7.14\times 10^{-6}$ 10; $\alpha(\text{P})=4.54\times 10^{-7}$ 7 $\alpha(\text{K})\text{exp}=0.006$ 2 (1998Ru04), $\alpha(\text{K})\text{exp}=0.0064$ 14 (1978Bo05).
625.4 2	2.75 20	1120.95	(11/2 ⁺)	495.37	(7/2 ⁺)	E2		0.01532	$\alpha(\text{K})=0.01171$ 17; $\alpha(\text{L})=0.00275$ 4; $\alpha(\text{M})=0.000663$ 10; $\alpha(\text{N}+..)=0.000194$ 3 $\alpha(\text{N})=0.0001643$ 23; $\alpha(\text{O})=2.88\times 10^{-5}$ 4; $\alpha(\text{P})=1.301\times 10^{-6}$ 19 $\alpha(\text{K})\text{exp}=0.013$ 4.
629.6 4	1.1 3	1249.5	(11/2 ⁻)	619.86	(11/2 ⁻)	M1+E2	0.9 3	0.032 6	$\alpha(\text{K})=0.026$ 5; $\alpha(\text{L})=0.0046$ 7; $\alpha(\text{M})=0.00108$ 15; $\alpha(\text{N}+..)=0.00032$ 5

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
632.0 ^a 4	1.10 15	2343.0		1711.0					$\alpha(\text{N})=0.00027$ 4; $\alpha(\text{O})=4.9\times 10^{-5}$ 7; $\alpha(\text{P})=3.0\times 10^{-6}$ 6 $\alpha(\text{K})_{\text{exp}}=0.027$ 5. $\alpha(\text{K})_{\text{exp}}=0.020$ 8. $\alpha(\text{K})_{\text{exp}}=0.020$ 8.
632.8 ^a 4	0.70 15	1600.9		968.01 (11/2 ⁺)					
634.9 4	0.4 1	755.3	(9/2 ⁻)	120.40 9/2 ⁽⁻⁾					
639.4 2	8.6 3	993.2	(15/2 ⁻)	353.78 (13/2 ⁻)		M1+E2	0.85 18	0.032 4	$\alpha(\text{K})=0.026$ 3; $\alpha(\text{L})=0.0045$ 4; $\alpha(\text{M})=0.00106$ 9; $\alpha(\text{N}+..)=0.00031$ 3 $\alpha(\text{N})=0.000263$ 21; $\alpha(\text{O})=4.8\times 10^{-5}$ 4; $\alpha(\text{P})=3.0\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.026$ 3 (1998Ru04), $\alpha(\text{K})_{\text{exp}}=0.033$ 6 (1978Bo05).
642.7 4	1.95 15	1316.1	(17/2 ⁻)	673.24 (15/2 ⁻)		M1+E2	1.3 9	0.025 15	$\alpha(\text{K})=0.020$ 13; $\alpha(\text{L})=0.0038$ 17; $\alpha(\text{M})=0.0009$ 4; $\alpha(\text{N}+..)=0.00026$ 11 $\alpha(\text{N})=0.00022$ 9; $\alpha(\text{O})=4.0\times 10^{-5}$ 18; $\alpha(\text{P})=2.3\times 10^{-6}$ 15 $\alpha(\text{K})_{\text{exp}}=0.02$ 1.
643.5 4	0.6 1	934.39	(5/2 ⁺)	290.97 (5/2 ⁺)		M1(+E2)	0.2 4	0.043 7	$\alpha(\text{K})=0.035$ 6; $\alpha(\text{L})=0.0057$ 8; $\alpha(\text{M})=0.00132$ 17; $\alpha(\text{N}+..)=0.00039$ 5 $\alpha(\text{N})=0.00033$ 5; $\alpha(\text{O})=6.1\times 10^{-5}$ 8; $\alpha(\text{P})=4.1\times 10^{-6}$ 7 $\alpha(\text{K})_{\text{exp}}=0.035$ 20.
646.3 2	2.0 2	1280.07	(11/2 ⁺)	633.68 (7/2 ⁺)		(E2)		0.01424	$\alpha(\text{K})=0.01094$ 16; $\alpha(\text{L})=0.00252$ 4; $\alpha(\text{M})=0.000604$ 9; $\alpha(\text{N}+..)=0.0001774$ 25 $\alpha(\text{N})=0.0001498$ 21; $\alpha(\text{O})=2.64\times 10^{-5}$ 4; $\alpha(\text{P})=1.216\times 10^{-6}$ 17 $\alpha(\text{K})_{\text{exp}}=0.014$ 5.
647.9 ^a 4	0.8 2	2237.6	(13/2 ⁻)	1589.65 (11/2,13/2) ⁺					$\alpha(\text{K})_{\text{exp}}=0.01$ 1, Mult: (E1) (1994RuZX).
648.1 ^a 4	0.40 15	2237.8		1589.65 (11/2,13/2) ⁺					$\alpha(\text{K})_{\text{exp}}=0.03$ 1, Mult: M1 (1994RuZX).
650.9 2	2.3 2	1147.8	(11/2 ⁻ ,13/2 ⁻)	496.79 (11/2 ⁻)		E2+M1	1.3 5	0.025 7	$\alpha(\text{K})=0.020$ 6; $\alpha(\text{L})=0.0037$ 8; $\alpha(\text{M})=0.00086$ 17; $\alpha(\text{N}+..)=0.00025$ 6 $\alpha(\text{N})=0.00021$ 5; $\alpha(\text{O})=3.9\times 10^{-5}$ 9; $\alpha(\text{P})=2.3\times 10^{-6}$ 7 $\alpha(\text{K})_{\text{exp}}=0.020$ 5.
651.2 4	0.5 1	1393.4	(13/2 ⁻)	741.96 (13/2 ⁻)		M1		0.0424	$\alpha(\text{K})=0.0351$ 5; $\alpha(\text{L})=0.00566$ 8; $\alpha(\text{M})=0.001307$ 19; $\alpha(\text{N}+..)=0.000390$ 6 $\alpha(\text{N})=0.000326$ 5; $\alpha(\text{O})=6.00\times 10^{-5}$ 9; $\alpha(\text{P})=4.10\times 10^{-6}$ 6 $\alpha(\text{K})_{\text{exp}}=0.040$ 16.
653.2 4	1.75 20	1148.6	(11/2 ⁺)	495.37 (7/2 ⁺)		E2		0.01391	$\alpha(\text{K})=0.01071$ 15; $\alpha(\text{L})=0.00244$ 4; $\alpha(\text{M})=0.000587$ 9; $\alpha(\text{N}+..)=0.0001723$ 25 $\alpha(\text{N})=0.0001455$ 21; $\alpha(\text{O})=2.56\times 10^{-5}$ 4; $\alpha(\text{P})=1.190\times 10^{-6}$ 17 $\alpha(\text{K})_{\text{exp}}=0.011$ 4.
653.9 4	0.8 2	1420.6	(9/2 ⁺ ,11/2 ⁺)	767.11 (9/2 ⁺)		M1+E2	1.2 7	0.025 11	$\alpha(\text{K})=0.021$ 10; $\alpha(\text{L})=0.0037$ 13; $\alpha(\text{M})=0.0009$ 3; $\alpha(\text{N}+..)=0.00026$ 9

¹⁸⁷Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05 (continued)

$\gamma(^{187}\text{Au})$ (continued)									
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
									$\alpha(\text{N})=0.00022$ 7; $\alpha(\text{O})=3.9\times 10^{-5}$ 14; $\alpha(\text{P})=2.4\times 10^{-6}$ 12 $\alpha(\text{K})\text{exp}=0.021$ 7 (1998Ru04), $\alpha(\text{K})\text{exp}=0.020$ 4 (1978Bo05).
656.1 ^a 4	0.4 1	1405.4		749.30 (13/2 ⁻)					
657.0 ^{a#} 4	0.35 15	2246.5	(13/2 ⁻)	1589.65 (11/2,13/2) ⁺					
657.3 2	7.0 5	881.22	(11/2 ⁻)	223.93 (11/2 ⁻)		E0+M1+E2		≈0.07	$\alpha(\text{K})\text{exp}=0.069$ 11 (1998Ru04), $\alpha(\text{K})\text{exp}=0.039$ 8 (1978Bo05), $\alpha(\text{K})\text{exp}=0.10$ 2 (1988Pa15). α : Estimated by the evaluator from the weighted average $\alpha(\text{K})\text{exp}=0.057$ 7.
659.1 4	0.65 1	1369.54	(7/2 ⁺)	710.48 (9/2 ⁺)		E2(+M1)	2.9 9	0.017 3	$\alpha(\text{K})=0.0130$ 22; $\alpha(\text{L})=0.0027$ 3; $\alpha(\text{M})=0.00065$ 7; $\alpha(\text{N}+..)=0.000190$ 20 $\alpha(\text{N})=0.000160$ 17; $\alpha(\text{O})=2.9\times 10^{-5}$ 4; $\alpha(\text{P})=1.5\times 10^{-6}$ 3 $\alpha(\text{K})\text{exp}=0.013$ 6.
659.2 4	0.75 15	1155.9	(11/2 ⁻)	496.79 (11/2 ⁻)		M1		0.0411	$\alpha(\text{K})=0.0340$ 5; $\alpha(\text{L})=0.00548$ 8; $\alpha(\text{M})=0.001266$ 18; $\alpha(\text{N}+..)=0.000377$ 6 $\alpha(\text{N})=0.000315$ 5; $\alpha(\text{O})=5.81\times 10^{-5}$ 9; $\alpha(\text{P})=3.97\times 10^{-6}$ 6 $\alpha(\text{K})\text{exp}=0.038$ 13.
659.4 2	2.4 3	985.0	(9/2 ⁻)	325.72 (7/2 ⁻)		M1+E2	0.5 11	0.036 15	$\alpha(\text{K})=0.029$ 13; $\alpha(\text{L})=0.0049$ 16; $\alpha(\text{M})=0.0011$ 4; $\alpha(\text{N}+..)=0.00034$ 11 $\alpha(\text{N})=0.00028$ 9; $\alpha(\text{O})=5.1\times 10^{-5}$ 18; $\alpha(\text{P})=3.4\times 10^{-6}$ 15 $\alpha(\text{K})\text{exp}=0.030$ 9.
667.8 [@] 4	0.9 1	687.12	(5/2 ⁺)	19.44 3/2 ⁽⁺⁾		M1		0.0397	$\alpha(\text{K})=0.0329$ 5; $\alpha(\text{L})=0.00530$ 8; $\alpha(\text{M})=0.001224$ 18; $\alpha(\text{N}+..)=0.000365$ 6 $\alpha(\text{N})=0.000305$ 5; $\alpha(\text{O})=5.61\times 10^{-5}$ 8; $\alpha(\text{P})=3.84\times 10^{-6}$ 6 $\alpha(\text{K})\text{exp}=0.04$ 2.
669.1 4	3.0 3	1164.51	(11/2 ⁺)	495.37 (7/2 ⁺)		E2		0.01319	$\alpha(\text{K})=0.01019$ 15; $\alpha(\text{L})=0.00229$ 4; $\alpha(\text{M})=0.000549$ 8; $\alpha(\text{N}+..)=0.0001613$ 23 $\alpha(\text{N})=0.0001362$ 20; $\alpha(\text{O})=2.40\times 10^{-5}$ 4; $\alpha(\text{P})=1.132\times 10^{-6}$ 16 $\alpha(\text{K})\text{exp}=0.010$ 6.
669.2 4	1.05 15	1418.5	(13/2 ⁻)	749.30 (13/2 ⁻)		M1		0.0395	$\alpha(\text{K})=0.0327$ 5; $\alpha(\text{L})=0.00527$ 8; $\alpha(\text{M})=0.001217$ 18; $\alpha(\text{N}+..)=0.000363$ 6 $\alpha(\text{N})=0.000303$ 5; $\alpha(\text{O})=5.58\times 10^{-5}$ 8; $\alpha(\text{P})=3.82\times 10^{-6}$ 6 $\alpha(\text{K})\text{exp}=0.04$ 2.
678.9 4	1.4 3	1276.9	(7/2 ⁻ ,9/2 ⁻)	598.1 (7/2 ⁻)		M1		0.0381	$\alpha(\text{K})=0.0315$ 5; $\alpha(\text{L})=0.00507$ 8; $\alpha(\text{M})=0.001172$ 17; $\alpha(\text{N}+..)=0.000349$ 5 $\alpha(\text{N})=0.000292$ 5; $\alpha(\text{O})=5.38\times 10^{-5}$ 8; $\alpha(\text{P})=3.68\times 10^{-6}$ 6

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

γ(¹⁸⁷Au) (continued)

<u>E_γ[†]</u>	<u>I_γ[†]</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.^b</u>	<u>δ^c</u>	<u>α^d</u>	<u>Comments</u>
α(K)exp=0.033 6.									

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
679.7 ^a 4	0.40 15	2268.2	(13/2 ⁻)	1589.65	(11/2,13/2) ⁺				$\alpha(\text{K})_{\text{exp}}=0.007$ 7, Mult: (E1) (1994RuZX).
683.5 4	1.3 2	1126.7	(7/2,9/2,11/2) ⁻	443.30	9/2 ⁽⁻⁾	M1+E2	0.6 3	0.031 5	$\alpha(\text{K})=0.025$ 4; $\alpha(\text{L})=0.0042$ 6; $\alpha(\text{M})=0.00098$ 12; $\alpha(\text{N}+..)=0.00029$ 4 $\alpha(\text{N})=0.00024$ 3; $\alpha(\text{O})=4.5\times 10^{-5}$ 6; $\alpha(\text{P})=2.9\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.025$ 5.
686.7 [@] 4	0.5 1	687.12	(5/2 ⁺)	0.0	1/2 ⁽⁺⁾				
692.1 4	0.3 1	1380.7	(17/2 ⁺)	688.68	(17/2 ⁻)	(E1)		0.00442 7	$\alpha=0.00442$ 7; $\alpha(\text{K})=0.00369$ 6; $\alpha(\text{L})=0.000561$ 8; $\alpha(\text{M})=0.0001286$ 18; $\alpha(\text{N}+..)=3.80\times 10^{-5}$ 6 $\alpha(\text{N})=3.19\times 10^{-5}$ 5; $\alpha(\text{O})=5.80\times 10^{-6}$ 9; $\alpha(\text{P})=3.73\times 10^{-7}$ 6 $\alpha(\text{K})_{\text{exp}}=0.01$ 1.
693.8 4	1.8 2	934.39	(5/2 ⁺)	240.27	(5/2 ⁺)	M1+E2	0.8 6	0.027 9	$\alpha(\text{K})=0.022$ 8; $\alpha(\text{L})=0.0037$ 10; $\alpha(\text{M})=0.00087$ 22; $\alpha(\text{N}+..)=0.00026$ 7 $\alpha(\text{N})=0.00022$ 6; $\alpha(\text{O})=3.9\times 10^{-5}$ 11; $\alpha(\text{P})=2.5\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.022$ 6.
709.2 4	1.9 3	829.13	(11/2 ⁻)	120.40	9/2 ⁽⁻⁾	(E2+M1)	0.8 12	0.025 10	$\alpha(\text{K})=0.021$ 8; $\alpha(\text{L})=0.0035$ 11; $\alpha(\text{M})=0.00082$ 24; $\alpha(\text{N}+..)=0.00024$ 8 $\alpha(\text{N})=0.00020$ 6; $\alpha(\text{O})=3.7\times 10^{-5}$ 12; $\alpha(\text{P})=2.4\times 10^{-6}$ 10 $\alpha(\text{K})_{\text{exp}}=0.021$ 11.
709.9 2	3.6 3	1205.19	(9/2 ⁺)	495.37	(7/2 ⁺)	E2(+M1)	2.3 6	0.0152 22	$\alpha(\text{K})=0.0121$ 19; $\alpha(\text{L})=0.0024$ 3; $\alpha(\text{M})=0.00056$ 6; $\alpha(\text{N}+..)=0.000165$ 18 $\alpha(\text{N})=0.000139$ 15; $\alpha(\text{O})=2.5\times 10^{-5}$ 3; $\alpha(\text{P})=1.36\times 10^{-6}$ 23 $\alpha(\text{K})_{\text{exp}}=0.012$ 4.
710.3 4	1.2 1	1420.6	(9/2 ⁺ ,11/2 ⁺)	710.48	(9/2 ⁺)	M1+E2	1.2 4	0.021 5	$\alpha(\text{K})=0.017$ 4; $\alpha(\text{L})=0.0030$ 6; $\alpha(\text{M})=0.00070$ 12; $\alpha(\text{N}+..)=0.00021$ 4 $\alpha(\text{N})=0.00017$ 3; $\alpha(\text{O})=3.2\times 10^{-5}$ 6; $\alpha(\text{P})=1.9\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.017$ 3.
712.7 4	1.45 15	1155.9	(11/2 ⁻)	443.30	9/2 ⁽⁻⁾	M1+E2	0.6 9	0.028 10	$\alpha(\text{K})=0.023$ 8; $\alpha(\text{L})=0.0038$ 11; $\alpha(\text{M})=0.00088$ 25; $\alpha(\text{N}+..)=0.00026$ 8 $\alpha(\text{N})=0.00022$ 6; $\alpha(\text{O})=4.0\times 10^{-5}$ 12; $\alpha(\text{P})=2.6\times 10^{-6}$ 10 $\alpha(\text{K})_{\text{exp}}=0.023$ 7.
721.7 4	0.50 15	1197.6	(11/2 ⁻)	476.59	(7/2 ⁻)	(E2)		0.01120	$\alpha(\text{K})=0.00875$ 13; $\alpha(\text{L})=0.00188$ 3; $\alpha(\text{M})=0.000448$ 7; $\alpha(\text{N}+..)=0.0001317$ 19 $\alpha(\text{N})=0.0001111$ 16; $\alpha(\text{O})=1.97\times 10^{-5}$ 3; $\alpha(\text{P})=9.71\times 10^{-7}$ 14 $\alpha(\text{K})_{\text{exp}}=0.012$ 9.
724.1 4	0.5 2	2313.6	(13/2 ⁺)	1589.65	(11/2,13/2) ⁺	(M1)		0.0323	$\alpha(\text{K})=0.0267$ 4; $\alpha(\text{L})=0.00429$ 6; $\alpha(\text{M})=0.000991$ 14; $\alpha(\text{N}+..)=0.000295$ 5

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									Comments
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	
732.1 4	0.7 1	1405.3	(19/2 ⁻)	673.24	(15/2 ⁻)	(E2)		0.01087	$\alpha(\text{N})=0.000247$ 4; $\alpha(\text{O})=4.54\times 10^{-5}$ 7; $\alpha(\text{P})=3.11\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.04$ 3. $\alpha(\text{K})=0.00850$ 12; $\alpha(\text{L})=0.00181$ 3; $\alpha(\text{M})=0.000431$ 6; $\alpha(\text{N}+..)=0.0001269$ 18
736.3 4	0.5 1	1369.54	(7/2 ⁺)	633.68	(7/2 ⁺)	M1		0.0309	$\alpha(\text{N})=0.0001070$ 15; $\alpha(\text{O})=1.90\times 10^{-5}$ 3; $\alpha(\text{P})=9.43\times 10^{-7}$ 14 $\alpha(\text{K})_{\text{exp}}=0.011$ 6. $\alpha(\text{K})=0.0256$ 4; $\alpha(\text{L})=0.00411$ 6; $\alpha(\text{M})=0.000948$ 14; $\alpha(\text{N}+..)=0.000283$ 4
745.1 4	1.0 1	1418.5	(13/2 ⁻)	673.24	(15/2 ⁻)	E2+M1	0.8 11	0.022 8	$\alpha(\text{N})=0.000236$ 4; $\alpha(\text{O})=4.35\times 10^{-5}$ 7; $\alpha(\text{P})=2.98\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.026$ 9. $\alpha(\text{K})=0.018$ 7; $\alpha(\text{L})=0.0031$ 9; $\alpha(\text{M})=0.00072$ 20; $\alpha(\text{N}+..)=0.00021$ 6
747.5 4	1.55 15	1420.7	(11/2 ⁻)	673.24	(15/2 ⁻)	E2		0.01040	$\alpha(\text{N})=0.00018$ 5; $\alpha(\text{O})=3.3\times 10^{-5}$ 10; $\alpha(\text{P})=2.1\times 10^{-6}$ 8 $\alpha(\text{K})_{\text{exp}}=0.018$ 9. $\alpha(\text{K})=0.00815$ 12; $\alpha(\text{L})=0.001714$ 25; $\alpha(\text{M})=0.000408$ 6; $\alpha(\text{N}+..)=0.0001202$ 17
751.9 4	0.6 1	1228.7	(9/2 ⁻)	476.59	(7/2 ⁻)	M1+E2	0.9 10	0.021 9	$\alpha(\text{N})=0.0001013$ 15; $\alpha(\text{O})=1.80\times 10^{-5}$ 3; $\alpha(\text{P})=9.05\times 10^{-7}$ 13 $\alpha(\text{K})_{\text{exp}}=0.008$ 2. $\alpha(\text{K})=0.017$ 8; $\alpha(\text{L})=0.0029$ 10; $\alpha(\text{M})=0.00068$ 23; $\alpha(\text{N}+..)=0.00020$ 7
753.1 4	0.7 2	1249.5	(11/2 ⁻)	496.79	(11/2 ⁻)	M1		0.0292	$\alpha(\text{N})=0.00017$ 6; $\alpha(\text{O})=3.1\times 10^{-5}$ 11; $\alpha(\text{P})=2.0\times 10^{-6}$ 9 $\alpha(\text{K})_{\text{exp}}=0.017$ 8. $\alpha(\text{K})=0.0241$ 4; $\alpha(\text{L})=0.00387$ 6; $\alpha(\text{M})=0.000894$ 13; $\alpha(\text{N}+..)=0.000267$ 4
761.1 4	0.6 1	1589.65	(11/2,13/2) ⁺	829.13	(11/2 ⁻)	(E1)		0.00368 6	$\alpha(\text{N})=0.000223$ 4; $\alpha(\text{O})=4.10\times 10^{-5}$ 6; $\alpha(\text{P})=2.81\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.026$ 7. $\alpha=0.00368$ 6; $\alpha(\text{K})=0.00308$ 5; $\alpha(\text{L})=0.000464$ 7; $\alpha(\text{M})=0.0001062$ 15; $\alpha(\text{N}+..)=3.14\times 10^{-5}$ 5
768.0 2	3.95 20	1121.68	(13/2 ⁺)	353.78	(13/2 ⁻)	E1		0.00361 5	$\alpha(\text{N})=2.63\times 10^{-5}$ 4; $\alpha(\text{O})=4.80\times 10^{-6}$ 7; $\alpha(\text{P})=3.12\times 10^{-7}$ 5 $\alpha(\text{K})_{\text{exp}}=0.003$ 2. $\alpha=0.00361$ 5; $\alpha(\text{K})=0.00302$ 5; $\alpha(\text{L})=0.000456$ 7; $\alpha(\text{M})=0.0001043$ 15; $\alpha(\text{N}+..)=3.09\times 10^{-5}$ 5
773.3 4	0.7 1	1393.4	(13/2 ⁻)	619.86	(11/2 ⁻)	M1		0.0272	$\alpha(\text{N})=2.59\times 10^{-5}$ 4; $\alpha(\text{O})=4.71\times 10^{-6}$ 7; $\alpha(\text{P})=3.06\times 10^{-7}$ 5 $\alpha(\text{K})_{\text{exp}}=0.0031$ 7. $\alpha(\text{K})=0.0225$ 4; $\alpha(\text{L})=0.00362$ 5; $\alpha(\text{M})=0.000835$ 12; $\alpha(\text{N}+..)=0.000249$ 4
778.8 4	1.1 1	1369.54	(7/2 ⁺)	590.80	(3/2 ⁺)	(E2)		0.00954 14	$\alpha(\text{N})=0.000208$ 3; $\alpha(\text{O})=3.83\times 10^{-5}$ 6; $\alpha(\text{P})=2.62\times 10^{-6}$ 4 $\alpha(\text{K})_{\text{exp}}=0.03$ 1. $\alpha=0.00954$ 14; $\alpha(\text{K})=0.00752$ 11; $\alpha(\text{L})=0.001545$ 22; $\alpha(\text{M})=0.000367$ 6; $\alpha(\text{N}+..)=0.0001082$
									$\alpha(\text{N})=9.11\times 10^{-5}$ 13; $\alpha(\text{O})=1.621\times 10^{-5}$ 23; $\alpha(\text{P})=8.34\times 10^{-7}$ 12 $\alpha(\text{K})_{\text{exp}}=0.009$ 4.

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
E_γ [†]	I_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
780.0 ^{a#} 4	0.4 1	1276.9	(7/2 ⁻ ,9/2 ⁻)	496.79	(11/2 ⁻)				
781.5 ^a 4	0.35 10	1471.0	(13/2 ⁺ ,15/2 ⁺)	688.68	(17/2 ⁻)				
785.3 4	0.65 15	1280.07	(11/2 ⁺)	495.37	(7/2 ⁺)	E2		0.00937 14	$\alpha=0.00937$ 14; $\alpha(K)=0.00739$ 11; $\alpha(L)=0.001513$ 22; $\alpha(M)=0.000360$ 5; $\alpha(N+..)=0.0001059$ $\alpha(N)=8.92\times 10^{-5}$ 13; $\alpha(O)=1.587\times 10^{-5}$ 23; $\alpha(P)=8.20\times 10^{-7}$ 12 $\alpha(K)\text{exp}=0.008$ 3.
785.5 4	0.3 1	1405.4	(13/2 ⁺)	619.86	(11/2 ⁻)				
790.5 ^a 4	0.4 1	1557.5		767.11	(9/2 ⁺)				$\alpha(K)\text{exp}=0.020$ 17.
791.3 4	0.5 1	1540.7	(13/2 ⁻ ,15/2 ⁻)	749.30	(13/2 ⁻)	M1		0.0257	$\alpha(K)=0.0212$ 3; $\alpha(L)=0.00341$ 5; $\alpha(M)=0.000786$ 11; $\alpha(N+..)=0.000234$ 4 $\alpha(N)=0.000196$ 3; $\alpha(O)=3.61\times 10^{-5}$ 5; $\alpha(P)=2.47\times 10^{-6}$ 4 $\alpha(K)\text{exp}=0.022$ 12.
795.0 4	0.8 1	1147.8	(11/2 ⁻ ,13/2 ⁻)	353.78	(13/2 ⁻)	(M1)		0.0254	$\alpha(K)=0.0210$ 3; $\alpha(L)=0.00337$ 5; $\alpha(M)=0.000777$ 11; $\alpha(N+..)=0.000232$ 4 $\alpha(N)=0.000193$ 3; $\alpha(O)=3.56\times 10^{-5}$ 5; $\alpha(P)=2.44\times 10^{-6}$ 4 $\alpha(K)\text{exp}=0.019$ 5.
805.5 4	0.95 20	1159.0	(17/2 ⁻)	353.78	(13/2 ⁻)	(E2)		0.00889 13	$\alpha=0.00889$ 13; $\alpha(K)=0.00703$ 10; $\alpha(L)=0.001421$ 20; $\alpha(M)=0.000337$ 5; $\alpha(N+..)=9.93\times 10^{-5}$ 14 $\alpha(N)=8.36\times 10^{-5}$ 12; $\alpha(O)=1.490\times 10^{-5}$ 21; $\alpha(P)=7.80\times 10^{-7}$ 11 $\alpha(K)\text{exp}=0.008$ 3.
805.7 4	0.65 15	1249.5	(11/2 ⁻)	443.30	9/2 ⁽⁻⁾	M1+E2	0.6 13	0.020 9	$\alpha(K)=0.017$ 7; $\alpha(L)=0.0028$ 10; $\alpha(M)=0.00064$ 22; $\alpha(N+..)=0.00019$ 7 $\alpha(N)=0.00016$ 6; $\alpha(O)=2.9\times 10^{-5}$ 11; $\alpha(P)=1.9\times 10^{-6}$ 9 $\alpha(K)\text{exp}=0.017$ 7.
813.3 4	0.7 1	985.0	(9/2 ⁻)	172.0	(5/2 ⁻)	E2		0.00872 13	$\alpha=0.00872$ 13; $\alpha(K)=0.00690$ 10; $\alpha(L)=0.001387$ 20; $\alpha(M)=0.000329$ 5; $\alpha(N+..)=9.70\times 10^{-5}$ 14 $\alpha(N)=8.16\times 10^{-5}$ 12; $\alpha(O)=1.455\times 10^{-5}$ 21; $\alpha(P)=7.65\times 10^{-7}$ 11 $\alpha(K)\text{exp}=0.006$ 4.
829.9 2	2.3 2	950.3	(7/2 ⁻ ,9/2 ⁻)	120.40	9/2 ⁽⁻⁾	M1+E2	1.1 4	0.015 4	$\alpha(K)=0.012$ 3; $\alpha(L)=0.0021$ 4; $\alpha(M)=0.00049$ 9; $\alpha(N+..)=0.00014$ 3 $\alpha(N)=0.000121$ 21; $\alpha(O)=2.2\times 10^{-5}$ 4; $\alpha(P)=1.4\times 10^{-6}$ 4 $\alpha(K)\text{exp}=0.012$ 2.
830.1 4	0.80 15	1155.9	(11/2 ⁻)	325.72	(7/2 ⁻)	(E2)		0.00836 12	$\alpha=0.00836$ 12; $\alpha(K)=0.00663$ 10; $\alpha(L)=0.001320$ 19; $\alpha(M)=0.000313$ 5; $\alpha(N+..)=9.21\times 10^{-5}$ 13 $\alpha(N)=7.76\times 10^{-5}$ 11; $\alpha(O)=1.384\times 10^{-5}$ 20; $\alpha(P)=7.35\times 10^{-7}$ 11 $\alpha(K)\text{exp}=0.007$ 4.
836.2 2	3.6 2	956.52	(13/2 ⁻)	120.40	9/2 ⁽⁻⁾	E2		0.00823 12	$\alpha=0.00823$ 12; $\alpha(K)=0.00654$ 10; $\alpha(L)=0.001296$ 19;

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									Comments
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	
840.5 4	0.75 15	1590.0	(11/2 ⁻ ,13/2 ⁻)	749.30	(13/2 ⁻)	E2+M1	0.6 10	0.018 7	$\alpha(\text{M})=0.000307$ 5; $\alpha(\text{N}+..)=9.05\times 10^{-5}$ 13 $\alpha(\text{N})=7.62\times 10^{-5}$ 11; $\alpha(\text{O})=1.360\times 10^{-5}$ 19; $\alpha(\text{P})=7.24\times 10^{-7}$ 11 $\alpha(\text{K})_{\text{exp}}=0.0067$ 10. $\alpha(\text{K})=0.015$ 6; $\alpha(\text{L})=0.0025$ 8; $\alpha(\text{M})=0.00057$ 17; $\alpha(\text{N}+..)=0.00017$ 5 $\alpha(\text{N})=0.00014$ 5; $\alpha(\text{O})=2.6\times 10^{-5}$ 8; $\alpha(\text{P})=1.7\times 10^{-6}$ 7 $\alpha(\text{K})_{\text{exp}}=0.015$ 5. $\alpha(\text{K})_{\text{exp}}=0.016$ 12, Mult: (M1+E2) (1994RuZX). $\alpha(\text{K})_{\text{exp}}=0.004$ 2.
846.8 ^a 4	0.5 1	1557.5		710.48	(9/2 ⁺)				$\alpha=0.00776$ 11; $\alpha(\text{K})=0.00618$ 9; $\alpha(\text{L})=0.001209$ 17; $\alpha(\text{M})=0.000286$ 4; $\alpha(\text{N}+..)=8.43\times 10^{-5}$ 12 $\alpha(\text{N})=7.09\times 10^{-5}$ 10; $\alpha(\text{O})=1.268\times 10^{-5}$ 18; $\alpha(\text{P})=6.84\times 10^{-7}$ 10 $\alpha(\text{K})_{\text{exp}}=0.010$ 2.
848.1 ^a 2	2.25 15	2319.2	(15/2 ⁻)	1471.0	(13/2 ⁺ ,15/2 ⁺)			0.00776 11	$\alpha(\text{K})=0.012$ 5; $\alpha(\text{L})=0.0020$ 7; $\alpha(\text{M})=0.00047$ 15; $\alpha(\text{N}+..)=0.00014$ 5 $\alpha(\text{N})=0.00012$ 4; $\alpha(\text{O})=2.1\times 10^{-5}$ 7; $\alpha(\text{P})=1.4\times 10^{-6}$ 6 $\alpha(\text{K})_{\text{exp}}=0.012$ 4.
860.7 4	1.7 2	1357.7	(15/2 ⁻)	496.79	(11/2 ⁻)	E2			$\alpha(\text{K})=0.01680$ 24; $\alpha(\text{L})=0.00269$ 4; $\alpha(\text{M})=0.000620$ 9; $\alpha(\text{N}+..)=0.000185$ 3 $\alpha(\text{N})=0.0001544$ 22; $\alpha(\text{O})=2.84\times 10^{-5}$ 4; $\alpha(\text{P})=1.95\times 10^{-6}$ 3 $\alpha(\text{K})_{\text{exp}}=0.020$ 7. $\alpha(\text{K})_{\text{exp}}=0.003$ 2.
864.4 4	1.2 1	985.0	(9/2 ⁻)	120.40	9/2 ⁽⁻⁾	E2+M1	0.9 8	0.015 6	$\alpha(\text{K})=0.01650$ 24; $\alpha(\text{L})=0.00264$ 4; $\alpha(\text{M})=0.000609$ 9; $\alpha(\text{N}+..)=0.000181$ 3 $\alpha(\text{N})=0.0001516$ 22; $\alpha(\text{O})=2.79\times 10^{-5}$ 4; $\alpha(\text{P})=1.92\times 10^{-6}$ 3 $\alpha(\text{K})_{\text{exp}}=0.020$ 6. $\alpha(\text{K})_{\text{exp}}=0.010$ 4.
867.5 4	0.45 15	1540.7	(13/2 ⁻ ,15/2 ⁻)	673.24	(15/2 ⁻)	M1		0.0203	$\alpha(\text{K})_{\text{exp}}=0.015$ 9. $\alpha=0.0082$ 7; $\alpha(\text{K})=0.0066$ 6; $\alpha(\text{L})=0.00122$ 9; $\alpha(\text{M})=0.000287$ 19; $\alpha(\text{N}+..)=8.5\times 10^{-5}$ 6 $\alpha(\text{N})=7.1\times 10^{-5}$ 5; $\alpha(\text{O})=1.28\times 10^{-5}$ 9; $\alpha(\text{P})=7.4\times 10^{-7}$ 7 $\alpha(\text{K})_{\text{exp}}=0.0066$ 20. $\alpha(\text{K})=0.01546$ 22; $\alpha(\text{L})=0.00247$ 4; $\alpha(\text{M})=0.000570$ 8; $\alpha(\text{N}+..)=0.0001699$ 24 $\alpha(\text{N})=0.0001419$ 20; $\alpha(\text{O})=2.62\times 10^{-5}$ 4; $\alpha(\text{P})=1.80\times 10^{-6}$ 3 $\alpha(\text{K})_{\text{exp}}=0.021$ 6.
871.9 ^a 4	1.7 2	2343.0		1471.0	(13/2 ⁺ ,15/2 ⁺)			0.0199	
873.6 4	1.0 2	1316.87	(9/2 ⁻)	443.30	9/2 ⁽⁻⁾	M1			
880.3 ^a 4	0.7 1	2300.28		1420.6	(9/2 ⁺ ,11/2 ⁺)				
890.3 ^a 4	0.4 1	1600.9		710.48	(9/2 ⁺)				
895.8 4	1.65 20	1249.5	(11/2 ⁻)	353.78	(13/2 ⁻)	E2(+M1)	3.2 8	0.0082 7	
896.2 4	0.65 15	1393.4	(13/2 ⁻)	496.79	(11/2 ⁻)	M1		0.0187	
900.7 ^a 4	1.1 2	2319.1		1418.5	(13/2 ⁻)				

¹⁸⁷Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05 (continued)

$\gamma(^{187}\text{Au})$ (continued)										
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	$I_{(\gamma+ce)}$ [†]	Comments
908.5 4	1.0 1	1405.4	(13/2 ⁺)	496.79	(11/2 ⁻)					
913.5 ^a 2	2.1 4	2319.2	(15/2 ⁻)	1405.4						$\alpha(\text{K})_{\text{exp}}=0.004$ 3.
914.0 4	0.8 2	1205.19	(9/2 ⁺)	290.97	(5/2 ⁺)	(E2)		0.00687 10		$\alpha=0.00687$ 10; $\alpha(\text{K})=0.00550$ 8; $\alpha(\text{L})=0.001048$ 15; $\alpha(\text{M})=0.000247$ 4; $\alpha(\text{N}+..)=7.29\times 10^{-5}$ 11
										$\alpha(\text{N})=6.13\times 10^{-5}$ 9; $\alpha(\text{O})=1.099\times 10^{-5}$ 16;
										$\alpha(\text{P})=6.09\times 10^{-7}$ 9
										$\alpha(\text{K})_{\text{exp}}=0.008$ 4.
										$\alpha(\text{K})_{\text{exp}}=0.007$ 4.
920.7 ^a 4	0.90 15	2237.6	(13/2 ⁻)	1316.87	(9/2 ⁻)					
930.9 ^a 4	0.8 1	2300.28		1369.54	(7/2 ⁺)					
932.7 ^a 4	1.8 2	2313.6	(13/2 ⁺)	1380.7	(17/2 ⁺)	E2		0.00660 10		$\alpha=0.00660$ 10; $\alpha(\text{K})=0.00530$ 8; $\alpha(\text{L})=0.000999$ 14; $\alpha(\text{M})=0.000235$ 4; $\alpha(\text{N}+..)=6.95\times 10^{-5}$ 10
										$\alpha(\text{N})=5.84\times 10^{-5}$ 9; $\alpha(\text{O})=1.048\times 10^{-5}$ 15;
										$\alpha(\text{P})=5.85\times 10^{-7}$ 9
										$\alpha(\text{K})_{\text{exp}}=0.004$ 2.
951.0 4	0.65 15	1276.9	(7/2 ⁻ ,9/2 ⁻)	325.72	(7/2 ⁻)	M1+E2	0.6 11	0.013 5		$\alpha(\text{K})=0.011$ 4; $\alpha(\text{L})=0.0018$ 6; $\alpha(\text{M})=0.00042$ 13; $\alpha(\text{N}+..)=0.00012$ 4
										$\alpha(\text{N})=0.00010$ 4; $\alpha(\text{O})=1.9\times 10^{-5}$ 6;
										$\alpha(\text{P})=1.3\times 10^{-6}$ 5
										$\alpha(\text{K})_{\text{exp}}=0.011$ 4.
962.9 4	1.05 20	1316.87	(9/2 ⁻)	353.78	(13/2 ⁻)	E2		0.00619 9		$\alpha=0.00619$ 9; $\alpha(\text{K})=0.00498$ 7; $\alpha(\text{L})=0.000928$ 13; $\alpha(\text{M})=0.000218$ 3; $\alpha(\text{N}+..)=6.45\times 10^{-5}$ 9
										$\alpha(\text{N})=5.42\times 10^{-5}$ 8; $\alpha(\text{O})=9.74\times 10^{-6}$ 14;
										$\alpha(\text{P})=5.50\times 10^{-7}$ 8
										$\alpha(\text{K})_{\text{exp}}=0.005$ 2.
963.0 ^{a#} 4	0.65 15	1778.9	(11/2 ⁻)	815.89	(15/2 ⁻)	(E2)		0.00619 9		$\alpha=0.00619$ 9; $\alpha(\text{K})=0.00498$ 7; $\alpha(\text{L})=0.000928$ 13; $\alpha(\text{M})=0.000218$ 3; $\alpha(\text{N}+..)=6.45\times 10^{-5}$ 9
										$\alpha(\text{N})=5.42\times 10^{-5}$ 8; $\alpha(\text{O})=9.74\times 10^{-6}$ 14;
										$\alpha(\text{P})=5.50\times 10^{-7}$ 8
										$\alpha(\text{K})_{\text{exp}}=0.005$ 2.
963.2 2	3.5 3	1187.1	(13/2 ⁻)	223.93	(11/2 ⁻)	E2+M1	1.7 6	0.0086 19		$\alpha=0.0086$ 19; $\alpha(\text{K})=0.0070$ 16; $\alpha(\text{L})=0.00122$ 22; $\alpha(\text{M})=0.00028$ 5; $\alpha(\text{N}+..)=8.4\times 10^{-5}$ 15
										$\alpha(\text{N})=7.1\times 10^{-5}$ 13; $\alpha(\text{O})=1.28\times 10^{-5}$ 24;
										$\alpha(\text{P})=7.9\times 10^{-7}$ 19
										$\alpha(\text{K})_{\text{exp}}=0.007$ 2.
969.7 4	0.45 15	1589.65	(11/2,13/2) ⁺	619.86	(11/2 ⁻)	(E1)		0.00234 4		$\alpha=0.00234$ 4; $\alpha(\text{K})=0.00196$ 3; $\alpha(\text{L})=0.000291$ 4; $\alpha(\text{M})=6.65\times 10^{-5}$ 10; $\alpha(\text{N}+..)=1.97\times 10^{-5}$ 3
										$\alpha(\text{N})=1.649\times 10^{-5}$ 24; $\alpha(\text{O})=3.02\times 10^{-6}$ 5;
										$\alpha(\text{P})=2.00\times 10^{-7}$ 3
										$\alpha(\text{K})_{\text{exp}}=0.003$ 2.
973.9 4	1.8 2	1197.6	(11/2 ⁻)	223.93	(11/2 ⁻)	M1+E2	0.7 6	0.012 3		$\alpha(\text{K})=0.0100$ 25; $\alpha(\text{L})=0.0016$ 4; $\alpha(\text{M})=0.00038$

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
									8; $\alpha(\text{N}+..)=0.000113$ 24 $\alpha(\text{N})=9.4\times 10^{-5}$ 20; $\alpha(\text{O})=1.7\times 10^{-5}$ 4; $\alpha(\text{P})=1.2\times 10^{-6}$ 3 $\alpha(\text{K})\text{exp}=0.010$ 2. $\alpha(\text{K})\text{exp}=0.005$ 3. $\alpha(\text{K})\text{exp}=0.012$ 6.
988.4 ^a 4	0.8 1	2369.1	(13/2 ⁺)	1380.7	(17/2 ⁺)				
995.5 ^a 4	0.65 15	2117.2		1121.68	(13/2 ⁺)				
995.9 ^a 4	0.8 1	2300.28		1304.5	(9/2 ⁺ , 11/2 ⁺)				
996.1 ^a 4	0.7 1	2145.4		1149.27	(13/2 ⁺)				$\alpha(\text{K})\text{exp}=0.010$ 4.
1004.2 4	0.70 15	1357.7	(15/2 ⁻)	353.78	(13/2 ⁻)	M1		0.01398	$\alpha(\text{K})=0.01159$ 17; $\alpha(\text{L})=0.00184$ 3; $\alpha(\text{M})=0.000425$ 6; $\alpha(\text{N}+..)=0.0001268$ 18 $\alpha(\text{N})=0.0001059$ 15; $\alpha(\text{O})=1.95\times 10^{-5}$ 3; $\alpha(\text{P})=1.342\times 10^{-6}$ 19 $\alpha(\text{K})\text{exp}=0.011$ 4.
1009.4 ^a 4	1.0 1	2390.0		1380.7	(17/2 ⁺)				
1014.2 4	0.65 15	1367.3	(15/2 ⁻)	353.78	(13/2 ⁻)	M1+E2	1.0 9	0.010 4	$\alpha=0.010$ 4; $\alpha(\text{K})=0.008$ 4; $\alpha(\text{L})=0.0013$ 5; $\alpha(\text{M})=0.00030$ 11; $\alpha(\text{N}+..)=9.\text{E}-5$ 4 $\alpha(\text{N})=8.\text{E}-5$ 3; $\alpha(\text{O})=1.4\times 10^{-5}$ 5; $\alpha(\text{P})=9.\text{E}-7$ 4 $\alpha(\text{K})\text{exp}=0.008$ 3. $\alpha(\text{K})\text{exp}=0.011$ 3. $\alpha(\text{K})\text{exp}=0.003$ 2, implies 1023.7 γ (E2). $\alpha=0.00549$ 8; $\alpha(\text{K})=0.00444$ 7; $\alpha(\text{L})=0.000807$ 12; $\alpha(\text{M})=0.000189$ 3; $\alpha(\text{N}+..)=5.60\times 10^{-5}$ 8 $\alpha(\text{N})=4.70\times 10^{-5}$ 7; $\alpha(\text{O})=8.47\times 10^{-6}$ 12; $\alpha(\text{P})=4.89\times 10^{-7}$ 7 $\alpha(\text{K})\text{exp}=0.003$ 2.
1020.3 ^a 4	1.9 2	2300.28		1280.07	(11/2 ⁺)				
1023.7 ^a 4	1.45 15	2300.44		1276.9	(7/2 ⁻ , 9/2 ⁻)				
1023.8 4	0.45 15	1905.3	(15/2 ⁻)	881.22	(11/2 ⁻)	(E2)		0.00549 8	
1027.3 4	0.3 1	1147.8	(11/2 ⁻ , 13/2 ⁻)	120.40	9/2 ⁽⁻⁾				
1044.1 4	1.05 15	1397.9		353.78	(13/2 ⁻)	E2+M1			$\alpha(\text{K})\text{exp}=0.0057$ 20, Mult: E2+M1.
1051.4 4	0.95 15	1405.4	(13/2 ⁺)	353.78	(13/2 ⁻)	(E1)		0.00202 3	$\alpha=0.00202$ 3; $\alpha(\text{K})=0.001693$ 24; $\alpha(\text{L})=0.000250$ 4; $\alpha(\text{M})=5.72\times 10^{-5}$ 8; $\alpha(\text{N}+..)=1.695\times 10^{-5}$ 24 $\alpha(\text{N})=1.418\times 10^{-5}$ 20; $\alpha(\text{O})=2.60\times 10^{-6}$ 4; $\alpha(\text{P})=1.734\times 10^{-7}$ 25 $\alpha(\text{K})\text{exp}=0.003$ 2.
1056.1 4	0.6 2	1280.07	(11/2 ⁺)	223.93	(11/2 ⁻)	(E1)		0.00200 3	$\alpha=0.00200$ 3; $\alpha(\text{K})=0.001680$ 24; $\alpha(\text{L})=0.000248$ 4; $\alpha(\text{M})=5.67\times 10^{-5}$ 8; $\alpha(\text{N}+..)=1.681\times 10^{-5}$ 24 $\alpha(\text{N})=1.406\times 10^{-5}$ 20; $\alpha(\text{O})=2.57\times 10^{-6}$ 4; $\alpha(\text{P})=1.721\times 10^{-7}$ 25 $\alpha(\text{K})\text{exp}=0.002$ 1.
1058.0 4	0.5 1	1807.6	(15/2 ⁻)	749.30	(13/2 ⁻)	M1		0.01225	$\alpha(\text{K})=0.01015$ 15; $\alpha(\text{L})=0.001613$ 23; $\alpha(\text{M})=0.000372$ 6; $\alpha(\text{N}+..)=0.0001109$ 16 $\alpha(\text{N})=9.26\times 10^{-5}$ 13; $\alpha(\text{O})=1.707\times 10^{-5}$ 24; $\alpha(\text{P})=1.175\times 10^{-6}$ 17 $\alpha(\text{K})\text{exp}=0.016$ 4.
1066.0 ^{a#} 4	0.4 1	1562.8		496.79	(11/2 ⁻)				

¹⁸⁷Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05 (continued)

$\gamma(^{187}\text{Au})$ (continued)									
E_γ †	I_γ †	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
1066.6 2	2.7 2	1815.9	(15/2 ⁻)	749.30	(13/2 ⁻)	E2+M1	1.7 5	0.0068 11	$\alpha=0.0068$ 11; $\alpha(\text{K})=0.0056$ 9; $\alpha(\text{L})=0.00095$ 13; $\alpha(\text{M})=0.00022$ 3; $\alpha(\text{N}+..)=6.6\times 10^{-5}$ 9 $\alpha(\text{N})=5.5\times 10^{-5}$ 8; $\alpha(\text{O})=1.00\times 10^{-5}$ 14; $\alpha(\text{P})=6.3\times 10^{-7}$ 11 $\alpha(\text{K})\text{exp}=0.0056$ 12.
1069.7 ^a 4	0.6 2	2191.4		1121.68	(13/2 ⁺)				$\alpha(\text{K})\text{exp}=0.006$ 4.
1092.5 4	0.95 15	1316.87	(9/2 ⁻)	223.93	(11/2 ⁻)	M1+E2	0.9 8	0.008 3	$\alpha=0.008$ 3; $\alpha(\text{K})=0.0069$ 24; $\alpha(\text{L})=0.0011$ 4; $\alpha(\text{M})=0.00026$ 8; $\alpha(\text{N}+..)=7.8\times 10^{-5}$ 24 $\alpha(\text{N})=6.5\times 10^{-5}$ 20; $\alpha(\text{O})=1.2\times 10^{-5}$ 4; $\alpha(\text{P})=8.\text{E}-7$ 3 $\alpha(\text{K})\text{exp}=0.007$ 2.
1095.1 ^a 2	2.5 3	2300.28		1205.19	(9/2 ⁺)				$\alpha(\text{K})\text{exp}=0.005$ 1.
1103.9 ^a 4	0.6 1	2300.7		1197.6	(11/2 ⁻)				$\alpha(\text{K})\text{exp}=0.005$ 3, Mult: (E2+M1) in 1994RuZX.
1110.6 ^a 4	0.8 1	1464.4		353.78	(13/2 ⁻)				
1117.0 ^a 4	0.45 10	2266.3		1149.27	(13/2 ⁺)				$\alpha(\text{K})\text{exp}=0.012$ 6.
1134.0 4	0.50 15	1807.6	(15/2 ⁻)	673.24	(15/2 ⁻)	M1		0.01028	$\alpha(\text{K})=0.00852$ 12; $\alpha(\text{L})=0.001351$ 19; $\alpha(\text{M})=0.000311$ 5; $\alpha(\text{N}+..)=9.39\times 10^{-5}$ 14 $\alpha(\text{N})=7.76\times 10^{-5}$ 11; $\alpha(\text{O})=1.430\times 10^{-5}$ 20; $\alpha(\text{P})=9.85\times 10^{-7}$ 14; $\alpha(\text{IPF})=1.061\times 10^{-6}$ 22 $\alpha(\text{K})\text{exp}=0.015$ 10.
1135.5 ^a 4	1.8 1	2300.28		1164.51	(11/2 ⁺)				$\alpha(\text{K})\text{exp}=0.006$ 2.
1142.5 4	0.8 2	1815.9	(15/2 ⁻)	673.24	(15/2 ⁻)	(E2+M1)	1.6 10	0.006 3	$\alpha=0.006$ 3; $\alpha(\text{K})=0.0049$ 22; $\alpha(\text{L})=0.0008$ 4; $\alpha(\text{M})=0.00019$ 8; $\alpha(\text{N}+..)=5.8\times 10^{-5}$ 22 $\alpha(\text{N})=4.8\times 10^{-5}$ 18; $\alpha(\text{O})=9.\text{E}-6$ 4; $\alpha(\text{P})=6.\text{E}-7$ 3; $\alpha(\text{IPF})=1.0\times 10^{-6}$ 3 $\alpha(\text{K})\text{exp}=0.005$ 3.
1146.6 ^a 4	0.70 15	1819.8		673.24	(15/2 ⁻)				
1154.2 ^a 4	0.7 2	2471.1	(11/2 ⁻)	1316.87	(9/2 ⁻)	(E2+M1)	0.9 18	0.0074 25	$\alpha=0.0074$ 25; $\alpha(\text{K})=0.0061$ 21; $\alpha(\text{L})=0.0010$ 3; $\alpha(\text{M})=0.00023$ 7; $\alpha(\text{N}+..)=7.0\times 10^{-5}$ 21 $\alpha(\text{N})=5.7\times 10^{-5}$ 18; $\alpha(\text{O})=1.0\times 10^{-5}$ 4; $\alpha(\text{P})=6.9\times 10^{-7}$ 25; $\alpha(\text{IPF})=1.7\times 10^{-6}$ 4 $\alpha(\text{K})\text{exp}=0.006$ 4.
1156.5 ^a 4	0.45 15	2354.2		1197.6	(11/2 ⁻)				
1156.9 4	0.9 2	1276.9	(7/2 ⁻ ,9/2 ⁻)	120.40	9/2 ⁽⁻⁾	M1		0.00977 14	$\alpha=0.00977$ 14; $\alpha(\text{K})=0.00810$ 12; $\alpha(\text{L})=0.001284$ 18; $\alpha(\text{M})=0.000296$ 5; $\alpha(\text{N}+..)=9.05\times 10^{-5}$ 13 $\alpha(\text{N})=7.37\times 10^{-5}$ 11; $\alpha(\text{O})=1.359\times 10^{-5}$ 19; $\alpha(\text{P})=9.36\times 10^{-7}$ 14; $\alpha(\text{IPF})=2.25\times 10^{-6}$ 5 $\alpha(\text{K})\text{exp}=0.008$ 2.
1169.8 ^a 4	0.45 10	2319.2		1149.27	(13/2 ⁺)				$\alpha(\text{K})\text{exp}=0.011$ 7.
1181.2 4	1.55 15	1930.4	(17/2 ⁻)	749.30	(13/2 ⁻)	E2		0.00416 6	$\alpha=0.00416$ 6; $\alpha(\text{K})=0.00339$ 5; $\alpha(\text{L})=0.000589$ 9; $\alpha(\text{M})=0.0001374$ 20; $\alpha(\text{N}+..)=4.33\times 10^{-5}$ 6

¹⁸⁷Hg ε decay (2.4 min) [1998Ru04,1994RuZX,1978Bo05](#) (continued)

$\gamma(^{187}\text{Au})$ (continued)									
$E_\gamma^{\dagger}$	$I_\gamma^{\dagger}$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
1181.4 4	1.8 2	1405.4	(13/2 ⁺)	223.93	(11/2 ⁻)	(E1)		0.001651 24	$\alpha(\text{N})=3.41\times 10^{-5}$ 5; $\alpha(\text{O})=6.18\times 10^{-6}$ 9; $\alpha(\text{P})=3.73\times 10^{-7}$ 6; $\alpha(\text{IPF})=2.67\times 10^{-6}$ 5 $\alpha(\text{K})_{\text{exp}}=0.003$ 1. $\alpha=0.001651$ 24; $\alpha(\text{K})=0.001378$ 20; $\alpha(\text{L})=0.000202$ 3; $\alpha(\text{M})=4.62\times 10^{-5}$ 7; $\alpha(\text{N}+..)=2.51\times 10^{-5}$ 4 $\alpha(\text{N})=1.146\times 10^{-5}$ 16; $\alpha(\text{O})=2.10\times 10^{-6}$ 3; $\alpha(\text{P})=1.415\times 10^{-7}$ 20; $\alpha(\text{IPF})=1.141\times 10^{-5}$ 19 $\alpha(\text{K})_{\text{exp}}=0.0017$ 11. $\alpha(\text{K})_{\text{exp}}=0.004$ 2. $\alpha(\text{K})_{\text{exp}}=0.006$ 4. I_γ : 0.5 15 in 1994RuZX , probably a typo for $I_\gamma=0.50$ 15.
1184.8 ^a 4	0.5 1	2334.1		1149.27	(13/2 ⁺)				
1196.1 ^a 4	0.50 15	2345.8	(11/2 ⁺)	1149.27	(13/2 ⁺)				$\alpha=0.0061$ 13; $\alpha(\text{K})=0.0050$ 11; $\alpha(\text{L})=0.00082$ 16; $\alpha(\text{M})=0.00019$ 4; $\alpha(\text{N}+..)=6.1\times 10^{-5}$ 12 $\alpha(\text{N})=4.7\times 10^{-5}$ 9; $\alpha(\text{O})=8.7\times 10^{-6}$ 17; $\alpha(\text{P})=5.7\times 10^{-7}$ 13; $\alpha(\text{IPF})=4.8\times 10^{-6}$ 7 $\alpha(\text{K})_{\text{exp}}=0.005$ 1. $\alpha(\text{K})_{\text{exp}}=0.007$ 4. $\alpha(\text{K})_{\text{exp}}=0.001$ 1.
1196.6 2	2.5 2	1316.87	(9/2 ⁻)	120.40	9/2 ⁽⁻⁾	E2+M1	1.2 5	0.0061 13	$\alpha=0.00834$ 12; $\alpha(\text{K})=0.00691$ 10; $\alpha(\text{L})=0.001093$ 16; $\alpha(\text{M})=0.000252$ 4; $\alpha(\text{N}+..)=8.70\times 10^{-5}$ 13 $\alpha(\text{N})=6.27\times 10^{-5}$ 9; $\alpha(\text{O})=1.157\times 10^{-5}$ 17; $\alpha(\text{P})=7.98\times 10^{-7}$ 12; $\alpha(\text{IPF})=1.188\times 10^{-5}$ 19 $\alpha(\text{K})_{\text{exp}}=0.008$ 6. $\alpha=0.001543$ 22; $\alpha(\text{K})=0.001272$ 18; $\alpha(\text{L})=0.000186$ 3; $\alpha(\text{M})=4.25\times 10^{-5}$ 6; $\alpha(\text{N}+..)=4.22\times 10^{-5}$ 6 $\alpha(\text{N})=1.055\times 10^{-5}$ 15; $\alpha(\text{O})=1.93\times 10^{-6}$ 3; $\alpha(\text{P})=1.308\times 10^{-7}$ 19; $\alpha(\text{IPF})=2.96\times 10^{-5}$ 5 $\alpha(\text{K})_{\text{exp}}=0.0018$ 8. $\alpha(\text{K})_{\text{exp}}=0.005$ 3. $\alpha(\text{K})_{\text{exp}}=0.004$ 4. $\alpha(\text{K})_{\text{exp}}=0.008$ 5.
1214.6 ^a 4	0.55 20	1711.0		496.79	(11/2 ⁻)				
1229.3 ^a 4	1.00 15	2350.8		1121.68	(13/2 ⁺)				$\alpha=0.007$ 4; $\alpha(\text{K})=0.006$ 3; $\alpha(\text{L})=0.0010$ 4; $\alpha(\text{M})=0.00022$ 9; $\alpha(\text{N}+..)=8.\text{E}-5$ 4 $\alpha(\text{N})=5.6\times 10^{-5}$ 23; $\alpha(\text{O})=1.0\times 10^{-5}$ 5; $\alpha(\text{P})=7.\text{E}-7$ 4; $\alpha(\text{IPF})=1.6\times 10^{-5}$ 5 $\alpha(\text{K})_{\text{exp}}=0.006$ 3. $\alpha(\text{K})_{\text{exp}}=0.004$ 4. $\alpha(\text{K})_{\text{exp}}=0.0025$ 25.
1232.3 4	0.5 1	1905.3	(15/2 ⁻)	673.24	(15/2 ⁻)	(M1)		0.00834 12	
1236.6 4	1.00 15	1589.65	(11/2,13/2) ⁺	353.78	(13/2 ⁻)	(E1)		0.001543 22	
1237.9 ^a 4	0.8 2	2206.6		968.01	(11/2 ⁺)				
1244.7 ^a 4	0.45 15	2237.6	(13/2 ⁻)	993.2	(15/2 ⁻)				
1253.4 ^a 4	0.50 15	2246.5	(13/2 ⁻)	993.2	(15/2 ⁻)				
1257.0 4	0.65 15	1930.4	(17/2 ⁻)	673.24	(15/2 ⁻)	(M1+E2)	0.4 23	0.007 4	
1274.3 ^a 4	0.5 2	2396.1	(15/2 ⁺)	1121.68	(13/2 ⁺)				
1277.2 ^a 4	0.4 1	2099.7		822.47	(5/2 ⁺)				
1283.8 ^a 2	2.2 3	1637.6		353.78	(13/2 ⁻)				
1294.7 ^a 4	0.45 15	1791.5		496.79	(11/2 ⁻)				
1315.2 ^a 4	0.35 10	2474.2		1159.0	(17/2 ⁻)				
1315.4 ^a 2	4.0 3	2300.44		985.0	(9/2 ⁻)				

¹⁸⁷Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05 (continued)

$\gamma(^{187}\text{Au})$ (continued)									
E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	δ^c	α^d	Comments
1317.0 ^{a#} 4	0.50 15	2285.0		968.01 (11/2 ⁺)					
1321.1 ^a 4	0.55 15	1994.3	(11/2 ⁻)	673.24 (15/2 ⁻)					
1325.5 ^a 4	0.6 1	2291.1	(11/2 ⁺)	965.6 (7/2 ⁺)					
1332.5 ^a 4	0.8 2	2289.0		956.52 (13/2 ⁻)					
1339.5 ^a 4	0.5 1	1816.2	(11/2 ⁻)	476.59 (7/2 ⁻)		(E2)		0.00330 5	$\alpha=0.00330$ 5; $\alpha(\text{K})=0.00269$ 4; $\alpha(\text{L})=0.000451$ 7; $\alpha(\text{M})=0.0001048$ 15; $\alpha(\text{N}+..)=5.45\times 10^{-5}$ 8 $\alpha(\text{N})=2.60\times 10^{-5}$ 4; $\alpha(\text{O})=4.73\times 10^{-6}$ 7; $\alpha(\text{P})=2.95\times 10^{-7}$ 5; $\alpha(\text{IPF})=2.34\times 10^{-5}$ 4 $\alpha(\text{K})_{\text{exp}}=0.003$ 2.
1350.0 ^a 4	1.0 2	2300.44		950.3 (7/2 ⁻ ,9/2 ⁻)					
1357.2 ^a 4	1.85 20	1711.0		353.78 (13/2 ⁻)					
1357.6 ^a 4	0.4 1	2180.1	(9/2 ⁺)	822.47 (5/2 ⁺)					
1362.6 ^a 4	1.95 15	2319.2	(15/2 ⁻)	956.52 (13/2 ⁻)					
1365.8 2	2.1 3	1589.65	(11/2,13/2) ⁺	223.93 (11/2 ⁻)		E1		0.001364 19	$\alpha=0.001364$ 19; $\alpha(\text{K})=0.001071$ 15; $\alpha(\text{L})=0.0001563$ 22; $\alpha(\text{M})=3.56\times 10^{-5}$ 5; $\alpha(\text{N}+..)=0.000100$ $\alpha(\text{N})=8.84\times 10^{-6}$ 13; $\alpha(\text{O})=1.623\times 10^{-6}$ 23; $\alpha(\text{P})=1.104\times 10^{-7}$ 16; $\alpha(\text{IPF})=8.98\times 10^{-5}$ 13 $\alpha(\text{K})_{\text{exp}}=0.0012$ 4.
1368.7 ^a 4	0.40 15	1864.1		495.37 (7/2 ⁺)					
1372.3 ^a 4	0.50 15	2253.3		881.22 (11/2 ⁻)					
1392.5 ^a 4	0.70 15	2065.7		673.24 (15/2 ⁻)					
1399.6 ^a 4	0.45 15	2279.9		880.03 (7/2 ⁺)					
1419.6 4	1.15 20	2300.7		881.22 (11/2 ⁻)					
1425.6 ^a 4	0.4 1	2306.8		881.22 (11/2 ⁻)					
1430.3 ^a 4	0.65 15	2246.5	(13/2 ⁻)	815.89 (15/2 ⁻)					
1435.0 ^a 4	0.4 1	2145.4		710.48 (9/2 ⁺)					
1461.1 ^a 4	0.60 15	2149.8	(13/2 ⁻)	688.68 (17/2 ⁻)		E2		0.00284 4	$\alpha=0.00284$ 4; $\alpha(\text{K})=0.00229$ 4; $\alpha(\text{L})=0.000377$ 6; $\alpha(\text{M})=8.74\times 10^{-5}$ 13; $\alpha(\text{N}+..)=7.98\times 10^{-5}$ 12 $\alpha(\text{N})=2.17\times 10^{-5}$ 3; $\alpha(\text{O})=3.96\times 10^{-6}$ 6; $\alpha(\text{P})=2.51\times 10^{-7}$ 4; $\alpha(\text{IPF})=5.38\times 10^{-5}$ 8 $\alpha(\text{K})_{\text{exp}}=0.0021$ 10.
1466.1 ^a 4	1.1 2	2345.8	(11/2 ⁺)	880.03 (7/2 ⁺)					
1467.7 ^a 4	0.5 1	2348.9		881.22 (11/2 ⁻)		M1		0.00546 8	$\alpha=0.00546$ 8; $\alpha(\text{K})=0.00446$ 7; $\alpha(\text{L})=0.000702$ 10; $\alpha(\text{M})=0.0001616$ 23; $\alpha(\text{N}+..)=0.0001361$ $\alpha(\text{N})=4.02\times 10^{-5}$ 6; $\alpha(\text{O})=7.42\times 10^{-6}$ 11; $\alpha(\text{P})=5.13\times 10^{-7}$ 8; $\alpha(\text{IPF})=8.79\times 10^{-5}$ 13 $\alpha(\text{K})_{\text{exp}}=0.004$ 3.
^x 1468.0 ^{a#} 4	0.3 1								
1496.8 ^a 4	0.4 1	2206.6		710.48 (9/2 ⁺)					
1503.6 ^a 4	0.80 15	2319.2	(15/2 ⁻)	815.89 (15/2 ⁻)		(E2+M1)	2.3 21	0.0031 20	$\alpha=0.0031$ 20; $\alpha(\text{K})=0.0025$ 17; $\alpha(\text{L})=0.00040$ 25;

¹⁸⁷Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05 (continued) $\gamma(^{187}\text{Au})$ (continued)

E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ^b	α ^d	Comments
								$\alpha(\text{M})=9.\text{E}-5$ 6; $\alpha(\text{N}+..)=0.00010$ 5 $\alpha(\text{N})=2.3\times 10^{-5}$ 14; $\alpha(\text{O})=4.\text{E}-6$ 3; $\alpha(\text{P})=2.8\times 10^{-7}$ 20; $\alpha(\text{IPF})=7.\text{E}-5$ 3 $\alpha(\text{K})_{\text{exp}}=0.0025$ 15.
1532.8 ^a 2	4.0 4	2206.0		673.24 (15/2 ⁻)				
1545.3 ^a 4	0.75 20	2300.44		755.3 (9/2 ⁻)				
1563.6 ^a 4	0.45 15	2237.8		674.1 (9/2 ⁻ ,11/2 ⁻)				
1564.0 ^a 4	0.4 1	2183.9		619.86 (11/2 ⁻)				
1570.0 ^a 4	1.45 20	2319.1		749.30 (13/2 ⁻)				
1576.5 ^a 4	0.35 15	2073.3		496.79 (11/2 ⁻)				
1579.5 ^a 2	4.4 3	2268.2	(13/2 ⁻)	688.68 (17/2 ⁻)				
1580.0 ^{a#} 4	0.50 15	2253.3		673.24 (15/2 ⁻)				
1583.8 2	2.0 2	1807.6	(15/2 ⁻)	223.93 (11/2 ⁻)		E2	0.00249 4	$\alpha=0.00249$ 4; $\alpha(\text{K})=0.00198$ 3; $\alpha(\text{L})=0.000321$ 5; $\alpha(\text{M})=7.42\times 10^{-5}$ 11; $\alpha(\text{N}+..)=0.0001157$ 17 $\alpha(\text{N})=1.84\times 10^{-5}$ 3; $\alpha(\text{O})=3.36\times 10^{-6}$ 5; $\alpha(\text{P})=2.17\times 10^{-7}$ 3; $\alpha(\text{IPF})=9.37\times 10^{-5}$ 14 $\alpha(\text{K})_{\text{exp}}=0.0019$ 5.
1584.8 ^a 4	0.35 15	2400.9		815.89 (15/2 ⁻)				
1587.9 ^a 2	2.1 2	2337.2		749.30 (13/2 ⁻)				
1589.0 ^a 4	0.45 10	2300.28		710.48 (9/2 ⁺)				
1589.6 ^a 4	0.65 15	2262.9		673.24 (15/2 ⁻)				
1592.0 4	0.4 2	1815.9	(15/2 ⁻)	223.93 (11/2 ⁻)				
1594.3 ^a 4	1.1 1	2343.2		749.30 (13/2 ⁻)				
1601.9 ^a 4	0.8 2	2221.8		619.86 (11/2 ⁻)				
1606.9 ^a 4	0.60 15	2279.9		673.24 (15/2 ⁻)				
1608.8 ^a 4	0.4 1	2319.2		710.48 (9/2 ⁺)				
1616.0 ^a 4	0.7 2	2365.3	(13/2 ⁻)	749.30 (13/2 ⁻)				
1617.8 ^a 4	0.60 15	2237.6	(13/2 ⁻)	619.86 (11/2 ⁻)				
1626.7 ^a 4	0.70 15	2246.5	(13/2 ⁻)	619.86 (11/2 ⁻)				
1627.2 ^a 4	0.4 1	2300.7		673.24 (15/2 ⁻)				
1630.9 ^a 4	0.60 15	2319.2	(15/2 ⁻)	688.68 (17/2 ⁻)		(M1)	0.00430 6	$\alpha=0.00430$ 6; $\alpha(\text{K})=0.00343$ 5; $\alpha(\text{L})=0.000538$ 8; $\alpha(\text{M})=0.0001238$ 18; $\alpha(\text{N}+..)=0.000210$ 3 $\alpha(\text{N})=3.08\times 10^{-5}$ 5; $\alpha(\text{O})=5.69\times 10^{-6}$ 8; $\alpha(\text{P})=3.94\times 10^{-7}$ 6; $\alpha(\text{IPF})=0.0001736$ 25 $\alpha(\text{K})_{\text{exp}}=0.004$ 2.
1646.4 ^a 2	4.6 4	2395.7	(13/2 ⁺)	749.30 (13/2 ⁻)				
^x 1647.3 ^{&} 5	4.7 ^{&} 9							
1651.4 ^a 4	1.3 2	2400.7		749.30 (13/2 ⁻)				
1661.4 ^a 4	1.55 15	2410.9		749.30 (13/2 ⁻)				
1669.0 ^a 2	3.2 3	2343.2		674.1 (9/2 ⁻ ,11/2 ⁻)				
1676.0 ^a 4	0.8 2	2029.8		353.78 (13/2 ⁻)				

¹⁸⁷Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05 (continued)

γ(¹⁸⁷Au) (continued)

E _γ [†]	I _γ [†]	E _i (level)	J _i ^π	E _f	J _f ^π	E _γ [†]	I _γ [†]	E _i (level)	J _i ^π	E _f	J _f ^π
1680.8 ^a 4	0.45 15	2300.44		619.86	(11/2 ⁻)	1989.1 ^a 4	1.0 2	2343.0		353.78	(13/2 ⁻)
1681.5 4	1.35 20	1905.3	(15/2 ⁻)	223.93	(11/2 ⁻)	1997.0 ^a 4	1.9 2	2350.8		353.78	(13/2 ⁻)
1701.2 ^a 4	0.7 1	2390.0		688.68	(17/2 ⁻)	^x 1998.1 ^{&} 8	10.8 ^{&} 22				
1707.6 ^a 4	0.65 15	2396.1	(15/2 ⁺)	688.68	(17/2 ⁻)	1999.4 ^a 2	10.4 9	2223.3		223.93	(11/2 ⁻)
1715.9 ^a 4	0.65 15	2389.2		673.24	(15/2 ⁻)	2013.9 ^a 2	9.0 9	2237.8		223.93	(11/2 ⁻)
1728.3 ^a 4	0.7 1	2082.1		353.78	(13/2 ⁻)	2029.3 ^a 2	6.3 2	2253.3		223.93	(11/2 ⁻)
1737.9 ^a 4	0.5 1	2410.9		673.24	(15/2 ⁻)	2047.3 ^a 4	1.0 2	2400.9		353.78	(13/2 ⁻)
1740.9 ^a 2	2.9 3	2237.6	(13/2 ⁻)	496.79	(11/2 ⁻)	2065.7 ^a 2	3.7 4	2186.1		120.40	9/2 ⁽⁻⁾
1764.3 ^a 4	0.4 2	2513.6		749.30	(13/2 ⁻)	2076.6 ^a 2	11.7 9	2300.7		223.93	(11/2 ⁻)
1803.6 ^a 2	2.9 2	2300.44		496.79	(11/2 ⁻)	2081.5 ^a 2	5 1	2201.9		120.40	9/2 ⁽⁻⁾
1804.0 ^a 4	0.75 15	2633.1		829.13	(11/2 ⁻)	^x 2176.5 ^{&} 10	20 ^{&} 4				
1853.8 ^a 4	0.40 15	2350.8		496.79	(11/2 ⁻)	2179.9 ^a 2	23.5 5	2300.44		120.40	9/2 ⁽⁻⁾
1857.2 ^a 2	2.3 2	2300.44		443.30	9/2 ⁽⁻⁾	2187.7 ^a 4	0.35 15	2541.5		353.78	(13/2 ⁻)
1883.5 ^a 4	0.9 2	2237.6	(13/2 ⁻)	353.78	(13/2 ⁻)	2197.3 ^a 4	0.3 1	2551.1		353.78	(13/2 ⁻)
1889.3 ^a 4	0.5 2	2384.7		495.37	(7/2 ⁺)	2207.5 ^a 2	3.1 3	2327.9		120.40	9/2 ⁽⁻⁾
1894.4 ^a 4	1.45 10	2248.2		353.78	(13/2 ⁻)	2253.0 ^a 4	0.35 15	2606.8		353.78	(13/2 ⁻)
1899.5 ^a 4	0.3 1	2572.8		673.24	(15/2 ⁻)	2334.6 ^a 4	0.4 1	2688.4		353.78	(13/2 ⁻)
1914.2 ^a 2	3.0 3	2268.2	(13/2 ⁻)	353.78	(13/2 ⁻)	2395.5 ^a 4	0.25 15	2749.3		353.78	(13/2 ⁻)
1952.0 ^a 4	0.3 1	2625.3		673.24	(15/2 ⁻)	2414.4 ^a 4	0.3 1	2768.2		353.78	(13/2 ⁻)
1952.4 ^a 4	0.9 2	2306.2		353.78	(13/2 ⁻)	2474.2 ^a 4	0.3 1	2828.0		353.78	(13/2 ⁻)
1974.3 ^a 4	1.35 20	2327.9		353.78	(13/2 ⁻)						

[†] From 1998Ru04, except otherwise noted. All E_γ are seen only in the ¹⁸⁷Hg^m decay, except otherwise noted. ΔE=0.2 for I_γ≥ 2 and ΔE=0.4 for I_γ<2 are assigned based on a private communication with J. L. Wood, a 1998Ru04 co-author.

[‡] In Table II (1998Ru04), 129.7γ is shown from 633-keV (J^π=7/2⁺) to 503.8-keV (3/2⁺) level, but not presented in the decay scheme.

Decimal place number of the γ-ray is not reported, the evaluator added a zero.

@ Also seen in the ¹⁸⁷Hg^g decay.

& From 1978Bo05.

^a From 1994RuZX.

^b 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.

^c Calculated by the evaluator from the α(K)exp or α(L)exp value (1998Ru04), except otherwise noted.

^d 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 (2.4 min) 1998Ru04,1994RuZX,1978Bo05

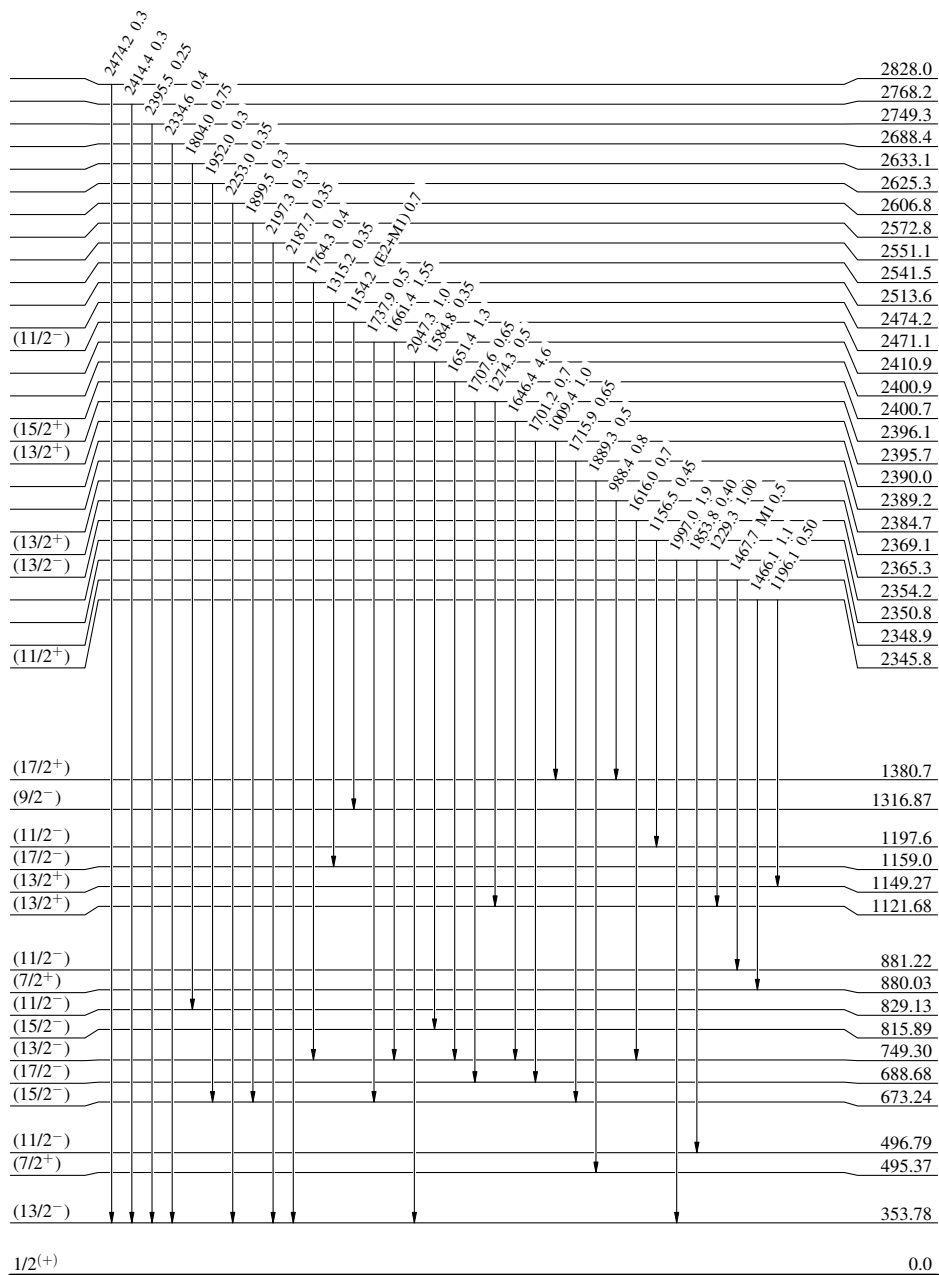
Decay Scheme

Legend

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$13/2^{(+)}$ $0.0+x$ 2.4 min 3
 $Q_\varepsilon=4890.30$
 $^{187}_{80}\text{Hg}_{107}$
 $\% \varepsilon + \% \beta^+ = 100$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

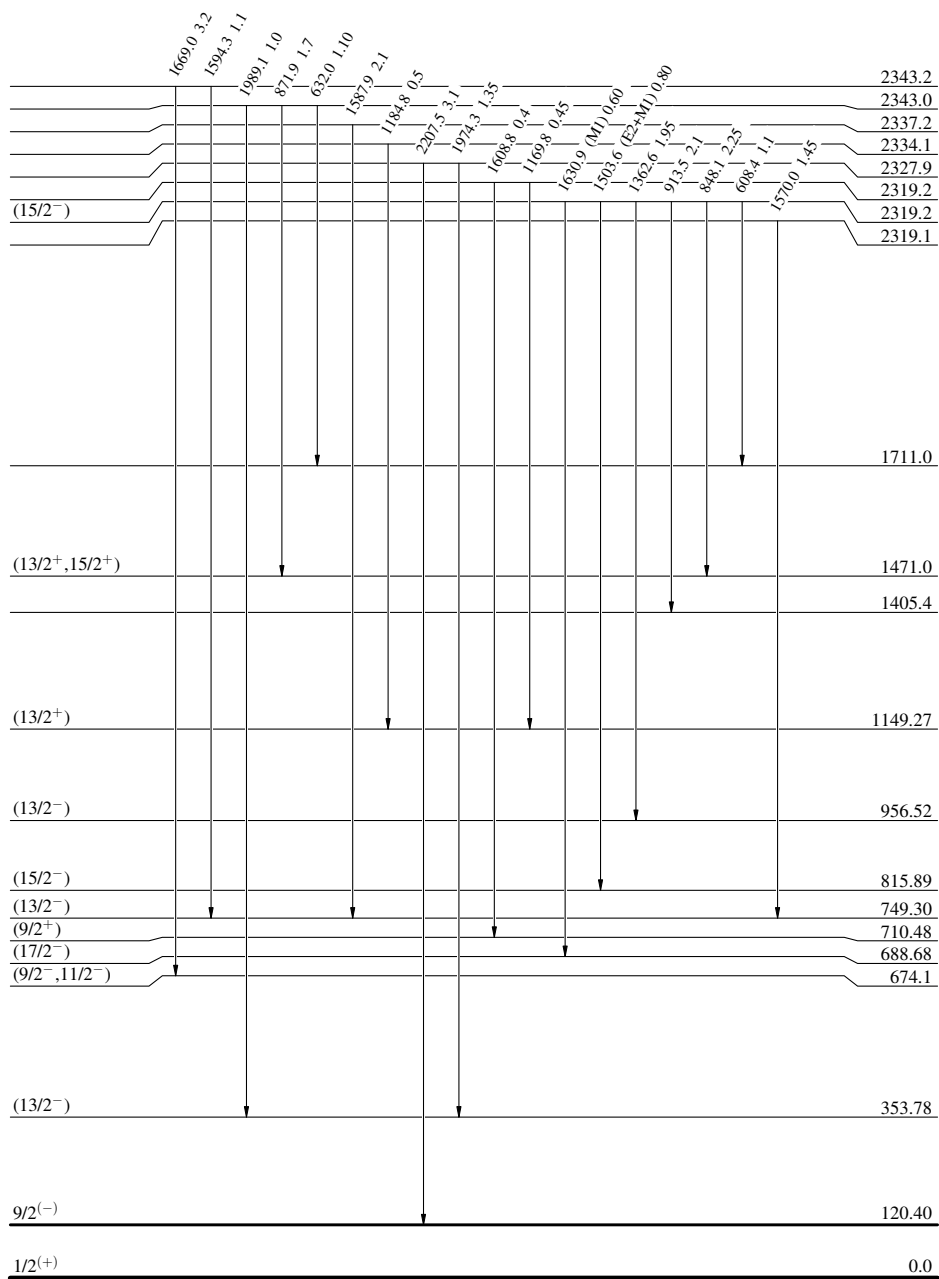
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

$^{187}_{80}\text{Hg}_{107}$ 13/2(+) 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $\% \varepsilon + \% \beta^+ = 100$


 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

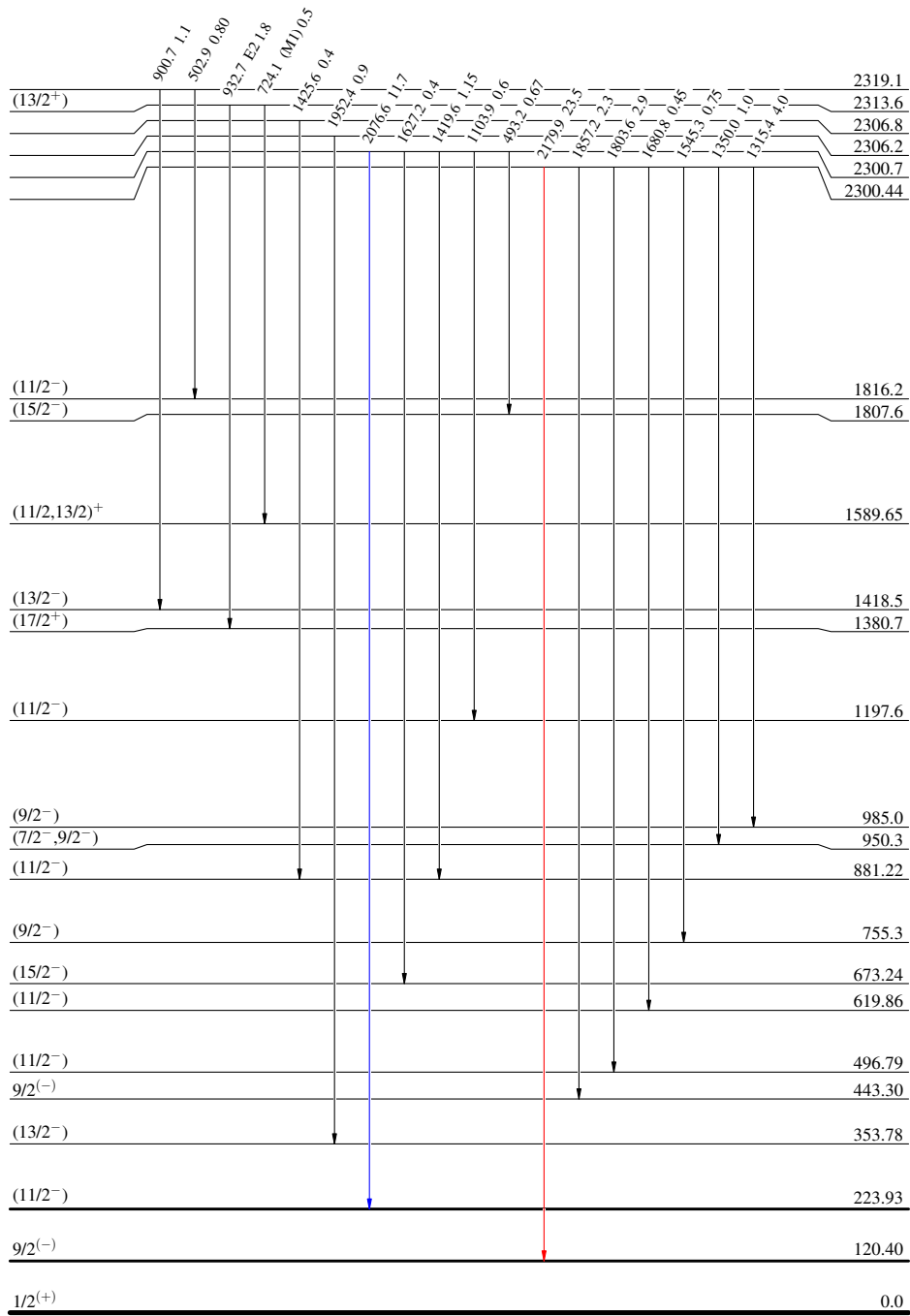
Decay Scheme (continued)

Intensities: Relative I_γ

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$13/2^{(+)}$ 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$
 $\% \varepsilon + \% \beta^+ = 100$



^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

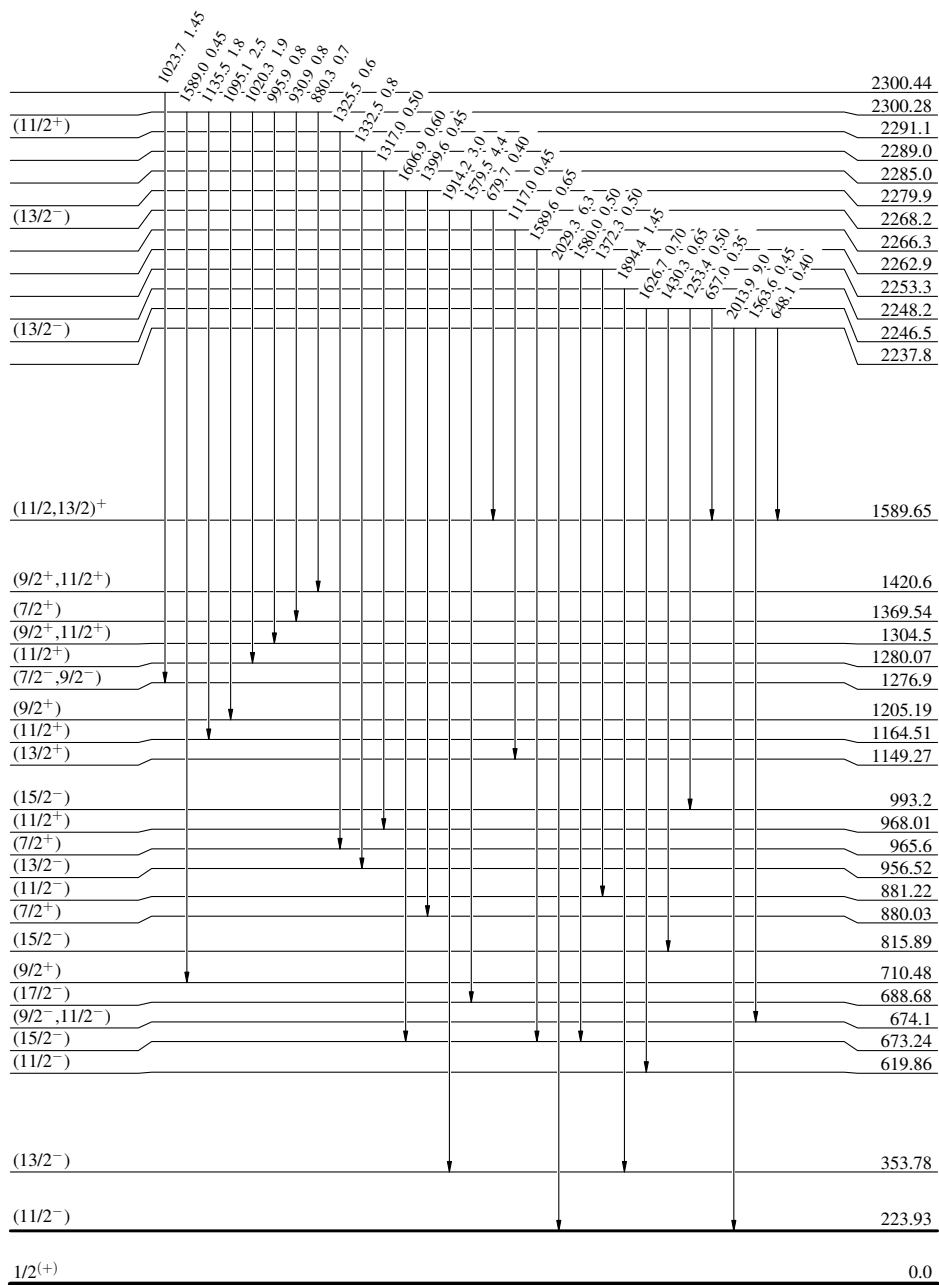
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$13/2^{+}$ 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ϵ decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

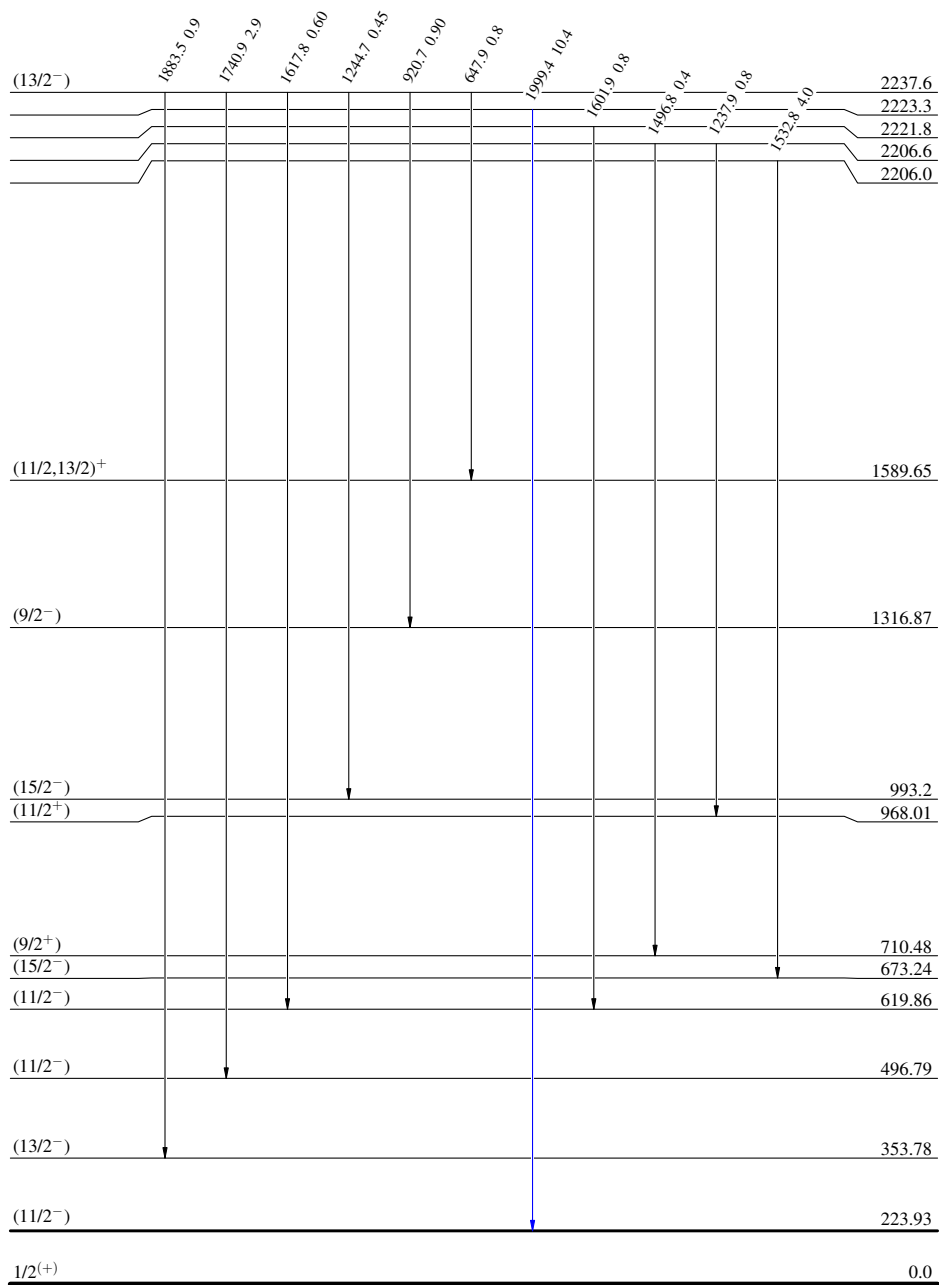
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

$^{187}_{80}\text{Hg}_{107}$
 $13/2^{+}$ 0.0+x 2.4 min 3
 $Q_\epsilon = 4890.30$
 $\% \epsilon + \% \beta^+ = 100$


 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

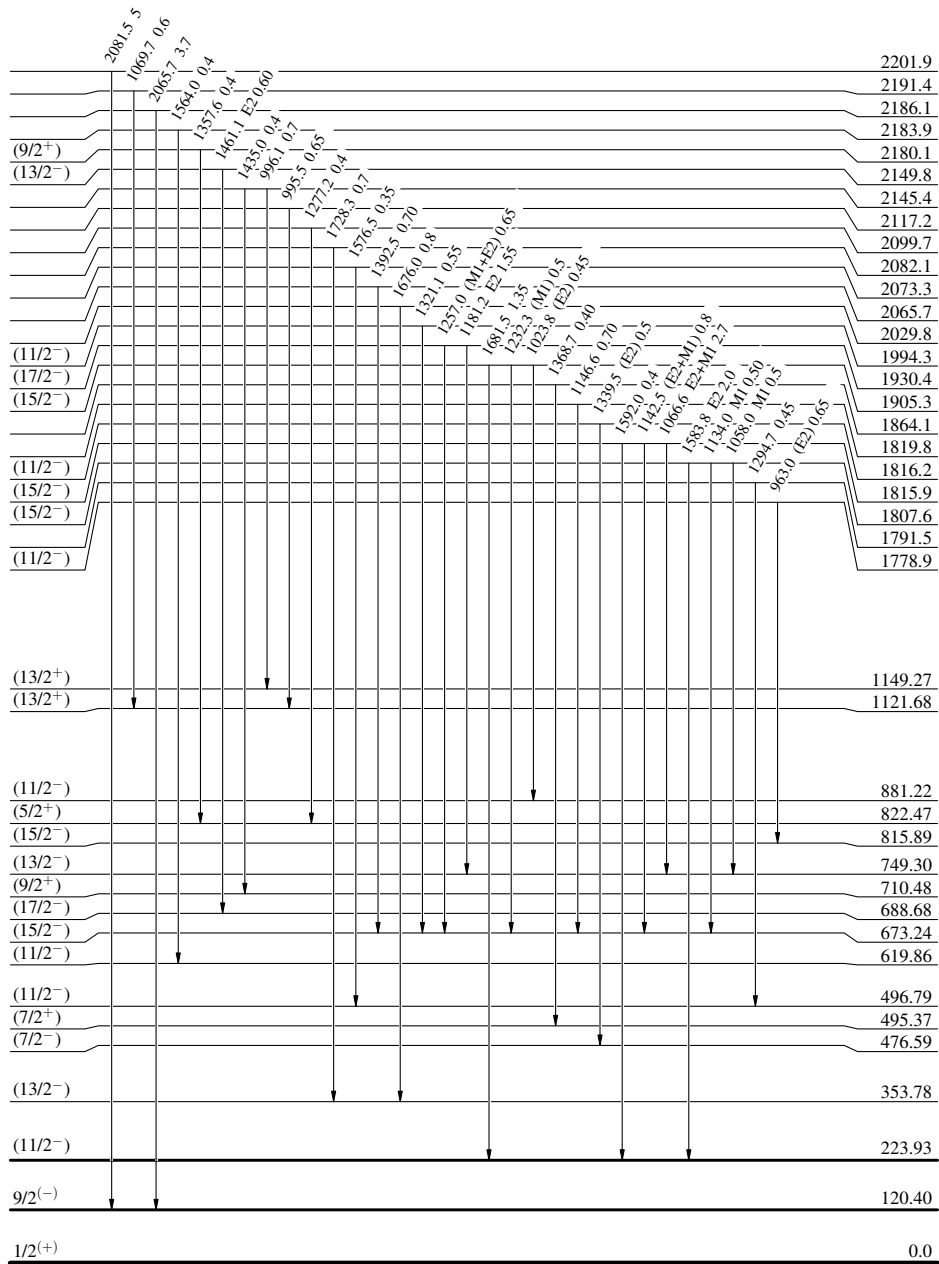
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$\% \varepsilon + \% \beta^+ = 100$
 $^{187}_{80}\text{Hg}_{107}$
 $13/2^{+}$ $0.0+x$ $2.4 \text{ min } 3$
 $Q_\varepsilon = 4890.30$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

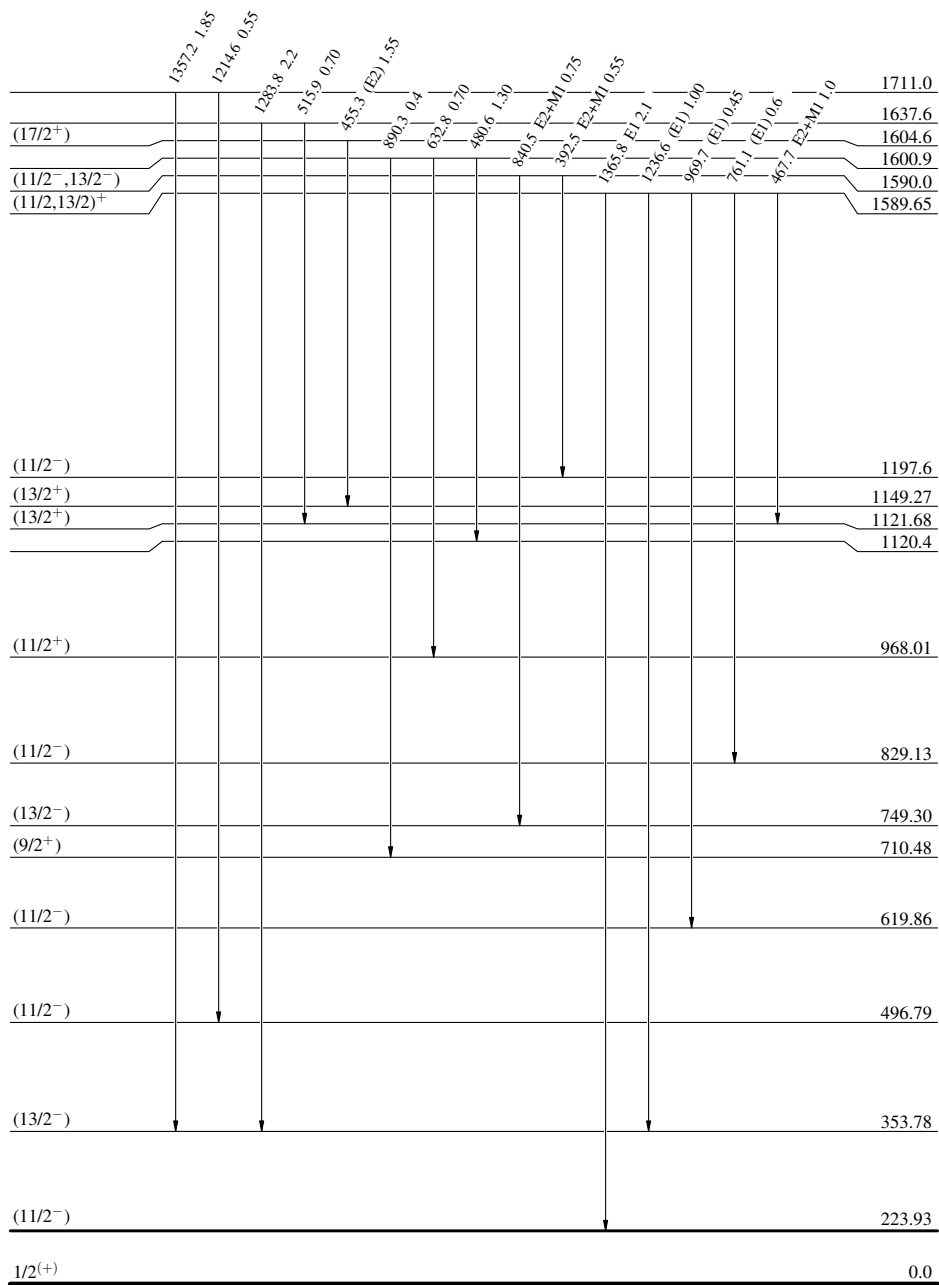
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $I_\gamma < 2\% \times I_\gamma^{\max}$
— $I_\gamma < 10\% \times I_\gamma^{\max}$
— $I_\gamma > 10\% \times I_\gamma^{\max}$

$^{187}_{80}\text{Hg}_{107}$ 13/2(+) 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $\% \varepsilon + \% \beta^+ = 100$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

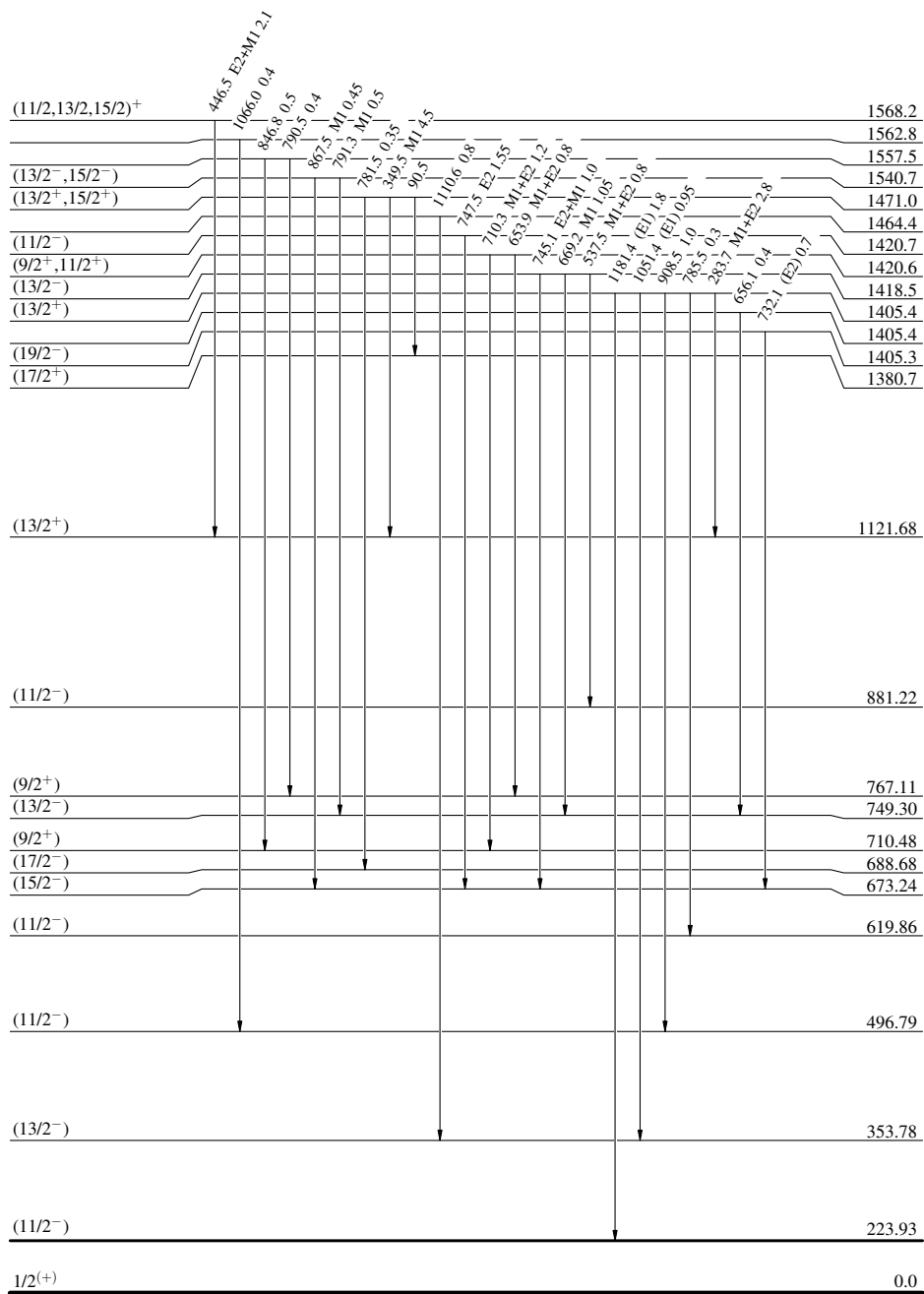
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$13/2^{(+)}$ 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

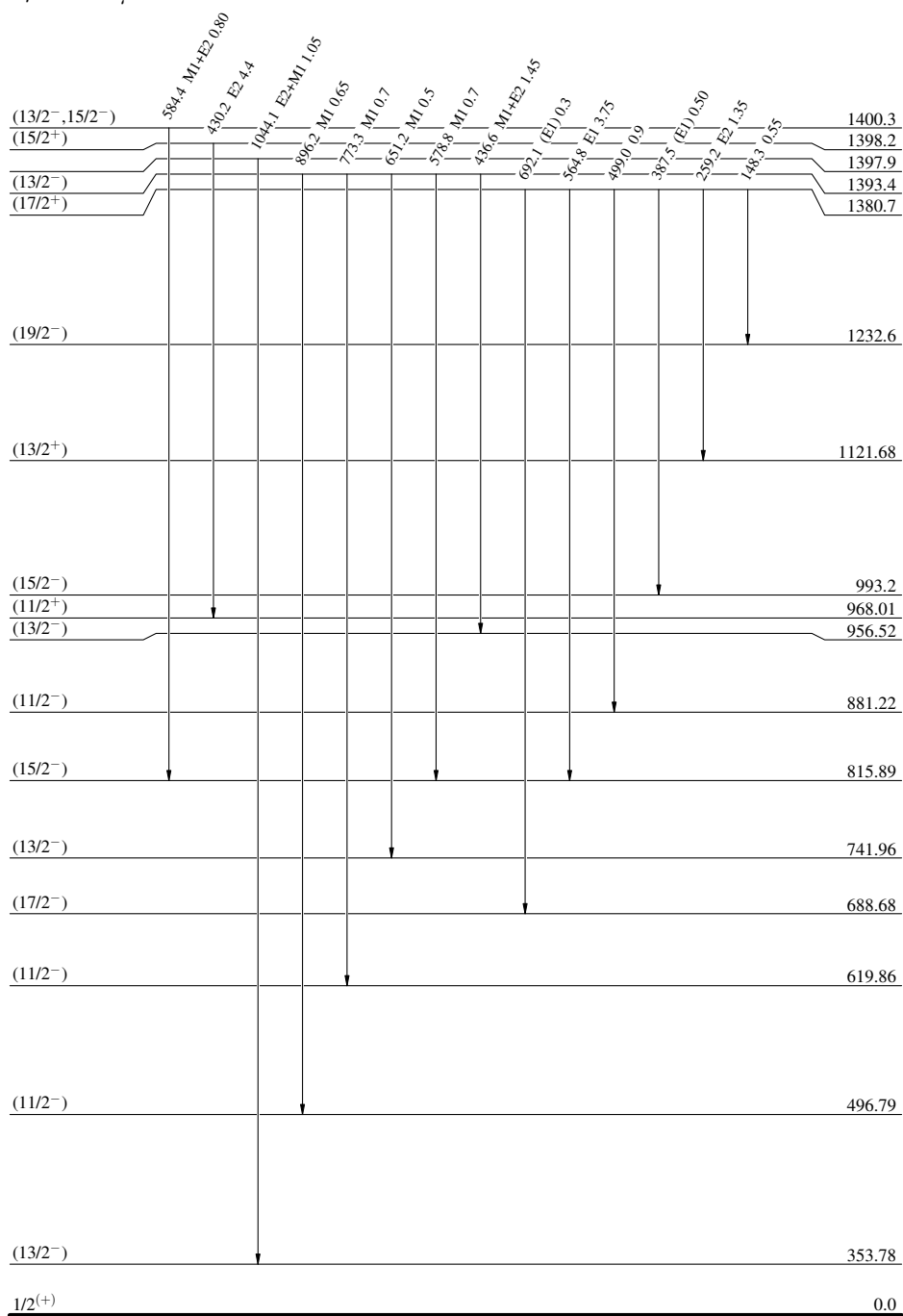
Decay Scheme (continued)

Intensities: Relative I_γ

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$13/2^{(+)}$ 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$
 $\% \varepsilon + \% \beta^+ = 100$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

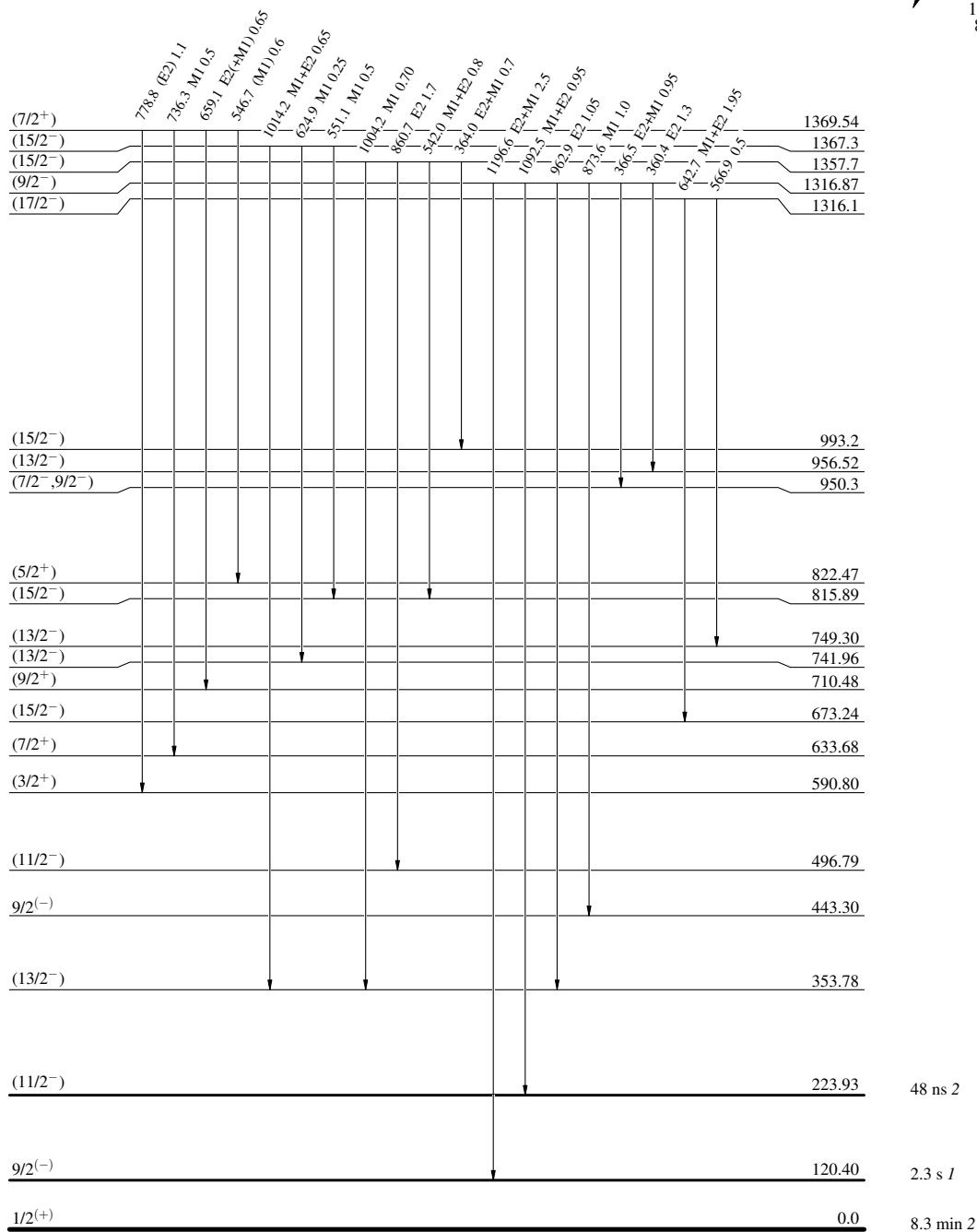
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$^{13/2(+)}$ $0.0+x$ 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

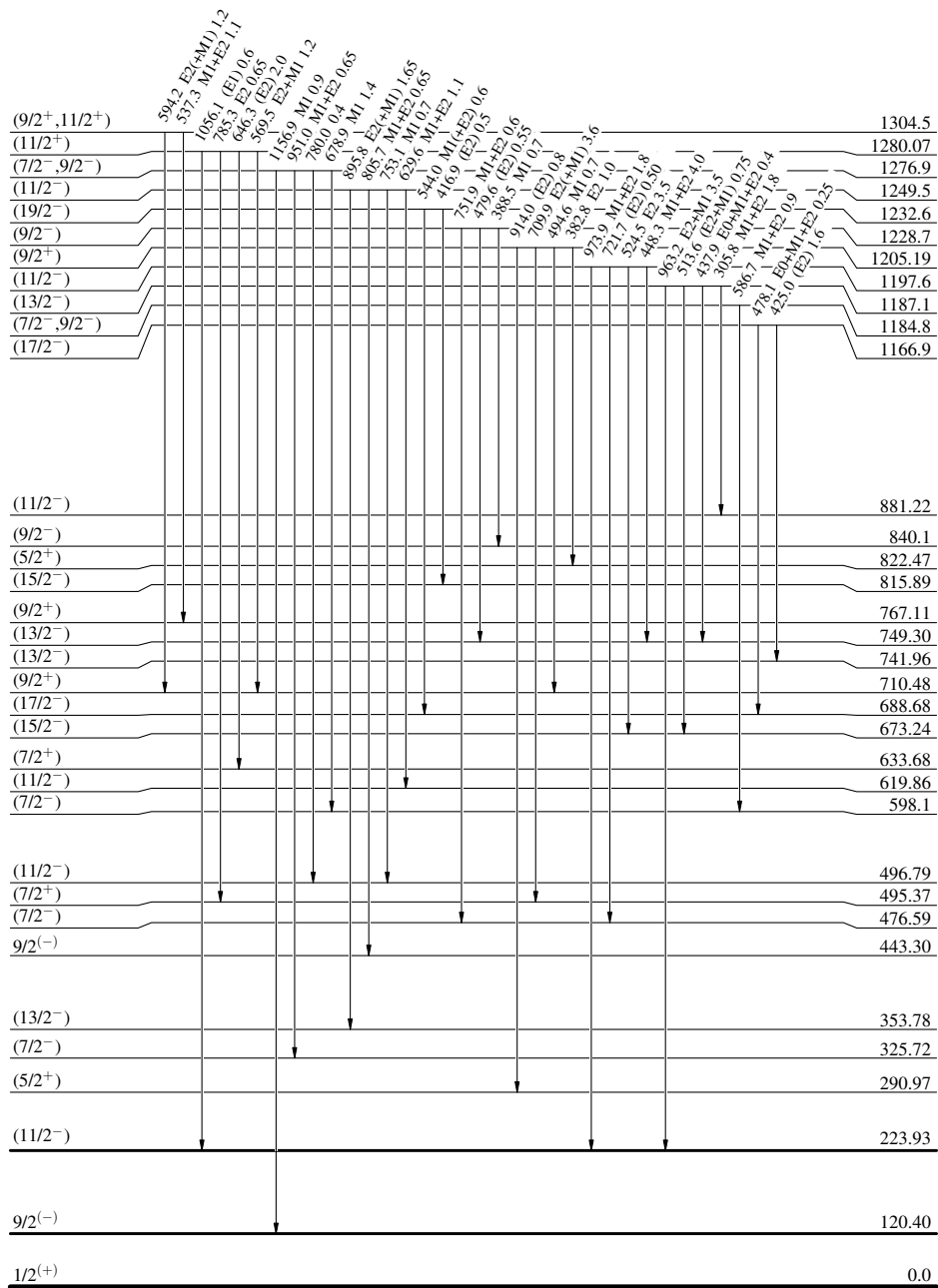
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$13/2^{(+)}$ $0.0+x$ 2.4 min 3
 $Q_\varepsilon=4890.30$
 $^{187}_{80}\text{Hg}_{107}$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

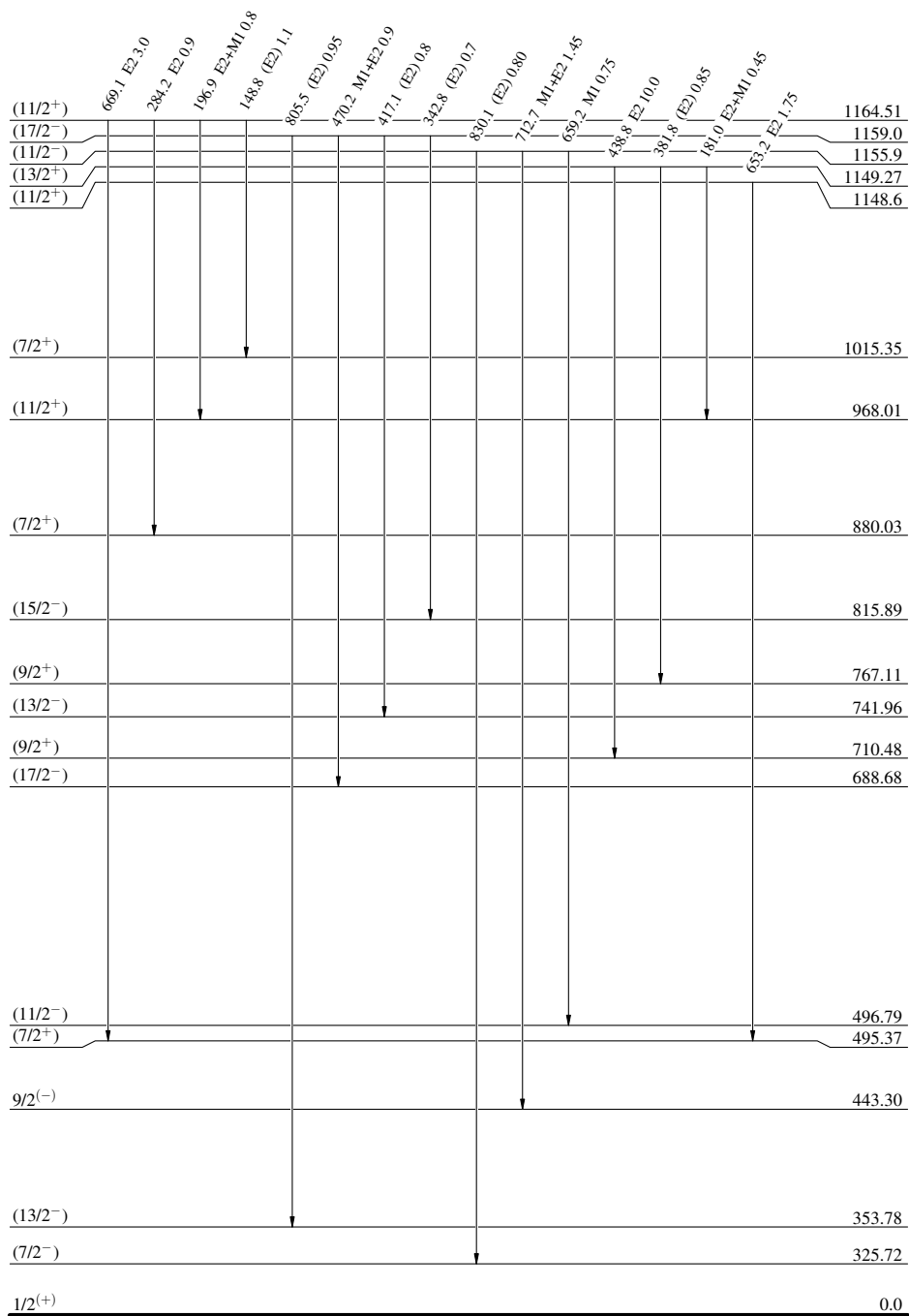
Decay Scheme (continued)

Intensities: Relative I_γ

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$13/2^{(+)}$ 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$
 $\% \varepsilon + \% \beta^+ = 100$

 $^{187}_{79}\text{Au}_{108}$

8.3 min 2

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

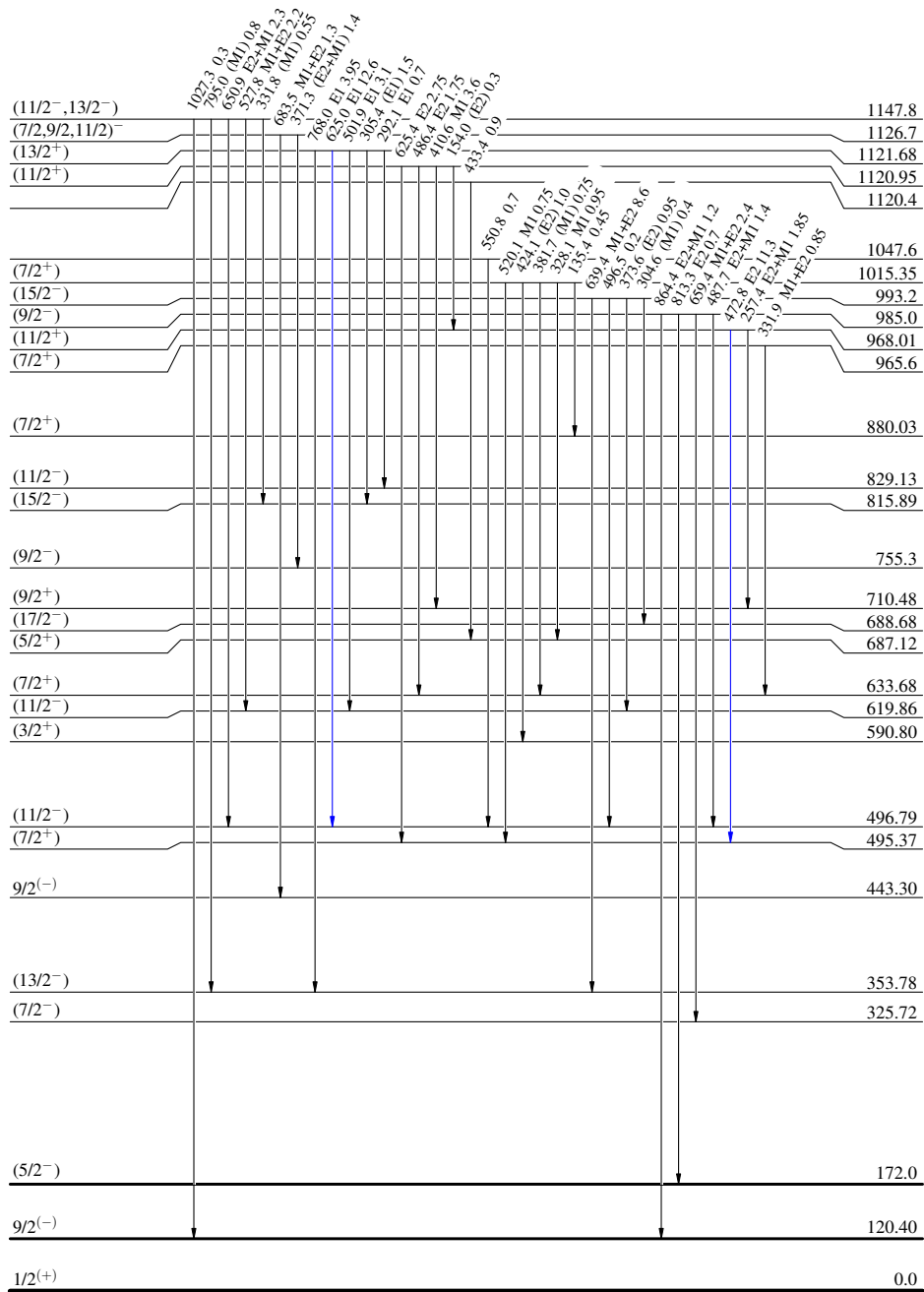
Decay Scheme (continued)

Intensities: Relative I_γ

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

$13/2^{+}$ 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$

1.1 ns I 2.3 s I

8.3 min 2

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

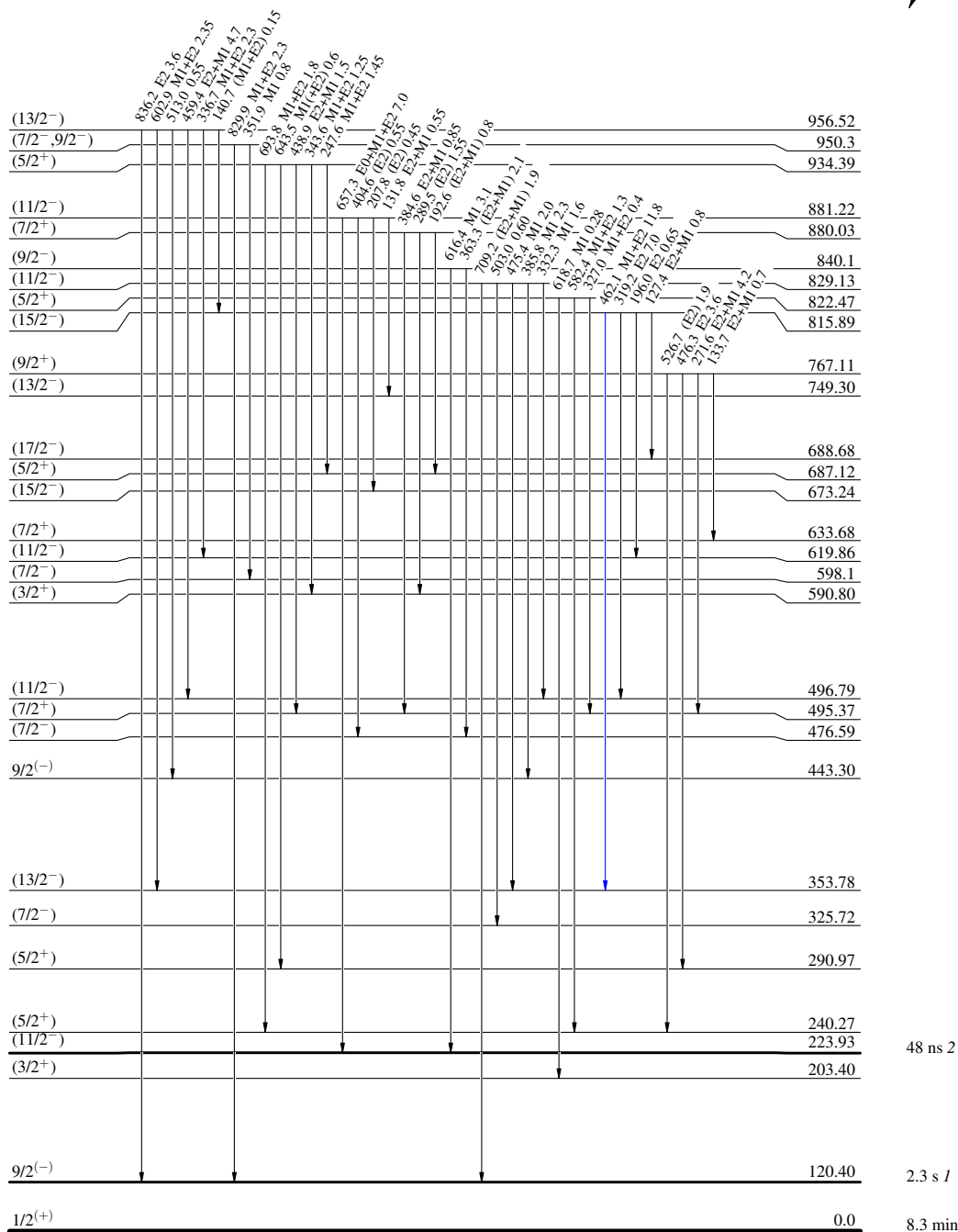
Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$\% \varepsilon + \% \beta^+ = 100$
 $\xrightarrow{13/2^{(+)}} 0.0+x$ 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

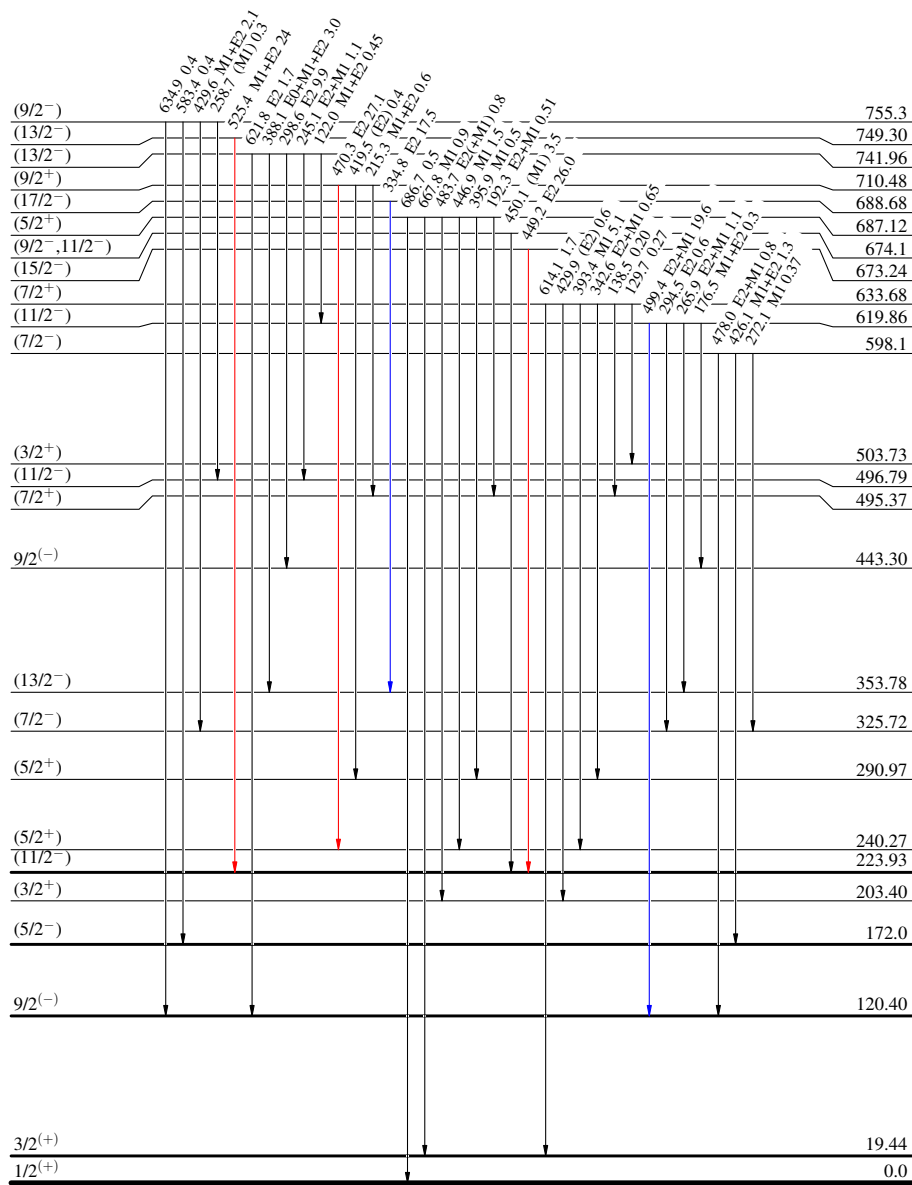
Decay Scheme (continued)

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

Intensities: Relative I_γ

$13/2^{+}$ 0.0+x 2.4 min 3
 $Q_\varepsilon = 4890.30$
 $^{187}_{80}\text{Hg}_{107}$

 $^{187}_{79}\text{Au}_{108}$

^{187}Hg ε decay (2.4 min) 1998Ru04,1994RuZX,1978Bo05

Decay Scheme (continued)

Legend

Intensities: Relative I_γ

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

$^{13/2^{+}}$ $0.0+x$ 2.4 min 3
 $Q_\varepsilon=4890.30$
 $^{187}\text{Hg}_{107}$
 $\% \varepsilon + \% \beta^+ = 100$

