Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 195,368 (2024)	1-Dec-2023

Q(β^-)=−4309 *23*; S(n)=7293 *27*; S(p)=5047 *23*; Q(α)=3670 *30* 2021Wa16

Other study:

2021As08: ^{181}Ta(^{14}N,4n)^{191m,g}Hg, E=65-87 MeV, measured production cross sections, compared with statistical model calculations using PACE4 code.

^{191}Hg Levels

Cross Reference (XREF) Flags

- A ^{191}Tl ε decay (5.22 min)
- B ^{194}Pt(α,7nγ)
- C (HI,xnγ)
- D (HI,xnγ):SD

E(level)†	J$^\pi$#	$T_{1/2}$	XREF	Comments
0.0	3/2$^{(-)}$	49 min *10*	A	%ε+%β^+=100 μ=−0.616 *11*; Q=−0.80 *13* No α decay: <5×10^{-6}% (1963Ka17). RMS charge radius: 5.417 fm *4* (2004An14). Isotope shift: Δ<r^2> =−0.3041 fm^2 *15* (1986Ul02, relative to ^{198}Hg). J$^\pi$: J=3/2, from β-radiation detected optical pumping (1976Bo09). Systematics of g.s. J$^\pi$ in ^{187}Hg, ^{189}Hg, and ^{193}Hg. Parity from systematics and magnetic moment (Schmidt plot). $T_{1/2}$: From 1974Va19 (196.2γ(t), 224.7γ(t) in ^{191}Hg ε decay). μ: From 2019StZV,1986Ul02 − Nuclear Magnetic Resonance/Optical pumping. Q: From 2016St14,1986Ul02/1979Da06 − β radiative detection of optical pumping.
51.59 *20*	(5/2$^-$)@	0.42 ns *4*	A	$T_{1/2}$: From 1985Ab03 in ^{191}Tl ε decay (conversion-electron (ce)-γ and ce-ce delayed coincidence measurements).
103.7 *4*	(1/2$^-$)		A	J$^\pi$: 103γ M1+E2 to 3/2$^{(-)}$.
128[a] *8*	13/2$^{(+)}$	50.8 min *15*	ABC	%ε+%β^+=100 μ=−1.064 *5*; Q=+0.6 *2* Additional information 1. Isotope shift: Δ<r^2> =−0.3037 fm^2 *13* (1986Ul02, relative to ^{198}Hg). No IT decay. α decay limit: <5×10^{-6}% (1963Ka17). E(level): From precision atomic mass measurements in 2001Sc41. Others: 128 keV *22* (2021Ko07 − NUBASE). x≈130 keV was expected from extrapolation of estimates for similar states in ^{193}Hg and ^{195}Hg. Labeled as 0.0+x in the previous evaluation (2007Va21). J$^\pi$: optical quantum-beat spectroscopy (1979Kr11). Systematics of 13/2$^+$ state in neighboring odd-A mercury isotopes. $T_{1/2}$: From 241, 253, 371, 521, 536, 579, and 718γ(t) (1971Be61 − ^{191}Hg ε decay (50.8 m)). Others: 57 m *5* (1954Gi04), 55 m *10* (1955Sm42). μ: From 2019StZV,1979Da06 − Collinear Laser Spectroscopy. Q: From 2016St14,1979Da06 − β-radiative detection of optical pumping.
336.32 *17*	(5/2$^-$)@		A	
343.96‡ *17*	(9/2)$^+$		A	J$^\pi$: 215.9γ E2 to 13/2$^{(+)}$.
375.5 *4*	(3/2$^-$)		A	J$^\pi$: 375.7γ M1 to 3/2$^{(-)}$, γ to (1/2$^-$) and (5/2$^-$).
377.9 *3*	(7/2$^-$)@		A	
393.03‡ *17*	(11/2)$^+$		A	J$^\pi$: 265.0γ M1+E2 to 13/2$^{(+)}$ and 49γ to (9/2)$^+$.

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Adopted Levels, Gammas (continued)

^{191}Hg Levels (continued)

E(level)[†]	Jπ[#]	$T_{1/2}$	XREF	Comments
430.3 *3*	(5/2⁻)		A	Jπ: 430.4γ M1(+E2) to 3/2(⁻). 521.7γ from (9/2⁻).
518.5[‡a] *3*	17/2(+)		ABC	Jπ: 390.4γ (E2) to 13/2(+).
563.5 *4*	(7/2⁻)[@]		A	Jπ: 563.5γ E2 to 3/2(⁻).
632.3 *4*	(9/2⁻)[@]		A	Jπ: 563.5γ E2 to (5/2⁻).
659.1 *4*	(9/2⁻)		A	Jπ: 281γ M1+E2 to (7/2⁻), 607γ (E2) to (5/2⁻).
662.7[‡] *5*			A	
663.26[‡b] *23*	(15/2⁺)		ABC	Jπ: 535.4γ (M1+E2), ΔJ=1, to 13/2(+); band assignment.
691.6 *3*			A	
716.6[‡] *4*	(7/2)⁺		A	Jπ: 372.6γ M1+E2 to (9/2)⁺, 323.6γ to (11/2)⁺.
870.7[‡] *3*	(13/2)⁺		A	Jπ: 742.8γ M1+E2 to 13/2(+).
889.1[‡] *4*	(11/2)⁺		A	Jπ: 545.2 E2(+M1) γ to 9/2(+), γ to 7/2(+) and 13/2(+).
911.4 *5*			A	
952.1 *4*	(9/2⁻)[@]		A	Jπ: 615.8γ (E2) to (5/2⁻).
997.1 *4*	(5/2⁻,7/2⁻,9/2⁻)		A	Jπ: 619.1γ M1+E2 to (7/2⁻).
1016.2 *5*	(11/2⁻)[@]		A	Jπ: γ to (7/2⁻) and (9/2⁻).
1028.0[‡] *4*	(11/2,13/2)⁺		A	Jπ: 900.5γ E2(+M1) to 13/2(+), γ to (9/2)⁺.
1075.6 *8*			A	
1081.1 *8*			A	
1107.2 *5*	(7/2⁻,9/2⁻)		A	Jπ: 474.8γ M1+E2 to (9/2⁻), 1055.4γ to (5/2⁻).
1146.5 *5*			A	
1147.4[a] *4*	21/2(+)		BC	Jπ: 628.7γ Q to 17/2(+).
1178.3 *9*			A	
1193.1 *5*			A	
1212.4 *8*	(5/2⁻,7/2⁻,9/2⁻)		A	Jπ: 834.5γ M1+E2 to (7/2⁻).
1215.7?[‡] *10*			A	
1233.7[‡] *7*			A	
1258.8[‡] *6*			A	
1261.3[‡] *5*	11/2⁺,9/2⁺		A	Jπ: 917.3γ M1+E2 to 9/2(+), γ to 13/2(+).
1299.8[b] *3*	(19/2⁺)		BC	Jπ: 636.6γ Q to (15/2⁺).
1317.6 *9*	(5/2⁻,7/2⁻,9/2⁻)		A	Jπ: 754.1γ M1+E2 to (7/2⁻).
1319.6 *11*	[@]		A	
1335.6[‡] *11*			A	
1446.5[‡] *8*			A	
1562.2[‡] *10*			A	
1766.0[h] *4*	(21/2⁻)		BC	Jπ: 466.3γ D to (19/2⁺) in combination with 166.6γ E2 from (25/2⁻).
1816.4[‡] *11*			A	
1843.9 *11*			A	
1897.5[a] *4*	25/2(+)		BC	Jπ: 750.2γ Q to 21/2(+).
1932.6[h] *4*	(25/2⁻)	0.72 ns *7*	BC	Jπ: 166.6γ E2 to (21/2⁻). $T_{1/2}$: From ce(L2)(167γ), ce(K)(535γ), and ce(K)(781γ)(t) measurements (1978Me11 − (α,7nγ)).
1989.9[f] *4*	(23/2⁻)		C	Jπ: 224.0γ D to (21/2⁻) and 842.5γ D to 21/2(+).
2192.9[f] *4*	(27/2⁻)		C	Jπ: 203.0γ Q to (23/2⁻), 260.2γ D to (25/2⁻), 295.4γ D to 25/2(+).
2251.6[h] *5*	(29/2⁻)		BC	Jπ: 319.0γ Q to (25/2⁻).
2412.4 *21*			A	
2414.4[‡] *11*			A	
2423.3 *11*			A	
2427.5[‡a] *20*			A	
2430.9[‡] *11*			A	

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Adopted Levels, Gammas (continued)

^{191}Hg Levels (continued)

E(level)[†]	J$^{\pi}$[#]	$T_{1/2}$	XREF	Comments
2435.5[‡] *12*			A	
2438.4[‡] *11*			A	
2440.2 *9*			A	
2441.5 *11*			A	
2443.0 *15*			A	
2443.1[‡] *11*			A	
2457.0[‡] *8*			A	
2459.7 *10*			A	
2463.4[‡] *11*			A	
2468.2[‡] *14*			A	
2475.2 *21*			A	
2476.3 *11*			A	
2477.0 *11*			A	
2479.9[‡] *11*			A	
2483.1 *11*			A	
2484.4[‡] *10*			A	
2486.8[‡] *8*			A	
2489.6[‡] *8*			A	
2534.0[‡] *20*			A	
2536.9[‡] *15*			A	
2543.1 *15*			A	
2559.7[‡][c] *5*	29/2$^{(+)}$		BC	J$^{\pi}$: 662.1γ Q to 25/2$^{(+)}$.
2673.1[‡][f] *5*	(31/2^{-})		C	J$^{\pi}$: 480.2γ Q to (27/2^{-}).
2717.0[‡][a] *5*	29/2$^{(+)}$		C	J$^{\pi}$: 819.5γ Q to 25/2$^{(+)}$.
2722.9[‡] *5*	(29/2^{-})		C	J$^{\pi}$: 790.3γ to (25/2^{-}).
2726.6[‡][c] *5*	33/2$^{(+)}$	0.92 ns *6*	BC	J$^{\pi}$: 166.9γ to 29/2$^{(+)}$. $T_{1/2}$: From ce(K)(662γ)(t) measurements (1978Me11 − (α,7nγ)).
2771.3[‡][k] *6*	(33/2^{-})		C	J$^{\pi}$: 519.7γ Q to (29/2^{-}).
2818.5[‡][h] *5*	(33/2^{-})		BCD	E(level): This level was proposed to be populated from 6128 keV level in (HI,xnγ):SD. J$^{\pi}$: 566.8γ Q to (29/2^{-}).
3063.5[‡][d] *5*	(29/2^{+})		C	J$^{\pi}$: 1166.0γ to 25/2$^{(+)}$. Band member or sequence.
3206.6[‡][c] *5*	37/2$^{(+)}$		BC	J$^{\pi}$: 479.9γ Q to 33/2$^{(+)}$.
3245.6[‡] *6*	33/2$^{(+)}$		C	J$^{\pi}$: 528.6γ Q to 29/2$^{(+)}$.
3295.1[‡][d] *5*	33/2$^{(+)}$		C	J$^{\pi}$: 578.2γ Q to 29/2$^{(+)}$.
3350.3[‡][f] *5*	(35/2^{-})		B D	E(level): This level was proposed to be populated from 6128 keV level in (HI,xnγ):SD. J$^{\pi}$: 677.2γ Q to (31/2^{-}).
3380.9[‡] *5*	(33/2^{-})		C	J$^{\pi}$: γ to (29/2^{-}).
3557.0[‡][h] *5*	(37/2^{-})		BC	J$^{\pi}$: 738.6γ Q to (33/2^{-}).
3615.8[‡][d] *5*	37/2$^{(+)}$		C	J$^{\pi}$: 320.7γ Q to 33/2$^{(+)}$.
3646.4[‡][k] *7*	(37/2^{-})		C	J$^{\pi}$: 875.1γ Q to (33/2^{-}).
3856.2[‡] *5*	(35/2)		C	J$^{\pi}$: 1037.7γ to (33/2^{-}).
3920.8[‡][c] *6*	41/2$^{(+)}$		C	
4074.9[‡] *5*	(37/2^{-})		C	J$^{\pi}$: 1256.4γ (Q) to (33/2^{-}).
4085.3[‡][g] *5*	(39/2^{-})		C	J$^{\pi}$: 735.0γ Q to (35/2^{+}).
4097.1[‡][f] *6*	(39/2^{-})		C	J$^{\pi}$: 746.8γ (Q) to (35/2^{-}).
4116.7[‡][d] *6*	41/2$^{(+)}$		C	J$^{\pi}$: 500.9γ Q to 37/2$^{(+)}$.

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Adopted Levels, Gammas (continued)

^{191}Hg Levels (continued)

E(level)[†]	Jπ[#]	XREF	Comments
4269.0[‡j] 6	(41/2⁻)	C	Jπ: 712.0γ Q to (37/2⁻).
4345.8[‡i] 6	(41/2⁻)	C	Jπ: 788.8γ Q to (37/2⁻).
4403.6[‡k] 8	(41/2⁻)	C	Jπ: 757.2γ Q to (37/2⁻).
4485.5[‡g] 6	(43/2⁻)	C	Jπ: 400.2γ Q to (39/2⁻).
4510.7[‡] 6	(41/2⁻)	C	Jπ: 953.7γ Q to (37/2⁻).
4620.1[‡e] 6	(41/2⁺)	C	Jπ: 1413.5γ Q to 37/2$^{(+)}$.
4657.9[‡] 6	(39/2)	C	Jπ: 1100.9γ D to (37/2⁻).
4715.2[‡] 5	(41/2⁻)	C	Jπ: Q γ rays to (37/2⁻).
4760.4[‡c] 6	45/2$^{(+)}$	C	Jπ: 839.6γ Q to 41/2$^{(+)}$.
4781.8[‡] 6	(43/2⁻)	C	Jπ: 271.1γ D to (41/2⁻).
4795.5[‡d] 6	45/2$^{(+)}$	C	Jπ: 678.8γ Q to 41/2$^{(+)}$.
4979.0[‡e] 6	(45/2⁺)	C	Jπ: Q γ-ray transitions to (41/2⁺) and 41/2$^{(+)}$.
4984.0[‡] 6	(43/2⁻)	C	Jπ: 268.7γ M1 to (41/2⁻).
5023.0[‡] 6	(45/2⁻)	C	Jπ: 512.3γ Q to (41/2⁻), 241.2γ D to (43/2⁻).
5031.6[‡] 6	(45/2)	C	Jπ: 520.9γ to (41/2⁻), 249.8γ D to (43/2⁻).
5085.8[‡i] 12		C	
5134.6[‡g] 7	(47/2⁻)	C	Jπ: 649.1γ Q to (43/2⁻).
5155.9[‡j] 7	(45/2⁻)	C	Jπ: 886.9γ Q to (41/2⁻).
5199.6[‡k] 8	(45/2⁻)	C	Jπ: 796.0γ Q to (41/2⁻).
5256.3[‡] 7	(47/2)	C	Jπ: 233.3γ D to (45/2⁻).
5270.6[‡] 6	(45/2⁻)	C	Jπ: 555.4γ Q to (41/2⁻), 286.6γ D to (43/2⁻).
5424.2[‡] 6	(47/2⁻)	C	Jπ: 440.2γ Q to (43/2⁻).
5555.4[‡d] 7	(49/2⁺)	C	Jπ: 759.9γ Q to 45/2$^{(+)}$.
5634.7[‡] 6	(47/2⁻)	C	Jπ: 650.7γ Q to (43/2⁻).
5662.1[‡e] 6	(49/2⁺)	C	Jπ: 683.1γ Q to (45/2⁺).
5681.5[‡c] 7	49/2$^{(+)}$	C	Jπ: 921.1γ Q to 45/2$^{(+)}$.
5781.9[‡] 6	(49/2⁻)	C	Jπ: 147.2γ (M1) to (47/2⁻).
5817[‡l] 8	J≈(31/2)[&]	D	Additional information 2. Jπ: 31/2 from linking transitions reported in 2004Si19,1998ReZV,1999SiZZ.
5923.8[‡g] 8	(51/2⁻)	C	Jπ: 789.2γ Q to (47/2⁻).
5930.9[‡i] 12		C	
6127.9[‡l] 7	J+2	D	
6153.5[‡j] 7		C	
6213.4[‡] 6	(51/2⁻)	C	Jπ: 578.7γ Q to (47/2⁻), 431.5γ D to (49/2⁻).
6358.9[‡d] 8	(53/2⁺)	C	Jπ: 803.5γ Q to (49/2⁺).
6461.8[‡e] 7	(53/2⁺)	C	Jπ: 799.7γ Q to (49/2⁺).
6479.4[‡l] 7	J+4	D	
6587.7[‡] 7	(53/2)	C	Jπ: 512.3γ Q to (49/2⁻).
6648.8[‡c] 8	53/2$^{(+)}$	C	Jπ: 967.3γ Q to 49/2$^{(+)}$.
6806.3[‡g] 8	(55/2⁻)	C	Jπ: 882.5γ Q to (51/2⁻).
6871.0[‡l] 9	J+6	D	
7064.6[‡] 7	(55/2⁻)	C	Jπ: 851.2γ Q to (51/2⁻).
7205.5[‡d] 8	(57/2⁺)	C	Jπ: 846.6γ Q to (53/2⁺).
7302.3[‡l] 9	J+8	D	
7355.1[‡] 7	(57/2⁻)	C	Jπ: 290.5γ (M1) to (55/2⁻).
7655.9[‡] 8	(59/2)	C	Jπ: 300.8γ D to (57/2⁻).
7772.4[‡l] 9	J+10	D	

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Adopted Levels, Gammas (continued)

^{191}Hg Levels (continued)

E(level)[†]	Jπ[#]	XREF	Comments
7798.8[‡g] *9*		C	
7818.0[‡] *8*	(59/2)	C	Jπ: 462.9γ D to (57/2⁻).
7825.1[‡] *9*		C	
8115.5[‡] *8*	(61/2)	C	Jπ: 459.6γ D to (59/2).
8280.8[‡l] *9*	J+12	D	
8479.9[‡] *8*	(63/2)	C	Jπ: 824.0γ Q to (59/2).
8797.0[‡] *8*		C	
8826.7[‡l] *9*	J+14	D	
9409.1[‡l] *9*	J+16	D	
10027.6[‡l] *9*	J+18	D	
10681.3[‡l] *9*	J+20	D	
11369.6[‡l] *10*	J+22	D	
12091.8[‡l] *10*	J+24	D	
12847.4[‡l] *11*	J+26	D	
13636.2[‡l] *12*	J+28	D	
z[m]	J1≈(21/2)[&]	D	Additional information 3. Q(intrinsic)≈18 (1990Ca18).
252.4+z[m] *7*	J1+2	D	
545.1+z[m] *7*	J1+4	D	
878.2+z[m] *8*	J1+6	D	
1250.9+z[m] *8*	J1+8	D	
1662.7+z[m] *8*	J1+10	D	
2113.0+z[m] *8*	J1+12	D	
2601.1+z[m] *8*	J1+14	D	
3126.3+z[m] *8*	J1+16	D	
3687.9+z[m] *9*	J1+18	D	
4285.1+z[m] *9*	J1+20	D	
4917.2+z[m] *9*	J1+22	D	
5583.4+z[m] *10*	J1+24	D	
6283.3+z[m] *10*	J1+26	D	
7016.0+z[m] *11*	J1+28	D	
7781.2+z[m] *11*	J1+30	D	
8577.7+z[m] *13*	J1+32	D	
u[n]	J2≈(23/2)[&]	D	Additional information 4.
272.0+u[n] *10*	J2+2	D	
585.1+u[n] *11*	J2+4	D	
937.6+u[n] *11*	J2+6	D	
1329.1+u[n] *11*	J2+8	D	
1758.8+u[n] *11*	J2+10	D	
2225.9+u[n] *12*	J2+12	D	
2729.8+u[n] *12*	J2+14	D	
3269.5+u[n] *12*	J2+16	D	
3844.5+u[n] *12*	J2+18	D	
4454.0+u[n] *12*	J2+20	D	
5096.7+u[n] *12*	J2+22	D	
5772.8+u[n] *13*	J2+24	D	
6481.3+u[n] *13*	J2+26	D	
7221.3+u[n] *13*	J2+28	D	

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Adopted Levels, Gammas (continued)

^{191}Hg Levels (continued)

E(level)[†]	Jπ[#]	XREF	Comments
7992.6+u[n] *14*	J2+30	D	
8793.2+u[n] *17*	J2+32	D	
v[o]	J3≈(25/2)[&]	D	Additional information 5.
280.9+v[o] *6*	J3+2	D	
604.5+v[o] *7*	J3+4	D	
971.6+v[o] *7*	J3+6	D	
1381.9+v[o] *8*	J3+8	D	
1834.5+v[o] *9*	J3+10	D	
2328.6+v[o] *9*	J3+12	D	
2864.0+v[o] *9*	J3+14	D	
3439.0+v[o] *10*	J3+16	D	
4053.3+v[o] *11*	J3+18	D	
4704.1+v[o] *13*	J3+20	D	
5391.7+v[o] *15*	J3+22	D	
6114.9+v[o] *17*	J3+24	D	
6870.9+v[o] *21*	J3+26	D	
7659.9+v[o] *25*	J3+28	D	

[†] From least-squares fit to adopted γ-ray energies. Doubtful levels from ^{191}Tl ε decay (e.g., levels based only on doubtful coincidences of γ rays with uncertain placement in the level scheme (1988WoZZ)) are not included in this list.
[‡] Level energy based on the isomeric state at 128 keV *8* For total uncertainty, propagate 8 keV in quadrature.
[#] Spin and parity assignments are based on band structure, γ-ray multipolarities, and decay pattern. Most of the bands from (HI,xnγ) have been interpreted in terms of the cranking shell model assuming oblate nuclear deformation (1992Ye01). Bands are labeled by parity and signature (π,α). Specific arguments are given with some of the individual levels.
[@] J^π assignment is based on depopulating γ-ray multipolarity, and the energy systematics of levels with known J^π in odd-A Hg isotopes (1979WoZU, 1976GoZP).
[&] From least-squares fit to rotational-model formula (1990Be37,1992Wu01).
[a] Band(A): Band 1 (π,α)=(+,+1/2) Conf: $i_{13/2}$.
[b] Band(B): Band 2 (π,α)=(+,−1/2).
[c] Band(C): Band 3 (π,α)=(+,+1/2) Aligned band.
[d] Band(D): Band 4 (π,α)=(+,+1/2).
[e] Band(E): Band 5 (π,α)=(+,+1/2).
[f] Band(F): Band 6 (π,α)=(-,−1/2).
[g] Band(G): Band 7 (π,α)=(-,−1/2).
[h] Band(H): Band 8 (π,α)=(−,+1/2).
[i] Band(I): Band 9 (π,α)=(−,+1/2).
[j] Band(J): Band 10 (π,α)=(−,+1/2).
[k] Band(K): Terminating band.
[l] Band(L): SD-1 band (1995So17,1995Ca15,1989Mo08). Q(intrinsic)=18 *3*; β_2=0.55 (1990Ca18), 17.5 *8* (1998ReZV). Favored j15/2 intruder orbitals (α=−1/2). Percent population=2.0 *3* (1995So17), 1.2 *6* (1995So17 in (^{64}Ni,3nγ)), 2 (1989Mo08). 2004Si19, 1999SiZZ (also 1998SiZZ,1998ReZV) propose the lowest SD member at 5689 from the observation of two linking transitions of 2778 and 3310 keV, from the second member of this band to ND levels at 3222+x (3350) and 2690.6+x (2819), respectively.
[m] Band(M): SD-2 band Q(intrinsic)≈18 (1990Ca18), 17.5 *8* (1998ReZV). Unfavored signature of 3/2[642] or favored signature of 1/2[640] (1995Ca15). Percent population=0.8 *4* (^{64}Ni,3nγ) (1995So17), 0.8 *1* (^{36}S,5nγ) (1995So17), 1 (1990Ca18).
[n] Band(N): SD-3 band (1995So17,1995Ca15,1990Ca18). Favored signature of 3/2[642] Percent population=0.8 *4* (^{64}Ni,3nγ) (1995So17), 0.8 *3* (^{36}S,5nγ) (1995So17), 1 (1990Ca18).
[o] Band(O): SD-4 band Unfavored j15/2 intruder orbitals. Percent population=0.2 (1995Ca15).

Adopted Levels, Gammas (continued)

γ(^{191}Hg)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	δ[a]	α[d]	Comments
51.59	(5/2⁻)	51.6[‡] *3*	100[‡]	0.0	3/2(⁻)	M1+E2	0.65	41.6 *13*	B(M1)(W.u.)=0.0063 *+11−9*; B(E2)(W.u.)=3.9×10^2 *12* α(L)=31.3 *9*; α(M)=8.01 *24* α(N)=1.99 *6*; α(O)=0.335 *10*; α(P)=0.00483 *11*
103.7	(1/2⁻)	103.5[‡] *4*	100[‡]	0.0	3/2(⁻)	M1+E2	0.50 *2*	6.68 *13*	α(K)=4.81 *11*; α(L)=1.43 *4*; α(M)=0.350 *10* α(N)=0.0873 *26*; α(O)=0.0156 *4*; α(P)=0.000695 *16*
336.32	(5/2⁻)	284.7[‡] *3*	10.0[‡] *10*	51.59	(5/2⁻)	M1		0.416 *6*	α(K)=0.342 *5*; α(L)=0.0571 *8*; α(M)=0.01328 *19* α(N)=0.00333 *5*; α(O)=0.000630 *9*; α(P)=4.83×10^{-5} *7*
		336.3[‡] *2*	100[‡] *6*	0.0	3/2(⁻)	M1+E2	1.50 *26*	0.134 *16*	α(K)=0.100 *15*; α(L)=0.0259 *13*; α(M)=0.00632 *28* α(N)=0.00158 *7*; α(O)=0.000284 *15*; α(P)=1.37×10^{-5} *21*
343.96	(9/2)⁺	215.95[‡] *20*	100[‡]	128	13/2(⁺)	E2		0.301 *4*	α(K)=0.1407 *20*; α(L)=0.1204 *17*; α(M)=0.0310 *5* α(N)=0.00771 *11*; α(O)=0.001307 *19*; α(P)=1.763×10^{-5} *25*
375.5	(3/2⁻)	271.4[‡] *5*	4.4[‡] *21*	103.7	(1/2⁻)				
		324.1[‡] *10*	≈12[‡]	51.59	(5/2⁻)				
		375.7[‡] *4*	100[‡] *18*	0.0	3/2(⁻)	M1		0.1962 *28*	α(K)=0.1613 *23*; α(L)=0.0268 *4*; α(M)=0.00622 *9* α(N)=0.001560 *22*; α(O)=0.000295 *4*; α(P)=2.268×10^{-5} *32*
377.9	(7/2⁻)	41.7[‡]	≈6.5[‡]	336.32	(5/2⁻)				
		326.3[‡] *3*	100[‡] *5*	51.59	(5/2⁻)	M1+E2	0.93 *22*	0.193 *26*	α(K)=0.150 *24*; α(L)=0.0321 *20*; α(M)=0.0077 *4* α(N)=0.00192 *11*; α(O)=0.000353 *23*; α(P)=2.09×10^{-5} *34*
		378.0[‡] *10*	≈13[‡]	0.0	3/2(⁻)				
393.03	(11/2)⁺	49.0[‡] *4*	≈26[‡]	343.96	(9/2)⁺	(E2)		150 *6*	α(L)=113 *5*; α(M)=29.3 *13* α(N)=7.25 *31*; α(O)=1.19 *5*; α(P)=0.00136 *5* Mult.: Conflicting assignments: Dominant E2 from α(L)exp=109 and α(M)exp=33.3 (^{191}Tl ε decay (5.22 min) 1976GoZE – Table 4-4), while dominant M1 from δ=0.04 from %E2=0.2 in 1987BoZT based on ce measurements, data were not listed.
		265.0[‡] *2*	100[‡] *5*	128	13/2(⁺)	M1+E2	1.8 *3*	0.238 *25*	α(K)=0.163 *24*; α(L)=0.0567 *15*; α(M)=0.01410 *28* α(N)=0.00351 *7*; α(O)=0.000619 *17*; α(P)=2.22×10^{-5} *35*
430.3	(5/2⁻)	378.8[‡] *10*	100[‡]	51.59	(5/2⁻)				
		430.4[‡] *4*	29[‡] *4*	0.0	3/2(⁻)	M1(+E2)	0.8 *10*	0.10 *4*	α(K)=0.079 *33*; α(L)=0.015 *4*; α(M)=0.0035 *8* α(N)=0.00088 *20*; α(O)=1.6×10^{-4} *4*; α(P)=1.1×10^{-5} *5*
518.5	17/2(⁺)	390.4 *3*	100	128	13/2(⁺)	(E2)		0.0506 *7*	α(K)=0.0339 *5*; α(L)=0.01264 *18*; α(M)=0.00316 *5* α(N)=0.000787 *11*; α(O)=0.0001380 *20*; α(P)=4.45×10^{-6} *6* E_γ: Weighted average of 390.5 *3* (HI,xnγ), 390.3 *3* (α,7nγ), and 390.3 *7* ^{191}Tl ec decay (5.22 m).
563.5	(7/2⁻)	227.1[‡] *5*	5.1[‡] *24*	336.32	(5/2⁻)				

$^{191}_{80}Hg_{111}$-7

Adopted Levels, Gammas (continued)

γ(^{191}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	δ[a]	α[d]	Comments
563.5	(7/2⁻)	563.5[‡] *5*	100[‡] *4*	0.0	3/2(⁻)	E2		0.02030 *29*	α(K)=0.01509 *21*; α(L)=0.00395 *6*; α(M)=0.000964 *14* α(N)=0.0002406 *34*; α(O)=4.32×10^{-5} *6*; α(P)=2.003×10^{-6} *28*
632.3	(9/2⁻)	254.3[‡] *7*	≈7[‡]	377.9	(7/2⁻)				
		580.7[‡] *4*	100[‡] *4*	51.59	(5/2⁻)	E2		0.01894 *27*	α(K)=0.01417 *20*; α(L)=0.00363 *5*; α(M)=0.000882 *12* α(N)=0.0002201 *31*; α(O)=3.96×10^{-5} *6*; α(P)=1.881×10^{-6} *26*
659.1	(9/2⁻)	281.2[‡] *4*	77[‡] *8*	377.9	(7/2⁻)	M1+E2	0.7 *4*	0.33 *7*	α(K)=0.26 *7*; α(L)=0.053 *4*; α(M)=0.0127 *8* α(N)=0.00318 *20*; α(O)=0.00059 *5*; α(P)=3.67×10^{-5} *99*
		322.8[‡] *10*	≈27[‡]	336.32	(5/2⁻)				
		607.4[‡] *5*	100[‡] *10*	51.59	(5/2⁻)	(E2)		0.01710 *24*	α(K)=0.01291 *18*; α(L)=0.00319 *5*; α(M)=0.000774 *11* α(N)=0.0001932 *27*; α(O)=3.49×10^{-5} *5*; α(P)=1.713×10^{-6} *24*
662.7		318.7[‡] *4*	100[‡]	343.96	(9/2)⁺				
663.26	(15/2⁺)	535.4 *3*	100	128	13/2(+)	(M1+E2)[b]	0.14 *4*	0.0756 *12*	α(K)=0.0622 *10*; α(L)=0.01025 *16*; α(M)=0.00238 *4* α(N)=0.000597 *9*; α(O)=0.0001130 *18*; α(P)=8.68×10^{-6} *15* E_γ: Weighted average of 535.5 *3* (HI,xnγ), 535.3 *3* (α,7nγ), and 535.2 *10* ^{191}Tl ec decay (5.22 m). δ: from γ(θ) (1975Li16) in ^{194}Pt(α,nγ) dataset.
691.6		261.5[‡] *4*	10.1[‡] *25*	430.3	(5/2⁻)				
		354.8[‡] *5*	7[‡] *3*	336.32	(5/2⁻)				
		640.2[‡] *5*	100[‡] *10*	51.59	(5/2⁻)				
		692.3[‡][f] *7*	31[‡] *8*	0.0	3/2(⁻)				
716.6	(7/2)⁺	323.6[‡] *10*	≈13[‡]	393.03	(11/2)⁺				
		372.6[‡] *4*	100[‡] *10*	343.96	(9/2)⁺	M1+E2	1.4 *3*	0.106 *16*	α(K)=0.081 *15*; α(L)=0.0191 *15*; α(M)=0.00461 *31* α(N)=0.00115 *8*; α(O)=0.000209 *16*; α(P)=1.11×10^{-5} *21*
870.7	(13/2)⁺	207.5[‡] *4*	10[‡] *4*	663.26	(15/2⁺)				
		477.6[‡] *4*	90[‡] *10*	393.03	(11/2)⁺				
		526.6[‡] *8*	11[‡] *3*	343.96	(9/2)⁺				
		742.8[‡] *6*	100[‡] *10*	128	13/2(+)	M1+E2	3.5 *8*	0.0127 *10*	α(K)=0.0100 *8*; α(L)=0.00205 *12*; α(M)=0.000488 *27* α(N)=0.000122 *7*; α(O)=2.24×10^{-5} *13*; α(P)=1.33×10^{-6} *12*
889.1	(11/2)⁺	172.3[‡] *5*	12[‡] *6*	716.6	(7/2)⁺				
		496.1[‡] *5*	100[‡] *11*	393.03	(11/2)⁺	M1(+E2)	0.9 *10*	0.064 *30*	α(K)=0.051 *26*; α(L)=0.0096 *31*; α(M)=0.0023 *7* α(N)=5.7×10^{-4} *17*; α(O)=1.06×10^{-4} *34*; α(P)=7.E−6 *4*
		545.2[‡] *9*	≈40[‡]	343.96	(9/2)⁺	E2(+M1)	≈3.2	≈0.0265	α(K)≈0.02010; α(L)≈0.00485; α(M)≈0.001173 α(N)≈0.000293; α(O)≈5.31×10^{-5}; α(P)≈2.70×10^{-6}

$^{191}_{80}Hg_{111}$-8

Adopted Levels, Gammas (continued)

γ(^{191}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	δ[a]	α[d]	Comments
889.1	(11/2)$^+$	761.1[‡] *7*	52[‡] *11*	128	13/2$^{(+)}$				
911.4		480.5[‡f] *6*	52[‡] *20*	430.3	(5/2$^-$)				
		533.5[‡] *6*	50[‡] *12*	377.9	(7/2$^-$)				
		535.5[‡] *10*	≈100[‡]	375.5	(3/2$^-$)				
		575.7[‡] *10*	40[‡] *12*	336.32	(5/2$^-$)				
952.1	(9/2$^-$)	521.7[‡] *10*	≈29[‡]	430.3	(5/2$^-$)				
		615.8[‡] *4*	100[‡] *12*	336.32	(5/2$^-$)	(E2)		0.01659 *23*	α(K)=0.01255 *18*; α(L)=0.00307 *4*; α(M)=0.000744 *11* α(N)=0.0001858 *26*; α(O)=3.36×10^{-5} *5*; α(P)=1.665×10^{-6} *23*
997.1	(5/2$^-$,7/2$^-$,9/2$^-$)	566.8[‡] *6*	82[‡] *15*	430.3	(5/2$^-$)				
		619.1[‡] *5*	100[‡] *12*	377.9	(7/2$^-$)	M1(+E2)	0.8 *8*	0.038 *14*	α(K)=0.031 *12*; α(L)=0.0055 *16*; α(M)=0.00128 *35* α(N)=3.2×10^{-4} *9*; α(O)=6.0×10^{-5} *17*; α(P)=4.3×10^{-6} *17*
		660.9[‡] *5*	92[‡] *10*	336.32	(5/2$^-$)				
1016.2	(11/2$^-$)	383.9[‡] *5*	14[‡] *4*	632.3	(9/2$^-$)				
		638.4[‡] *5*	100[‡] *20*	377.9	(7/2$^-$)				
1028.0	(11/2,13/2)$^+$	634.8[‡] *5*	37[‡] *12*	393.03	(11/2)$^+$				
		684.3[‡] *7*	100[‡] *10*	343.96	(9/2)$^+$				
		900.5[‡] *11*	71[‡] *10*	128	13/2$^{(+)}$	E2(+M1)	3.0 *16*	0.0087 *30*	α(K)=0.0070 *25*; α(L)=0.0013 *4*; α(M)=3.1×10^{-4} *8* α(N)=7.7×10^{-5} *20*; α(O)=1.4×10^{-5} *4*; α(P)=9.E−7 *4*
1075.6		739.3[‡] *7*	100[‡]	336.32	(5/2$^-$)				
1081.1		744.8[‡] *7*	100[‡] *17*	336.32	(5/2$^-$)				
		1080.9[‡f] *8*	70[‡] *13*	0.0	3/2$^{(-)}$				
1107.2	(7/2$^-$,9/2$^-$)	474.8[‡] *6*	19[‡] *10*	632.3	(9/2$^-$)	M1+E2	1.1 *9*	0.06 *4*	α(K)=0.051 *33*; α(L)=0.010 *4*; α(M)=0.0024 *9* α(N)=6.0×10^{-4} *21*; α(O)=1.1×10^{-4} *4*; α(P)=7.E−6 *5*
		729.5[‡] *6*	100[‡] *11*	377.9	(7/2$^-$)				
		1055.4[‡] *8*	61[‡] *7*	51.59	(5/2$^-$)				
1146.5		514.2[‡] *6*	100[‡] *18*	632.3	(9/2$^-$)				
		583.0[‡] *6*	≈77[‡]	563.5	(7/2$^-$)				
1147.4	21/2$^{(+)}$	628.7 *3*	100	518.5	17/2$^{(+)}$	Q[b]			
1178.3		1126.7[‡] *8*	100[‡]	51.59	(5/2$^-$)				

$^{191}_{80}Hg_{111}$-9

Adopted Levels, Gammas (continued)

γ(^{191}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	δ[a]	α[d]	Comments
1193.1		501.3[‡] *6*	56[‡] *10*	691.6		M1(+E2)	0.3 *6*	0.086 *23*	α(K)=0.070 *20*; α(L)=0.0118 *25*; α(M)=0.0027 *5* α(N)=0.00069 *14*; α(O)=0.000130 *27*; α(P)=9.8×10^{-6} *29*
		815.4[‡] *6*	100[‡] *21*	377.9	(7/2$^-$)				
1212.4	(5/2$^-$,7/2$^-$,9/2$^-$)	834.5[‡] *7*	100[‡]	377.9	(7/2$^-$)	M1+E2	2.3 *10*	0.0111 *33*	α(K)=0.0089 *28*; α(L)=0.0017 *4*; α(M)=0.00040 *9* α(N)=9.9×10^{-5} *22*; α(O)=1.8×10^{-5} *4*; α(P)=1.2×10^{-6} *4*
1215.7?		871.8[‡][f] *9*	100[‡]	343.96	(9/2)$^+$				
1233.7		517.1[‡] *6*	100[‡]	716.6	(7/2)$^+$				
1258.8		865.6[‡] *9*	37[‡] *17*	393.03	(11/2)$^+$				
		914.9[‡] *7*	100[‡] *17*	343.96	(9/2)$^+$				
1261.3	11/2$^+$,9/2$^+$	868.1[‡] *9*	32[‡] *16*	393.03	(11/2)$^+$				
		917.3[‡] *7*	100[‡] *16*	343.96	(9/2)$^+$	M1+E2	1.8 *12*	0.010 *6*	α(K)=0.008 *5*; α(L)=0.0014 *7*; α(M)=3.4×10^{-4} *16* α(N)=8.E−5 *4*; α(O)=1.6×10^{-5} *8*; α(P)=1.1×10^{-6} *7*
		1133.4[‡] *10*	35[‡] *12*	128	13/2$^{(+)}$				
1299.8	(19/2$^+$)	636.6 *3*	82 *18*	663.26	(15/2$^+$)	Q[b]			I_γ: Other: 57 *29* (α,7nγ).
		781.3 *3*	100 *15*	518.5	17/2$^{(+)}$	(M1+E2)[b]	0.14 *4*	0.0283 *5*	α(K)=0.0234 *4*; α(L)=0.00380 *6*; α(M)=0.000881 *14* α(N)=0.0002208 *35*; α(O)=4.18×10^{-5} *7*; α(P)=3.24×10^{-6} *5* δ: from γ(θ) (1975Li16) in ^{194}Pt(α,nγ).
1317.6	(5/2$^-$,7/2$^-$,9/2$^-$)	754.1[‡] *8*	100[‡]	563.5	(7/2$^-$)	M1+E2	2.4 *8*	0.0138 *28*	α(K)=0.0109 *23*; α(L)=0.00215 *32*; α(M)=0.00051 *7* α(N)=0.000127 *18*; α(O)=2.4×10^{-5} *4*; α(P)=1.47×10^{-6} *33*
1319.6		687.3[‡] *10*	100[‡]	632.3	(9/2$^-$)				
1335.6		991.6 *10*	100	343.96	(9/2)$^+$				
1446.5		1102.5[‡] *10*	100[‡] *29*	343.96	(9/2)$^+$				
		1318.6[‡] *11*	75[‡] *25*	128	13/2$^{(+)}$				
1562.2		1218.2[‡] *9*	100[‡]	343.96	(9/2)$^+$				
1766.0	(21/2$^-$)	466.3[#] *2*	100 *6*	1299.8	(19/2$^+$)	D[b]		0.01032	α(K)=0.00856 *12*; α(L)=0.001355 *19*; α(M)=0.000313 *5*; α(N+..)=9.34×10^{-5} *14* α(N)=7.79×10^{-5} *11*; α(O)=1.449×10^{-5} *21*; α(P)=1.001×10^{-6} *14*
		618.5 *3*	33 *4*	1147.4	21/2$^{(+)}$				
1816.4		1472.4[‡] *10*	100[‡]	343.96	(9/2)$^+$				
1843.9		1507.6[‡] *10*	100[‡]	336.32	(5/2$^-$)				

$^{191}_{80}Hg_{111}$-10

Adopted Levels, Gammas (continued)

γ(^{191}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	α[d]	Comments
1897.5	25/2$^{(+)}$	750.2 *3*	100	1147.4	21/2$^{(+)}$	Q[b]		
1932.6	(25/2$^-$)	166.6 *3*	100	1766.0	(21/2$^-$)	E2[b]	0.747 *12*	B(E2)(W.u.)=54 *+6−5* α(K)=0.261 *4*; α(L)=0.364 *6*; α(M)=0.0945 *15* α(N)=0.0235 *4*; α(O)=0.00394 *6*; α(P)=3.29×10^{-5} *5* Authors in 1978Me11 from their measured half-life derived B(E2)=(3.50 *34*)×10^3 e^{2}fm^4.
1989.9	(23/2$^-$)	224.0 *3*	12.1 *17*	1766.0	(21/2$^-$)	D		
		842.5 *3*	100 *16*	1147.4	21/2$^{(+)}$	D		
2192.9	(27/2$^-$)	203.0 *3*	100 *7*	1989.9	(23/2$^-$)	Q[b]		
		260.2 *3*	25 *4*	1932.6	(25/2$^-$)	D		
		295.4 *3*	49 *9*	1897.5	25/2$^{(+)}$	D		
2251.6	(29/2$^-$)	319.0[#] *2*	100	1932.6	(25/2$^-$)	Q[b]		
2412.4		2034.5[e‡] *20*	100[e‡]	377.9	(7/2$^-$)			
2414.4		2070.4[e‡] *10*	100[e‡]	343.96	(9/2)$^+$			
2423.3		2045.4[e‡] *10*	100[e‡]	377.9	(7/2$^-$)			
2427.5		2034.5[e‡] *20*	100[e‡]	393.03	(11/2)$^+$			
2430.9		2086.9[e‡] *10*	100[e‡]	343.96	(9/2)$^+$			
2435.5		2091.5[‡] *11*	100[‡]	343.96	(9/2)$^+$			
2438.4		2045.4[e‡] *10*	100[e‡]	393.03	(11/2)$^+$			
2440.2		1488.1[‡] *8*	100[‡]	952.1	(9/2$^-$)			
2441.5		2105.2[‡] *10*	100[‡]	336.32	(5/2$^-$)			
2443.0		2065.1[‡] *14*	100[‡]	377.9	(7/2$^-$)			
2443.1		2099.1[e‡] *10*	100[e‡]	343.96	(9/2)$^+$			
2457.0		1586.4[‡] *11*	43[‡] *9*	870.7	(13/2)$^+$			
		2112.8[‡] *15*	45[‡] *9*	343.96	(9/2)$^+$			
		2328.9[‡] *12*	100[‡] *10*	128	13/2$^{(+)}$			
2459.7		1443.5[‡] *9*	100[‡]	1016.2	(11/2$^-$)			
2463.4		2070.4[e‡] *10*	100[e‡]	393.03	(11/2)$^+$			
2468.2		2075.2[‡] *14*	100[‡]	393.03	(11/2)$^+$			
2475.2		1459.0[‡] *20*	100[‡]	1016.2	(11/2$^-$)			
2476.3		1844.0[‡] *10*	100[‡]	632.3	(9/2$^-$)			
2477.0		2099.1[e‡] *10*	100[e‡]	377.9	(7/2$^-$)			
2479.9		2086.9[e‡] *10*	100[e‡]	393.03	(11/2)$^+$			
2483.1		2105.2[‡] *10*	100[‡]	377.9	(7/2$^-$)			

$^{191}_{80}Hg_{111}$-11

Adopted Levels, Gammas (continued)

γ(^{191}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	α[d]	Comments
2484.4		1613.6[‡] *10*	100[‡] *20*	870.7	$(13/2)^+$			
		2141.0[‡] *20*	27[‡] *7*	343.96	$(9/2)^+$			
2486.8		1616.1[‡] *8*	100[‡] *10*	870.7	$(13/2)^+$			
		2358.7[‡] *14*	81[‡] *14*	128	$13/2^{(+)}$			
2489.6		1619.0[‡] *10*	46[‡] *5*	870.7	$(13/2)^+$			
		2361.5[‡] *10*	100[‡] *10*	128	$13/2^{(+)}$			
2534.0		2141.0[e‡] *20*	100[e‡]	393.03	$(11/2)^+$			
2536.9		2192.9[‡] *15*	100[‡]	343.96	$(9/2)^+$			
2543.1		1979.6[‡] *14*	100[‡]	563.5	$(7/2^-)$			
2559.7	$29/2^{(+)}$	662.1[#] *2*	100	1897.5	$25/2^{(+)}$	Q[b]		
2673.1	$(31/2^-)$	480.2 *3*	100	2192.9	$(27/2^-)$	Q[b]		
2717.0	$29/2^{(+)}$	819.5 *3*	100	1897.5	$25/2^{(+)}$	Q[b]		
2722.9	$(29/2^-)$	790.3 *3*	100	1932.6	$(25/2^-)$			
2726.6	$33/2^{(+)}$	166.9 *3*	100	2559.7	$29/2^{(+)}$	E2[b]	0.742 *11*	B(E2)(W.u.)=41.7 *+30−27* α(K)=0.260 *4*; α(L)=0.361 *6*; α(M)=0.0938 *15* α(N)=0.0233 *4*; α(O)=0.00391 *6*; α(P)=3.27×10^{-5} *5* Authors in 1978Me11 from their measured half-life derived B(E2)=(2.72 *18*)×10^3 e^{2}fm^4.
2771.3	$(33/2^-)$	519.7 *3*	100	2251.6	$(29/2^-)$	Q		
2818.5	$(33/2^-)$	566.8[#] *2*	100	2251.6	$(29/2^-)$	Q[b]		
3063.5	$(29/2^+)$	1166.0 *3*	100	1897.5	$25/2^{(+)}$			
3206.6	$37/2^{(+)}$	479.9[#] *2*	100	2726.6	$33/2^{(+)}$	Q[b]		
3245.6	$33/2^{(+)}$	528.6 *3*	100	2717.0	$29/2^{(+)}$	Q		
3295.1	$33/2^{(+)}$	231.6 *3*	16 *5*	3063.5	$(29/2^+)$	(Q)		
		568.4 *3*	100 *26*	2726.6	$33/2^{(+)}$	(Q)		
		578.2 *3*	38 *9*	2717.0	$29/2^{(+)}$	Q		
3350.3	$(35/2^-)$	677.2 *3*	100	2673.1	$(31/2^-)$	Q[b]		
3380.9	$(33/2^-)$	658.0 *3*	100 *39*	2722.9	$(29/2^-)$			
		1129.3 *3*	22 *17*	2251.6	$(29/2^-)$			
3557.0	$(37/2^-)$	738.6[#] *2*	100	2818.5	$(33/2^-)$	Q[b]		
3615.8	$37/2^{(+)}$	320.7 *3*	100 *14*	3295.1	$33/2^{(+)}$	Q[b]		
		409.2 *3*	60 *8*	3206.6	$37/2^{(+)}$	(Q)		
3646.4	$(37/2^-)$	875.1 *4*	100	2771.3	$(33/2^-)$	Q		
3856.2	(35/2)	1037.7 *3*	100	2818.5	$(33/2^-)$			
3920.8	$41/2^{(+)}$	714.2 *3*	100	3206.6	$37/2^{(+)}$	Q[b]		
4074.9	$(37/2^-)$	694.0 *3*	100 *21*	3380.9	$(33/2^-)$			

$^{191}_{80}Hg_{111}$-12

Adopted Levels, Gammas (continued)

$\gamma(^{191}Hg)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	α[d]	Comments
4074.9	(37/2$^-$)	1256.4 *3*	42 *33*	2818.5	(33/2$^-$)	(Q)		
4085.3	(39/2$^-$)	735.0 *3*	100	3350.3	(35/2$^-$)	Q[b]		
4097.1	(39/2$^-$)	746.8 *3*	100	3350.3	(35/2$^-$)	(Q)		
4116.7	41/2$^{(+)}$	500.9 *3*	100	3615.8	37/2$^{(+)}$	Q[b]		
4269.0	(41/2$^-$)	712.0 *3*	100	3557.0	(37/2$^-$)	Q		
4345.8	(41/2$^-$)	788.8 *3*	100	3557.0	(37/2$^-$)	Q		
4403.6	(41/2$^-$)	757.2 *3*	100	3646.4	(37/2$^-$)	Q		
4485.5	(43/2$^-$)	400.2 *3*	100	4085.3	(39/2$^-$)	Q[b]		
4510.7	(41/2$^-$)	953.7 *3*	100	3557.0	(37/2$^-$)	Q		
4620.1	(41/2$^+$)	1004.3 *3*	62 *15*	3615.8	37/2$^{(+)}$			
		1413.5 *3*	100 *23*	3206.6	37/2$^{(+)}$	Q		
4657.9	(39/2)	801.7 *3*	53 *13*	3856.2	(35/2)			
		1100.9 *3*	100 *27*	3557.0	(37/2$^-$)	D		
4715.2	(41/2$^-$)	629.9 *3*	90 *20*	4085.3	(39/2$^-$)	D+Q		
		640.3 *3*	80 *17*	4074.9	(37/2$^-$)	Q		
		1158.2 *3*	100 *7*	3557.0	(37/2$^-$)	Q		
4760.4	45/2$^{(+)}$	839.6 *3*	100	3920.8	41/2$^{(+)}$	Q[b]		
4781.8	(43/2$^-$)	271.1 *3*	100	4510.7	(41/2$^-$)	D		
4795.5	45/2$^{(+)}$	678.8 *3*	100	4116.7	41/2$^{(+)}$	Q		
4979.0	(45/2$^+$)	358.9 *3*	100 *21*	4620.1	(41/2$^+$)	Q		
		862.3 *3*	25 *4*	4116.7	41/2$^{(+)}$	Q		
4984.0	(43/2$^-$)	268.7 *3*	100	4715.2	(41/2$^-$)	M1	0.488 *7*	α(K)=0.400 *6*; α(L)=0.0670 *10*; α(M)=0.01558 *22* α(N)=0.00391 *6*; α(O)=0.000739 *11*; α(P)=5.67×10^{-5} *8*
5023.0	(45/2$^-$)	241.2 *3*	40 *20*	4781.8	(43/2$^-$)	D		
		512.3 *3*	100 *20*	4510.7	(41/2$^-$)	Q		
5031.6	(45/2)	249.8 *3*	38 *13*	4781.8	(43/2$^-$)	D		
		520.9 *3*	100 *25*	4510.7	(41/2$^-$)			
5085.8		740.0 *10*	100	4345.8	(41/2$^-$)			
5134.6	(47/2$^-$)	649.1 *3*	100	4485.5	(43/2$^-$)	Q		
5155.9	(45/2$^-$)	886.9 *3*	100	4269.0	(41/2$^-$)	Q		
5199.6	(45/2$^-$)	796.0 *3*	100	4403.6	(41/2$^-$)	Q		
5256.3	(47/2)	233.3 *3*	100	5023.0	(45/2$^-$)	D		
5270.6	(45/2$^-$)	286.6 *3*	100 *4*	4984.0	(43/2$^-$)	D		
		555.4 *3*	86 *5*	4715.2	(41/2$^-$)	Q		
5424.2	(47/2$^-$)	440.2 *3*	100	4984.0	(43/2$^-$)	Q		
5555.4	(49/2$^+$)	759.9 *3*	100	4795.5	45/2$^{(+)}$	Q		
5634.7	(47/2$^-$)	210.5 *3*	41 *10*	5424.2	(47/2$^-$)	D		
		364.1 *3*	100 *15*	5270.6	(45/2$^-$)			
		650.7 *3*	78 *7*	4984.0	(43/2$^-$)	Q		
5662.1	(49/2$^+$)	683.1 *3*	100 *24*	4979.0	(45/2$^+$)	Q		

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Adopted Levels, Gammas (continued)

γ(^{191}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	α[d]	Comments
5662.1	(49/2$^+$)	866.6 *3*	21 *4*	4795.5	45/2$^{(+)}$			
		901.7 *3*	19 *3*	4760.4	45/2$^{(+)}$	(Q)		
5681.5	49/2$^{(+)}$	921.1 *3*	100	4760.4	45/2$^{(+)}$	Q		
5781.9	(49/2$^-$)	147.2 *3*	100	5634.7	(47/2$^-$)	(M1)	2.62 *4*	α(K)=2.147 *33*; α(L)=0.363 *6*; α(M)=0.0845 *13* α(N)=0.02120 *32*; α(O)=0.00401 *6*; α(P)=0.000307 *5*
5923.8	(51/2$^-$)	789.2 *3*	100	5134.6	(47/2$^-$)	Q		
5930.9		845.1 *3*	100	5085.8				
6127.9	J+2	310.9[@] *7*	100	5817	J≈(31/2)			
6153.5		997.6 *3*	100	5155.9	(45/2$^-$)	(Q)		
6213.4	(51/2$^-$)	431.5 *3*	81 *13*	5781.9	(49/2$^-$)	D		
		578.7 *3*	100 *32*	5634.7	(47/2$^-$)	Q		
6358.9	(53/2$^+$)	803.5 *3*	100	5555.4	(49/2$^+$)	Q		
6461.8	(53/2$^+$)	799.7 *3*	100	5662.1	(49/2$^+$)	Q		
6479.4	J+4	351.5[@] *1*	100	6127.9	J+2	Q[c]		
6587.7	(53/2)	374.3 *3*	67 *20*	6213.4	(51/2$^-$)			
		805.8 *3*	100 *47*	5781.9	(49/2$^-$)	Q		
6648.8	53/2$^{(+)}$	967.3 *3*	100	5681.5	49/2$^{(+)}$	Q		
6806.3	(55/2$^-$)	882.5 *3*	100	5923.8	(51/2$^-$)	Q		
6871.0	J+6	391.6[@] *4*	100	6479.4	J+4	Q[c]		
7064.6	(55/2$^-$)	476.9 *3*	29 *8*	6587.7	(53/2)	D		
		851.2 *3*	100 *6*	6213.4	(51/2$^-$)	Q		
7205.5	(57/2$^+$)	846.6 *3*	100	6358.9	(53/2$^+$)	Q		
7302.3	J+8	431.3[@] *1*	100	6871.0	J+6	Q[c]		
7355.1	(57/2$^-$)	290.5 *3*	100	7064.6	(55/2$^-$)	(M1)	0.394 *6*	α(K)=0.323 *5*; α(L)=0.0540 *8*; α(M)=0.01256 *18* α(N)=0.00315 *5*; α(O)=0.000596 *9*; α(P)=4.57×10^{-5} *7*
7655.9	(59/2)	300.8 *3*	100	7355.1	(57/2$^-$)	D		
7772.4	J+10	470.1[@] *1*	100	7302.3	J+8	Q[c]		
7798.8		992.5 *3*	100	6806.3	(55/2$^-$)			
7818.0	(59/2)	462.9 *3*	100	7355.1	(57/2$^-$)	D		
7825.1		1018.8 *3*	100	6806.3	(55/2$^-$)	Q		
8115.5	(61/2)	459.6 *3*	100 *64*	7655.9	(59/2)	D		
		760.4 *3*	50 *27*	7355.1	(57/2$^-$)			
8280.8	J+12	508.4[@] *1*	100	7772.4	J+10	Q[c]		
8479.9	(63/2)	364.5 *3*	100 *79*	8115.5	(61/2)	(Q)		
		661.9 *3*	75 *17*	7818.0	(59/2)			
		824.0 *3*	75 *29*	7655.9	(59/2)	Q		
8797.0		317.1 *3*	100	8479.9	(63/2)			
8826.7	J+14	545.9[@] *2*	100	8280.8	J+12	Q[c]		
9409.1	J+16	582.4[@] *1*	100	8826.7	J+14	Q[c]		

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Adopted Levels, Gammas (continued)

γ(^{191}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]
10027.6	J+18	618.5[@] *2*	100	9409.1	J+16	Q[c]
10681.3	J+20	653.7[@] *2*	100	10027.6	J+18	Q[c]
11369.6	J+22	688.3[@] *2*	100	10681.3	J+20	Q[c]
12091.8	J+24	722.2[@] *3*	100	11369.6	J+22	Q[c]
12847.4	J+26	755.6[@] *3*	100	12091.8	J+24	Q[c]
13636.2	J+28	788.8[@] *6*	100	12847.4	J+26	
252.4+z	J1+2	252.4[@] *7*	100	z	J1≈(21/2)	
545.1+z	J1+4	292.7[@] *1*	100	252.4+z	J1+2	
878.2+z	J1+6	333.1[@] *1*	100	545.1+z	J1+4	
1250.9+z	J1+8	372.7[@] *1*	100	878.2+z	J1+6	
1662.7+z	J1+10	411.8[@] *2*	100	1250.9+z	J1+8	
2113.0+z	J1+12	450.3[@] *1*	100	1662.7+z	J1+10	
2601.1+z	J1+14	488.1[@] *2*	100	2113.0+z	J1+12	
3126.3+z	J1+16	525.2[@] *2*	100	2601.1+z	J1+14	
3687.9+z	J1+18	561.6[@] *3*	100	3126.3+z	J1+16	
4285.1+z	J1+20	597.2[@] *2*	100	3687.9+z	J1+18	
4917.2+z	J1+22	632.1[@] *2*	100	4285.1+z	J1+20	
5583.4+z	J1+24	666.2[@] *2*	100	4917.2+z	J1+22	
6283.3+z	J1+26	699.9[@] *2*	100	5583.4+z	J1+24	
7016.0+z	J1+28	732.7[@] *4*	100	6283.3+z	J1+26	
7781.2+z	J1+30	765.2[@] *4*	100	7016.0+z	J1+28	
8577.7+z	J1+32	796.5[@] *6*	100	7781.2+z	J1+30	
272.0+u	J2+2	272.0[@] *10*	100	u	J2≈(23/2)	
585.1+u	J2+4	313.1[@] *2*	100	272.0+u	J2+2	
937.6+u	J2+6	352.5[@] *1*	100	585.1+u	J2+4	
1329.1+u	J2+8	391.5[@] *4*	100	937.6+u	J2+6	
1758.8+u	J2+10	429.7[@] *1*	100	1329.1+u	J2+8	
2225.9+u	J2+12	467.1[@] *2*	100	1758.8+u	J2+10	
2729.8+u	J2+14	503.9[@] *1*	100	2225.9+u	J2+12	
3269.5+u	J2+16	539.7[@] *3*	100	2729.8+u	J2+14	
3844.5+u	J2+18	575.0[@] *1*	100	3269.5+u	J2+16	
4454.0+u	J2+20	609.5[@] *1*	100	3844.5+u	J2+18	
5096.7+u	J2+22	642.7[@] *2*	100	4454.0+u	J2+20	
5772.8+u	J2+24	676.1[@] *3*	100	5096.7+u	J2+22	
6481.3+u	J2+26	708.5[@] *3*	100	5772.8+u	J2+24	
7221.3+u	J2+28	740.0[@] *3*	100	6481.3+u	J2+26	
7992.6+u	J2+30	771.3[@] *3*	100	7221.3+u	J2+28	
8793.2+u	J2+32	800.5[@][f] *10*	100	7992.6+u	J2+30	
280.9+v	J3+2	280.9[@] *6*	100	v	J3≈(25/2)	
604.5+v	J3+4	323.6[@] *2*	100	280.9+v	J3+2	
971.6+v	J3+6	367.1[@] *2*	100	604.5+v	J3+4	
1381.9+v	J3+8	410.3[@] *4*	100	971.6+v	J3+6	
1834.5+v	J3+10	452.6[@] *3*	100	1381.9+v	J3+8	
2328.6+v	J3+12	494.1[@] *2*	100	1834.5+v	J3+10	
2864.0+v	J3+14	535.4[@] *3*	100	2328.6+v	J3+12	
3439.0+v	J3+16	575.0[@] *4*	100	2864.0+v	J3+14	
4053.3+v	J3+18	614.3[@] *5*	100	3439.0+v	J3+16	
4704.1+v	J3+20	650.8[@] *6*	100	4053.3+v	J3+18	
5391.7+v	J3+22	687.6[@] *7*	100	4704.1+v	J3+20	
6114.9+v	J3+24	723.2[@] *8*	100	5391.7+v	J3+22	
6870.9+v	J3+26	756.0[@] *12*	100	6114.9+v	J3+24	
7659.9+v	J3+28	789.0[@] *13*	100	6870.9+v	J3+26	

[†] Energies and relative photon branching from (HI,xnγ), except as noted.
[‡] From ^{191}Tl ε decay (5.22 min).
[#] Weighted average of data from (HI,xnγ) and (α,7nγ).
[@] Eγ from (HI,xnγ):SD dataset.
[&] From ^{191}Tl ε decay (5.22 min), unless noted otherwise.

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Adopted Levels, Gammas (continued)

$\gamma(^{191}Hg)$ (continued)

[a] From ce data in ^{191}Tl ε decay (5.22 min), unless otherwise specified.
[b] Also from $\gamma(\theta)$ in (α,xnγ) and (HI,xnγ) reactions, Q for stretched E2, and D or D+Q for M1, E1 or M1+E2.
[c] From DCO ratios (1989Mo08) in (HI,xnγ):SD.
[d] Additional information 6.
[e] Multiply placed with undivided intensity.
[f] Placement of transition in the level scheme is uncertain.

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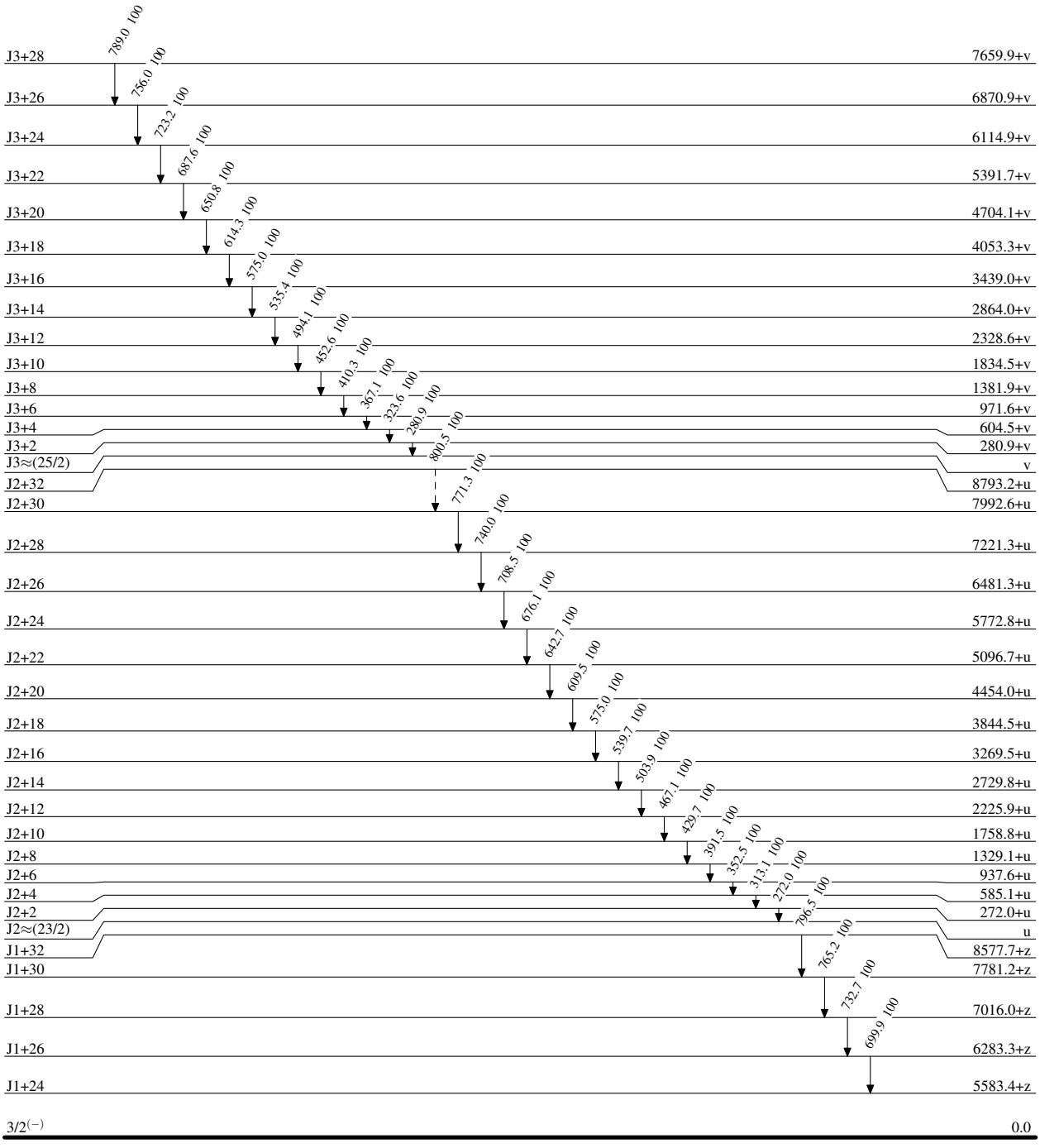
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)

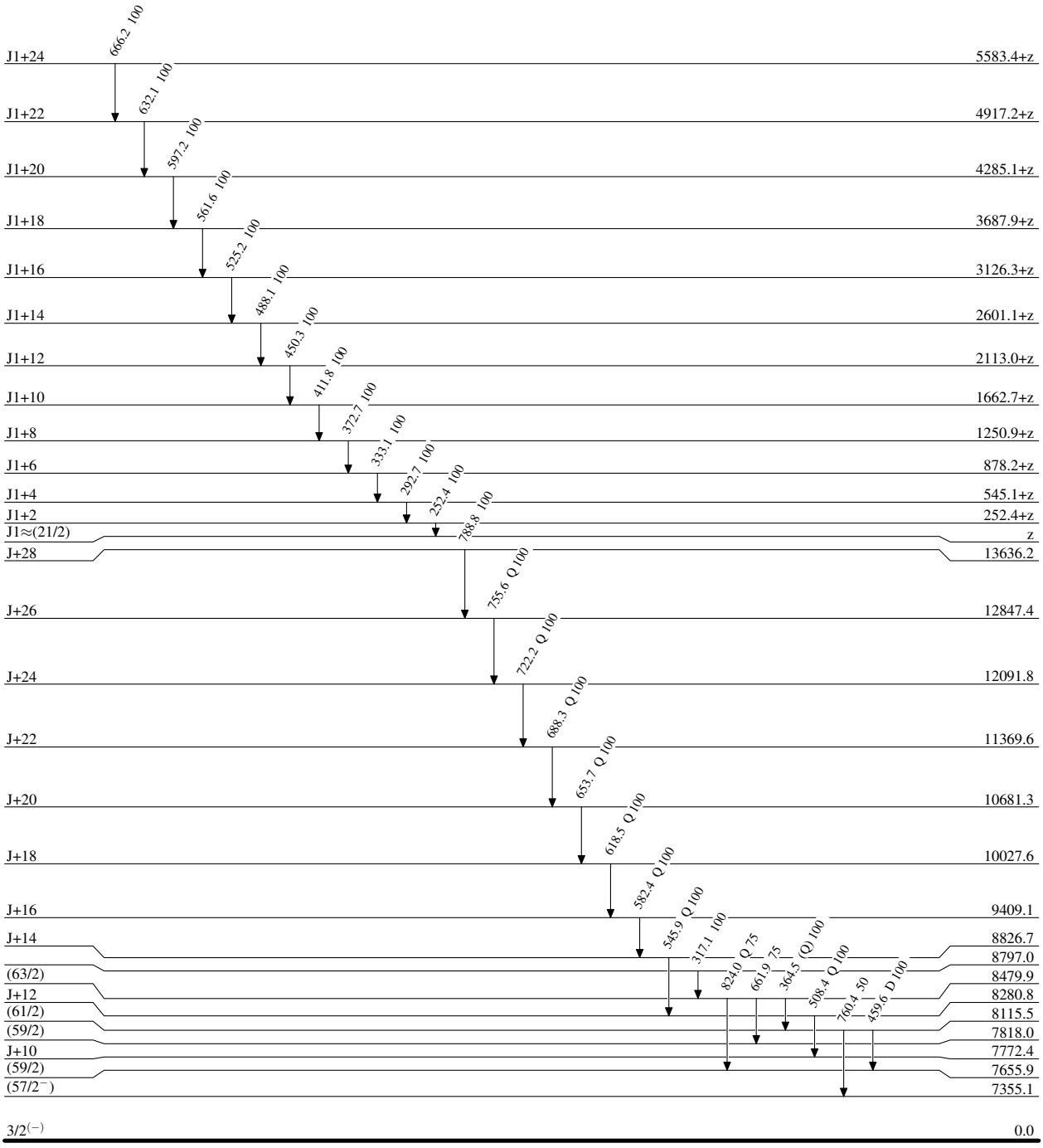


$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

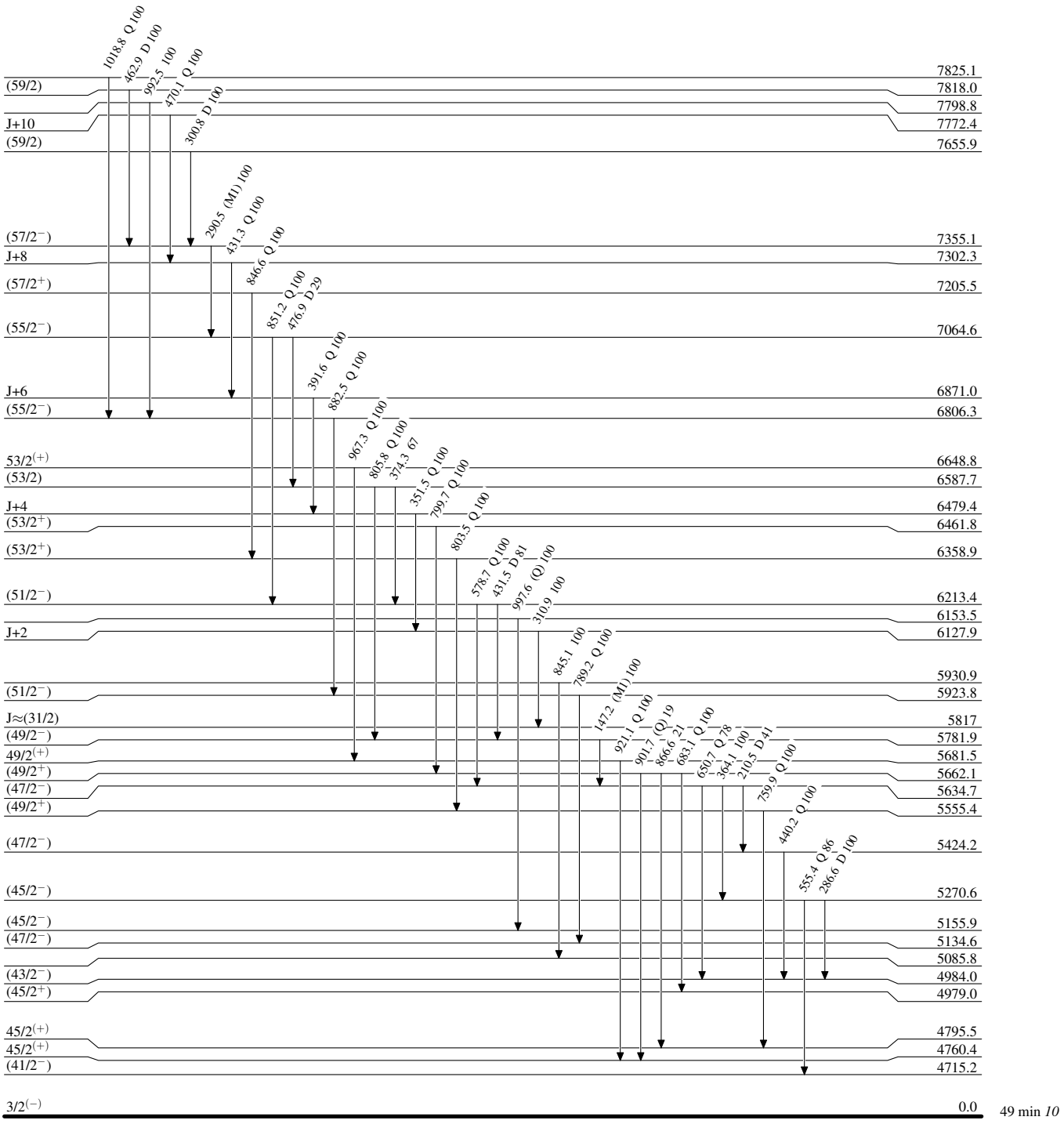


$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

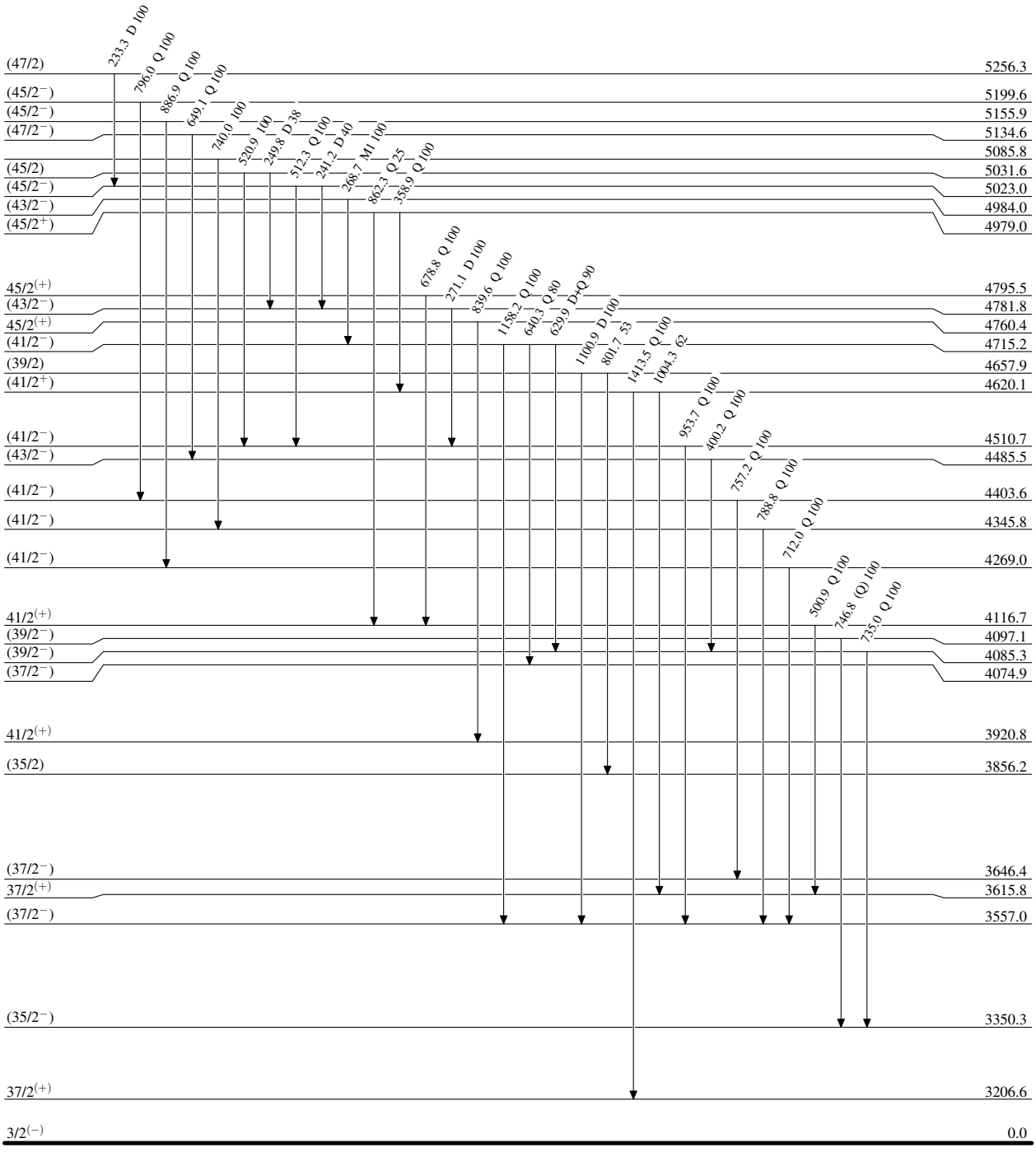


$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

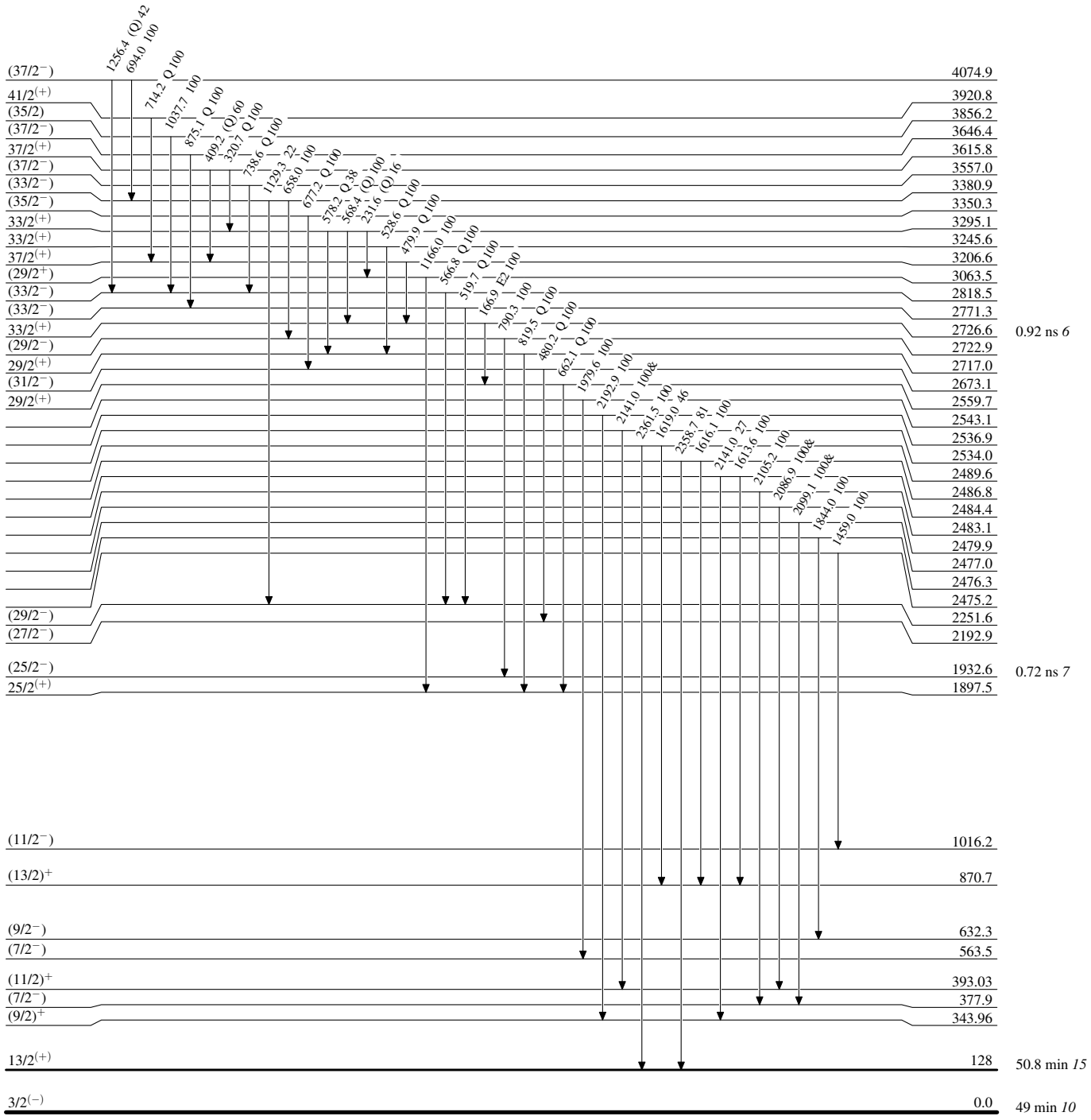


$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

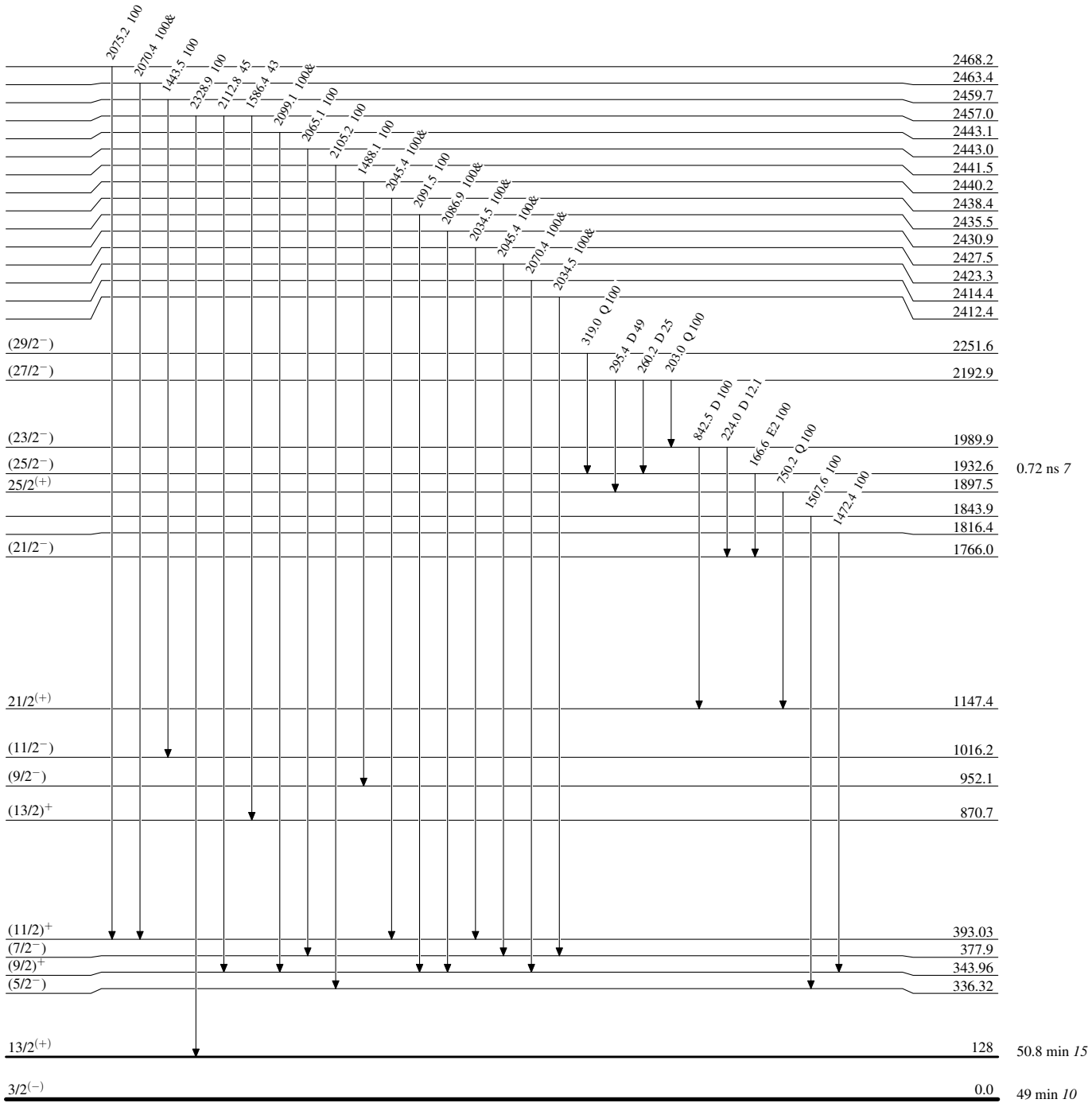


$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



$^{191}_{80}Hg_{111}$

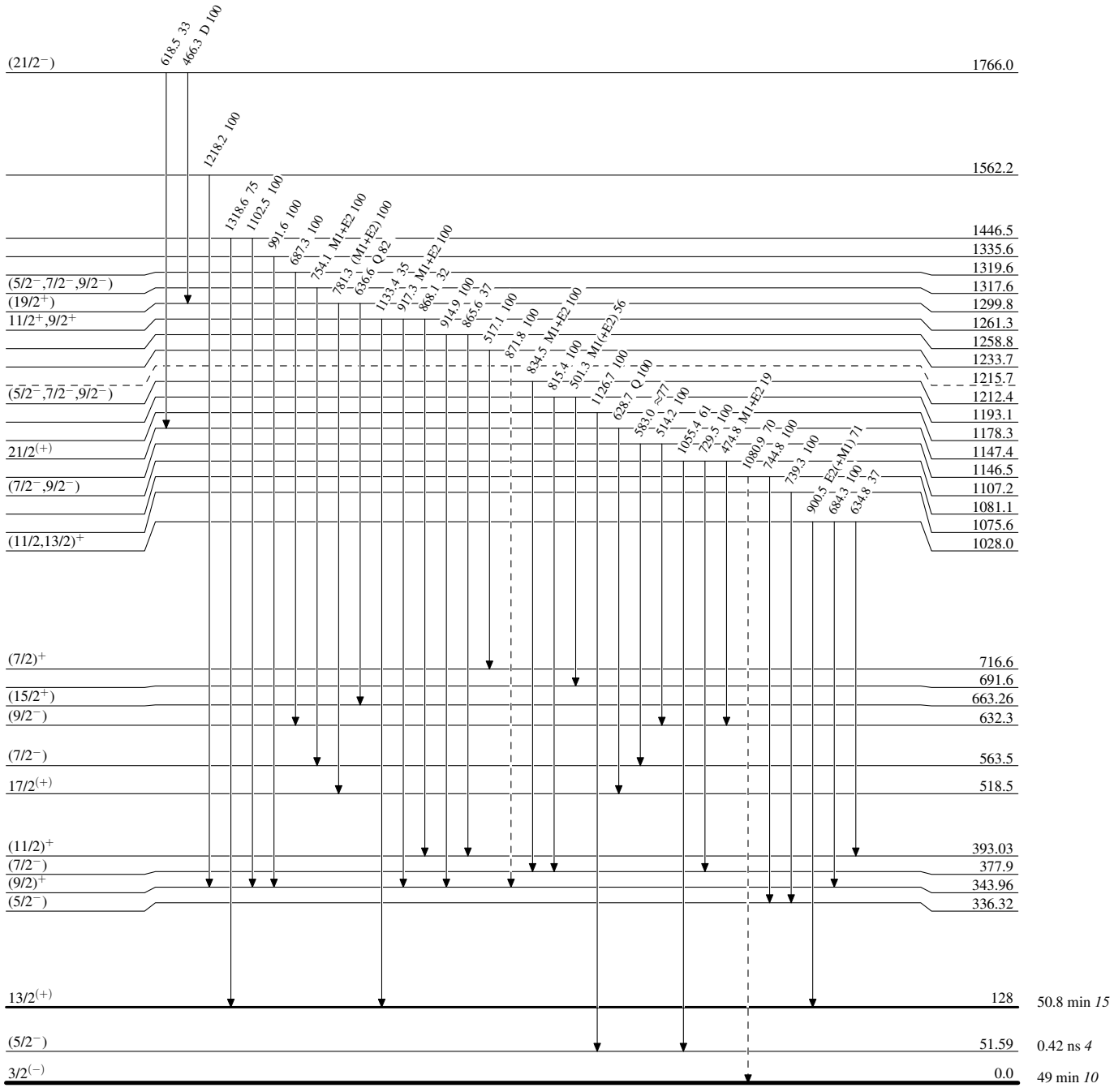
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

γ Decay (Uncertain)



$^{191}_{80}Hg_{111}$

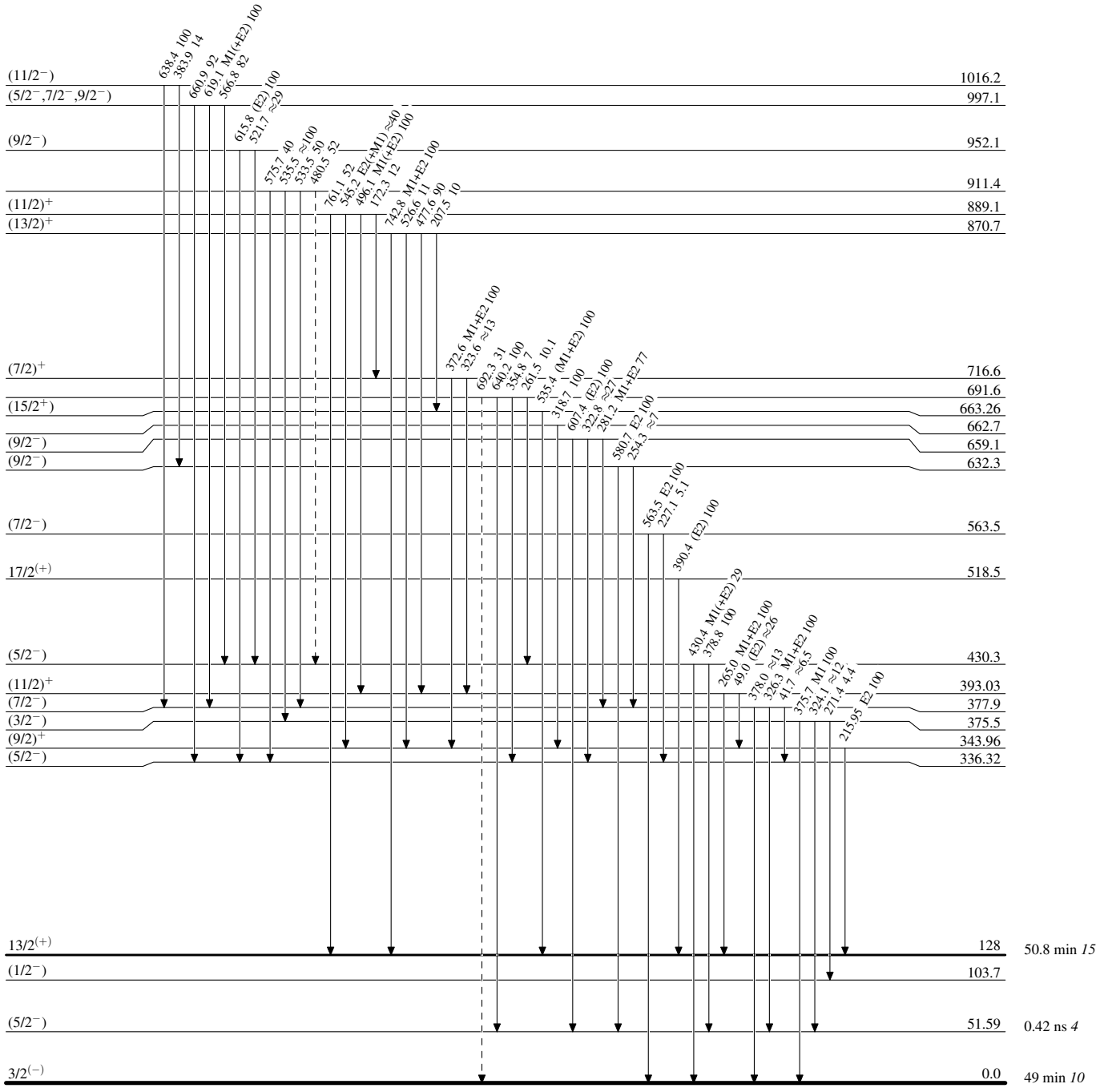
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

– – – – – – ► γ Decay (Uncertain)

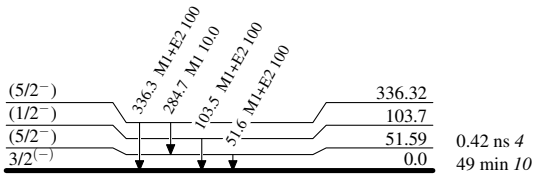


$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas

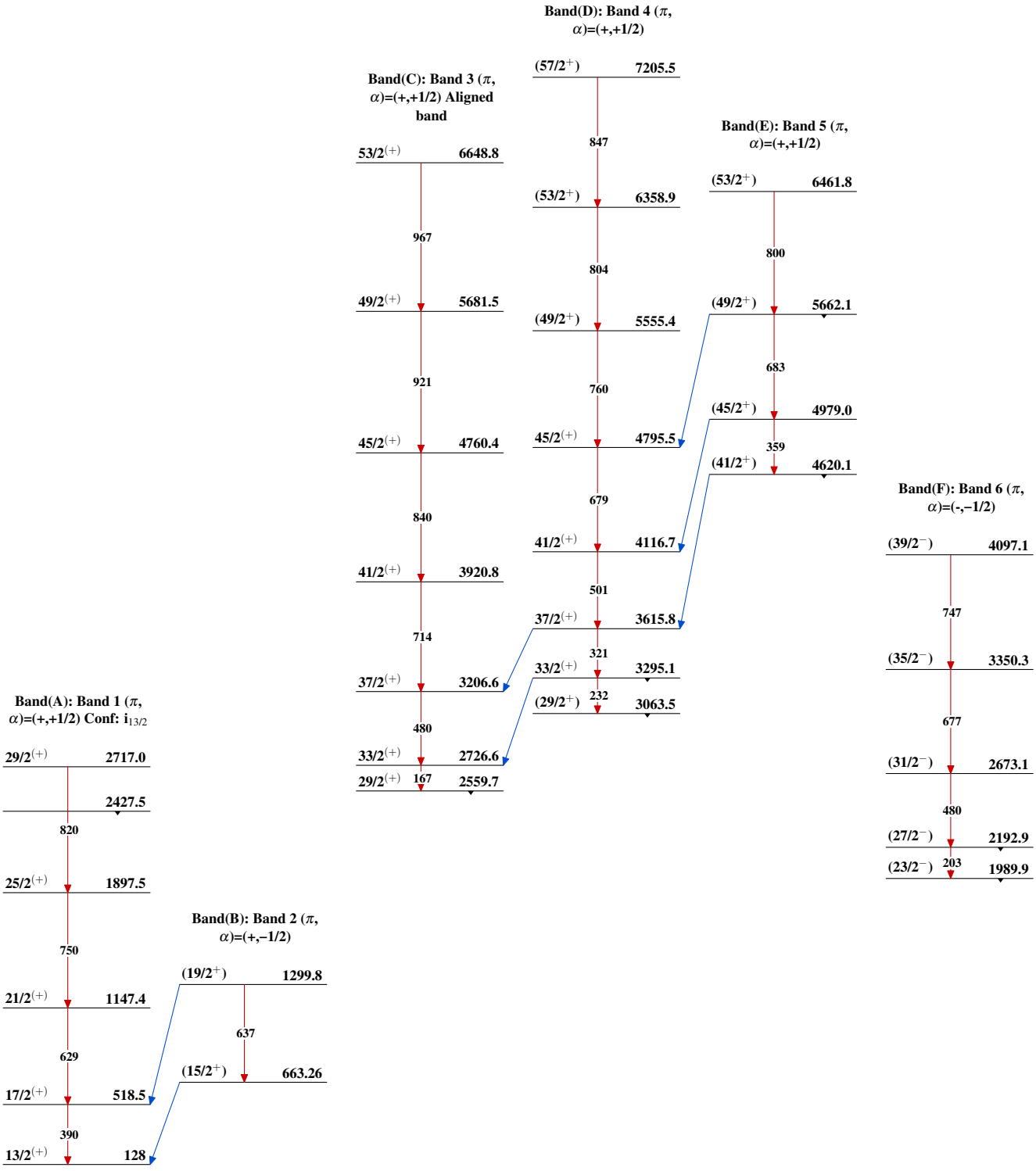
Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



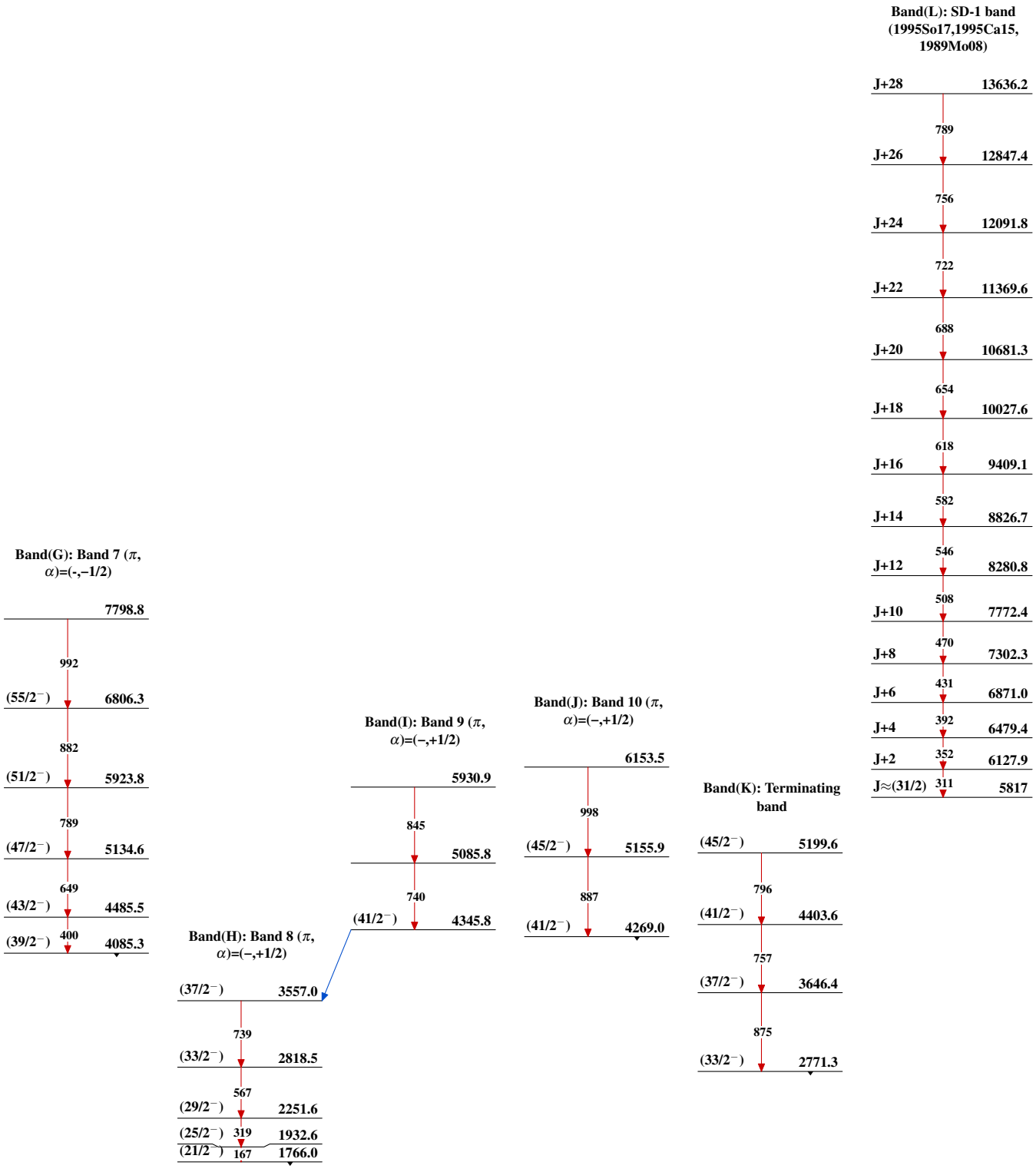
$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas



$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas (continued)



$^{191}_{80}Hg_{111}$

Adopted Levels, Gammas (continued)