Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, [1] and Jun Chen[2]	NDS 169, 1 (2020)	15-Oct-2020

Q(β^-)=−6999 *18*; S(n)=9820 *40*; S(p)=5078 *26*; Q(α)=4069 *27* 2017Wa10
S(2n)=17311 *20*, S(2p)=8128 *17* (2017Wa10).
Mass measurements: 2000Ra23, 2001Sc41 (also 2001Sc54), 1999Sc46.
Theory references: consult the NSR database (www.nndc.bnl.gov/nsr/) for about 130 primary references dealing with nuclear structure and other calculations.
Additional information 1.

^{190}Hg Levels

The band labels and crossings are given in terms of quasiparticle (neutron) trajectories (Routhians) (1994Be27,1986Hu02,1982Gu10) as follows (note that nomenclature for E and F orbitals is reversed in 1986Hu02):
A: ν5/2[642],α=+1/2.
B: ν5/2[642],α=−1/2.
C: ν7/2[633],α=+1/2.
D: ν7/2[633],α=−1/2.
E: ν5/2[503],α=−1/2.
F: ν5/2[503],α=+1/2.
F′: ν1/2[541],α=+1/2.

Cross Reference (XREF) Flags

A	^{190}Tl ε decay (2.6 min)	E	^{160}Gd(^{34}S,4nγ)
B	^{190}Tl ε decay (3.6 min)	F	^{170}Er(^{24}Mg,4nγ)
C	^{194}Pb α decay (10.7 min)	G	^{181}Ta(^{14}N,5nγ)
D	^{160}Gd(^{34}S,4nγ):SD	H	^{194}Pt(α,8nγ)

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]	XREF	Comments
0.0[@]	0$^+$	20.0 min *5*	ABCDEFGH	%ε+%β^+=100; %α<3.4×10^{-7} (1993ToZY) %β^+<1 (1959Al94). Evaluated rms charge radius=5.4158 fm *37* (2013An02). Evaluated δ<r^2>(^{198}Hg,^{190}Hg)=−0.326 fm^2 *1* (2013An02). %α from detection limit of expected peak at 4043 from ^{190}Hg α decay (1993ToZY). Other: <5×10^{-5} (1963Ka17). Δ<r^2>(^{198}Hg,^{190}Hg)=−0.3188 fm^2 *8* (1986Ul02), from collinear LASER spectroscopy. β_2=0.142 *8* (1986Ul02, deduced from Δ<r^2>). Isotope shift (^{190}Hg,^{204}Hg)=31.8 GHz *3* (1977Du03), from LASER spectroscopy. T$_{1/2}$: from 1964Ja05. Others: 19.8 min *6* (1961An02), 21 min *2* (1969Na10), 21 min *2* (1959Al94), 1960Al20, 1960Po07, 1954Gi04.
416.32[@] *14*	2$^+$	15 ps *1*	AB DEFGH	J$^\pi$: E2 γ to 0$^+$. T$_{1/2}$: other: 14.6 ps *62* from $\gamma\gamma$(t) fast-timing technique combined with GCD method, with 625.4γ as the feeder and 416.3γ as the decay transition (2018Es04); a systematic uncertainty of 3 ps is included to account for contamination from the 419.9-keV transition from the yrast 14$^+$ level; reaction used was ^{178}Hf(^{16}O,4nγ),E(^{16}O)=87 MeV.
1041.77[@] *16*	4$^+$	5 ps *4*	AB DEFGH	J$^\pi$: ΔJ=2, E2 γ to 2$^+$. T$_{1/2}$: other: <8.3 ps, from $\gamma\gamma$(t) fast-timing technique combined with GCD method, with 731.1γ as the feeder transition and 625.4γ as the decaying transition (2018Es04). Reaction used was ^{178}Hf(^{16}O,4nγ), E(^{16}O)=87 MeV.

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Adopted Levels, Gammas (continued)

^{190}Hg Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
1099.94 *14*	2^+		AB	Jπ: E2 γ to 0^+.
1278.6[&] *3*	0^+		AB	Jπ: E0 transition to 0^+.
1558.71 *17*	2^+		AB	Level populated by both or one of the ^{190}Tl isomers. Jπ: γ to 0^+; E2 γ to 2^+; γ to 4^+.
1571.42[&] *19*	2^+		AB	Jπ: E2+M1+E0 γ to 2^+.
1657.07 *18*	3^+		AB	Population uncertain in ^{190}Tl ε decay (2.6 min). Jπ: E2+M1 γ to 4^+; E2+M1 γ to 2^+.
1772.94[@] *19*	6^+	7 ps *4*	B DEFGH	Jπ: ΔJ=2, E2 γ to 4^+.
1850.78 *19*	$(2^+,3,4^+)$		B	Jπ: γs to 2^+ and 4^+.
1881.18[b] *22*	5^-	<40 ps	B DEFGH	Jπ: ΔJ=1, E1 γ to 4^+.
1975.30[&] *20*	4^+		AB	Jπ: E2+M1+E0 γ to 4^+.
2072.8 *4*	$(4,5,6)^+$		B	Jπ: M1+E2 γ to 4^+.
2078.33[b] *23*	7^-	<0.2 ns	B DEFGH	Jπ: ΔJ=2, E2 γ to 5^-; ΔJ=1, E1 γ to 6^+.
2162.92 *21*	(4^+)		B	Jπ: γs to 6^+ and $(2)^+$.
2200.97 *20*	$(5)^+$		B	Jπ: E2 γ to $(3)^+$; no decay to 2^+.
2251.4 *3*	$(6,7)^-$		B	Jπ: E2 γ to 5^-; γ to 6^+; no γ to 4^+.
2318.6 *3*	$(4^-,5,6^+)$		B	Jπ: γs to 4^+ and 5^-; no γ to 2^+ level. Possible 240.1γ to 7^- disfavors 4^- and 5^+.
2319.0[c] *3*	$(8)^-$		B EFGH	Jπ: ΔJ=1, M1+E2 γ to 7^-.
2335.5[b] *3*	(9^-)		B DEFGH	Jπ: ΔJ=2 γ to 7^-.
2342.98 *21*	$(4^+,5^+)$		B	Jπ: γs to 3^+ and 6^+.
2365.38 *22*	$(4^+,5,6^+)$		B	Jπ: γs to 4^+ and 6^+.
2392.0? *4*	$(5^-$ to $9^-)$		B	Jπ: γ to 7^-.
2424.8? *4*	$(5^-$ to $9^-)$		B	Jπ: γ to 7^- (2078).
2465.0[a] *3*	$(8)^+$		B DEFGH	Jπ: ΔJ=2, E2 γ to 6^+.
2509.95[&] *24*	6^+		B	Jπ: E0+M1+E2 γ to 6^+.
2573.0[o] *3*	$(8)^+$		B E	Jπ: E2 γ to 6^+.
2596.9[a] *3*	(10^+)		DEFGH	Jπ: ΔJ=2, E2 γ to (8^+); ΔJ=1 γ to (9^-).
2620.7[a] *5*	(12^+)	23 ns *1*	DEFGH	μ=−2.52 *24* (1980Hj01,2014StZZ) Q=1.17 *14* (1984Dr09,2016St14) Jπ: probable member of a band from configuration=$(\nu\ i_{13/2})^{+2}$. The g-factor deduced from this configuration agrees well with the experimental value (see 1980Hj01). $T_{1/2}$: γ(t). Weighted average of 21 ns *2* (1980Hj01), 24 ns *3* (1975Li16); 24.5 ns *15* (1972In02). g=−0.21 *2* (1980Hj01). μ: time differential perturbed angular distribution (1980Hj01). Q: time differential perturbed angular distribution (1984Dr09).
2724.3[c] *4*	(10^-)		EFG	Jπ: ΔJ=2 γ to $(8)^-$.
2821.5 *3*	$(3^+$ to $6^+)$		B	Jπ: γs to 4^+ and 5^+.
2844.7 *4*	(10^-)		EFG	Jπ: ΔJ=2 γ to $(8)^-$.
2865.6[b] *4*	(11^-)		DEFGH	Jπ: ΔJ=2 γ to (9^-).
3007.1[d] *4*	(11^-)		EFG	Jπ: ΔJ=1 γ to (10^-).
3040.6[a] *5*	(14^+)		DEFGH	Jπ: ΔJ=2 γ to (12^+).
3213.0[o] *3*	(10^+)		E	
3277.4[j] *4*	(12^+)		EFG	Jπ: ΔJ=2 γ to (10^+).
3282.4 *3*	(10^-)		E	
3329.3 *4*	(12^-)		E	Jπ: ΔJ=2 γ to (10^-).
3350.3 *4*	(10^+)		E	
3358.3[c] *4*	(12^-)		EFG	Jπ: ΔJ=2 γ to (10^-).
3446.0[o] *4*	(11^+)		E	
3493.7[d] *4*	(13^-)		EFG	Jπ: ΔJ=2 γ to (11^-).

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Adopted Levels, Gammas (continued)

^{190}Hg Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
3548.9[b] 4	(13⁻)	DEFG	Jπ: ΔJ=2 γ to (11⁻).
3703.4[a] 4	(16⁺)	EFG	Jπ: ΔJ=2 γ to (14⁺).
3744.0[j] 4	(14⁺)	EF	Jπ: ΔJ=(2) γ to (12⁺).
3951.1[o] 5	(13⁺)	E	Jπ: ΔJ=2, E2 γ to (11⁺).
3980.0[h] 4	(14⁻)	EFG	Jπ: ΔJ=(2) γ to (12⁻).
4087.8[g] 4	(15⁻)	EFG	Jπ: ΔJ=2 γ to (13⁻).
4183.0[d] 5	(15⁻)	E	Jπ: ΔJ=2 γ to (13⁻).
4243.4[h] 4	(16⁻)	EFG	Jπ: ΔJ=2 γ to (14⁻).
4258.0[b] 5	(15⁻)	EF	Jπ: ΔJ=2 γ to (13⁻).
4327.5[g] 5	(17⁻)	EFG	Jπ: ΔJ=2 γ to (15⁻).
4360.0[j] 5	(16⁺)	EF	Jπ: ΔJ=2 γ to (14⁺).
4416.6 5	(16⁺)	E	Jπ: ΔJ=2 γ to (14⁺).
4492.6[a] 5	(18⁺)	EFG	Jπ: ΔJ=2 γ to (16⁺).
4552.2[h] 5	(18⁻)	EFG	Jπ: ΔJ=2 γ to (16⁻).
4577.9[o] 7	(15⁺)	E	Jπ: γ to (13⁺).
4669.0 6	(17⁻)	E	Jπ: γ to (15⁻).
4711.0[g] 5	(19⁻)	EFG	Jπ: ΔJ=2 γ to (17⁻).
4915.7[j] 6	(18⁺)	E	Jπ: ΔJ=2 γ to (16⁺).
4953.0[l] 5	(17⁻)	E	Jπ: ΔJ=2 γ to (15⁻).
4991.8 6	(18⁺)	E	Jπ: ΔJ=(2) γ to (16⁺).
5103.0[l] 5	(18⁻)	E	Jπ: γ to (17⁻).
5106.5[h] 5	(20⁻)	EF	Jπ: ΔJ=2 γ to (18⁻).
5220.9 7	(16⁺)	E	
5229.0[e] 6	(20⁺)	EFG	Jπ: ΔJ=2 γ to (18⁺).
5263.4 8	(19⁻)	E	
5281.5[i] 5	(20⁻)	E	
5329.3 5	(19⁻)	E	
5336.1[g] 5	(21⁻)	EFG	Jπ: γ to (19⁻); probable band member.
5352.0[a] 6	(20⁺)	EF	Jπ: γ to (18⁺); probable band member.
5375.1[l] 5	(19⁻)	E	
5405.6[o] 7	(16⁺)	E	Jπ: ΔJ=1, (M1+E2) γ to (15⁺).
5440.0[p] 14	(12⁺)	D	Jπ: γ to (14⁺). The spin of the lowest level in SD-1 may be 12 or 13, assuming that the linking transitions carry no more than two units of angular momentum, the former is preferred since it is consistent with the feeding of normal-deformed levels. Also the band may be considered as a quasivacuum band in an even-even nucleus, which makes odd spins for inband levels unlikely (2010Wi02).
5482.2[f] 6	(20⁺)	E	Jπ: ΔJ=2 γ to (18⁺).
5556.4 7	(20⁻)	E	
5639.6[m] 7	(17⁺)	E	Jπ: ΔJ=1 γ to (16⁺).
5660.8[j] 6	(20⁺)	E	Jπ: ΔJ=2 γ to (18⁺).
5672.4[l] 5	(20⁻)	E	
5756.9[p] 13	(14⁺)	D	Jπ: ΔJ=(2) γ to (12⁺); γs to (13⁻) and (14⁺); band member.
5789.4[m] 8	(18⁺)	E	Jπ: ΔJ=1 γ to (17⁺).
5795.2[e] 6	(22⁺)	EFG	Jπ: ΔJ=2, γ to (20⁺); probable band member.
5857.2[h] 5	(22⁻)	E	Jπ: ΔJ=2 γ to (20⁻).
5943.6[f] 6	(22⁺)	E	Jπ: ΔJ=2 γ to (20⁺).
5970.0 6	(22⁺)	E	Jπ: ΔJ=2 γ to (20⁺).
6005.3[m] 8	(19⁺)	E	
6049.2[l] 5	(21⁻)	E	
6116.9[p] 17	(16⁺)	D	Jπ: ΔJ=(2) γ to (14⁺); band member.

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Adopted Levels, Gammas (continued)

^{190}Hg Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	XREF	Comments
6126.1[i] 5	(22$^-$)	E	J$^{\pi}$: ΔJ=2 γ to (20$^-$).
6143.9[g] 6	(23$^-$)	EF	J$^{\pi}$: ΔJ=2 γ to (21$^-$).
6219.9[a] 6	(22$^+$)	E	J$^{\pi}$: ΔJ=2 γ to (20$^+$).
6261.0[m] 9	(20$^+$)	E	J$^{\pi}$: ΔJ=1 γ to (20$^+$).
6335.6? 7	(24$^+$)	F	J$^{\pi}$: ΔJ=2 γ to (22$^+$).
6485.3[l] 5	(22$^-$)	E	
6519.2[p] 17	(18$^+$)	D	J$^{\pi}$: ΔJ=(2) γ to (16$^+$); band member.
6521.1[f] 6	(24$^+$)	E G	J$^{\pi}$: ΔJ=2 γ to (22$^+$).
6565.1[m] 10	(21$^+$)	E	J$^{\pi}$: ΔJ=1, (M1+E2) γ to (20$^+$).
6576.6? 7	(24$^+$)	F	J$^{\pi}$: ΔJ=2 γ to (22$^+$).
6684.1[h] 6	(24$^-$)	E	J$^{\pi}$: ΔJ=2 γ to (22$^-$).
6832.4[l] 5	(23$^-$)	E	
6894.0[m] 10	(22$^+$)	E	J$^{\pi}$: ΔJ=1 γ to (21$^+$).
6930.1[i] 6	(24$^-$)	E	J$^{\pi}$: ΔJ=2 γ to (22$^-$).
6936.1[k] 11	(22$^+$)	E	
6962.2[p] 17	(20$^+$)	D	J$^{\pi}$: ΔJ=2, E2 γ to (18$^+$); band member.
6971.3[l] 5	(24$^-$)	E	
7036.8[g] 6	(25$^-$)	E	J$^{\pi}$: ΔJ=2 γ to (23$^-$).
7200.9[l] 6	(25$^-$)	E	
7256.5[m] 10	(23$^+$)	E	J$^{\pi}$: ΔJ=1 γ to (22$^+$).
7282.2[f] 7	(26$^+$)	E	J$^{\pi}$: ΔJ=2 γ to (24$^+$).
7297.8[e] 7	(26$^+$)	E	J$^{\pi}$: ΔJ=2 γ to (24$^+$).
7307.1[k] 12	(23$^+$)	E	
7444.9[p] 17	(22$^+$)	D	J$^{\pi}$: ΔJ=(2) γ to (20$^+$); band member.
7496.5[l] 6	(26$^-$)	E	
7532.1[h] 7	(26$^-$)	E	
7621.3[k] 12	(24$^+$)	E	
7639.7[m] 11	(24$^+$)	E	J$^{\pi}$: ΔJ=1, (M1+E2) γ to (23$^+$).
7656.0 6	(26$^-$)	E	
7808.8[i] 7	(26$^-$)	E	J$^{\pi}$: ΔJ=2 γ to (24$^-$).
7810.5[l] 7	(27$^-$)	E	
7826.7 7	(25)	E	J$^{\pi}$: ΔJ=1 γ to (24).
7893.0[k] 13	(25$^+$)	E	
7956.5 7	(27$^-$)	E	J$^{\pi}$: ΔJ=2 γ to (25$^-$).
7966.2[p] 17	(24$^+$)	D	J$^{\pi}$: ΔJ=2, E2 γ to (16$^+$); band member.
7995.6[g] 6	(27$^-$)	E	J$^{\pi}$: ΔJ=2 γ to (25$^-$).
8052.2[m] 11	(25$^+$)	E	J$^{\pi}$: ΔJ=1 γ to (24$^+$).
8090.6[f] 7	(28$^+$)	E	J$^{\pi}$: ΔJ=2 γ to (26$^+$). Possible terminating state with configuration= $\nu i^{10}_{13/2}\otimes\nu h^{-2}_{9/2}\otimes\nu f^{-2}_{7/2}$ (1994Be27).
8124.4[l] 6	(28$^-$)	E	
8227.5[e] 7	(28$^+$)	E	Possible terminating state with configuration= $\nu i^{10}_{13/2}\otimes\nu h^{-2}_{9/2}\otimes\nu f^{-2}_{7/2}$ (1994Be27). J$^{\pi}$: ΔJ=2 γ to (26$^+$).
8395.8[q] 17	(23$^-$)	D	J$^{\pi}$: ΔJ=1, E1 γ to (22$^+$).
8411.1[h] 7	(28$^-$)	E	
8439.4[l] 7	(29$^-$)	E	
8481.4[m] 12	(26$^+$)	E	J$^{\pi}$: ΔJ=(2) γ to (24$^+$).
8524.8[p] 17	(26$^+$)	D	J$^{\pi}$: ΔJ=2, E2 γ to (24$^+$); band member.
8735.1[l] 7	(30$^-$)	E	
8876.4[m] 13	(27$^+$)	E	

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Adopted Levels, Gammas (continued)

^{190}Hg Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
8877.1[q] *17*	(25⁻)	76 fs *14*	D	$T_{1/2}$: from 911γ (1997Am06). Jπ: γ to (23⁻); E1 γ to (24⁺); band member.
9119.7[p] *17*	(28⁺)		D	Jπ: ΔJ=2 γ to (26⁺); band member.
9146.4[l] *7*	(31⁻)		E	
9388.5[q] *17*	(27⁻)	69 fs *14*	D	Jπ: γ to (25⁻); E1 γ to (26⁺); band member. $T_{1/2}$: from 864γ (1997Am06).
9583.3[l] *7*	(32⁻)		E	
9749.8[p] *17*	(30⁺)		D	Jπ: ΔJ=2 γ to (28⁺); band member.
9931.7[q] *17*	(29⁻)	90 fs *21*	D	$T_{1/2}$: from 812γ (1997Am06). Jπ: γ to (27⁻); ΔJ=(1), dipole γ to (28⁺); band member.
10030.7[l] *7*	(33⁻)		E	
10413.9[p] *17*	(32⁺)		D	Jπ: ΔJ=2 γ to (30⁺); band member.
10507.2[q] *17*	(31⁻)	76 fs *14*	D	Jπ: γs to (29⁻) and (30⁺); band member. $T_{1/2}$: from 757γ (1997Am06).
11110.8[p] *17*	(34⁺)		D	Jπ: γ to (32⁺); band member.
11115.3[q] *18*	(33⁻)		D	Jπ: γs to (31⁻) and (32⁺); band member.
11756.9[q] *18*	(35⁻)		D	Jπ: γ to (33⁻); band member.
11839.3[p] *17*	(36⁺)		D	Jπ: ΔJ=2 γ to (34⁺); band member.
12431.4[q] *19*	(37⁻)		D	Jπ: γ to (35⁻); band member.
12596.7[p] *18*	(38⁺)		D	Jπ: γ to (36⁺); band member.
13138.5[q] *20*	(39⁻)		D	Jπ: γ to (37⁻); band member.
13380.2[p] *19*	(40⁺)		D	Jπ: γ to (38⁺); band member.
14182.0?[p] *21*	(42⁺)		D	Jπ: possible γ to (40⁺); band member.
x			E	E(level): x ≈5600, decays to 3951, 13⁺ through an unknown cascade of two transitions.
202.2+x *3*			E	
366.2+x[n] *5*	J1≈(20)		E	
653.0+x[n] *6*	J1+1		E	
945.4+x[n] *6*	J1+2		E	
1248.3+x[n] *8*	J1+3		E	
1556.1+x[n] *9*	J1+4		E	
1863.6+x[n] *10*	J1+5		E	
2184.7+x[n] *12*	J1+6		E	
2506.7+x[n] *13*	J1+7		E	
2820.8+x[n] *13*	J1+8		E	
3156.6+x[n] *13*	J1+9		E	
3510.6+x[n] *14*	J1+10		E	
3891.9+x[n] *14*	J1+11		E	
4302.6+x[n] *15*	J1+12		E	
4740.6+x[n] *15*	J1+13		E	
y[r]	J2≈(14)		D	
279.0+y?[r] *10*	J2+2		D	
597.0+y[r] *11*	J2+4		D	
955.3+y[r] *12*	J2+6		D	
1352.7+y[r] *12*	J2+8		D	
1788.6+y[r] *13*	J2+10		D	
2262.6+y[r] *14*	J2+12		D	
2773.2+y[r] *14*	J2+14		D	
3320.9+y[r] *17*	J2+16		D	
3903.8+y[r] *18*	J2+18		D	
4521.7+y[r] *19*	J2+20		D	

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Adopted Levels, Gammas (continued)

^{190}Hg Levels (continued)

E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF
5173.2+y[r] *21*	J2+22	D	1914.5+z[s] *8*	J3+8	D	5005.8+z[s] *14*	J3+18	D
z[s]	J3	D	2462.2+z[s] *9*	J3+10	D	5729.1+z[s] *15*	J3+20	D
446.3+z[s] *4*	J3+2	D	3044.9+z[s] *11*	J3+12	D	6489.5+z[s] *16*	J3+22	D
912.8+z[s] *6*	J3+4	D	3662.6+z[s] *11*	J3+14	D	7280.5+z?[s] *19*	J3+24	D
1399.5+z[s] *7*	J3+6	D	4316.2+z[s] *12*	J3+16	D			

† From least-squares fit to Eγ data.

‡ In in-beam γ-ray studies, ascending spins are assumed as the excitation energy increases. This is generally supported by the decay modes. Also when γ(θ) indicates mult=Q (stretched quadrupole) mult=E2 is assumed since long half-lives (expected for M2) are not apparent from γγ-coin data. When no J^π arguments are given, the assignment is implied from decay modes and band associations.

From γγ(t) in ^{190}Tl ε decay (3.6 min) (2019Ol05), unless otherwise noted.

@ Band(A): g.s., oblate band. β_2=0.13, γ=−60°.

& Band(B): $K^\pi=0^+$ band. Band assignment from 1994De25 and 1991Ko03.

a Band(C): AB,α=0 oblate band. β_2=0.14, γ=−54°.

b Band(D): AF,α=1 oblate band. β_2=0.14, γ=−54°.

c Band(E): AE,α=0 oblate band. β_2=0.14, γ=−54°.

d Band(F): AF′,α=1 band (?) Band assignment from 1994Be27.

e Band(G): ABCD,α=0 band.

f Band(g): Band based on (20^+),α=0. Band assignment from 1994Be27.

g Band(H): ABCF,α=1 band.

h Band(I): ABCE,α=0 band.

i Band(J): ABCF′,α=0 (?). Band assignment from 1994Be27.

j Band(K): Band based on (12^+),α=0. Band assignment from 1994Be27.

k Band(L): Dipole band based on (22^+). Band assignment from 2001Wi11.

l Band(M): Magnetic-dipole rotational (MR-1) band. Band assignment from 2001Wi11.

m Band(N): Magnetic-dipole rotational (MR-2) band. Band assignment from 2001Wi11.

n Band(O): Magnetic-dipole rotational (MR-3) band Band assignment from 2001Wi11.

o Seq.(T): γ sequence based on (8^+). Band assignment from 2001Wi11.

p Band(P): SD-1 band. Band assignment from 1991Dr04, 1995Cr02, 1996Wi08, 1997Am06, 2000Zw03. Q(Intrinsic)=17.7 *+10−12* (1997Am06), 18 *3* (1991Dr04). The systematic error in 1997Am06 could be as large as 10-15%. Percent population ≈0.8 (1991Dr04). See also 1992BeZL.

q Band(Q): SD-2 band. Band assignment from 1995Cr02, 1996Wi08, 1997Am06, 1994Cr08. Q(Intrinsic)=17.6 *15* (1997Am06). The systematic error in this value could be as large as 10-15%. Population intensity=20% of SD-1 band (1994Cr08). See also 1992BeZL. Possible mult=E1 for interband transitions suggests opposite parity for two bands. 1995Cr02 suggest positive parity for the yrast band and negative parity for the excited band. Deduced E1 strengths are interpreted (by 1996Wi08) as a support for octupole vibrational character of this band.

r Band(R): SD-3 band. Band assignment from 1996Wi08.

s Band(S): SD-4 band. Band assignment from 1996Wi08.

Adopted Levels, Gammas (continued)

γ(^{190}Hg)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. ‡	δ ‡	α @	$I_{(\gamma+ce)}$	Comments
416.32	2^+	416.4 *2*	100	0.0	0^+	E2		0.0427		B(E2)(W.u.)=45 *3*
1041.77	4^+	625.4 *2*	100	416.32	2^+	E2		0.01602		B(E2)(W.u.)=18 *+22−8*
1099.94	2^+	683.5 *2*	100 *10*	416.32	2^+	E2+M1	2.0 *+10−5*	0.019 *3*		
		1099.9 *3*	63 *6*	0.0	0^+	E2		0.00502		
1278.6	0^+	862.2 *3*	100	416.32	2^+					
		1278.7		0.0	0^+	E0			3.2	q_K^2(E0/E2)=3.7 *19*, X(E0/E2)=0.06 *3* (2005Ki02). $I_{(\gamma+ce)}$: ce(K)/Iγ(862.2)=0.01/0.4.
1558.71	2^+	458.7 *3*	25 *3*	1099.94	2^+					
		516.8 *3*	18 *2*	1041.77	4^+					
		1142.5 *3*	100 *7*	416.32	2^+	E2(+M1)	>2	0.0053 *7*		
		1558.9 *3*	29 *2*	0.0	0^+					
1571.42	2^+	292.6 [a] *3*	4 *3*	1278.6	0^+					
		529.7 *3*	26 *10*	1041.77	4^+					
		1155.0 *3*	100 *9*	416.32	2^+	E0+M1+E2		0.052 *7*		Mult.,α: from ce data in ^{190}Tl ε decay (3.7 min).
		1571.2 *3*	67 *20*	0.0	0^+					
1657.07	3^+	557.0 *2*	100 *10*	1099.94	2^+	E2+M1	3.5 *10*	0.024 *3*		
		615.3 *3*	63 *6*	1041.77	4^+	E2+M1	1.3 *2*	0.030 *3*		
		1240.9 *3*	16 *5*	416.32	2^+	(E2)		0.00399		
1772.94	6^+	731.1 *2*	100	1041.77	4^+	E2		0.01141		B(E2)(W.u.)=5.9 *+57−22*
1850.78	$(2^+,3,4^+)$	751.1 *3*	100 *10*	1099.94	2^+					
		808.0 *3*	66 *7*	1041.77	4^+					
		1434.7 *3*	12 *1*	416.32	2^+					
1881.18	5^-	839.6 *2*	100	1041.77	4^+	E1		0.00318		B(E1)(W.u.)>8.6×10^{-6}
1975.30	4^+	403.8 *3*	20 *5*	1571.42	2^+	E2		0.0462		
		933.4 *3*	39 *10*	1041.77	4^+	E0+M1+E2		0.066 *7*		Mult.,α: from ce data in ^{190}Tl ε decay (3.7 min).
		1558.8 *3*	100 *7*	416.32	2^+					
2072.8	$(4,5,6)^+$	1030.9 *3*	100	1041.77	4^+	M1+E2	1.1 *3*	0.0095 *14*		
2078.33	7^-	196.9 *2*	34 *2*	1881.18	5^-	E2		0.412		B(E2)(W.u.)>31 I_γ: others: 61 *2* from (^{14}N,5nγ) and 74 *7* from (^{24}Mg,4nγ). These values are too high probably due to unresolved peaks.
		305.4 *2*	100 *2*	1772.94	6^+	E1		0.0266		B(E1)(W.u.)>2.3×10^{-5}
2162.92	(4^+)	390.1 [&] *3*	<12 [&]	1772.94	6^+	[E2]		0.0507		
		506.0 *3*	35 *4*	1657.07	3^+					
		604.3 *3*	100 *10*	1558.71	2^+					
		1121.1 *3*	51 *5*	1041.77	4^+					
2200.97	$(5)^+$	428.1 *3*	5.6 *6*	1772.94	6^+					
		543.9 *2*	100 *10*	1657.07	3^+	E2		0.0220		
		1159.7 *3*	9.4 *9*	1041.77	4^+					
2251.4	$(6,7)^-$	370.3 *2*	100 *10*	1881.18	5^-	E2(+M1)	>7	0.0598 *17*		
		478.3 *3*	27 *3*	1772.94	6^+					
2318.6	$(4^-,5,6^+)$	240.1 [a]		2078.33	7^-					

$^{190}_{80}Hg_{110}$-7

Adopted Levels, Gammas (continued)

γ(^{190}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[@]	Comments
2318.6	(4⁻,5,6⁺)	437.6 *3*	70 *7*	1881.18	5⁻				
		1276.7 *3*	100 *10*	1041.77	4⁺				
2319.0	(8)⁻	240.6 *2*	100 *10*	2078.33	7⁻	M1+E2	1.6 *5*	0.34 *8*	Mult.,δ: from ce data in ^{190}Tl ε decay (3.7 min). From ce data in in-beam γ ray work, mult=E2+M1 with δ≈0.85.
2335.5	(9⁻)	257.1 *2*	100	2078.33	7⁻	(E2)		0.1708	Mult.: from γ(θ) in in-beam γ ray work and ce data in ^{190}Tl ε decay.
2342.98	(4⁺,5⁺)	142.7 *3*	37 *4*	2200.97	(5)⁺	[D,E2]		1.7 *15*	
		492.1 *3*	78 *8*	1850.78	(2⁺,3,4⁺)				
		569.9 *3*	50 *5*	1772.94	6⁺				
		685.8 *3*	100 *10*	1657.07	3⁺				
		1300.8 *3*	27 *3*	1041.77	4⁺				
2365.38	(4⁺,5,6⁺)	390.1[&] *3*	<12[&]	1975.30	4⁺				
		514.5 *3*	11 *1*	1850.78	(2⁺,3,4⁺)				
		592.6 *3*	24 *2*	1772.94	6⁺				
		1323.4 *3*	100 *10*	1041.77	4⁺				
2392.0?	(5⁻ to 9⁻)	313.7[a] *3*	100	2078.33	7⁻				
2424.8?	(5⁻ to 9⁻)	346.5[a] *3*	100	2078.33	7⁻				
2465.0	(8)⁺	692.0 *2*	100	1772.94	6⁺	E2		0.01284	
2509.95	6⁺	534.7 *3*	100 *8*	1975.30	4⁺				
		736.9 *3*	72 *28*	1772.94	6⁺	E0+M1+E2		0.080 *8*	Mult.,α: from ce data in ^{190}Tl ε decay (3.7 min).
		1468.1 *3*	85 *35*	1041.77	4⁺				
2573.0	(8)⁺	800.1 *2*	100	1772.94	6⁺	E2		0.00945	
2596.9	(10⁺)	131.9 *3*	100 *12*	2465.0	(8)⁺	E2		1.80	Mult.: from ce data.
		261.5[a] *3*	6 *2*	2335.5	(9⁻)	D			
2620.7	(12⁺)	23.9 *5*	100	2596.9	(10⁺)	[E2]		5.2×10^3 *6*	B(E2)(W.u.)=9.4 *+18−13* Transition seen as ce(M) (1983Gu05) in (ce)(ce)-coin.
2724.3	(10⁻)	388.8 *3*	51 *7*	2335.5	(9⁻)				
		405.3 *3*	100 *11*	2319.0	(8)⁻	(E2)		0.0458	
2821.5	(3⁺ to 6⁺)	620.4 *3*	14 *2*	2200.97	(5)⁺				
		658.7 *3*	100 *10*	2162.92	(4⁺)				
2844.7	(10⁻)	525.7 *3*	100	2319.0	(8)⁻	Q			
2865.6	(11⁻)	530.1 *3*	100	2335.5	(9⁻)	Q			
3007.1	(11⁻)	162.5 *3*	100	2844.7	(10⁻)	D			
3040.6	(14⁺)	419.9 *2*	100	2620.7	(12⁺)	(E2)		0.0417	
3213.0	(10⁺)	616.1 *3*		2596.9	(10⁺)				
		640.1 *3*		2573.0	(8)⁺				
		748.0 *3*		2465.0	(8)⁺				
3277.4	(12⁺)	680.5 *3*	100	2596.9	(10⁺)	Q			
3282.4	(10⁻)	(69.4 *10*)		3213.0	(10⁺)				
		416.6 *5*		2865.6	(11⁻)				
		685.5 *3*		2596.9	(10⁺)				
		709.5 *3*		2573.0	(8)⁺				

Adopted Levels, Gammas (continued)

γ(^{190}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[@]
3329.3	(12⁻)	484.6 *3*	100	2844.7	(10⁻)	(E2)	0.0291
3350.3	(10⁺)	777.3 *3*		2573.0	(8)⁺		
3358.3	(12⁻)	492.7 *3*	10 *3*	2865.6	(11⁻)	(D)	
		633.9 *3*	100 *5*	2724.3	(10⁻)	Q	
3446.0	(11⁺)	95.8 *10*		3350.3	(10⁺)		
		163.6 *3*		3282.4	(10⁻)	D	
		233.0 *4*		3213.0	(10⁺)		
3493.7	(13⁻)	486.6 *3*	100	3007.1	(11⁻)	(E2)	0.0288
3548.9	(13⁻)	683.2 *3*	100	2865.6	(11⁻)	Q	
3703.4	(16⁺)	662.8 *2*	100	3040.6	(14⁺)	Q	
3744.0	(14⁺)	466.6 *3*	100	3277.4	(12⁺)	(E2)	0.0319
3951.1	(13⁺)	505.1 *3*		3446.0	(11⁺)	E2	0.0263
3980.0	(14⁻)	621.7 *2*	100 *5*	3358.3	(12⁻)	(Q)	
		650.6 *3*	23 *4*	3329.3	(12⁻)	Q	
4087.8	(15⁻)	343.8 *3*	5.6 *14*	3744.0	(14⁺)	D	
		538.8 *3*	100 *7*	3548.9	(13⁻)	Q	
		594.0 *3*	25 *3*	3493.7	(13⁻)	Q	
4183.0	(15⁻)	689.4 *3*	100	3493.7	(13⁻)	Q	
4243.4	(16⁻)	155.7 *3*	10 *3*	4087.8	(15⁻)	D	
		263.4 *3*	100 *4*	3980.0	(14⁻)	(E2)	0.1583
		540.0 *3*	36 *10*	3703.4	(16⁺)	(D)	
4258.0	(15⁻)	709.2 *3*	100	3548.9	(13⁻)	Q	
4327.5	(17⁻)	84.4[a]		4243.4	(16⁻)		
		239.4 *4*	100 *9*	4087.8	(15⁻)	(E2)	0.214
		624.4[a] *3*	14 *3*	3703.4	(16⁺)	(D)	
4360.0	(16⁺)	616.0 *3*	100	3744.0	(14⁺)	Q	
4416.6	(16⁺)	672.6 *3*	100	3744.0	(14⁺)	Q	
4492.6	(18⁺)	789.2 *2*	100	3703.4	(16⁺)	Q	
4552.2	(18⁻)	308.7 *3*	100	4243.4	(16⁻)	(E2)	0.0978
4577.9	(15⁺)	626.8 *4*		3951.1	(13⁺)		
4669.0	(17⁻)	486.0 *3*	100	4183.0	(15⁻)		
4711.0	(19⁻)	158.9 *3*	3 *1*	4552.2	(18⁻)	D	
		383.2 *3*	100 *3*	4327.5	(17⁻)	(E2)	0.0532
4915.7	(18⁺)	555.7 *3*	100	4360.0	(16⁺)	Q	
4953.0	(17⁻)	695.1 *3*		4258.0	(15⁻)		
		770.2 *3*	100	4183.0	(15⁻)	Q	
4991.8	(18⁺)	575.2 *3*	100	4416.6	(16⁺)	(Q)	
5103.0	(18⁻)	150.0 *3*		4953.0	(17⁻)		
5106.5	(20⁻)	554.2 *3*	100	4552.2	(18⁻)	Q	
5220.9	(16⁺)	643.0 *3*		4577.9	(15⁺)		
5229.0	(20⁺)	736.4 *3*	100	4492.6	(18⁺)	Q	
5263.4	(19⁻)	711		4552.2	(18⁻)		
		936		4327.5	(17⁻)		

$^{190}_{80}Hg_{110}$-9

Adopted Levels, Gammas (continued)

γ(^{190}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[@]
5281.5	(20$^-$)	175		5106.5	(20$^-$)		
		570.5 *3*	100	4711.0	(19$^-$)		
5329.3	(19$^-$)	1001.8 *3*		4327.5	(17$^-$)		
5336.1	(21$^-$)	625.0 *3*	100	4711.0	(19$^-$)		
5352.0	(20$^+$)	859.3 *3*	100	4492.6	(18$^+$)	Q	
5375.1	(19$^-$)	272.2 *3*		5103.0	(18$^-$)		
		422.2 *3*		4953.0	(17$^-$)		
5405.6	(16$^+$)	827.7 *3*		4577.9	(15$^+$)	(M1+E2)	0.0168 *80*
5440.0	(12$^+$)	2400 *2*		3040.6	(14$^+$)		
5482.2	(20$^+$)	989.6 *3*	100	4492.6	(18$^+$)	Q	
5556.4	(20$^-$)	275		5281.5	(20$^-$)		
		293		5263.4	(19$^-$)		
		450		5106.5	(20$^-$)		
5639.6	(17$^+$)	234.0 *3*		5405.6	(16$^+$)	D	
		418.7 *3*		5220.9	(16$^+$)		
5660.8	(20$^+$)	669.1 *3*	100 *30*	4991.8	(18$^+$)	Q	
		745.1 *3*	90 *30*	4915.7	(18$^+$)	Q	
5672.4	(20$^-$)	297.3 *3*		5375.1	(19$^-$)		
		569.4 *3*		5103.0	(18$^-$)		
5756.9	(14$^+$)	316.9 *4*	100 *19*	5440.0	(12$^+$)	(E2)	0.0906
		2207 *2*		3548.9	(13$^-$)		
		2717 *2*		3040.6	(14$^+$)		
5789.4	(18$^+$)	149.8 *3*		5639.6	(17$^+$)	D	
5795.2	(22$^+$)	566.2 *3*	100	5229.0	(20$^+$)	Q	
5857.2	(22$^-$)	750.5 *3*	100	5106.5	(20$^-$)	Q	
5943.6	(22$^+$)	461.5 *3*	100 *36*	5482.2	(20$^+$)	(E2)	0.0328
		591.6 *3*	57 *21*	5352.0	(20$^+$)	Q	
5970.0	(22$^+$)	741.0 *3*	100	5229.0	(20$^+$)	Q	
6005.3	(19$^+$)	215.9 *3*		5789.4	(18$^+$)		
6049.2	(21$^-$)	376.9 *3*		5672.4	(20$^-$)		
		674.2 *3*		5375.1	(19$^-$)		
		720.0 *3*		5329.3	(19$^-$)		
6116.9	(16$^+$)	360 *1*	100	5756.9	(14$^+$)	(E2)	0.0631 *10*
6126.1	(22$^-$)	570		5556.4	(20$^-$)		
		790.1 *3*	35 *13*	5336.1	(21$^-$)		
		844.6 *3*	100 *13*	5281.5	(20$^-$)	Q	
6143.9	(23$^-$)	807.7 *3*	100	5336.1	(21$^-$)	Q	
6219.9	(22$^+$)	867.9 *3*	100	5352.0	(20$^+$)	Q	
6261.0	(20$^+$)	255.7 *3*		6005.3	(19$^+$)	D	
6335.6?	(24$^+$)	540.4 *3*	100	5795.2	(22$^+$)	Q	
6485.3	(22$^-$)	436.2 *3*		6049.2	(21$^-$)		
		813.0 *3*		5672.4	(20$^-$)		
6519.2	(18$^+$)	402.34 *4*	100	6116.9	(16$^+$)	(E2)	0.0467

$^{190}_{80}Hg_{110}$-10

Adopted Levels, Gammas (continued)

γ(^{190}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[@]
6521.1	(24$^+$)	577.5 *3*	67 *11*	5943.6	(22$^+$)	Q	
		725.9 *3*	100 *11*	5795.2	(22$^+$)	(Q)	
6565.1	(21$^+$)	304.1 *3*		6261.0	(20$^+$)	(M1+E2)	0.22 *13*
6576.6?	(24$^+$)	781.4 *3*	100	5795.2	(22$^+$)	Q	
6684.1	(24$^-$)	826.9 *3*	100	5857.2	(22$^-$)	Q	
6832.4	(23$^-$)	347.2 *3*		6485.3	(22$^-$)		
		783.3 *3*		6049.2	(21$^-$)		
		975.1 *3*		5857.2	(22$^-$)		
6894.0	(22$^+$)	328.9 *3*		6565.1	(21$^+$)	D	
6930.1	(24$^-$)	804.0 *3*	100	6126.1	(22$^-$)	Q	
6936.1	(22$^+$)	371.0 *5*		6565.1	(21$^+$)		
6962.2	(20$^+$)	442.98 *6*	100	6519.2	(18$^+$)	E2[#]	0.0364
6971.3	(24$^-$)	138.9 *3*		6832.4	(23$^-$)		
		486.1 *3*		6485.3	(22$^-$)		
		845.3 *3*		6126.1	(22$^-$)		
		1114.0 *3*		5857.2	(22$^-$)		
7036.8	(25$^-$)	892.7 *3*	100	6143.9	(23$^-$)	Q	
7200.9	(25$^-$)	229.8 *3*		6971.3	(24$^-$)		
7256.5	(23$^+$)	362.5 *3*		6894.0	(22$^+$)	D	
7282.2	(26$^+$)	761.1 *3*	100	6521.1	(24$^+$)	Q	
7297.8	(26$^+$)	776.7 *3*	100	6521.1	(24$^+$)	Q	
7307.1	(23$^+$)	371.0 *5*		6936.1	(22$^+$)		
7444.9	(22$^+$)	482.71 *6*	100	6962.2	(20$^+$)	(E2)	0.0294
7496.5	(26$^-$)	295.7 *3*		7200.9	(25$^-$)		
7532.1	(26$^-$)	848.0 *3*	100	6684.1	(24$^-$)		
7621.3	(24$^+$)	314.2 *3*		7307.1	(23$^+$)		
7639.7	(24$^+$)	383.2 *3*		7256.5	(23$^+$)	(M1+E2)	0.120 *67*
7656.0	(26$^-$)	455.1 *3*		7200.9	(25$^-$)		
7808.8	(26$^-$)	878.7 *3*	100	6930.1	(24$^-$)	Q	
7810.5	(27$^-$)	314.0 *4*		7496.5	(26$^-$)		
7826.7	(25)	896.6 *3*	100	6930.1	(24$^-$)	D	
7893.0	(25$^+$)	271.7 *4*		7621.3	(24$^+$)		
7956.5	(27$^-$)	919.7 *3*	100	7036.8	(25$^-$)	Q	
7966.2	(24$^+$)	521.30 *6*	100	7444.9	(22$^+$)	E2[#]	0.0244
7995.6	(27$^-$)	339.7 *3*		7656.0	(26$^-$)		
		499.2 *3*		7496.5	(26$^-$)		
		958.6 *3*	100	7036.8	(25$^-$)	Q	
8052.2	(25$^+$)	412.5 *3*		7639.7	(24$^+$)	D	
8090.6	(28$^+$)	808.4 *3*	100	7282.2	(26$^+$)	Q	
8124.4	(28$^-$)	128.8 *3*		7995.6	(27$^-$)		
		314.0 *4*		7810.5	(27$^-$)		
8227.5	(28$^+$)	929.6 *3*	100	7297.8	(26$^+$)	Q	

$^{190}_{80}Hg_{110}$-11

Adopted Levels, Gammas (continued)

γ(^{190}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[@]	Comments
8395.8	(23$^-$)	950.8 *3*	100	7444.9	(22$^+$)	E1[#]	0.00252	B(E1)(W.u.)≥0.0009 (1996Wi08).
8411.1	(28$^-$)	879.0 *3*	100	7532.1	(26$^-$)			
8439.4	(29$^-$)	315.0 *4*		8124.4	(28$^-$)			
8481.4	(26$^+$)	429.2 *3*		8052.2	(25$^+$)	(D)		
8524.8	(26$^+$)	558.6 *1*	100	7966.2	(24$^+$)	E2[#]	0.0207	
8735.1	(30$^-$)	295.7 *3*		8439.4	(29$^-$)			
		610.6 *3*		8124.4	(28$^-$)			
8876.4	(27$^+$)	395.0 *5*		8481.4	(26$^+$)			
8877.1	(25$^-$)	481.1 *6*	52 *17*	8395.8	(23$^-$)	[E2]		B(E2)(W.u.)=1.5×10^3 *+7–5*
		910.9 *3*	100 *33*	7966.2	(24$^+$)	E1[#]		B(E1)(W.u.)=0.0023 *+6–5* Branching ratio >50 (1995Cr02).
9119.7	(28$^+$)	594.9 *1*	100	8524.8	(26$^+$)	Q		
9146.4	(31$^-$)	411.3 *3*		8735.1	(30$^-$)			
		707.1 *3*		8439.4	(29$^-$)			
9388.5	(27$^-$)	511.4 *4*	100 *25*	8877.1	(25$^-$)	[E2]		B(E2)(W.u.)=1.8×10^3 *+6–5*
		864 *1*	100 *25*	8524.8	(26$^+$)	E1[#]		B(E1)(W.u.)=0.0023 *+7–6* Branching ratio=83 *8* (2001Ko16), 35 *4* (1995Cr02).
9583.3	(32$^-$)	436.8 *3*		9146.4	(31$^-$)			
		848.2 *3*		8735.1	(30$^-$)			
9749.8	(30$^+$)	630.1 *1*	100	9119.7	(28$^+$)	Q		
9931.7	(29$^-$)	543.2 *3*	100 *18*	9388.5	(27$^-$)	[E2]		B(E2)(W.u.)=1.45×10^3 *+48–32*
		812 *1*	41 *12*	9119.7	(28$^+$)	(E1)		B(E1)(W.u.)=0.0012 *+5–4* Mult.: from DCO measurement (1995Cr02). Branching ratio=29 *4* (1995Cr02), 35 *4* (2001Ko16).
10030.7	(33$^-$)	447.4 *3*		9583.3	(32$^-$)			
		884.2 *3*		9146.4	(31$^-$)			
10413.9	(32$^+$)	664.1 *1*	100	9749.8	(30$^+$)	Q		
10507.2	(31$^-$)	575.6 *2*	100 *20*	9931.7	(29$^-$)	[E2]		B(E2)(W.u.)=1.40×10^3 *+34–25*
		757 *1*	30 *10*	9749.8	(30$^+$)	[E1]		B(E1)(W.u.)=0.0014 *+6–5* Branching ratio=23 *4* (2001Ko16), <30 (1995Cr02).
11110.8	(34$^+$)	696.9 *1*	100	10413.9	(32$^+$)			
11115.3	(33$^-$)	608.1 *3*	100 *18*	10507.2	(31$^-$)			
		702[a] *1*	14 *9*	10413.9	(32$^+$)			B(E1)(W.u.)=0.0015 *10* (1996Wi08).
11756.9	(35$^-$)	641.6 *3*	100	11115.3	(33$^-$)			
11839.3	(36$^+$)	728.5 *4*	100	11110.8	(34$^+$)	Q		
12431.4	(37$^-$)	674.5 *5*	100	11756.9	(35$^-$)			
12596.7	(38$^+$)	757.4 *4*	100	11839.3	(36$^+$)			
13138.5	(39$^-$)	707.1 *6*	100	12431.4	(37$^-$)			
13380.2	(40$^+$)	783.5 *6*	100	12596.7	(38$^+$)			
14182.0?	(42$^+$)	801.8[a] *8*		13380.2	(40$^+$)			
202.2+x		202.2 *3*		x				
366.2+x	J1≈(20)	164.0 *3*		202.2+x				

$^{190}_{80}Hg_{110}$-12

Adopted Levels, Gammas (continued)

γ(^{190}Hg) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π
653.0+x	J1+1	286.8 *3*		366.2+x	J1≈(20)	D	2262.6+y	J2+12	474.0 *5*	0.041 *11*	1788.6+y	J2+10
945.4+x	J1+2	292.4 *3*		653.0+x	J1+1	D	2773.2+y	J2+14	510.6 *4*	0.040 *10*	2262.6+y	J2+12
1248.3+x	J1+3	302.9 *4*		945.4+x	J1+2		3320.9+y	J2+16	547.7 *8*	0.032 *11*	2773.2+y	J2+14
1556.1+x	J1+4	307.8 *5*		1248.3+x	J1+3		3903.8+y	J2+18	582.9 *7*	0.021 *12*	3320.9+y	J2+16
1863.6+x	J1+5	307.5 *5*		1556.1+x	J1+4		4521.7+y	J2+20	617.9 *7*	0.011 *9*	3903.8+y	J2+18
2184.7+x	J1+6	321.1 *5*		1863.6+x	J1+5	D	5173.2+y	J2+22	651.5 *7*	≤0.005	4521.7+y	J2+20
2506.7+x	J1+7	322.0 *5*		2184.7+x	J1+6		446.3+z	J3+2	446.3 *4*	0.09 *2*	z	J3
2820.8+x	J1+8	314.1 *3*		2506.7+x	J1+7		912.8+z	J3+4	466.5 *4*	0.14 *4*	446.3+z	J3+2
3156.6+x	J1+9	335.8 *3*		2820.8+x	J1+8		1399.5+z	J3+6	486.7 *4*	0.14 *4*	912.8+z	J3+4
3510.6+x	J1+10	354.0 *3*		3156.6+x	J1+9		1914.5+z	J3+8	515.0 *4*	0.14 *3*	1399.5+z	J3+6
3891.9+x	J1+11	381.3 *3*		3510.6+x	J1+10	D	2462.2+z	J3+10	547.7 *4*	0.14 *3*	1914.5+z	J3+8
4302.6+x	J1+12	410.7 *4*		3891.9+x	J1+11		3044.9+z	J3+12	582.7 *5*	0.14 *4*	2462.2+z	J3+10
4740.6+x	J1+13	438.0 *4*		4302.6+x	J1+12		3662.6+z	J3+14	617.7 *4*	0.14 *4*	3044.9+z	J3+12
279.0+y?	J2+2	279[a]	≤0.01	y	J2≈(14)		4316.2+z	J3+16	653.6 *4*	0.11 *3*	3662.6+z	J3+14
597.0+y	J2+4	318.0 *3*	0.022 *12*	279.0+y?	J2+2		5005.8+z	J3+18	689.6 *6*	0.06 *2*	4316.2+z	J3+16
955.3+y	J2+6	358.3 *4*	0.030 *13*	597.0+y	J2+4		5729.1+z	J3+20	723.3 *6*	0.039 *12*	5005.8+z	J3+18
1352.7+y	J2+8	397.4 *4*	0.039 *10*	955.3+y	J2+6		6489.5+z	J3+22	760.4 *6*	0.011 *10*	5729.1+z	J3+20
1788.6+y	J2+10	435.9 *4*	0.041 *10*	1352.7+y	J2+8		7280.5+z?	J3+24	791[a]	≤0.01	6489.5+z	J3+22

[†] Weighted averages of all available data. Most complete data for ^{190}Tl ε decay are from 1976Bi09 and for in-beam γ-ray studies from 1994Be27 and 2001Wi11. For SD-3 and SD-4 bands, values are relative I(γ+ce) within each band.

[‡] From ce data in ^{190}Tl ε decay (3.7 min), unless otherwise stated. Mult=Q or D are from γ(θ) in in-beam γ-ray studies.

[#] From γ(lin pol) in (^{34}S,4nγ):SD (2001Ko16).

[@] 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.

[&] Multiply placed with undivided intensity.

[a] Placement of transition in the level scheme is uncertain.

$^{190}_{80}Hg_{110}$-13

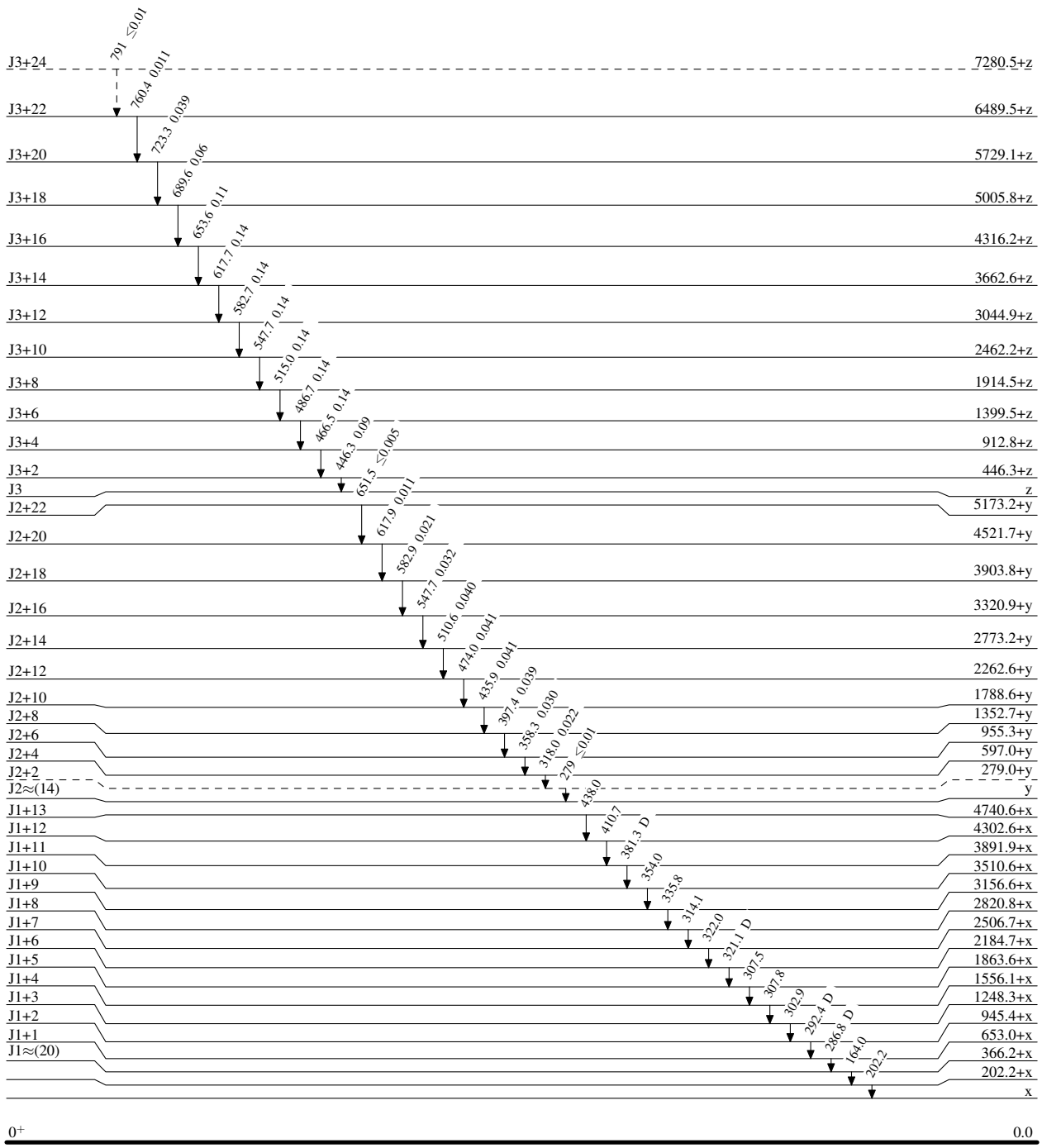
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{190}_{80}Hg_{110}$

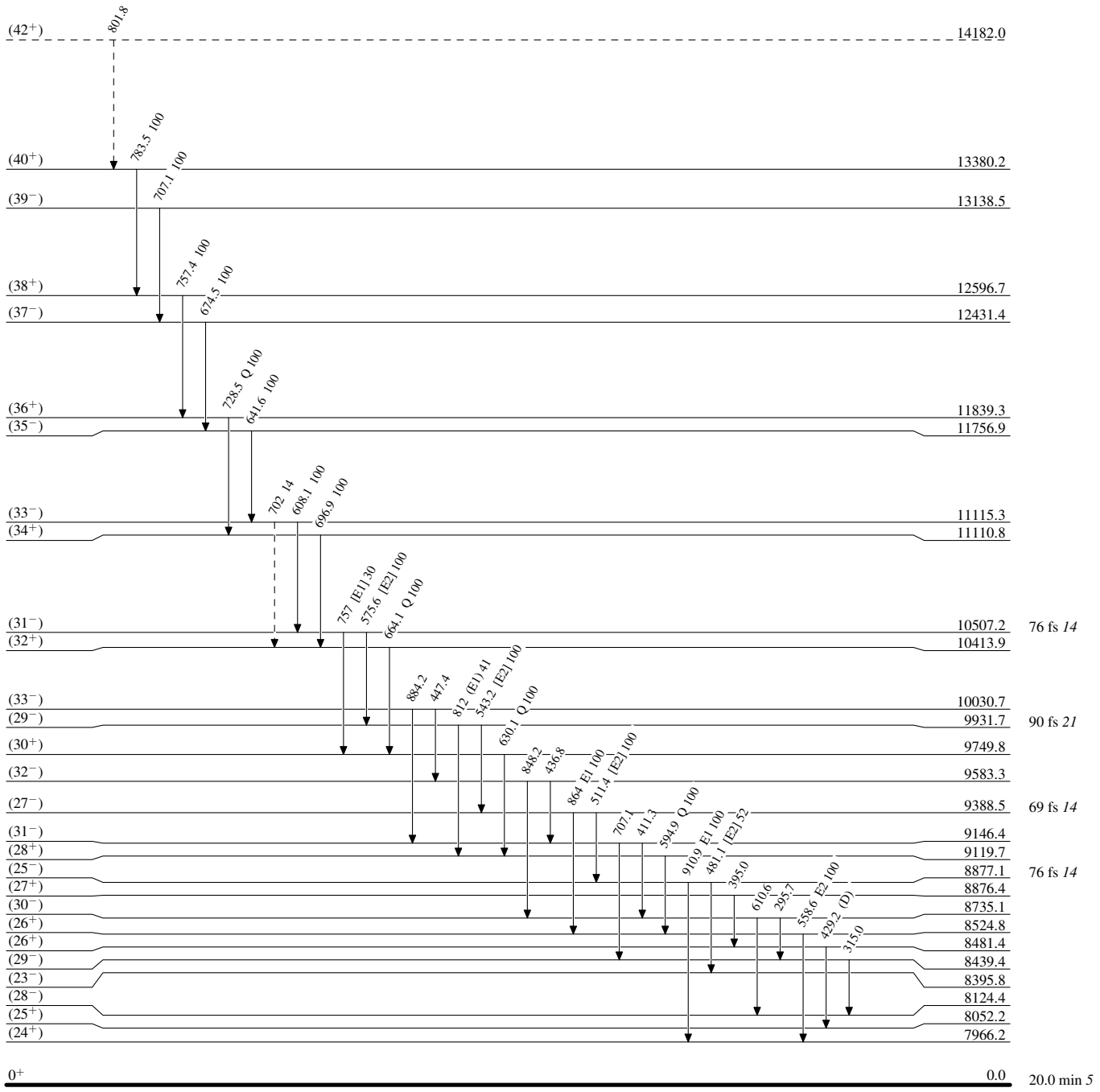
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

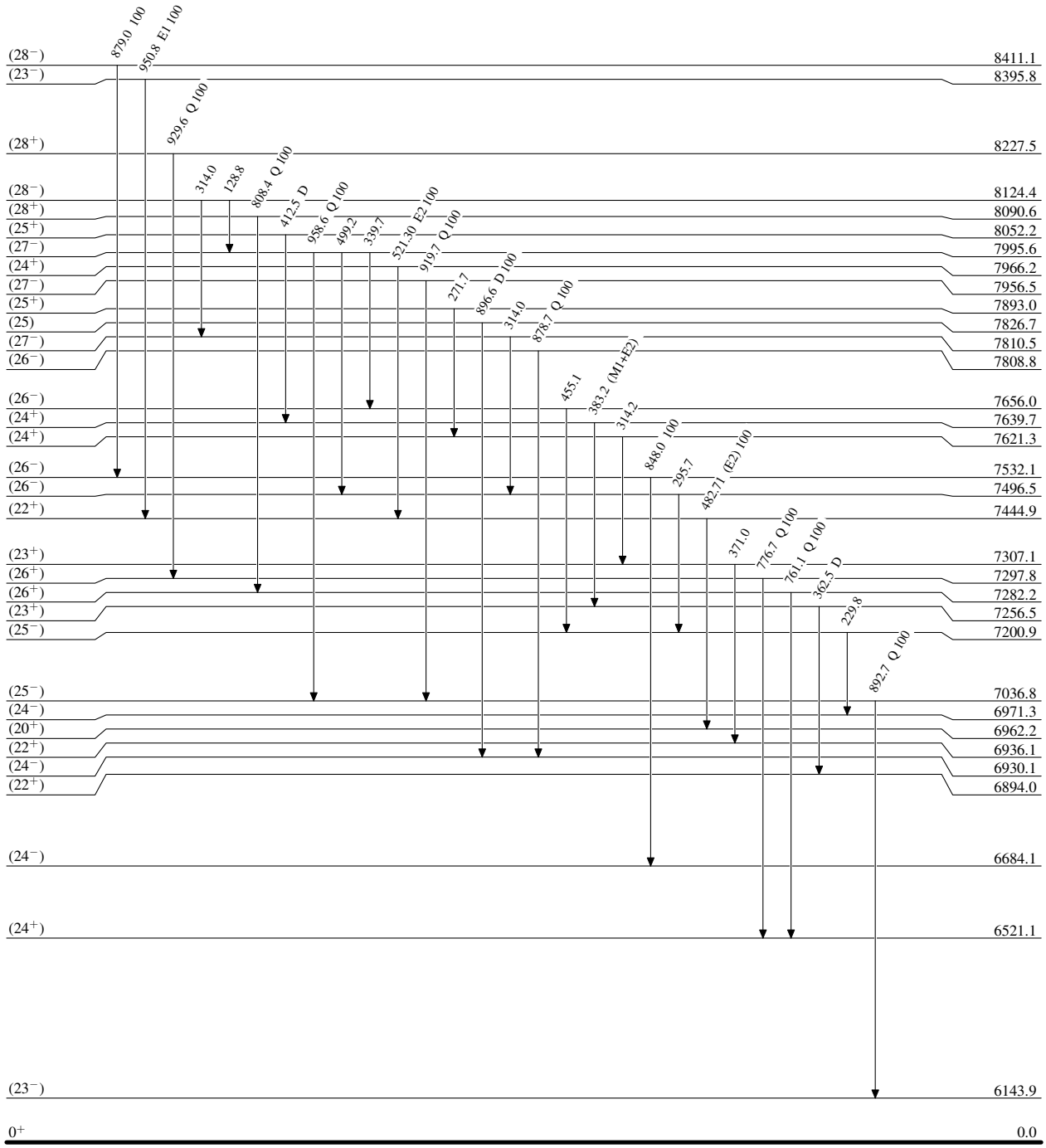


$^{190}_{80}Hg_{110}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



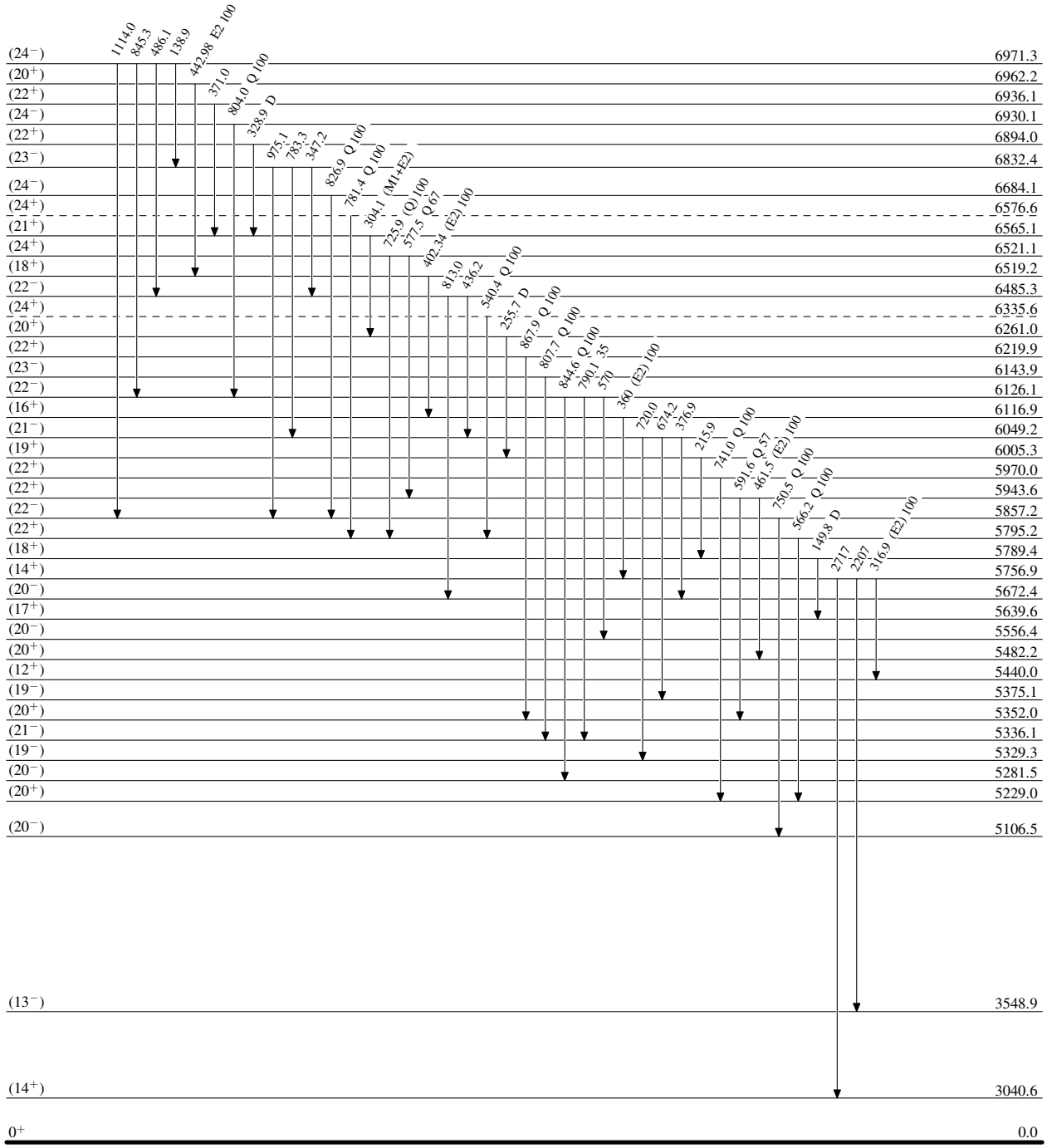
20.0 min 5

$^{190}_{80}Hg_{110}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{190}_{80}Hg_{110}$

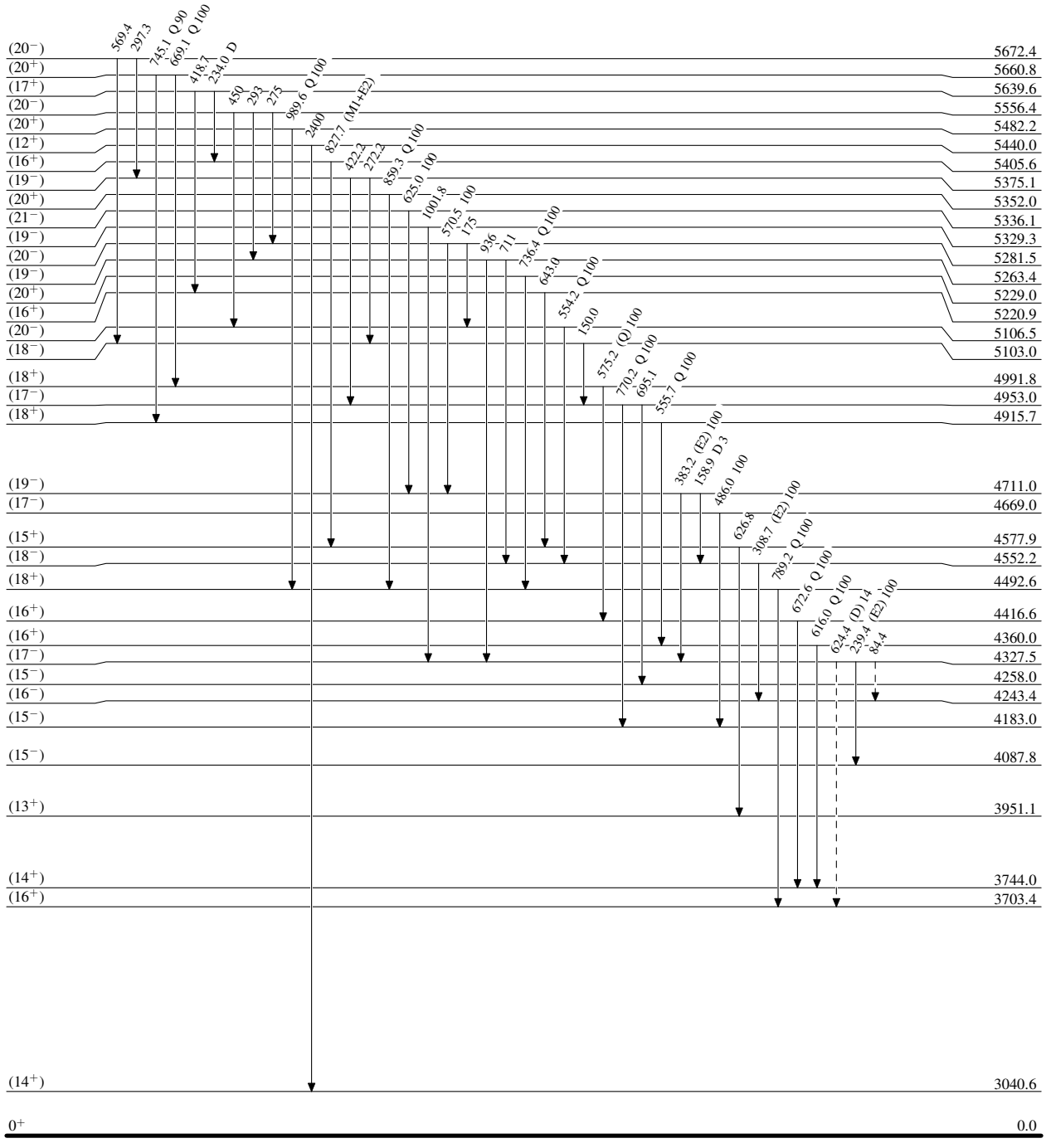
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{190}_{80}Hg_{110}$

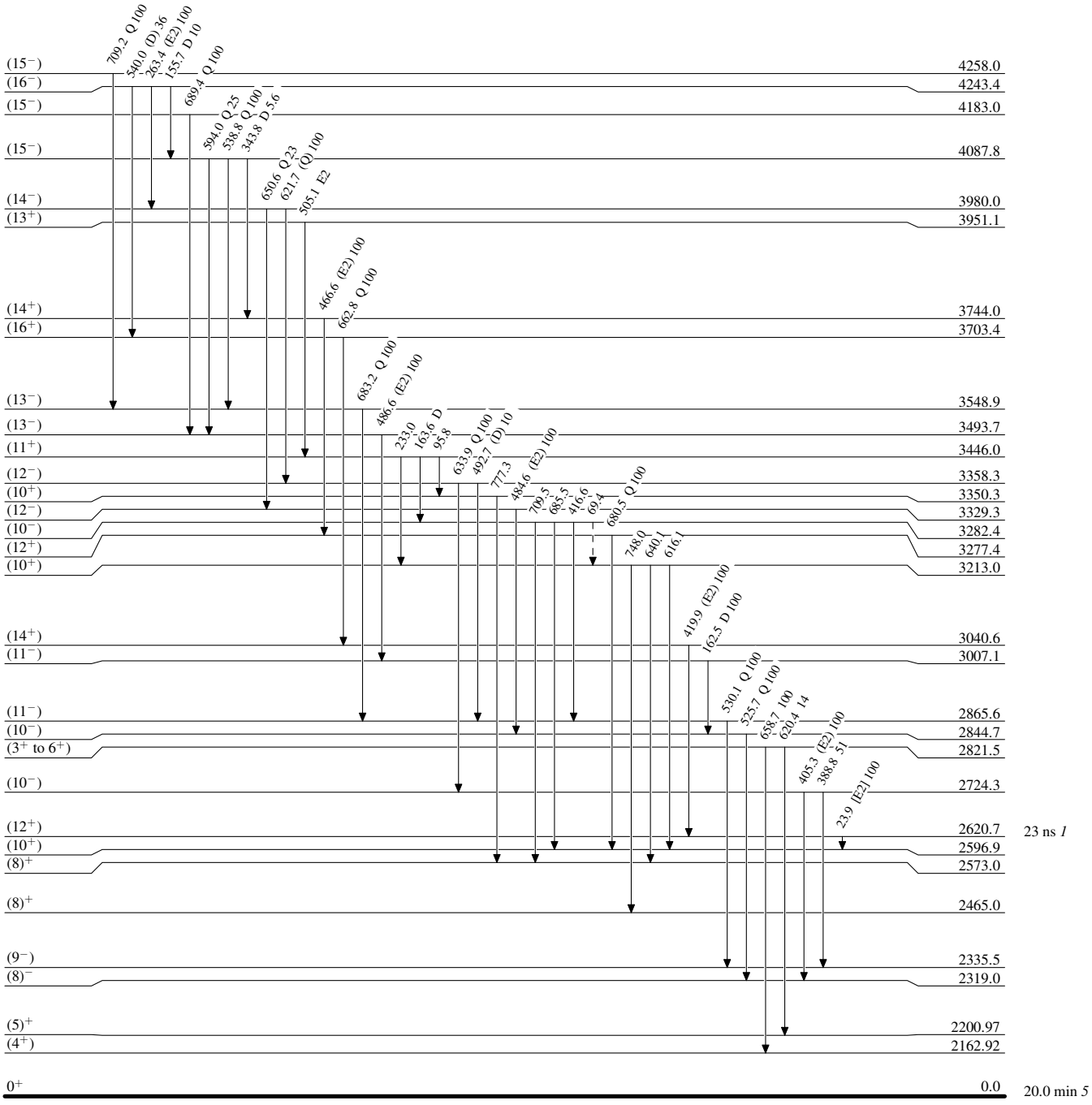
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{190}_{80}Hg_{110}$

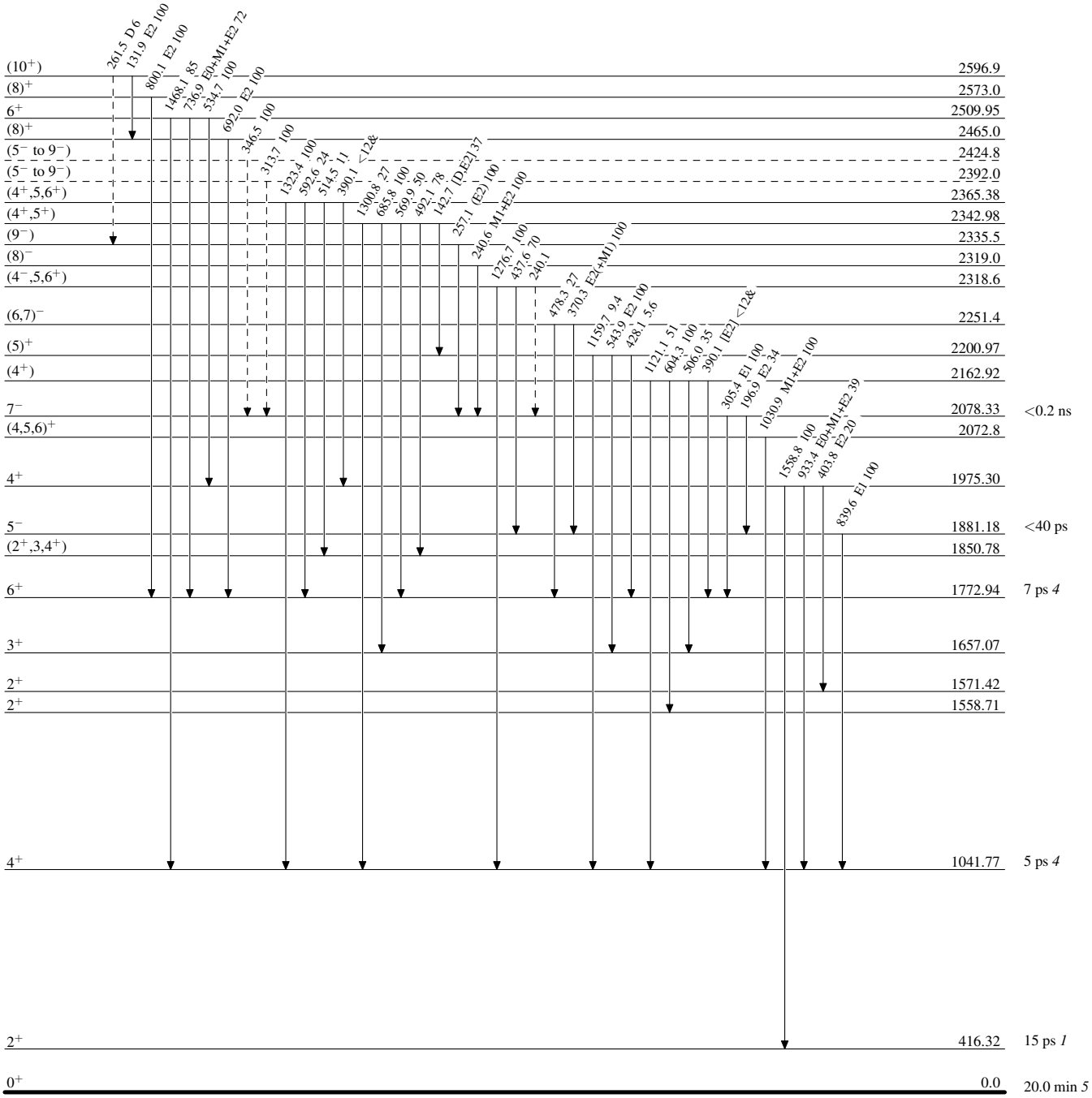
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

γ Decay (Uncertain)



$^{190}_{80}Hg_{110}$

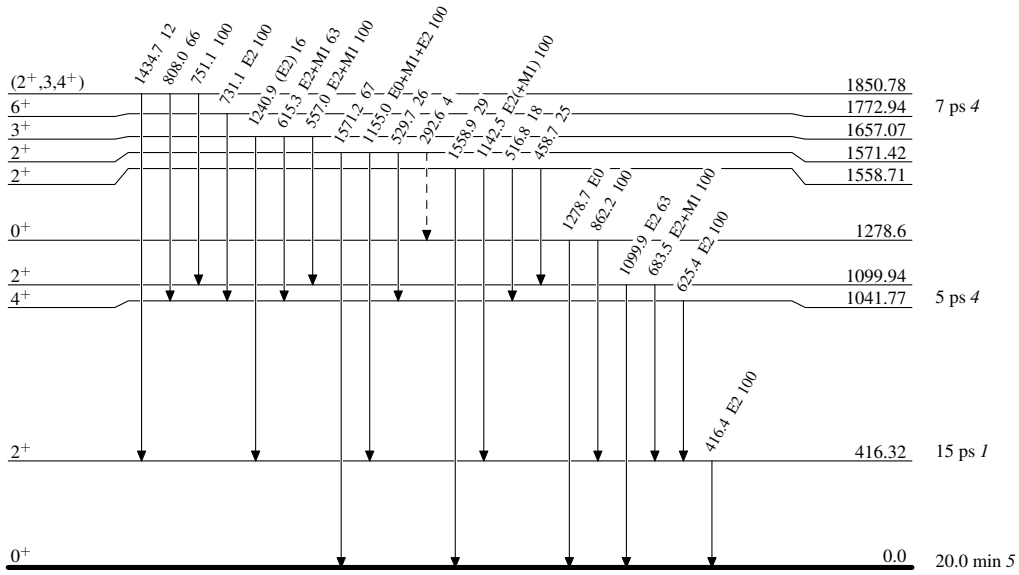
Adopted Levels, Gammas

Legend

Level Scheme (continued)

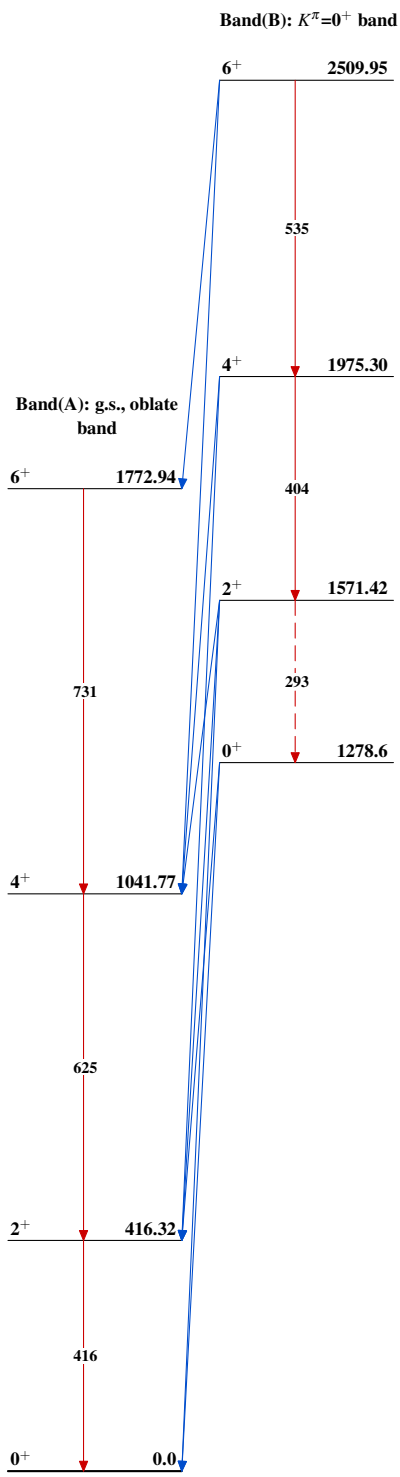
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

γ Decay (Uncertain)



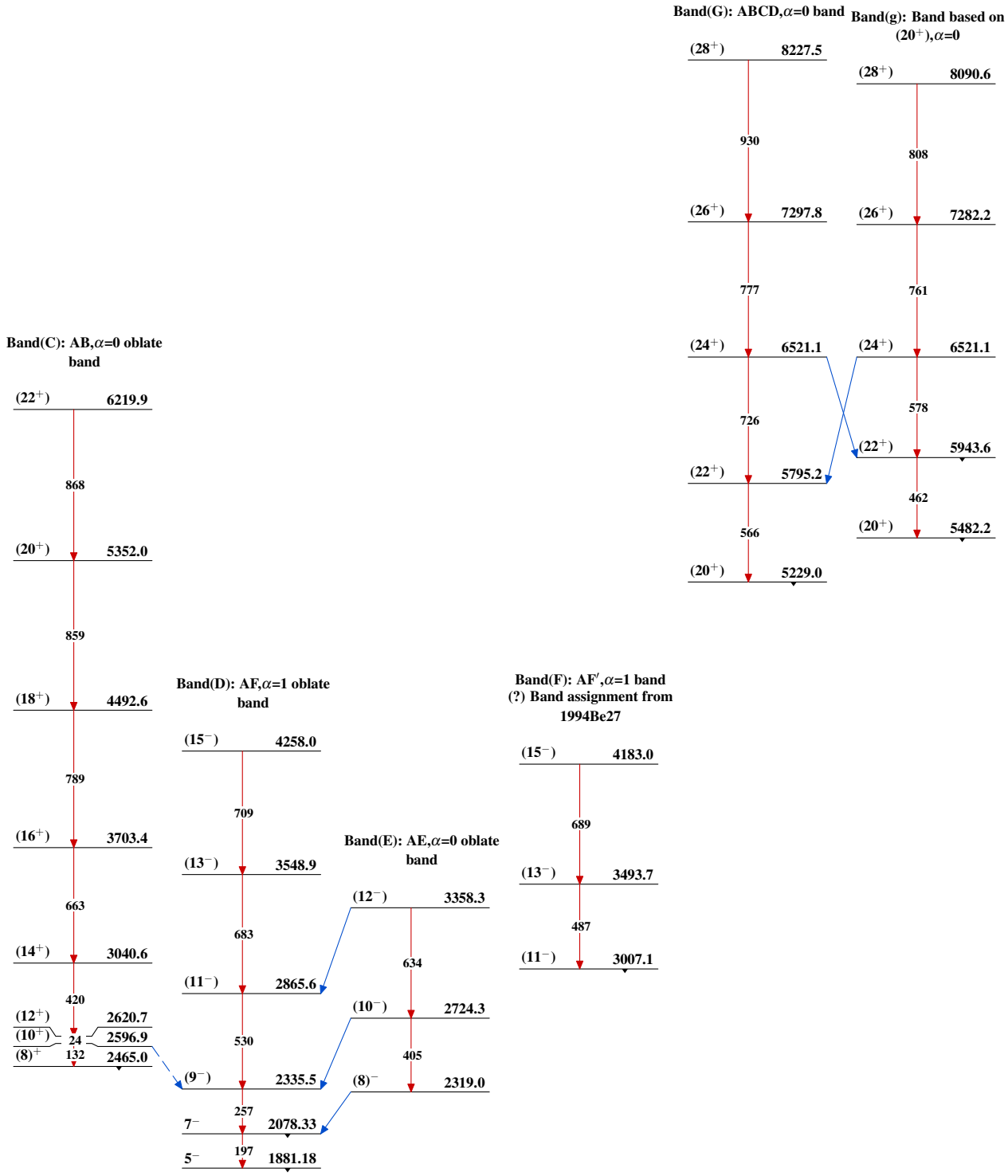
$^{190}_{80}Hg_{110}$

Adopted Levels, Gammas



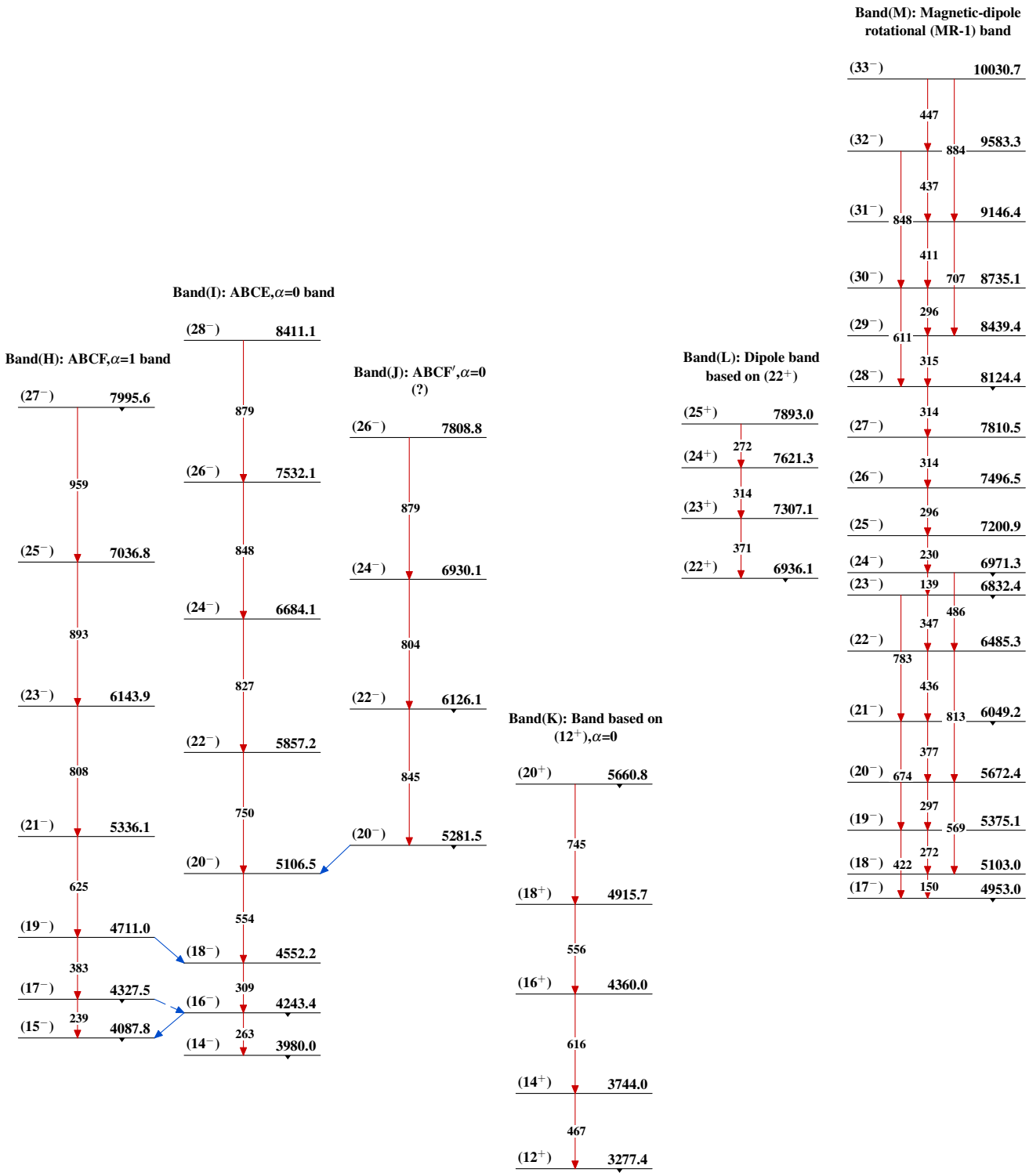
$^{190}_{80}Hg_{110}$

Adopted Levels, Gammas (continued)



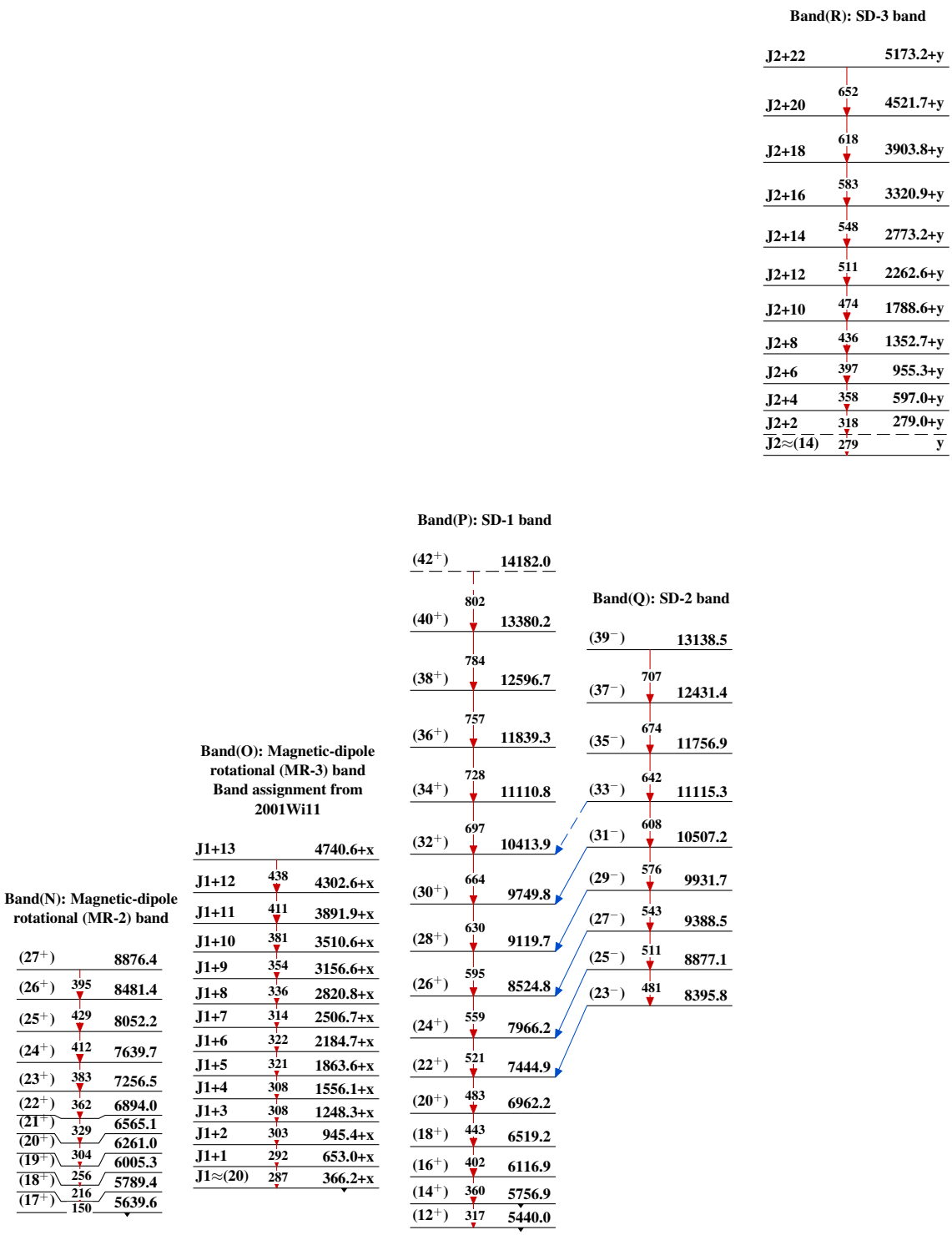
$^{190}_{80}Hg_{110}$

Adopted Levels, Gammas (continued)



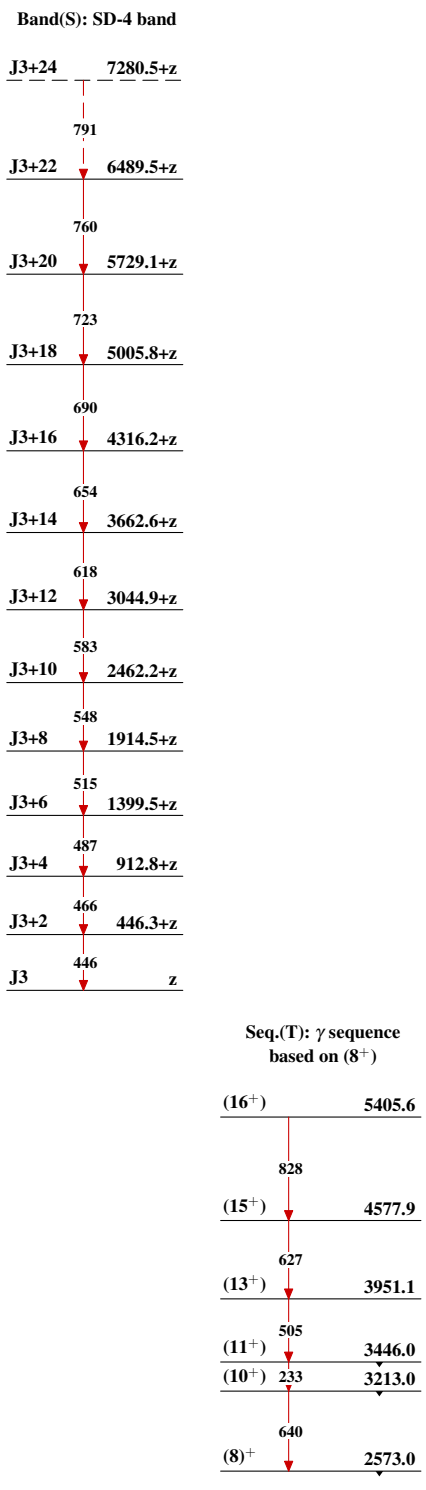
$^{190}_{80}Hg_{110}$

Adopted Levels, Gammas (continued)



$^{190}_{80}Hg_{110}$

Adopted Levels, Gammas (continued)



$^{190}_{80}Hg_{110}$