(HI,xnγ) 1995Fo13,1993De42,1993Ro03

History

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

1999We04,1998We19,1998We23: ^{150}Nd(^{48}Ca,5nγ), E=203 MeV; GAMMASPHERE array. Measure perturbed angular correlation; obtain angular correlation coefficients A2/A4, and average g-factors from precession in transient magnetic fields using target with Gd ferromagnetic layer.

1995Fo13, 1997FoZX: ^{150}Nd(^{48}Ca,5nγ), E=213 MeV; measured Eγ, Iγ, γγ, DCO ratios; EUROGAM detector array. Cranked Shell Model interpretation.

1993De42: ^{150}Nd(^{48}Ca,5nγ), E=210 MeV; 97.4% ^{150}Nd target; measured Eγ, Iγ, γγ coin (3-fold or higher), DCO ratios.

1993Ro03: ^{176}Yb(^{22}Ne,4nγ), E=110 MeV; HERA Ge-detector array; measured Eγ, Iγ, γγ coin (3-fold or higher), DCO ratios.

1986Hu02: ^{184}W(^{13}C,4nγ), ^{186}W(^{13}C,6nγ), E=84-87 MeV; measured Eγ, Iγ (Compton-suppressed germanium (high purity) detectors), γγ coin, γ-ray angular distributions; used cranked shell model to interpret level structure.

Others:

1999We02 study the time-decay history for normal-deformed bands at high spin in the ^{150}Nd(^{48}Ca,5n) reaction, by measuring the relative fraction of recoil fragments stopped in-flight, using a layered target.

^{193}Hg Levels

The level scheme adopted is that proposed by 1995Fo13. With a few minor corrections, it confirms, and adds to, the level schemes proposed by 1986Hu02, 1993De42 and 1993Ro03.

The level scheme consists of three sections: the lower part contains a number of rotational bands and is described as a collective oblate nucleus; the intermediate region is of single-particle character and may be described as non-collective prolate; and the upper region, which contains three dipole bands in a nucleus described as triaxial near-oblate (1995Fo13). For further discussion, and comparison with other Hg nuclei, see 1995Fo13.

The average g-factor from the M1/E2 transitions at high excitation energies is 0.23 *6* (1998We23).

E(level)[†]	Jπ[‡]	$T_{1/2}$	Comments
140.76[@] *5*	13/2$^{(+)}$	11.8 h *2*	Additional information 1. E(level),Jπ,$T_{1/2}$: from Adopted Levels.
522.75[@] *19*	17/2$^+$		
746.8[g] *4*	15/2$^+$		
1026.5 *6*	(13/2$^+$,15/2$^+$)		
1145.4[@] *3*	21/2$^+$		
1380.3[g] *4*	19/2$^+$		
1523.2 *4*	(17/2$^+$,19/2$^+$)		
1735.8 *7*	(19/2$^+$)		
1755.6[f] *4*	21/2$^-$		
1884.3[@] *5*	25/2$^+$		
1886.2[f] *5*	25/2$^-$		
1890.9[&] *4*	23/2$^-$		
2096.0[&] *5*	27/2$^-$		
2189.1[f] *5*	29/2$^-$		
2289.5 *8*	27/2$^-$		
2351.9 *7*	25/2$^+$		
2502.1[c] *6*	29/2$^+$		
2583.7[&] *6*	31/2$^-$		
2617.3 *6*	(29/2$^-$)		
2641.7[@] *7*	29/2$^+$		
2695.6[c] *6*	33/2$^+$		

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(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

^{193}Hg Levels (continued)

E(level)[†]	Jπ[‡]	Comments
2762.2[f] 6	33/2⁻	
3176.2[c] 7	37/2⁺	
3196.0[#] 8	(33/2⁺)	
3202.5 7	(33/2⁻)	
3220.1 8	(33/2⁻)	
3223.6[&] 6	35/2⁻	
3260.3[a] 8	33/2⁺	
3497.5[f] 6	37/2⁻	
3570.2[a] 8	37/2⁺	
3727.0 7	(37/2⁻)	
3754.2[#] 8	(37/2⁺)	
3811?		Level proposed by 1993De42, 1993Ro03 but not confirmed by 1995Fo13.
3850.7 8	37/2⁻	
3880.5[c] 7	41/2⁺	
3883.8[d] 7	39/2⁻	
4119.7[b] 9	39/2⁺	
4120.5[a] 10	41/2⁺	
4150.8[e] 7	41/2⁻	
4198.0 8	(39/2⁻)	
4396.8[d] 7	43/2⁻	
4412.6[f] 7	41/2⁻	
4416.7 11		
4462.2 12		
4539.1[#] 7	(41/2⁺)	
4674.1[e] 7	45/2⁻	
4683.8[b] 12	43/2⁺	
4688.4[c] 10	45/2⁺	
4720.6 8	(39/2⁻)	
4792.0 7	41/2⁻	
4864.9 8	(43/2⁻)	
4889.9[a] 13	45/2⁺	
4958.5 7	45/2⁻	
4964.0 13	43/2	
5033.1 13		
5048.0[d] 9	47/2⁻	
5117.4 9	(45/2⁻)	
5319.9 8	(43/2)	
5339.1 8	(47/2⁻)	
5361.7[b] 15	47/2⁺	
5391.9 9		
5400.3 15		
5411.5[e] 10	49/2⁻	
5442.6 7	45/2(+)	
5547.6[j] 7	47/2(+)	
5559.5[c] 13	49/2⁺	
5560.5 9	(47/2⁻)	
5678.4 8	(49/2⁻)	
5698.1[a] 15	49/2⁺	
5702.7 9	(49/2⁻)	
5714.8? 13		
5747.5 10	(49/2⁻)	

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(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

^{193}Hg Levels (continued)

E(level)[†]	Jπ[‡]	Comments
5800.6 *9*	(49/2$^-$)	
5832.1[j] *7*	49/2$^{(+)}$	
5899.1[d] *12*	51/2$^-$	
6017.1 *13*	(51/2$^-$)	
6067.7[j] *8*	51/2$^{(+)}$	
6103.9 *9*	(51/2$^-$)	
6145.2 *9*	(51/2$^-$)	
6163.6[b] *17*	(51/2$^+$)	
6305.2 *9*	(53/2$^-$)	
6394.9[e] *13*	53/2$^-$	
6401.0[i] *18*	(53/2$^-$)	The decay out of this level has not been observed.
6419.4[h] *9*	(53/2$^-$)	
6428.5 *16*	(53/2$^+$)	
6464.6[j] *8*	53/2$^{(+)}$	
6496.9[c] *15*	(53/2$^+$)	
6726.4[i] *17*	(55/2$^-$)	
6832.4 *9*	55/2$^{(+)}$	
6839.9[j] *8*	55/2$^{(+)}$	
6913.4[d] *15*	(55/2$^-$)	
6921.8 *16*		
6921.9[h] *10*	(55/2$^-$)	
6978.7[i] *18*	(57/2$^-$)	
7037.5[j] *9*	57/2$^{(+)}$	
7038.1 *16*		
7133.3 *12*	(57/2$^+$)	
7186.7 *11*	(57/2$^-$)	
7197.9[j] *10*	59/2$^{(+)}$	
7245.7[i] *19*	(59/2$^-$)	
7276.6[h] *10*	(57/2$^-$)	
7281.7 *12*	57/2$^{(+)}$	
7440.0 *14*		
7476.4[e] *16*	(57/2$^-$)	
7492.3 *16*		
7555.2[j] *10*	61/2$^{(+)}$	
7560.4[i] *19*	(61/2$^-$)	
7681.3 *12*		
7699.5[h] *10*	(59/2$^-$)	
7838.3[h] *10*	(61/2$^-$)	
7920.0[i] *20*	(63/2$^-$)	
7924.8[j] *10*	63/2$^{(+)}$	
8137.0[h] *11*	(63/2$^-$)	
8331.0[i] *20*	(65/2$^-$)	
8388.8[j] *11*	65/2$^{(+)}$	
8394.8[h] *11*	(65/2$^-$)	
8750.9[h] *12*	(67/2$^-$)	
8757.9[i] *21*	(67/2$^-$)	
8886.8[j] *12*	67/2$^{(+)}$	
8978.1 *13*		
9221.5[h] *12*	(69/2$^-$)	
9409.1[j] *14*	(69/2$^+$)	

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(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

^{193}Hg Levels (continued)

E(level)[†]	Jπ[‡]
9675.9[h] *13*	(71/2⁻)
9923.1[j] *16*	(71/2⁺)
10290.4[h] *14*	(73/2⁻)
10853.6[h] *15*	(75/2⁻)

† From least squares fit to Eγ, except otherwise noted.
‡ J^{π} and band assignments are from 1995Fo13. The assignments in the lower part of the level scheme confirm those proposed by earlier researchers. The assignments are based on γ multipolarities, coincidence results, band structure and the assumption that J increases with increasing E(level).
# Level assigned to band (1) by 1993De42, 1993Ro03. This band assignment has not been adopted by 1995Fo13 for levels above the 29/2⁺ level in this ΔJ=2 level sequence.
@ Band(A): Band (1).
& Band(B): Band (2) Average g-factor for Bands (2+6) is 0.200 *18* (1999We04).
a Band(C): Band (3).
b Band(D): Band (4).
c Band(E): Band (5) Average g-factor for this band is 0.188 *14* (1999We04).
d Band(F): Band (6) See comment for Band (2).
e Band(G): Band (7) Average g-factor for Bands (7+8) is 0.176 *14* (1999We04).
f Band(H): Band (8) See comment for Band (7).
g Band(I): Band (9).
h Band(J): Dipole band (1) This band is part of Structure 1 in the level scheme as defined in 1995Fo13.
i Band(K): Dipole band (2) This band is part of Structure 2 in the level scheme as defined in 1995Fo13.
j Band(L): Dipole band (3) This band is part of Structure 3 in the level scheme as defined in 1995Fo13.

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg)

The main sources for energies and intensities for this table are 1995Fo13 and 1997FoZX. DCO ratios are from 1995Fo13, except when indicated otherwise. A_2 and A_4 values are from 1986Hu02 and 1998We23.

Intensities: The γ and total intensities listed below are from 1995Fo13 and 1997FoZX. Note that the authors (same group in both references) provide a single intensity list about which they state that the values are derived from coincidence data, and that for the cases where the multipolarity of the transitions could be confirmed, the quoted numbers have been corrected for internal conversion. The evaluator, based on this comment, have recalculated the Iγ when that condition was applicable. Unfortunately this procedure could not be applied with certainty for many cases, as the definition of when a multipolarity was confirmed or not is not always clear cut. Therefore the resulting Iγ values should be used with caution whenever confirming evidence for the multipolarity is not available (see also footnote for the multipolarity column at the end of the γ-ray table). For transitions where the authors of the mentioned references could not establish a multipolarity, their intensity value is listed below in the Iγ column, with no I(γ+ce) data. Some intensities from 1986Hu02 and 1993Ro03 are quoted in the Comments column.

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
(19.9 *10*)	<0.2	1755.6	21/2$^-$	1735.8	(19/2$^+$)	[E1] [&]	6.7 *10*		α(L)=5.1 *8*; α(M)=1.27 *20* α(N)=0.30 *5*; α(O)=0.046 *7*; α(P)=0.00110 *12* Iγ from 1997FoZX. Unobserved transition, existence required from observed coincidences of 989-keV γ with members of Band (8) (1995Fo13).
(71.3)		4792.0	41/2$^-$	4720.6	(39/2$^-$)				Transition uncertain due to low statistics and overlap with Hg x-rays. Existence required from observed coincidence data.
72.9		4864.9	(43/2$^-$)	4792.0	41/2$^-$				Transition uncertain due to low statistics and overlap with Hg x-rays. Existence required from observed coincidences of transitions above the (43/2$^-$) level with those below the 41/2$^-$ level (1995Fo13).
93.4 *10*	0.3 *1*	2189.1	29/2$^-$	2096.0	27/2$^-$	(M1)	9.6 *4*		α(K)=7.8 *3*; α(L)=1.34 *5*; α(M)=0.312 *11* α(N)=0.078 *3*; α(O)=0.0148 *6*; α(P)=0.00113 *4* Mult.: DCO=0.43 *10* (1997FoZX).
105.2 *8*	0.16 *2*	5547.6	47/2$^{(+)}$	5442.6	45/2$^{(+)}$	D		1.2 *1*	Mult.: DCO=0.48 *7*.
113.9 *10*	<0.5	6419.4	(53/2$^-$)	6305.2	(53/2$^-$)				
123.0 *10*	0.11 *2*	5442.6	45/2$^{(+)}$	5319.9	(43/2)			0.6 *1*	Mult.: DCO=0.62 *20*.
130.5 *4*	15.2 *2*	1886.2	25/2$^-$	1755.6	21/2$^-$	E2	1.88 *4*	41.4 *5*	ce(K)/(γ+ce)=0.151 *3*; ce(L)/(γ+ce)=0.375 *6*; ce(M)/(γ+ce)=0.0979 *21* ce(N)/(γ+ce)=0.0243 *6*; ce(O)/(γ+ce)=0.00405 *10*; ce(P)/(γ+ce)=2.07×10^{-5} *5* α(K)=0.435 *7*; α(L)=1.081 *22*; α(M)=0.282 *6* α(N)=0.0700 *14*; α(O)=0.01167 *23*; α(P)=5.96×10^{-5} *10* Iγ=12 (1986Hu02). Mult.: A_2=+0.30 *3*, A_4=−0.11 *4* (1986Hu02). DCO=0.96 *2* (1997FoZX); band structure.
135.0 *10*	0.45 *16*	1890.9	23/2$^-$	1755.6	21/2$^-$	(M1+E2)	2.50 *86*	1.5 *1*	ce(K)/(γ+ce)=0.45 *21*; ce(L)/(γ+ce)=0.199 *71*;

$^{193}_{80}Hg_{113}$-5

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ[†]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[c]	$I_{(\gamma+ce)}$[‡]	Comments
									ce(M)/(γ+ce)=0.050 *22* ce(N)/(γ+ce)=0.0125 *56*; ce(O)/(γ+ce)=0.00216 *88*; ce(P)/(γ+ce)=6.4×10^{-5} *51* α(K)=1.6 *12*; α(L)=0.70 *24*; α(M)=0.175 *67* α(N)=0.044 *17*; α(O)=0.0076 *25*; α(P)=2.2×10^{-4} *17* Iγ=2.9 (1986Hu02).
138.8 *4*	3.0 *1*	7838.3	(61/2$^-$)	7699.5	(59/2$^-$)	(M1)	3.10	11.7 *3*	Mult.: A_2=+0.02 *30* (1986Hu02). DCO=0.53 *10* (1997FoZX). ce(K)/(γ+ce)=0.619 *6*; ce(L)/(γ+ce)=0.1048 *20*; ce(M)/(γ+ce)=0.0244 *5* ce(N)/(γ+ce)=0.00612 *13*; ce(O)/(γ+ce)=0.001158 *24*; ce(P)/(γ+ce)=8.85×10^{-5} *18* α(K)=2.54 *5*; α(L)=0.429 *7*; α(M)=0.0999 *17* α(N)=0.0251 *4*; α(O)=0.00474 *8*; α(P)=0.000362 *6*
144.5[a] *10*	0.4 *1*	4864.9	(43/2$^-$)	4720.6	(39/2$^-$)				Mult.: DCO=0.52 *6*.
150.5 *10*	0.46 *5*	2502.1	29/2$^+$	2351.9	25/2$^+$	(Q)		0.9 *1*	Iγ=0.8 (1986Hu02). Mult.: A_2=+0.11 *20* (1986Hu02); DCO=1.12 *30*; ΔJ^π from level scheme.
155.9 *10*	0.20 *4*	5547.6	47/2$^{(+)}$	5391.9				0.6 *1*	Mult.: DCO=1.23 *30* (gate ΔJ=1) (1997FoZX) indicates D, no assignment for final level in this dataset, Adopted Level (47/2$^+$) to (43/2$^+$) suggest Q.
[x]159.8[b] *10*									Iγ=0.4 (1986Hu02). A_2=−0.09 *50* (1986Hu02).
160.4 *4*	7.7 *2*	7197.9	59/2$^{(+)}$	7037.5	57/2$^{(+)}$	M1	2.05 *4*	22.4 *5*	ce(K)/(γ+ce)=0.551 *6*; ce(L)/(γ+ce)=0.0931 *17*; ce(M)/(γ+ce)=0.0217 *4* ce(N)/(γ+ce)=0.00544 *11*; ce(O)/(γ+ce)=0.001028 *20*; ce(P)/(γ+ce)=7.86×10^{-5} *15* α(K)=1.68 *3*; α(L)=0.284 *5*; α(M)=0.0662 *11* α(N)=0.0166 *3*; α(O)=0.00314 *5*; α(P)=0.000240 *4* Iγ=3.25 (1993Ro03). Mult.: DCO=0.50 *10*; M1 from DCO and intensity balance (1993De42). 1998We23 report A_2=−0.39 *2*, A_4=0.14 *2* for an M1/E2 transition of 160.1 keV at high excitation energies.
193.5 *4*	23.9 *5*	2695.6	33/2$^+$	2502.1	29/2$^+$	E2	0.438	32.5 *6*	ce(K)/(γ+ce)=0.1276 *18*; ce(L)/(γ+ce)=0.1327 *20*; ce(M)/(γ+ce)=0.0343 *6* ce(N)/(γ+ce)=0.00853 *15*; ce(O)/(γ+ce)=0.001439 *25*; ce(P)/(γ+ce)=1.594×10^{-5} *25* α(K)=0.183 *3*; α(L)=0.191 *4*; α(M)=0.0494 *9* α(N)=0.01226 *21*; α(O)=0.00207 *4*; α(P)=2.29×10^{-5} *4* Iγ=14 (1986Hu02). Mult.: A_2=+0.43 *4*, A_4=−0.10 *5* (1986Hu02), DCO=1.02 *2* (1997FoZX); band structure.
[x]197.1[b] *4*									From 1986Hu02; complex line, no intensity determination possible.

$^{193}_{80}Hg_{113}$-6

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									Mult.: A_2=−0.23 *4*, A_4=+0.01 *5* (1986Hu02). Other: A_2=−0.44 *2*, A_4=+0.02 *1* is quoted by 1998We23 for an 197.3 keV γ ray (see also the 197.6 keV γ ray deexciting the 7037.5 keV level: the quoted A_2 and A_4 values could possibly belong to that γ ray).
197.6 *4*	10.5 *3*	7037.5	$57/2^{(+)}$	6839.9	$55/2^{(+)}$	M1	1.143	21.3 *5*	ce(K)/(γ+ce)=0.438 *5*; ce(L)/(γ+ce)=0.0736 *12*; ce(M)/(γ+ce)=0.0171 *3* ce(N)/(γ+ce)=0.00430 *8*; ce(O)/(γ+ce)=0.000813 *14*; ce(P)/(γ+ce)=6.22×10^{-5} *11* α(K)=0.938 *15*; α(L)=0.1577 *24*; α(M)=0.0367 *6* α(N)=0.00921 *14*; α(O)=0.00174 *3*; α(P)=0.0001333 *21* Iγ=4.94 (1993Ro03). Mult.: DCO=0.49 *3*; M1 from DCO and intensity balance (1993De42). 1998We23 report A_2=−0.44 *2*, A_4=0.02 *1* for an M1/E2 transition of 197.3 keV at high excitation energies (see also the 197.1 keV γ ray: the quoted A_2 and A_4 values could possibly belong to that γ ray).
205.1[b] *4*	19.7 *5*	2096.0	$27/2^-$	1890.9	$23/2^-$	E2	0.359 *6*	25.3 *6*	ce(K)/(γ+ce)=0.1174 *16*; ce(L)/(γ+ce)=0.1099 *17*; ce(M)/(γ+ce)=0.0284 *5* ce(N)/(γ+ce)=0.00705 *12*; ce(O)/(γ+ce)=0.001192 *20*; ce(P)/(γ+ce)=1.468×10^{-5} *23* α(K)=0.1595 *24*; α(L)=0.1493 *25*; α(M)=0.0385 *7* α(N)=0.00957 *16*; α(O)=0.00162 *3*; α(P)=1.99×10^{-5} *3* Iγ=12 (1986Hu02). Mult.: A_2=0.32 *2*, A_4=−0.10 *2* (1998We23). Other: A_2=+0.40 *3*, A_4=−0.12 *4* (1986Hu02). DCO=1.01 *2* (1997FoZX); band structure.
205.1 *8*	1.5 *2*	7037.5	$57/2^{(+)}$	6832.4	$55/2^{(+)}$	[M1][&]	1.030 *19*	2.8 *4*	ce(K)/(γ+ce)=0.416 *5*; ce(L)/(γ+ce)=0.0700 *14*; ce(M)/(γ+ce)=0.0163 *4* ce(N)/(γ+ce)=0.00408 *9*; ce(O)/(γ+ce)=0.000773 *16*; ce(P)/(γ+ce)=5.91×10^{-5} *12* α(K)=0.845 *15*; α(L)=0.142 *3*; α(M)=0.0331 *6* α(N)=0.00829 *15*; α(O)=0.00157 *3*; α(P)=0.0001201 *22* Iγ=1.03 (1993Ro03).
209.6 *8*	0.80 *6*	2096.0	$27/2^-$	1886.2	$25/2^-$	(M1)	0.970 *17*	1.5 *1*	ce(K)/(γ+ce)=0.404 *5*; ce(L)/(γ+ce)=0.0679 *13*; ce(M)/(γ+ce)=0.0158 *3* ce(N)/(γ+ce)=0.00396 *8*; ce(O)/(γ+ce)=0.000750 *15*; ce(P)/(γ+ce)=5.74×10^{-5} *12* α(K)=0.796 *14*; α(L)=0.1337 *24*; α(M)=0.0311 *6* α(N)=0.00780 *14*; α(O)=0.00148 *3*; α(P)=0.0001130 *20* 1986Hu02 report a complex line, Iγ=0.9 estimated from coincidence spectra. Mult.: DCO=0.68 *7* (1997FoZX).
211.9 *8*	1.4 *1*	2096.0	$27/2^-$	1884.3	$25/2^+$	(E1)	0.0642 *11*	1.4 *1*	ce(K)/(γ+ce)=0.0493 *8*; ce(L)/(γ+ce)=0.00844 *15*;

$^{193}_{80}Hg_{113}$-7

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									ce(M)/(γ+ce)=0.00196 *4* ce(N)/(γ+ce)=0.000487 *9*; ce(O)/(γ+ce)=8.87×10^{-5} *15*; ce(P)/(γ+ce)=5.33×10^{-6} *9* α(K)=0.0525 *9*; α(L)=0.00898 *16*; α(M)=0.00209 *4* α(N)=0.000518 *9*; α(O)=9.44×10^{-5} *16*; α(P)=5.67×10^{-6} *10* 1986Hu02 report a complex line, Iγ=0.7 estimated from coincidence spectra. Mult.: A_2=−0.30 *15* (1986Hu02). DCO=0.47 *6*. Δπ=yes from level scheme.
[x]221.5[b]									
221.7 *4*	6.5 *2*	5339.1	(47/2$^-$)	5117.4	(45/2$^-$)	D		11.3 *3*	Mult.: DCO=0.50 *3*.
227.4 *8*	1.0 *1*	5547.6	47/2$^{(+)}$	5319.9	(43/2)			1.2 *1*	
232.3 *4*	8.2 *2*	1755.6	21/2$^-$	1523.2	(17/2$^+$,19/2$^+$)	D		13.5 *3*	Mult.: DCO=0.66 *1* (1997FoZX); D, ΔJ=1 from γ(θ) in (α,xnγ).
235.6 *4*	16.1 *3*	6067.7	51/2$^{(+)}$	5832.1	49/2$^{(+)}$	M1	0.701	25.9 *5*	ce(K)/(γ+ce)=0.338 *4*; ce(L)/(γ+ce)=0.0567 *9*; ce(M)/(γ+ce)=0.01319 *21* ce(N)/(γ+ce)=0.00331 *6*; ce(O)/(γ+ce)=0.000626 *10*; ce(P)/(γ+ce)=4.79×10^{-5} *8* α(K)=0.575 *9*; α(L)=0.0964 *15*; α(M)=0.0224 *4* α(N)=0.00563 *9*; α(O)=0.001065 *16*; α(P)=8.16×10^{-5} *12* Iγ=7.26 (1993Ro03). Mult.: DCO=0.46 *1*; M1 from DCO and intensity balance (1993De42).
[x]235.9[b]									Complex line.
240.1 *6*	3.4 *3*	5800.6	(49/2$^-$)	5560.5	(47/2$^-$)	[M1][&]	0.665 *11*	5.4 *5*	ce(K)/(γ+ce)=0.328 *4*; ce(L)/(γ+ce)=0.0549 *9*; ce(M)/(γ+ce)=0.01278 *22* ce(N)/(γ+ce)=0.00321 *6*; ce(O)/(γ+ce)=0.000607 *11*; ce(P)/(γ+ce)=4.65×10^{-5} *8* α(K)=0.546 *9*; α(L)=0.0915 *15*; α(M)=0.0213 *4* α(N)=0.00534 *9*; α(O)=0.001010 *16*; α(P)=7.74×10^{-5} *13*
252.3 *8*	0.73 *27*	6978.7	(57/2$^-$)	6726.4	(55/2$^-$)	[M1][&]	0.580 *10*	1.1 *4*	ce(K)/(γ+ce)=0.301 *4*; ce(L)/(γ+ce)=0.0505 *9*; ce(M)/(γ+ce)=0.01174 *21* ce(N)/(γ+ce)=0.00294 *6*; ce(O)/(γ+ce)=0.000557 *10*; ce(P)/(γ+ce)=4.27×10^{-5} *8* α(K)=0.476 *8*; α(L)=0.0797 *14*; α(M)=0.0185 *3* α(N)=0.00465 *8*; α(O)=0.000880 *15*; α(P)=6.74×10^{-5} *12*
252.5 *4*	14.8 *3*	5117.4	(45/2$^-$)	4864.9	(43/2$^-$)	D		22.1 *4*	Mult.: DCO=0.51 *2*. 1986Hu02 lists an unplaced γ with Eγ=252.4 *3*, Iγ=4 (deduced from coincidences), A_2=−0.6 *4* possibly corresponding to this γ.
257.8 *4*	7.6 *2*	8394.8	(65/2$^-$)	8137.0	(63/2$^-$)	(M1)	0.547	11.2 *2*	ce(K)/(γ+ce)=0.290 *4*; ce(L)/(γ+ce)=0.0486 *8*;

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									ce(M)/(γ+ce)=0.01130 *18* ce(N)/(γ+ce)=0.00283 *5*; ce(O)/(γ+ce)=0.000536 *9*; ce(P)/(γ+ce)=4.11×10^{-5} *7* α(K)=0.449 *7*; α(L)=0.0751 *11*; α(M)=0.0175 *3* α(N)=0.00438 *7*; α(O)=0.000829 *13*; α(P)=6.35×10^{-5} *10* Mult.: DCO=0.62 *2*.
267.0 *8*	3.3 *2*	7245.7	(59/2$^-$)	6978.7	(57/2$^-$)	(M1)	0.496 *8*	4.7 *2*	ce(K)/(γ+ce)=0.272 *4*; ce(L)/(γ+ce)=0.0456 *8*; ce(M)/(γ+ce)=0.01059 *18* ce(N)/(γ+ce)=0.00266 *5*; ce(O)/(γ+ce)=0.000503 *9*; ce(P)/(γ+ce)=3.85×10^{-5} *7* α(K)=0.407 *7*; α(L)=0.0682 *12*; α(M)=0.0159 *3* α(N)=0.00398 *7*; α(O)=0.000752 *13*; α(P)=5.77×10^{-5} *10* Mult.: DCO=0.61 *4*.
[x]274.1									From 1993De42. Tentatively placed from 5832 level; however, placement not confirmed by 1993Ro03, 1995Fo13. Possibly the 274.2γ from 6419.4 level.
274.2 *8*	2.2 *1*	6419.4	(53/2$^-$)	6145.2	(51/2$^-$)	D		3.0 *1*	Mult.: DCO=0.43 *6*.
284.5 *4*	16.6 *4*	5832.1	49/2$^{(+)}$	5547.6	47/2$^{(+)}$	M1	0.417	22.3 *5*	ce(K)/(γ+ce)=0.242 *3*; ce(L)/(γ+ce)=0.0404 *6*; ce(M)/(γ+ce)=0.00939 *14* ce(N)/(γ+ce)=0.00235 *4*; ce(O)/(γ+ce)=0.000446 *7*; ce(P)/(γ+ce)=3.42×10^{-5} *6* α(K)=0.342 *5*; α(L)=0.0572 *9*; α(M)=0.01330 *20* α(N)=0.00334 *5*; α(O)=0.000631 *10*; α(P)=4.84×10^{-5} *7* Iγ=7.81 (1993Ro03). Mult.: DCO=0.48 *2*; M1 from DCO and intensity balance (1993De42). 1998We23 report A_2=−0.38 *2*, A_4=−0.05 *2* for an M1/E2 transition of 284.2 keV at high excitation energies.
293.4 *8*	2.6 *1*	7133.3	(57/2$^+$)	6839.9	55/2$^{(+)}$	D	0.383	3.4 *1*	Mult.: DCO=0.65 *6*.
[x]298.6									From 1993De42. γ placed from a level at 5256.9 keV, however, the level was not confirmed by 1993Ro03, 1995Fo13.
298.7 *4*	11.8 *2*	8137.0	(63/2$^-$)	7838.3	(61/2$^-$)	(M1)	0.365	15.3 *2*	ce(K)/(γ+ce)=0.220 *3*; ce(L)/(γ+ce)=0.0367 *6*; ce(M)/(γ+ce)=0.00852 *13* ce(N)/(γ+ce)=0.00214 *4*; ce(O)/(γ+ce)=0.000405 *6*; ce(P)/(γ+ce)=3.10×10^{-5} *5* α(K)=0.300 *5*; α(L)=0.0500 *8*; α(M)=0.01163 *17* α(N)=0.00292 *5*; α(O)=0.000552 *8*; α(P)=4.23×10^{-5} *7* Mult.: DCO=0.54 *3*.
302.2[ad] *10*	0.6 *2*	6017.1	(51/2$^-$)	5714.8?					
302.9 *4*	32.6 *6*	2189.1	29/2$^-$	1886.2	25/2$^-$	E2	0.1035	34.1 *6*	ce(K)/(γ+ce)=0.0558 *8*; ce(L)/(γ+ce)=0.0286 *5*; ce(M)/(γ+ce)=0.00724 *11* ce(N)/(γ+ce)=0.00180 *3*; ce(O)/(γ+ce)=0.000311 *5*; ce(P)/(γ+ce)=7.19×10^{-6} *11* α(K)=0.0616 *9*; α(L)=0.0315 *5*; α(M)=0.00799 *12*

$^{193}_{80}Hg_{113}$-9

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									α(N)=0.00199 *3*; α(O)=0.000343 *5*; α(P)=7.94×10^{-6} *12* Iγ=25 (1986Hu02). Mult.: A_2=0.33 *1*, A_4=−0.10 *1* (1998We23). Other: A_2=+0.40 *3*, A_4=−0.14 *4* (1986Hu02). DCO=0.91 *1* (1997FoZX); band structure.
306.7 *8*	3.3 *2*	7440.0		7133.3	(57/2$^+$)	D			Mult.: DCO=0.57 *10*. DCO indicates stretched E1,M1. Parent level J^π unspecified.
309.9 *8*	3.5 *1*	3570.2	37/2$^+$	3260.3	33/2$^+$	E2	0.0967 *16*	3.6 *1*	ce(K)/(γ+ce)=0.0532 *8*; ce(L)/(γ+ce)=0.0264 *5*; ce(M)/(γ+ce)=0.00668 *12* ce(N)/(γ+ce)=0.00166 *3*; ce(O)/(γ+ce)=0.000287 *5*; ce(P)/(γ+ce)=6.86×10^{-6} *11* α(K)=0.0583 *9*; α(L)=0.0289 *5*; α(M)=0.00732 *13* α(N)=0.00182 *4*; α(O)=0.000315 *6*; α(P)=7.53×10^{-6} *12* Iγ=2.8 (1986Hu02). Mult.: A_2=+0.20 *17* (1986Hu02), DCO=1.00 *8* (1997FoZX); band structure.
314.2 *10*	1.0 *3*	4198.0	(39/2$^-$)	3883.8	39/2$^-$				
314.7 *8*	2.6 *1*	7560.4	(61/2$^-$)	7245.7	(59/2$^-$)	(M1)	0.317	3.2 *1*	ce(K)/(γ+ce)=0.198 *3*; ce(L)/(γ+ce)=0.0329 *6*; ce(M)/(γ+ce)=0.00766 *13* ce(N)/(γ+ce)=0.00192 *3*; ce(O)/(γ+ce)=0.000363 *6*; ce(P)/(γ+ce)=2.79×10^{-5} *5* α(K)=0.260 *4*; α(L)=0.0434 *7*; α(M)=0.01008 *16* α(N)=0.00253 *4*; α(O)=0.000479 *8*; α(P)=3.67×10^{-5} *6* Mult.: DCO=1.06 *7* (gate ΔJ=1).
315.6 *6*	4.1 *4*	6419.4	(53/2$^-$)	6103.9	(51/2$^-$)	D		5.1 *5*	Mult.: DCO=0.51 *2*.
325.4 *10*	0.7 *2*	6726.4	(55/2$^-$)	6401.0	(53/2$^-$)	[M1]&	0.289 *5*	0.9 *2*	ce(K)/(γ+ce)=0.1843 *25*; ce(L)/(γ+ce)=0.0307 *5*; ce(M)/(γ+ce)=0.00714 *12* ce(N)/(γ+ce)=0.00179 *3*; ce(O)/(γ+ce)=0.000339 *6*; ce(P)/(γ+ce)=2.60×10^{-5} *5* α(K)=0.238 *4*; α(L)=0.0396 *7*; α(M)=0.00920 *15* α(N)=0.00231 *4*; α(O)=0.000437 *8*; α(P)=3.35×10^{-5} *6*
325.5[ad] *10*	0.8 *1*	5117.4	(45/2$^-$)	4792.0	41/2$^-$				
327.7 *8*	3.6 *1*	2617.3	(29/2$^-$)	2289.5	27/2$^-$	D		4.4 *1*	Mult.: DCO=0.59 *20*.
[x]328.2[b] *10*						(Q)			From 1986Hu02: complex line, Iγ=1.0 estimated from coincidence spectra. Mult.: A_2=+0.27 *10* (1986Hu02).
339.4 *10*	0.8 *2*	5678.4	(49/2$^-$)	5339.1	(47/2$^-$)	[M1]&	0.258 *5*	1.0 *2*	ce(K)/(γ+ce)=0.1686 *23*; ce(L)/(γ+ce)=0.0280 *5*; ce(M)/(γ+ce)=0.00652 *11* ce(N)/(γ+ce)=0.00163 *3*; ce(O)/(γ+ce)=0.000309 *6*; ce(P)/(γ+ce)=2.37×10^{-5} *4* α(K)=0.212 *4*; α(L)=0.0353 *6*; α(M)=0.00820 *14* α(N)=0.00206 *4*; α(O)=0.000389 *7*; α(P)=2.99×10^{-5} *5*
354.7 *8*	4.1 *1*	7276.6	(57/2$^-$)	6921.9	(55/2$^-$)	[M1]	0.229	4.8 *1*	ce(K)/(γ+ce)=0.1532 *20*; ce(L)/(γ+ce)=0.0255 *4*;

$^{193}_{80}Hg_{113}$-10

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ †	I_γ #	E_i(level)	J_i^π	E_f	J_f^π	Mult. @	α c	$I_{(\gamma+ce)}$ ‡	Comments
									ce(M)/(γ+ce)=0.00592 *10* ce(N)/(γ+ce)=0.001484 *23*; ce(O)/(γ+ce)=0.000281 *5*; ce(P)/(γ+ce)=2.16×10^{-5} *4* α(K)=0.188 *3*; α(L)=0.0313 *5*; α(M)=0.00727 *12* α(N)=0.00182 *3*; α(O)=0.000345 *6*; α(P)=2.65×10^{-5} *4* Mult.: DCO(354.7γ+356.1γ)=0.47 *20*.
356.1 *6*	6.7 *3*	8750.9	(67/2$^-$)	8394.8	(65/2$^-$)	[M1]	0.227	7.8 *3*	ce(K)/(γ+ce)=0.1519 *20*; ce(L)/(γ+ce)=0.0252 *4*; ce(M)/(γ+ce)=0.00587 *9* ce(N)/(γ+ce)=0.001471 *22*; ce(O)/(γ+ce)=0.000278 *5*; ce(P)/(γ+ce)=2.14×10^{-5} *4* α(K)=0.186 *3*; α(L)=0.0310 *5*; α(M)=0.00719 *11* α(N)=0.00180 *3*; α(O)=0.000342 *5*; α(P)=2.62×10^{-5} *4* Mult.: DCO(354.7γ+356.1γ)=0.47 *20*.
357.3 *4*	12.4 *2*	7555.2	61/2$^{(+)}$	7197.9	59/2$^{(+)}$	M1	0.225	14.4 *2*	ce(K)/(γ+ce)=0.1508 *19*; ce(L)/(γ+ce)=0.0251 *4*; ce(M)/(γ+ce)=0.00582 *9* ce(N)/(γ+ce)=0.001460 *22*; ce(O)/(γ+ce)=0.000276 *4*; ce(P)/(γ+ce)=2.12×10^{-5} *3* α(K)=0.185 *3*; α(L)=0.0307 *5*; α(M)=0.00713 *11* α(N)=0.00179 *3*; α(O)=0.000338 *5*; α(P)=2.60×10^{-5} *4* Iγ=5.17 (1993Ro03). Mult.: DCO=0.48 *2*; M1, ΔJ=1 from DCO and intensity balance (1993De42). 1998We23 report A_2=−0.43 *2*, A_4=0.12 *1* for an M1/E2 transition of 357.1 keV at high excitation energies.
359.6 *8*	2.4 *3*	7920.0	(63/2$^-$)	7560.4	(61/2$^-$)	(M1)	0.221 *4*	2.8 *3*	ce(K)/(γ+ce)=0.1487 *20*; ce(L)/(γ+ce)=0.0247 *4*; ce(M)/(γ+ce)=0.00574 *9* ce(N)/(γ+ce)=0.001439 *23*; ce(O)/(γ+ce)=0.000272 *5*; ce(P)/(γ+ce)=2.09×10^{-5} *4* α(K)=0.181 *3*; α(L)=0.0301 *5*; α(M)=0.00701 *11* α(N)=0.00176 *3*; α(O)=0.000333 *5*; α(P)=2.55×10^{-5} *4* Mult.: DCO=0.39 *8*.
363.6 *8*	2.2 *1*	5702.7	(49/2$^-$)	5339.1	(47/2$^-$)	D		2.5 *1*	Mult.: DCO=0.35 *7*.
367.8 *8*	3.2 *3*	6832.4	55/2$^{(+)}$	6464.6	53/2$^{(+)}$	D		3.7 *3*	Iγ=1.82 (1993Ro03). Mult.: DCO=1.25 *30* (gate ΔJ=1).
369.7 *6*	6.2 *3*	7924.8	63/2$^{(+)}$	7555.2	61/2$^{(+)}$	M1	0.205	7.1 *3*	ce(K)/(γ+ce)=0.1398 *18*; ce(L)/(γ+ce)=0.0232 *4*; ce(M)/(γ+ce)=0.00539 *8* ce(N)/(γ+ce)=0.001353 *21*; ce(O)/(γ+ce)=0.000256 *4*; ce(P)/(γ+ce)=1.97×10^{-5} *3* α(K)=0.1685 *25*; α(L)=0.0280 *5*; α(M)=0.00650 *10* α(N)=0.001630 *24*; α(O)=0.000308 *5*; α(P)=2.37×10^{-5} *4* Iγ=2.25 (1993Ro03). Mult.: DCO=0.31 *10*; M1, ΔJ=1 from DCO and intensity balance (1993De42).
375.2 *4*	21.9 *6*	1755.6	21/2$^-$	1380.3	19/2$^+$	(E1)	0.01662	21.1 *6*	ce(K)/(γ+ce)=0.01351 *19*; ce(L)/(γ+ce)=0.00218 *3*;

$^{193}_{80}Hg_{113}$-11

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									ce(M)/(γ+ce)=0.000505 *8* ce(N)/(γ+ce)=0.0001256 *18*; ce(O)/(γ+ce)=2.32×10^{-5} *4*; ce(P)/(γ+ce)=1.553×10^{-6} *22* α(K)=0.01373 *20*; α(L)=0.00222 *4*; α(M)=0.000513 *8* α(N)=0.0001277 *19*; α(O)=2.36×10^{-5} *4*; α(P)=1.579×10^{-6} *23* Iγ=23 (1986Hu02). Mult.: A_2=−0.30 *1*, A_4=0.05 *1* (1998We23). Other: A_2=−0.16 *3*, A_4=−0.09 *4* (1986Hu02). DCO=0.51 *1* (1997FoZX); band structure.
375.4 *4*	9.2 *5*	6839.9	55/2$^{(+)}$	6464.6	53/2$^{(+)}$	(M1)	0.197	10.4 *6*	ce(K)/(γ+ce)=0.1351 *17*; ce(L)/(γ+ce)=0.0224 *4*; ce(M)/(γ+ce)=0.00521 *8* ce(N)/(γ+ce)=0.001307 *19*; ce(O)/(γ+ce)=0.000247 *4*; ce(P)/(γ+ce)=1.90×10^{-5} *3* α(K)=0.1617 *24*; α(L)=0.0268 *4*; α(M)=0.00623 *9* α(N)=0.001563 *23*; α(O)=0.000296 *5*; α(P)=2.27×10^{-5} *4* Iγ=5.31 (1993Ro03). Mult.: DCO=1.10 *4* (gate ΔJ=1).
375.8[ad] *10*	<0.5	5714.8?		5339.1	(47/2$^-$)				
382.0 *2*	100	522.75	17/2$^+$	140.76	13/2$^{(+)}$	E2	0.0536	100	ce(K)/(γ+ce)=0.0338 *5*; ce(L)/(γ+ce)=0.01293 *18*; ce(M)/(γ+ce)=0.00323 *5* ce(N)/(γ+ce)=0.000806 *12*; ce(O)/(γ+ce)=0.0001411 *20*; ce(P)/(γ+ce)=4.43×10^{-6} *7* α(K)=0.0356 *5*; α(L)=0.01363 *20*; α(M)=0.00341 *5* α(N)=0.000849 *12*; α(O)=0.0001487 *21*; α(P)=4.67×10^{-6} *7* Mult.: A_2=0.30 *1*, A_4=−0.10 *1* (1998We23). Other: A_2=+0.37 *3*, A_4=−0.12 *4* (1986Hu02). DCO=0.98 *1*.
389.6 *8*	1.3 *1*	5832.1	49/2$^{(+)}$	5442.6	45/2$^{(+)}$	Q		1.3 *1*	Mult.: DCO=0.91 *10*.
393.9 *8*	4.2 *1*	3570.2	37/2$^+$	3176.2	37/2$^+$			4.2 *1*	Iγ=4 (1986Hu02). Mult.: A_2=+0.35 *8*, A_4=−0.09 *10* (1986Hu02), DCO=0.95 *2* (1997FoZX). Its a 37/2$^+$ to 37/2$^+$ transition.
394.7 *8*	1.1 *1*	2583.7	31/2$^-$	2189.1	29/2$^-$	[M1]	0.172	1.2 *1*	ce(K)/(γ+ce)=0.1206 *16*; ce(L)/(γ+ce)=0.0200 *3*; ce(M)/(γ+ce)=0.00464 *7* ce(N)/(γ+ce)=0.001165 *18*; ce(O)/(γ+ce)=0.000220 *4*; ce(P)/(γ+ce)=1.69×10^{-5} *3* α(K)=0.1414 *22*; α(L)=0.0234 *4*; α(M)=0.00544 *9* α(N)=0.001365 *21*; α(O)=0.000258 *4*; α(P)=1.99×10^{-5} *3*
[x]396.8[b] *8*						D,Q			Iγ=1.6 (1986Hu02). Mult.: A_2=−0.66 *2*, A_4=0.16 *2* (1998We23). Other: A_2=−0.57 *25* (1986Hu02).
397.0 *4*	13.0 *2*	6464.6	53/2$^{(+)}$	6067.7	51/2$^{(+)}$	M1	0.1692	14.4 *2*	ce(K)/(γ+ce)=0.1191 *15*; ce(L)/(γ+ce)=0.0197 *3*; ce(M)/(γ+ce)=0.00458 *7* ce(N)/(γ+ce)=0.001149 *17*; ce(O)/(γ+ce)=0.000218 *4*;

(HI,xnγ) **1995Fo13,1993De42,1993Ro03 (continued)**

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									ce(P)/(γ+ce)=1.672×10^{-5} *24* α(K)=0.1392 *20*; α(L)=0.0231 *4*; α(M)=0.00536 *8* α(N)=0.001344 *20*; α(O)=0.000254 *4*; α(P)=1.95×10^{-5} *3* Iγ=5.8 (1993Ro03). Mult.: DCO=0.50 *2*; M1 from DCO and intensity balance (1993De42).
401.1 *8*	2.9 *1*	6103.9	(51/2$^-$)	5702.7	(49/2$^-$)	D		3.2 *1*	Mult.: DCO=0.59 *8*.
403.2 *8*	3.4 *1*	2289.5	27/2$^-$	1886.2	25/2$^-$	D		3.7 *1*	Mult.: DCO=1.22 *10* (gate ΔJ=1).
411.0 *8*	1.8 *1*	8331.0	(65/2$^-$)	7920.0	(63/2$^-$)	(M1)	0.1543	2.0 *1*	ce(K)/(γ+ce)=0.1099 *15*; ce(L)/(γ+ce)=0.0182 *3*; ce(M)/(γ+ce)=0.00423 *7* ce(N)/(γ+ce)=0.001060 *16*; ce(O)/(γ+ce)=0.000201 *3*; ce(P)/(γ+ce)=1.543×10^{-5} *24* α(K)=0.1269 *19*; α(L)=0.0210 *4*; α(M)=0.00488 *8* α(N)=0.001224 *19*; α(O)=0.000232 *4*; α(P)=1.78×10^{-5} *3* Mult.: DCO=0.56 *4*.
422.9 *6*	6.6 *3*	7699.5	(59/2$^-$)	7276.6	(57/2$^-$)	(M1)	0.1430	7.2 *3*	ce(K)/(γ+ce)=0.1029 *14*; ce(L)/(γ+ce)=0.01702 *25*; ce(M)/(γ+ce)=0.00395 *6* ce(N)/(γ+ce)=0.000991 *15*; ce(O)/(γ+ce)=0.000188 *3*; ce(P)/(γ+ce)=1.443×10^{-5} *22* α(K)=0.1176 *17*; α(L)=0.0195 *3*; α(M)=0.00452 *7* α(N)=0.001133 *17*; α(O)=0.000214 *4*; α(P)=1.650×10^{-5} *24* Mult.: DCO=0.46 *3* (1997FoZX).
425.5 *8*	1.4 *3*	6103.9	(51/2$^-$)	5678.4	(49/2$^-$)	[M1] [&]	0.1406	1.5 *3*	ce(K)/(γ+ce)=0.1014 *14*; ce(L)/(γ+ce)=0.01678 *25*; ce(M)/(γ+ce)=0.00390 *6* ce(N)/(γ+ce)=0.000977 *15*; ce(O)/(γ+ce)=0.000185 *3*; ce(P)/(γ+ce)=1.423×10^{-5} *22* α(K)=0.1157 *18*; α(L)=0.0191 *3*; α(M)=0.00444 *7* α(N)=0.001115 *17*; α(O)=0.000211 *4*; α(P)=1.623×10^{-5} *25*
426.9 *8*	1.1 *1*	8757.9	(67/2$^-$)	8331.0	(65/2$^-$)	[M1] [&]	0.1394	1.2 *1*	ce(K)/(γ+ce)=0.1007 *14*; ce(L)/(γ+ce)=0.01665 *25*; ce(M)/(γ+ce)=0.00387 *6* ce(N)/(γ+ce)=0.000970 *15*; ce(O)/(γ+ce)=0.000184 *3*; ce(P)/(γ+ce)=1.412×10^{-5} *22* α(K)=0.1147 *17*; α(L)=0.0190 *3*; α(M)=0.00440 *7* α(N)=0.001105 *17*; α(O)=0.000209 *4*; α(P)=1.608×10^{-5} *24*
428.1 *8*	3.9 *5*	2617.3	(29/2$^-$)	2189.1	29/2$^-$				
437.5 *8*	1.4 *3*	8137.0	(63/2$^-$)	7699.5	(59/2$^-$)	(E2)	0.0376	1.4 *3*	ce(K)/(γ+ce)=0.0252 *4*; ce(L)/(γ+ce)=0.00832 *13*; ce(M)/(γ+ce)=0.00206 *4* ce(N)/(γ+ce)=0.000514 *8*; ce(O)/(γ+ce)=9.09×10^{-5} *14*; ce(P)/(γ+ce)=3.33×10^{-6} *5* α(K)=0.0261 *4*; α(L)=0.00864 *14*; α(M)=0.00214 *4* α(N)=0.000534 *9*; α(O)=9.43×10^{-5} *15*; α(P)=3.45×10^{-6} *5* Mult.: DCO=2.57 *70* (gate ΔJ=1).

$^{193}_{80}Hg_{113}$-13

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
[x]440.0 [b] *8*									From 1986Hu02; complex line, Iγ=1.7 estimated from coincidence spectra.
442.6 *8*	2.5 *3*	6145.2	(51/2$^-$)	5702.7	(49/2$^-$)	[M1]	0.1266	2.7 *3*	ce(K)/(γ+ce)=0.0925 *13*; ce(L)/(γ+ce)=0.01528 *23*; ce(M)/(γ+ce)=0.00355 *6* ce(N)/(γ+ce)=0.000890 *14*; ce(O)/(γ+ce)=0.000168 *3*; ce(P)/(γ+ce)=1.296×10^{-5} *20* α(K)=0.1042 *16*; α(L)=0.0172 *3*; α(M)=0.00400 *6* α(N)=0.001002 *15*; α(O)=0.000190 *3*; α(P)=1.460×10^{-5} *22* Mult.: DCO(442.6γ+443.2γ)=0.49 *4*.
443.2 *6*	5.1 *5*	5560.5	(47/2$^-$)	5117.4	(45/2$^-$)	[M1]	0.1262	5.5 *5*	ce(K)/(γ+ce)=0.0922 *13*; ce(L)/(γ+ce)=0.01523 *22*; ce(M)/(γ+ce)=0.00354 *6* ce(N)/(γ+ce)=0.000887 *13*; ce(O)/(γ+ce)=0.0001679 *25*; ce(P)/(γ+ce)=1.292×10^{-5} *19* α(K)=0.1038 *15*; α(L)=0.01715 *25*; α(M)=0.00398 *6* α(N)=0.000999 *15*; α(O)=0.000189 *3*; α(P)=1.455×10^{-5} *21* Mult.: DCO(442.6γ+443.2γ)=0.49 *4*.
449.3 *8*	2.8 *1*	7281.7	57/2$^{(+)}$	6832.4	55/2$^{(+)}$	D		3.0 *1*	Mult.: DCO=0.47 *6*.
454.4 *8*	1.2 *1*	9675.9	(71/2$^-$)	9221.5	(69/2$^-$)	(M1)	0.1181	1.3 *1*	ce(K)/(γ+ce)=0.0869 *12*; ce(L)/(γ+ce)=0.01435 *21*; ce(M)/(γ+ce)=0.00333 *5* ce(N)/(γ+ce)=0.000835 *13*; ce(O)/(γ+ce)=0.0001582 *24*; ce(P)/(γ+ce)=1.217×10^{-5} *18* α(K)=0.0972 *15*; α(L)=0.01604 *24*; α(M)=0.00372 *6* α(N)=0.000934 *14*; α(O)=0.000177 *3*; α(P)=1.361×10^{-5} *21* Mult.: DCO=1.02 *10* (gate ΔJ=1).
461.4 *8*	2.2 *1*	3223.6	35/2$^-$	2762.2	33/2$^-$	[M1] [&]	0.1134	2.3 *1*	ce(K)/(γ+ce)=0.0838 *12*; ce(L)/(γ+ce)=0.01383 *21*; ce(M)/(γ+ce)=0.00321 *5* ce(N)/(γ+ce)=0.000805 *12*; ce(O)/(γ+ce)=0.0001525 *23*; ce(P)/(γ+ce)=1.174×10^{-5} *18* α(K)=0.0933 *14*; α(L)=0.01540 *23*; α(M)=0.00358 *6* α(N)=0.000897 *14*; α(O)=0.000170 *3*; α(P)=1.307×10^{-5} *20*
461.5 *6*	5.4 *5*	5800.6	(49/2$^-$)	5339.1	(47/2$^-$)	[M1] [&]	0.1133	5.7 *5*	ce(K)/(γ+ce)=0.0838 *11*; ce(L)/(γ+ce)=0.01382 *20*; ce(M)/(γ+ce)=0.00321 *5* ce(N)/(γ+ce)=0.000805 *12*; ce(O)/(γ+ce)=0.0001524 *22*; ce(P)/(γ+ce)=1.173×10^{-5} *17* α(K)=0.0933 *14*; α(L)=0.01539 *23*; α(M)=0.00357 *6* α(N)=0.000896 *13*; α(O)=0.0001697 *25*; α(P)=1.306×10^{-5} *19*
464.0 *8*	4.1 *4*	8388.8	65/2$^{(+)}$	7924.8	63/2$^{(+)}$	(M1)	0.1117	4.3 *4*	ce(K)/(γ+ce)=0.0827 *12*; ce(L)/(γ+ce)=0.01364 *20*; ce(M)/(γ+ce)=0.00317 *5* ce(N)/(γ+ce)=0.000794 *12*; ce(O)/(γ+ce)=0.0001504 *23*; ce(P)/(γ+ce)=1.158×10^{-5} *18* α(K)=0.0920 *14*; α(L)=0.01517 *23*; α(M)=0.00352 *6* α(N)=0.000883 *13*; α(O)=0.0001672 *25*; α(P)=1.287×10^{-5} *19*

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									Iγ=1.34 (1993Ro03).
									Mult.: DCO=0.46 *20*.
470.6 *8*	4.8 *1*	9221.5	(69/2$^-$)	8750.9	(67/2$^-$)	(M1)	0.1076	5.0 *1*	ce(K)/(γ+ce)=0.0800 *11*; ce(L)/(γ+ce)=0.01319 *20*; ce(M)/(γ+ce)=0.00306 *5* ce(N)/(γ+ce)=0.000768 *12*; ce(O)/(γ+ce)=0.0001454 *22*; ce(P)/(γ+ce)=1.119×10^{-5} *17* α(K)=0.0886 *13*; α(L)=0.01461 *22*; α(M)=0.00339 *5* α(N)=0.000850 *13*; α(O)=0.0001610 *24*; α(P)=1.240×10^{-5} *19*
									Mult.: DCO=0.49 *8*.
[x]472.3 *10*	0.4 *1*								γ is related to Structure (2) (1995Fo13).
474.2 *8*	3.4 *1*	5339.1	(47/2$^-$)	4864.9	(43/2$^-$)	Q		3.3 *1*	Mult.: DCO=1.15 *20*.
480.6 *4*	29.6 *6*	3176.2	37/2$^+$	2695.6	33/2$^+$	E2	0.0297	28.9 *6*	ce(K)/(γ+ce)=0.0206 *3*; ce(L)/(γ+ce)=0.00621 *9*; ce(M)/(γ+ce)=0.001530 *22* ce(N)/(γ+ce)=0.000382 *6*; ce(O)/(γ+ce)=6.78×10^{-5} *10*; ce(P)/(γ+ce)=2.73×10^{-6} *4* α(K)=0.0212 *3*; α(L)=0.00640 *10*; α(M)=0.001576 *23* α(N)=0.000393 *6*; α(O)=6.99×10^{-5} *10*; α(P)=2.81×10^{-6} *4*
									Iγ=15 (1986Hu02).
									Mult.: A_2=0.29 *3*, A_4=−0.09 *3* (1998We23). Other: A_2=+0.46 *6*, A_4=−0.16 *9* (1986Hu02). DCO=1.07 *2* (1997FoZX); band structure.
487.7 *4*	23.3 *5*	2583.7	31/2$^-$	2096.0	27/2$^-$	E2	0.0286	22.8 *5*	ce(K)/(γ+ce)=0.0200 *3*; ce(L)/(γ+ce)=0.00594 *9*; ce(M)/(γ+ce)=0.001462 *21* ce(N)/(γ+ce)=0.000365 *6*; ce(O)/(γ+ce)=6.49×10^{-5} *10*; ce(P)/(γ+ce)=2.65×10^{-6} *4* α(K)=0.0206 *3*; α(L)=0.00611 *9*; α(M)=0.001504 *22* α(N)=0.000375 *6*; α(O)=6.67×10^{-5} *10*; α(P)=2.72×10^{-6} *4*
									Iγ=14 (1986Hu02).
									Mult.: A_2=0.36 *2*, A_4=−0.10 *2* (1998We23). Other: A_2=+0.33 *4*, A_4=−0.08 *6* (1986Hu02). DCO=1.15 *3* (1997FoZX); band structure.
496.7 *8*	4.1 *1*	1523.2	(17/2$^+$,19/2$^+$)	1026.5	(13/2$^+$,15/2$^+$)	Q		4.0 *1*	Iγ=3 (1986Hu02).
									Mult.: A_2=+0.52 *10*, A_4=−0.21 *12* (1986Hu02), DCO=0.91 *9* (1997FoZX).
497.9 *8*	2.0 *1*	8886.8	67/2$^{(+)}$	8388.8	65/2$^{(+)}$	(M1)	0.0927	2.1 *1*	ce(K)/(γ+ce)=0.0699 *10*; ce(L)/(γ+ce)=0.01150 *17*; ce(M)/(γ+ce)=0.00267 *4* ce(N)/(γ+ce)=0.000669 *10*; ce(O)/(γ+ce)=0.0001268 *19*; ce(P)/(γ+ce)=9.77×10^{-6} *15* α(K)=0.0764 *12*; α(L)=0.01257 *19*; α(M)=0.00292 *5* α(N)=0.000732 *11*; α(O)=0.0001385 *21*; α(P)=1.067×10^{-5} *16*
									Mult.: DCO=0.62 *8*.

$^{193}_{80}Hg_{113}$-15

(HI,xnγ) **1995Fo13,1993De42,1993Ro03 (continued)**

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
500.3 *10*	<0.5	3196.0	(33/2$^+$)	2695.6	33/2$^+$				
502.4 *8*	4.0 *1*	6921.9	(55/2$^-$)	6419.4	(53/2$^-$)	(M1)	0.0905	4.1 *1*	ce(K)/(γ+ce)=0.0684 *10*; ce(L)/(γ+ce)=0.01125 *17*; ce(M)/(γ+ce)=0.00261 *4* ce(N)/(γ+ce)=0.000655 *10*; ce(O)/(γ+ce)=0.0001240 *19*; ce(P)/(γ+ce)=9.55×10^{-6} *14* α(K)=0.0746 *11*; α(L)=0.01227 *18*; α(M)=0.00285 *5* α(N)=0.000714 *11*; α(O)=0.0001352 *20*; α(P)=1.042×10^{-5} *16* Mult.: DCO=0.54 *7* (1997FoZX).
507.0 *8*	2.0 *1*	3727.0	(37/2$^-$)	3220.1	(33/2$^-$)				
512.8 *10*	0.9 *1*	7699.5	(59/2$^-$)	7186.7	(57/2$^-$)	[M1] [&]	0.0858	0.9 *1*	ce(K)/(γ+ce)=0.0651 *9*; ce(L)/(γ+ce)=0.01070 *16*; ce(M)/(γ+ce)=0.00248 *4* ce(N)/(γ+ce)=0.000623 *10*; ce(O)/(γ+ce)=0.0001179 *18*; ce(P)/(γ+ce)=9.09×10^{-6} *14* α(K)=0.0707 *11*; α(L)=0.01162 *18*; α(M)=0.00270 *4* α(N)=0.000676 *11*; α(O)=0.0001281 *20*; α(P)=9.87×10^{-6} *15*
512.9 *4*	12.4 *2*	4396.8	43/2$^-$	3883.8	39/2$^-$	E2	0.0253	12.1 *2*	ce(K)/(γ+ce)=0.01798 *25*; ce(L)/(γ+ce)=0.00510 *8*; ce(M)/(γ+ce)=0.001252 *18* ce(N)/(γ+ce)=0.000312 *5*; ce(O)/(γ+ce)=5.58×10^{-5} *8*; ce(P)/(γ+ce)=2.38×10^{-6} *4* α(K)=0.0184 *3*; α(L)=0.00523 *8*; α(M)=0.001283 *19* α(N)=0.000320 *5*; α(O)=5.72×10^{-5} *9*; α(P)=2.45×10^{-6} *4* Mult.: A_2=0.32 *2*, A_4=−0.14 *2* (1998We23). DCO=0.98 *3* (1997FoZX); band structure.
514.1 [ad]		9923.1	(71/2$^+$)	9409.1	(69/2$^+$)				
517.6 *8*	1.7 *1*	7555.2	61/2$^{(+)}$	7037.5	57/2$^{(+)}$	[E2] [&]	0.0248	1.7 *1*	ce(K)/(γ+ce)=0.01764 *25*; ce(L)/(γ+ce)=0.00497 *8*; ce(M)/(γ+ce)=0.001217 *18* ce(N)/(γ+ce)=0.000304 *5*; ce(O)/(γ+ce)=5.43×10^{-5} *8*; ce(P)/(γ+ce)=2.34×10^{-6} *4* α(K)=0.0181 *3*; α(L)=0.00509 *8*; α(M)=0.001248 *19* α(N)=0.000311 *5*; α(O)=5.56×10^{-5} *9*; α(P)=2.40×10^{-6} *4*
[x]519.4 *10*						Q			Iγ=0.6 (1986Hu02). Mult.: A_2=0.23 *2*, A_4=0.01 *2* (1998We23). Other: A_2=−0.3 *3* (1986Hu02).
520.1 *4*	13.5 *3*	6067.7	51/2$^{(+)}$	5547.6	47/2$^{(+)}$	E2	0.0245	13.1 *3*	ce(K)/(γ+ce)=0.01747 *25*; ce(L)/(γ+ce)=0.00490 *7*; ce(M)/(γ+ce)=0.001200 *17* ce(N)/(γ+ce)=0.000299 *5*; ce(O)/(γ+ce)=5.35×10^{-5} *8*; ce(P)/(γ+ce)=2.32×10^{-6} *4* α(K)=0.0179 *3*; α(L)=0.00502 *8*; α(M)=0.001229 *18* α(N)=0.000307 *5*; α(O)=5.48×10^{-5} *8*; α(P)=2.37×10^{-6} *4* Iγ=6.9 (1993Ro03). Mult.: DCO=0.93 *9*; ΔJ=2 from DCO (1993De42).
521.3 *10*	1.0 *2*	2617.3	(29/2$^-$)	2096.0	27/2$^-$	[M1] [&]	0.0822	1.0 *2*	ce(K)/(γ+ce)=0.0625 *9*; ce(L)/(γ+ce)=0.01028 *16*;

$^{193}_{80}Hg_{113}$-16

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									ce(M)/(γ+ce)=0.00239 *4* ce(N)/(γ+ce)=0.000598 *9*; ce(O)/(γ+ce)=0.0001133 *17*; ce(P)/(γ+ce)=8.73×10^{-6} *13* α(K)=0.0677 *10*; α(L)=0.01112 *17*; α(M)=0.00258 *4* α(N)=0.000647 *10*; α(O)=0.0001226 *19*; α(P)=9.45×10^{-6} *14*
522.2 [ad]		9409.1	(69/2$^+$)	8886.8	67/2$^{(+)}$				
523.2 *4*	19.1 *4*	4674.1	45/2$^-$	4150.8	41/2$^-$	E2	0.0242	18.6 *4*	ce(K)/(γ+ce)=0.01725 *24*; ce(L)/(γ+ce)=0.00481 *7*; ce(M)/(γ+ce)=0.001178 *17* ce(N)/(γ+ce)=0.000294 *5*; ce(O)/(γ+ce)=5.26×10^{-5} *8*; ce(P)/(γ+ce)=2.29×10^{-6} *4* α(K)=0.01767 *25*; α(L)=0.00493 *7*; α(M)=0.001207 *18* α(N)=0.000301 *5*; α(O)=5.38×10^{-5} *8*; α(P)=2.34×10^{-6} *4* Iγ=4 (1986Hu02). Mult.: A$_2$=0.34 *1*, A$_4$=−0.11 *1* (1998We23). Other: A$_2$=+0.41 *8* (1986Hu02); band structure. DCO=0.93 *3* (1997FoZX).
[x]524.0									From 1993De42. Tentative γ placed from 5832 level; however, placement not confirmed by 1993Ro03, 1995Fo13. Possibly the 524.5γ from 3727.0 level.
524.5 *8*	2.5 *3*	3727.0	(37/2$^-$)	3202.5	(33/2$^-$)	[E2] [&]	0.0240	2.4 *3*	ce(K)/(γ+ce)=0.01716 *25*; ce(L)/(γ+ce)=0.00478 *7*; ce(M)/(γ+ce)=0.001170 *18* ce(N)/(γ+ce)=0.000292 *5*; ce(O)/(γ+ce)=5.22×10^{-5} *8*; ce(P)/(γ+ce)=2.28×10^{-6} *4* α(K)=0.0176 *3*; α(L)=0.00489 *8*; α(M)=0.001198 *18* α(N)=0.000299 *5*; α(O)=5.34×10^{-5} *8*; α(P)=2.33×10^{-6} *4*
543.5 *10*	0.5 *1*	6103.9	(51/2$^-$)	5560.5	(47/2$^-$)	[E2] [&]	0.0221		α(K)=0.01629 *24*; α(L)=0.00440 *7*; α(M)=0.001074 *17* α(N)=0.000268 *4*; α(O)=4.81×10^{-5} *8*; α(P)=2.16×10^{-6} *4*
546.0 *6*	7.8 *1*	4958.5	45/2$^-$	4412.6	41/2$^-$	Q		7.6 *1*	Mult.: DCO=1.08 *10* (1997FoZX).
549.5 *10*	0.8 *1*	4119.7	39/2$^+$	3570.2	37/2$^+$	[M1]	0.0715	0.8 *1*	ce(K)/(γ+ce)=0.0550 *8*; ce(L)/(γ+ce)=0.00903 *14*; ce(M)/(γ+ce)=0.00209 *4* ce(N)/(γ+ce)=0.000525 *8*; ce(O)/(γ+ce)=9.95×10^{-5} *15*; ce(P)/(γ+ce)=7.67×10^{-6} *12* α(K)=0.0589 *9*; α(L)=0.00967 *15*; α(M)=0.00224 *4* α(N)=0.000563 *9*; α(O)=0.0001066 *16*; α(P)=8.22×10^{-6} *13*
550.3 *6*	5.9 *3*	4120.5	41/2$^+$	3570.2	37/2$^+$	E2	0.0214	5.7 *3*	ce(K)/(γ+ce)=0.01553 *22*; ce(L)/(γ+ce)=0.00415 *6*; ce(M)/(γ+ce)=0.001013 *15* ce(N)/(γ+ce)=0.000253 *4*; ce(O)/(γ+ce)=4.54×10^{-5} *7*; ce(P)/(γ+ce)=2.06×10^{-6} *3* α(K)=0.01587 *23*; α(L)=0.00424 *6*; α(M)=0.001035 *15* α(N)=0.000258 *4*; α(O)=4.63×10^{-5} *7*; α(P)=2.11×10^{-6} *3* Iγ=4 (1986Hu02). Mult.: A$_2$=+0.42 *7*, A$_4$=−0.16 *9* (1986Hu02), DCO=1.02 *7* (1997FoZX); band structure.

$^{193}_{80}Hg_{113}$-17

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
554.4 *8*	2.1 *5*	3196.0	(33/2$^+$)	2641.7	29/2$^+$	Q		2.0 *5*	1986Hu02 report a complex line, Iγ=2.0 estimated from coincidence spectra. Mult.: A_2=+0.28 *10*, A_4=0.00 *12* (1986Hu02), DCO=1.41 *20* (1997FoZX).
556.5 *8*	4.4 *5*	8394.8	(65/2$^-$)	7838.3	(61/2$^-$)	E2	0.0209	4.3 *5*	ce(K)/(γ+ce)=0.01518 *22*; ce(L)/(γ+ce)=0.00402 *6*; ce(M)/(γ+ce)=0.000980 *15* ce(N)/(γ+ce)=0.000245 *4*; ce(O)/(γ+ce)=4.39×10^{-5} *7*; ce(P)/(γ+ce)=2.01×10^{-6} *3* α(K)=0.01550 *23*; α(L)=0.00410 *6*; α(M)=0.001001 *15* α(N)=0.000250 *4*; α(O)=4.48×10^{-5} *7*; α(P)=2.06×10^{-6} *3* Mult.: DCO=2.16 *20* (gate ΔJ=1).
557.7 *8*	1.7 *5*	6305.2	(53/2$^-$)	5747.5	(49/2$^-$)	[E2] [&]	0.0208	1.6 *5*	ce(K)/(γ+ce)=0.01511 *22*; ce(L)/(γ+ce)=0.00399 *6*; ce(M)/(γ+ce)=0.000974 *15* ce(N)/(γ+ce)=0.000243 *4*; ce(O)/(γ+ce)=4.36×10^{-5} *7*; ce(P)/(γ+ce)=2.01×10^{-6} *3* α(K)=0.01543 *22*; α(L)=0.00408 *6*; α(M)=0.000994 *15* α(N)=0.000248 *4*; α(O)=4.45×10^{-5} *7*; α(P)=2.05×10^{-6} *3*
558.2 *8*	1.3 *4*	3754.2	(37/2$^+$)	3196.0	(33/2$^+$)	Q		1.3 *4*	Iγ=2.0 (1986Hu02). Mult.: DCO=0.97 *10* (1997FoZX).
561.4 *8* [x]561.7	3.4 *4*	4958.5	45/2$^-$	4396.8	43/2$^-$				From 1993De42. γ placed from a level at 5818.6 keV; however, the level was not confirmed by 1993Ro03, 1995Fo13. Possibly the 561.9γ from 4412.5 level, or 561.8γ from 7838.3 level.
561.8 *6*	6.3 *4*	7838.3	(61/2$^-$)	7276.6	(57/2$^-$)	E2	0.0204	6.1 *4*	ce(K)/(γ+ce)=0.01489 *21*; ce(L)/(γ+ce)=0.00391 *6*; ce(M)/(γ+ce)=0.000953 *14* ce(N)/(γ+ce)=0.000238 *4*; ce(O)/(γ+ce)=4.27×10^{-5} *7*; ce(P)/(γ+ce)=1.98×10^{-6} *3* α(K)=0.01519 *22*; α(L)=0.00399 *6*; α(M)=0.000973 *14* α(N)=0.000243 *4*; α(O)=4.36×10^{-5} *7*; α(P)=2.02×10^{-6} *3* Mult.: DCO=1.10 *4*.
561.9 *8*	1.8 *3*	4412.6	41/2$^-$	3850.7	37/2$^-$	Q		1.7 *3*	Mult.: DCO=1.10 *4*.
563.0 [ad] *10*		10853.6	(75/2$^-$)	10290.4	(73/2$^-$)				
564.1 *8*	3.6 *1*	4683.8	43/2$^+$	4119.7	39/2$^+$	E2	0.0202	3.5 *1*	ce(K)/(γ+ce)=0.01476 *21*; ce(L)/(γ+ce)=0.00386 *6*; ce(M)/(γ+ce)=0.000942 *14* ce(N)/(γ+ce)=0.000235 *4*; ce(O)/(γ+ce)=4.22×10^{-5} *7*; ce(P)/(γ+ce)=1.96×10^{-6} *3* α(K)=0.01506 *22*; α(L)=0.00394 *6*; α(M)=0.000961 *14* α(N)=0.000240 *4*; α(O)=4.31×10^{-5} *7*; α(P)=2.00×10^{-6} *3* Mult.: DCO=0.82 *20*; band structure.
564.7 *10*	0.6 *1*	3260.3	33/2$^+$	2695.6	33/2$^+$				
573.0 *4*	35.0 *7*	2762.2	33/2$^-$	2189.1	29/2$^-$	E2	0.0195	33.9 *7*	ce(K)/(γ+ce)=0.01429 *20*; ce(L)/(γ+ce)=0.00370 *6*;

$^{193}_{80}Hg_{113}$-18

γ(^{193}Hg) (continued)

E_γ[†]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[c]	$I_{(\gamma+ce)}$[‡]	Comments
									ce(M)/(γ+ce)=0.000900 *13* ce(N)/(γ+ce)=0.000225 *4*; ce(O)/(γ+ce)=4.04×10^{-5} *6*; ce(P)/(γ+ce)=1.90×10^{-6} *3* α(K)=0.01457 *21*; α(L)=0.00377 *6*; α(M)=0.000917 *13* α(N)=0.000229 *4*; α(O)=4.12×10^{-5} *6*; α(P)=1.93×10^{-6} *3* Iγ=22 (1986Hu02). Mult.: A_2=0.29 *1*, A_4=−0.09 *1* (1998We23). Other: A_2=+0.26 *3*, A_4=−0.09 *4* (1986Hu02). DCO=0.99 *1* (1997FoZX); band structure.
577.6 *10*	1.0 *2*	6978.7	(57/2$^-$)	6401.0	(53/2$^-$)	E2	0.0192	1.0 *2*	ce(K)/(γ+ce)=0.01406 *20*; ce(L)/(γ+ce)=0.00361 *6*; ce(M)/(γ+ce)=0.000879 *13* ce(N)/(γ+ce)=0.000219 *4*; ce(O)/(γ+ce)=3.95×10^{-5} *6*; ce(P)/(γ+ce)=1.87×10^{-6} *3* α(K)=0.01433 *21*; α(L)=0.00368 *6*; α(M)=0.000896 *14* α(N)=0.000224 *4*; α(O)=4.02×10^{-5} *6*; α(P)=1.90×10^{-6} *3* Mult.: DCO=2.24 *50* (gate ΔJ=1).
581.9 *10*	1.0 *2*	7560.4	(61/2$^-$)	6978.7	(57/2$^-$)	[E2][&]	0.0189	1.0 *2*	ce(K)/(γ+ce)=0.01385 *20*; ce(L)/(γ+ce)=0.00354 *6*; ce(M)/(γ+ce)=0.000860 *13* ce(N)/(γ+ce)=0.000215 *4*; ce(O)/(γ+ce)=3.87×10^{-5} *6*; ce(P)/(γ+ce)=1.84×10^{-6} *3* α(K)=0.01411 *21*; α(L)=0.00360 *6*; α(M)=0.000877 *13* α(N)=0.000219 *4*; α(O)=3.94×10^{-5} *6*; α(P)=1.87×10^{-6} *3*
585.2 *8*	2.7 *1*	3202.5	(33/2$^-$)	2617.3	(29/2$^-$)	[E2][&]	0.0186	2.6 *1*	ce(K)/(γ+ce)=0.01369 *20*; ce(L)/(γ+ce)=0.00348 *5*; ce(M)/(γ+ce)=0.000846 *13* ce(N)/(γ+ce)=0.000211 *3*; ce(O)/(γ+ce)=3.81×10^{-5} *6*; ce(P)/(γ+ce)=1.82×10^{-6} *3* α(K)=0.01395 *20*; α(L)=0.00355 *6*; α(M)=0.000862 *13* α(N)=0.000215 *4*; α(O)=3.88×10^{-5} *6*; α(P)=1.85×10^{-6} *3*
589.1 *8*	1.3 *1*	5547.6	47/2$^{(+)}$	4958.5	45/2$^-$				
594.1 *8*	2.3 *1*	4792.0	41/2$^-$	4198.0	(39/2$^-$)	[E2][&]	0.0180	2.2 *1*	ce(K)/(γ+ce)=0.01328 *19*; ce(L)/(γ+ce)=0.00334 *5*; ce(M)/(γ+ce)=0.000811 *12* ce(N)/(γ+ce)=0.000202 *3*; ce(O)/(γ+ce)=3.65×10^{-5} *6*; ce(P)/(γ+ce)=1.76×10^{-6} *3* α(K)=0.01352 *20*; α(L)=0.00340 *5*; α(M)=0.000825 *12* α(N)=0.000206 *3*; α(O)=3.71×10^{-5} *6*; α(P)=1.79×10^{-6} *3*
600.2[d] *10*	0.8 *2*	7440.0		6839.9	55/2$^{(+)}$				
602.9 *8*	2.2 *1*	3220.1	(33/2$^-$)	2617.3	(29/2$^-$)	[E2][&]	0.01739	2.1 *1*	ce(K)/(γ+ce)=0.01289 *19*; ce(L)/(γ+ce)=0.00320 *5*; ce(M)/(γ+ce)=0.000777 *12* ce(N)/(γ+ce)=0.000194 *3*; ce(O)/(γ+ce)=3.50×10^{-5} *5*; ce(P)/(γ+ce)=1.710×10^{-6} *25* α(K)=0.01311 *19*; α(L)=0.00326 *5*; α(M)=0.000791 *12* α(N)=0.000197 *3*; α(O)=3.56×10^{-5} *6*; α(P)=1.740×10^{-6} *25*

$^{193}_{80}Hg_{113}$-19

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
606.0 *4*	11.3 *4*	746.8	15/2$^+$	140.76	13/2$^{(+)}$	(M1+E2)	0.036 *20*	11.1 *2*	ce(K)/(γ+ce)=0.028 *16*; ce(L)/(γ+ce)=0.0052 *21*; ce(M)/(γ+ce)=0.00121 *46* ce(N)/(γ+ce)=3.0×10^{-4} *12*; ce(O)/(γ+ce)=5.7×10^{-5} *23*; ce(P)/(γ+ce)=3.9×10^{-6} *23* α(K)=0.029 *17*; α(L)=0.0053 *22*; α(M)=0.00126 *48* α(N)=3.1×10^{-4} *12*; α(O)=5.9×10^{-5} *24*; α(P)=4.0×10^{-6} *24* 1986Hu02 report a complex line, Iγ=9.0 estimated from coincidence spectra. Mult.: A_2=−0.34 *3*, A_4=−0.09 *5* (1986Hu02), does not agree with γ(θ) in (α,xnγ); DCO=0.33 *4* (1997FoZX).
[x]606.1 *10*	0.6 *1*								γ is related to Structure (2) (1995Fo13).
610.5 *6*	6.5 *5*	1755.6	21/2$^-$	1145.4	21/2$^+$				DCO=0.95 *7* (1997FoZX).
614.0 *8*	4.1 *5*	8750.9	(67/2$^-$)	8137.0	(63/2$^-$)	E2	0.01669	4.0 *5*	ce(K)/(γ+ce)=0.01242 *18*; ce(L)/(γ+ce)=0.00304 *5*; ce(M)/(γ+ce)=0.000738 *11* ce(N)/(γ+ce)=0.000184 *3*; ce(O)/(γ+ce)=3.33×10^{-5} *5*; ce(P)/(γ+ce)=1.648×10^{-6} *24* α(K)=0.01263 *18*; α(L)=0.00310 *5*; α(M)=0.000750 *11* α(N)=0.000187 *3*; α(O)=3.38×10^{-5} *5*; α(P)=1.675×10^{-6} *24* Mult.: DCO=0.96 *30*.
614.5 *8*	2.7 *4*	10290.4	(73/2$^-$)	9675.9	(71/2$^-$)	(M1)	0.0534	2.7 *4*	ce(K)/(γ+ce)=0.0418 *6*; ce(L)/(γ+ce)=0.00684 *10*; ce(M)/(γ+ce)=0.001585 *23* ce(N)/(γ+ce)=0.000398 *6*; ce(O)/(γ+ce)=7.53×10^{-5} *11*; ce(P)/(γ+ce)=5.82×10^{-6} *9* α(K)=0.0440 *7*; α(L)=0.00720 *11*; α(M)=0.001670 *24* α(N)=0.000419 *6*; α(O)=7.93×10^{-5} *12*; α(P)=6.13×10^{-6} *9* Mult.: DCO=0.99 *20* (gate ΔJ=1).
617.8 *4*	38.3 *21*	2502.1	29/2$^+$	1884.3	25/2$^+$	E2	0.01647	37.0 *20*	ce(K)/(γ+ce)=0.01226 *17*; ce(L)/(γ+ce)=0.00299 *5*; ce(M)/(γ+ce)=0.000725 *11* ce(N)/(γ+ce)=0.000181 *3*; ce(O)/(γ+ce)=3.27×10^{-5} *5*; ce(P)/(γ+ce)=1.627×10^{-6} *23* α(K)=0.01247 *18*; α(L)=0.00304 *5*; α(M)=0.000737 *11* α(N)=0.000184 *3*; α(O)=3.33×10^{-5} *5*; α(P)=1.654×10^{-6} *24* Iγ=28 (1986Hu02). Mult.: A_2=0.30 *2*, A_4=−0.06 *4* (1998We23). Other: A_2=+0.40 *3*, A_4=−0.16 *4* (1986Hu02). DCO=0.99 *2* (1997FoZX).
618.7 *6*	7.5 *6*	6419.4	(53/2$^-$)	5800.6	(49/2$^-$)	[E2] [&]	0.01641	7.2 *6*	ce(K)/(γ+ce)=0.01223 *17*; ce(L)/(γ+ce)=0.00298 *5*; ce(M)/(γ+ce)=0.000722 *11* ce(N)/(γ+ce)=0.000180 *3*; ce(O)/(γ+ce)=3.26×10^{-5} *5*; ce(P)/(γ+ce)=1.623×10^{-6} *23* α(K)=0.01243 *18*; α(L)=0.00303 *5*; α(M)=0.000734 *11* α(N)=0.000183 *3*; α(O)=3.31×10^{-5} *5*; α(P)=1.649×10^{-6} *24* I(γ+ce) from 1995Fo13. 1997FoZX quote I(γ+ce)=6.7 *7*.

$^{193}_{80}Hg_{113}$-20

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
622.7 *2*	83.8 *11*	1145.4	21/2$^+$	522.75	17/2$^+$	E2	0.01618	80.8 *10*	ce(K)/(γ+ce)=0.01207 *17*; ce(L)/(γ+ce)=0.00293 *4*; ce(M)/(γ+ce)=0.000709 *10* ce(N)/(γ+ce)=0.0001771 *25*; ce(O)/(γ+ce)=3.20×10^{-5} *5*; ce(P)/(γ+ce)=1.602×10^{-6} *23* α(K)=0.01227 *18*; α(L)=0.00298 *5*; α(M)=0.000721 *11* α(N)=0.000180 *3*; α(O)=3.25×10^{-5} *5*; α(P)=1.628×10^{-6} *23* Iγ=61 (1986Hu02). Mult.: A$_2$=0.33 *1*, A$_4$=−0.10 *1* (1998We23). Other: A$_2$=+0.38 *3*, A$_4$=−0.11 *4* (1986Hu02). DCO=1.07 *1* (1997FoZX); band structure.
626.8 *6*	5.9 *1*	6305.2	(53/2$^-$)	5678.4	(49/2$^-$)	[E2] [&]	0.01594	5.7 *1*	ce(K)/(γ+ce)=0.01191 *17*; ce(L)/(γ+ce)=0.00288 *4*; ce(M)/(γ+ce)=0.000696 *10* ce(N)/(γ+ce)=0.0001739 *25*; ce(O)/(γ+ce)=3.14×10^{-5} *5*; ce(P)/(γ+ce)=1.581×10^{-6} *23* α(K)=0.01210 *18*; α(L)=0.00292 *5*; α(M)=0.000708 *10* α(N)=0.000177 *3*; α(O)=3.19×10^{-5} *5*; α(P)=1.606×10^{-6} *23*
632.6 *6*	5.7 *5*	6464.6	53/2$^{(+)}$	5832.1	49/2$^{(+)}$	E2	0.01562	5.5 *5*	ce(K)/(γ+ce)=0.01169 *17*; ce(L)/(γ+ce)=0.00281 *4*; ce(M)/(γ+ce)=0.000679 *10* ce(N)/(γ+ce)=0.0001695 *25*; ce(O)/(γ+ce)=3.07×10^{-5} *5*; ce(P)/(γ+ce)=1.551×10^{-6} *22* α(K)=0.01188 *17*; α(L)=0.00285 *4*; α(M)=0.000689 *10* α(N)=0.0001721 *25*; α(O)=3.11×10^{-5} *5*; α(P)=1.576×10^{-6} *23* Iγ=1.36 (1993Ro03). Mult.: DCO=1.15 *20*.
633.5 *4*	10.5 *2*	1380.3	19/2$^+$	746.8	15/2$^+$	E2	0.01557	10.1 *2*	ce(K)/(γ+ce)=0.01166 *17*; ce(L)/(γ+ce)=0.00279 *4*; ce(M)/(γ+ce)=0.000676 *10* ce(N)/(γ+ce)=0.0001688 *24*; ce(O)/(γ+ce)=3.05×10^{-5} *5*; ce(P)/(γ+ce)=1.547×10^{-6} *22* α(K)=0.01184 *17*; α(L)=0.00284 *4*; α(M)=0.000687 *10* α(N)=0.0001714 *25*; α(O)=3.10×10^{-5} *5*; α(P)=1.571×10^{-6} *22* Iγ=12 (1986Hu02). Mult.: A$_2$=+0.29 *10*, A$_4$=−0.01 *14* (1986Hu02), DCO=1.10 *2* (1997FoZX).
[x]634.0									γ seen by 1993De42. Tentative placement from a level at 5307 keV; however, the level was not confirmed by 1993Ro03, 1995Fo13.
640.0 *4*	20.6 *4*	3223.6	35/2$^-$	2583.7	31/2$^-$	E2	0.01522	19.9 *4*	ce(K)/(γ+ce)=0.01142 *16*; ce(L)/(γ+ce)=0.00272 *4*; ce(M)/(γ+ce)=0.000657 *10* ce(N)/(γ+ce)=0.0001641 *24*; ce(O)/(γ+ce)=2.97×10^{-5} *5*; ce(P)/(γ+ce)=1.515×10^{-6} *22* α(K)=0.01160 *17*; α(L)=0.00276 *4*; α(M)=0.000667 *10* α(N)=0.0001666 *24*; α(O)=3.02×10^{-5} *5*; α(P)=1.538×10^{-6} *22* 1986Hu02 report a complex line, Iγ=10.0 estimated from coincidence

$^{193}_{80}Hg_{113}$-21

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									spectra. E_γ: 1998We23 report Eγ=639.6 keV. Mult.: A_2=0.38 *2*, A_4=0.00 *2* (1998We23). Other: A_2=+0.37 *10*, A_4=−0.14 *14* (1986Hu02). DCO=1.02 *2* (1997FoZX); band structure.
651.2 *6*	5.8 *8*	5048.0	47/2$^-$	4396.8	43/2$^-$	Q		5.7 *7*	Iγ=2.4 (1986Hu02). Mult.: A_2=+0.67 *15* (1986Hu02), DCO=0.97 *6* (1997FoZX); band structure.
653.3 *4*	25.5 *11*	4150.8	41/2$^-$	3497.5	37/2$^-$	(E2)	0.01455	24.6 *10*	ce(K)/(γ+ce)=0.01096 *16*; ce(L)/(γ+ce)=0.00257 *4*; ce(M)/(γ+ce)=0.000621 *9* ce(N)/(γ+ce)=0.0001550 *22*; ce(O)/(γ+ce)=2.81×10^{-5} *4*; ce(P)/(γ+ce)=1.454×10^{-6} *21* α(K)=0.01112 *16*; α(L)=0.00261 *4*; α(M)=0.000630 *9* α(N)=0.0001573 *23*; α(O)=2.85×10^{-5} *4*; α(P)=1.475×10^{-6} *21* Iγ=10 (1986Hu02). Mult.: A_2=0.27 *1*, A_4=−0.06 *1* (1998We23). Other: A_2=+0.35 *5*, A_4=−0.09 *6* (1986Hu02). DCO=0.94 *1* (1997FoZX).
660.2 *4*	20.1 *4*	3883.8	39/2$^-$	3223.6	35/2$^-$	(E2)	0.01422	19.4 *4*	ce(K)/(γ+ce)=0.01073 *15*; ce(L)/(γ+ce)=0.00250 *4*; ce(M)/(γ+ce)=0.000603 *9* ce(N)/(γ+ce)=0.0001506 *22*; ce(O)/(γ+ce)=2.73×10^{-5} *4*; ce(P)/(γ+ce)=1.423×10^{-6} *20* α(K)=0.01089 *16*; α(L)=0.00254 *4*; α(M)=0.000612 *9* α(N)=0.0001528 *22*; α(O)=2.77×10^{-5} *4*; α(P)=1.444×10^{-6} *21* Iγ=7 (1986Hu02). Mult.: A_2=0.34 *2*, A_4=−0.10 *2* (1998We23). Other: A_2=+0.45 *5*, A_4=−0.10 *7* (1986Hu02). DCO=1.07 *3* (1997FoZX).
674.1 *8*	2.2 *1*	7920.0	(63/2$^-$)	7245.7	(59/2$^-$)	E2	0.01358	2.1 *1*	ce(K)/(γ+ce)=0.01030 *15*; ce(L)/(γ+ce)=0.00237 *4*; ce(M)/(γ+ce)=0.000570 *9* ce(N)/(γ+ce)=0.0001423 *21*; ce(O)/(γ+ce)=2.59×10^{-5} *4*; ce(P)/(γ+ce)=1.365×10^{-6} *20* α(K)=0.01044 *15*; α(L)=0.00240 *4*; α(M)=0.000578 *9* α(N)=0.0001443 *21*; α(O)=2.62×10^{-5} *4*; α(P)=1.384×10^{-6} *20* Mult.: DCO=2.50 *30* (gate ΔJ=1).
677.9 *8*	2.9 *1*	5361.7	47/2$^+$	4683.8	43/2$^+$	E2	0.01342	2.8 *1*	ce(K)/(γ+ce)=0.01018 *15*; ce(L)/(γ+ce)=0.00233 *4*; ce(M)/(γ+ce)=0.000561 *8* ce(N)/(γ+ce)=0.0001402 *21*; ce(O)/(γ+ce)=2.55×10^{-5} *4*; ce(P)/(γ+ce)=1.350×10^{-6} *20* α(K)=0.01032 *15*; α(L)=0.00236 *4*; α(M)=0.000569 *9* α(N)=0.0001421 *21*; α(O)=2.58×10^{-5} *4*; α(P)=1.368×10^{-6} *20* Mult.: DCO=0.84 *30*.
678.0 *10*	0.7 *1*	6017.1	(51/2$^-$)	5339.1	(47/2$^-$)	Q		0.7 *1*	DCO=2.3 *6* (gate ΔJ=1).
685.7 *8*	1.4 *3*	4412.6	41/2$^-$	3727.0	(37/2$^-$)				
704.3 *4*	12.9 *2*	3880.5	41/2$^+$	3176.2	37/2$^+$	E2	0.01236	12.4 *2*	ce(K)/(γ+ce)=0.00944 *14*; ce(L)/(γ+ce)=0.00211 *3*; ce(M)/(γ+ce)=0.000507 *8* ce(N)/(γ+ce)=0.0001266 *18*; ce(O)/(γ+ce)=2.30×10^{-5} *4*;

$^{193}_{80}Hg_{113}$-22

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									ce(P)/(γ+ce)=1.251×10^{-6} *18* α(K)=0.00956 *14*; α(L)=0.00213 *3*; α(M)=0.000513 *8* α(N)=0.0001281 *18*; α(O)=2.33×10^{-5} *4*; α(P)=1.266×10^{-6} *18* Iγ= 5 (1986Hu02). Mult.: A_2=0.31 *5*, A_4=−0.20 *6* (1998We23). Other: A_2=+0.45 *9*, A_4=−0.14 *13* (1986Hu02). DCO=0.93 *2* (1997FoZX); band structure.
709.3 *10*	0.9 *2*	6726.4	(55/2$^-$)	6017.1	(51/2$^-$)	Q		0.9 *2*	Mult.: DCO=2.1 *7* (gate ΔJ=1).
716.5 *8*	1.5 *1*	5400.3		4683.8	43/2$^+$	D			Mult.: DCO=0.68 *10*.
716.7 *8*	2.0 *3*	6419.4	(53/2$^-$)	5702.7	(49/2$^-$)	[E2]	0.01191	1.9 *3*	ce(K)/(γ+ce)=0.00912 *13*; ce(L)/(γ+ce)=0.00202 *3*; ce(M)/(γ+ce)=0.000484 *7* ce(N)/(γ+ce)=0.0001208 *18*; ce(O)/(γ+ce)=2.20×10^{-5} *4*; ce(P)/(γ+ce)=1.208×10^{-6} *18* α(K)=0.00923 *13*; α(L)=0.00204 *3*; α(M)=0.000490 *7* α(N)=0.0001223 *18*; α(O)=2.23×10^{-5} *4*; α(P)=1.223×10^{-6} *18*
719.8 *6*	5.7 *5*	5678.4	(49/2$^-$)	4958.5	45/2$^-$	[E2] [&]	0.01180	5.5 *5*	ce(K)/(γ+ce)=0.00905 *13*; ce(L)/(γ+ce)=0.00199 *3*; ce(M)/(γ+ce)=0.000478 *7* ce(N)/(γ+ce)=0.0001195 *17*; ce(O)/(γ+ce)=2.18×10^{-5} *3*; ce(P)/(γ+ce)=1.198×10^{-6} *17* α(K)=0.00915 *13*; α(L)=0.00202 *3*; α(M)=0.000484 *7* α(N)=0.0001209 *18*; α(O)=2.20×10^{-5} *4*; α(P)=1.212×10^{-6} *17* 1993De42 places a 719.6γ from a 6538.2 level. Level not confirmed by 1993Ro03, 1995Fo13.
726.9 *6*	5.9 *1*	7924.8	63/2$^{(+)}$	7197.9	59/2$^{(+)}$	E2	0.01155	5.7 *1*	ce(K)/(γ+ce)=0.00887 *13*; ce(L)/(γ+ce)=0.00194 *3*; ce(M)/(γ+ce)=0.000466 *7* ce(N)/(γ+ce)=0.0001164 *17*; ce(O)/(γ+ce)=2.12×10^{-5} *3*; ce(P)/(γ+ce)=1.175×10^{-6} *17* α(K)=0.00898 *13*; α(L)=0.00197 *3*; α(M)=0.000472 *7* α(N)=0.0001178 *17*; α(O)=2.15×10^{-5} *3*; α(P)=1.189×10^{-6} *17* Iγ=2.57 (1993Ro03). DCO=0.92 *1*; ΔJ=2 from DCO (1993De42).
731.1 *8*	1.9 *1*	2617.3	(29/2$^-$)	1886.2	25/2$^-$	[E2] [&]	0.01141	1.8 *1*	ce(K)/(γ+ce)=0.00877 *13*; ce(L)/(γ+ce)=0.00191 *3*; ce(M)/(γ+ce)=0.000459 *7* ce(N)/(γ+ce)=0.0001147 *17*; ce(O)/(γ+ce)=2.09×10^{-5} *3*; ce(P)/(γ+ce)=1.162×10^{-6} *17* α(K)=0.00887 *13*; α(L)=0.00194 *3*; α(M)=0.000464 *7* α(N)=0.0001160 *17*; α(O)=2.12×10^{-5} *3*; α(P)=1.175×10^{-6} *17*
735.2 *4*	35.4 *7*	3497.5	37/2$^-$	2762.2	33/2$^-$	E2	0.01128	34.0 *7*	ce(K)/(γ+ce)=0.00868 *12*; ce(L)/(γ+ce)=0.00189 *3*; ce(M)/(γ+ce)=0.000452 *7* ce(N)/(γ+ce)=0.0001130 *16*; ce(O)/(γ+ce)=2.06×10^{-5} *3*; ce(P)/(γ+ce)=1.149×10^{-6} *17* α(K)=0.00878 *13*; α(L)=0.00191 *3*; α(M)=0.000458 *7* α(N)=0.0001143 *16*; α(O)=2.09×10^{-5} *3*; α(P)=1.162×10^{-6} *17*

$^{193}_{80}Hg_{113}$-23

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ[†]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[c]	$I_{(\gamma+ce)}$[‡]	Comments
									1986Hu02 report a complex line, Iγ=15.0 estimated from coincidence spectra.
									Mult.: A_2=0.37 *1*, A_4=−0.10 *1* (1998We23). Other: A_2=+0.49 *11*, A_4=−0.17 *13* (1986Hu02). DCO=1.07 *2* (1997FoZX); band structure.
737.4 *6*	9.6 *4*	5411.5	49/2$^-$	4674.1	45/2$^-$	E2	0.01121	9.2 *4*	ce(K)/(γ+ce)=0.00863 *12*; ce(L)/(γ+ce)=0.00187 *3*; ce(M)/(γ+ce)=0.000449 *7* ce(N)/(γ+ce)=0.0001122 *16*; ce(O)/(γ+ce)=2.05×10^{-5} *3*; ce(P)/(γ+ce)=1.142×10^{-6} *16* α(K)=0.00872 *13*; α(L)=0.00189 *3*; α(M)=0.000454 *7* α(N)=0.0001134 *16*; α(O)=2.07×10^{-5} *3*; α(P)=1.155×10^{-6} *17*
									Mult.: DCO=0.99 *1*; band structure.
738.9 *4*	47.8 *11*	1884.3	25/2$^+$	1145.4	21/2$^+$	E2	0.01116	45.9 *10*	ce(K)/(γ+ce)=0.00859 *12*; ce(L)/(γ+ce)=0.00186 *3*; ce(M)/(γ+ce)=0.000447 *7* ce(N)/(γ+ce)=0.0001116 *16*; ce(O)/(γ+ce)=2.04×10^{-5} *3*; ce(P)/(γ+ce)=1.137×10^{-6} *16* α(K)=0.00869 *13*; α(L)=0.00188 *3*; α(M)=0.000452 *7* α(N)=0.0001128 *16*; α(O)=2.06×10^{-5} *3*; α(P)=1.150×10^{-6} *17*
									Iγ=41 (1986Hu02).
									Mult.: A_2=0.29 *2*, A_4=−0.11 *2* (1998We23). Other: A_2=+0.39 *6*, A_4=−0.10 *10* (1986Hu02). DCO=0.95 *1* (1997FoZX); band structure.
744.4 *8*	3.0 *5*	5702.7	(49/2$^-$)	4958.5	45/2$^-$	[E2][&]	0.01099	2.9 *5*	ce(K)/(γ+ce)=0.00847 *12*; ce(L)/(γ+ce)=0.00183 *3*; ce(M)/(γ+ce)=0.000438 *7* ce(N)/(γ+ce)=0.0001094 *16*; ce(O)/(γ+ce)=2.00×10^{-5} *3*; ce(P)/(γ+ce)=1.121×10^{-6} *16* α(K)=0.00856 *13*; α(L)=0.00185 *3*; α(M)=0.000443 *7* α(N)=0.0001106 *16*; α(O)=2.02×10^{-5} *3*; α(P)=1.133×10^{-6} *16*
745.5 *4*	27.7 *17*	1890.9	23/2$^-$	1145.4	21/2$^+$	(E1+M2)	0.0048 *8*	27.5 *6*	ce(K)/(γ+ce)=0.0039 *7*; ce(L)/(γ+ce)=0.00063 *12*; ce(M)/(γ+ce)=0.00014 *3* ce(N)/(γ+ce)=3.6×10^{-5} *8*; ce(O)/(γ+ce)=6.8×10^{-6} *14*; ce(P)/(γ+ce)=5.0×10^{-7} *11* α(K)=0.0040 *7*; α(L)=0.00063 *13*; α(M)=0.00015 *3* α(N)=3.6×10^{-5} *8*; α(O)=6.8×10^{-6} *14*; α(P)=5.0×10^{-7} *11*
									Iγ=14 (1986Hu02).
									Mult.: A_2=−0.07 *2*, A_4=−0.06 *3* (1998We23). Other: A_2=−0.19 *6*, A_4=−0.09 *10* (1986Hu02). DCO=0.75 *2* (1997FoZX).
757.5 *6*	8.0 *1*	2641.7	29/2$^+$	1884.3	25/2$^+$	E2	0.01059	7.7 *1*	ce(K)/(γ+ce)=0.00819 *12*; ce(L)/(γ+ce)=0.001750 *25*; ce(M)/(γ+ce)=0.000419 *6* ce(N)/(γ+ce)=0.0001046 *15*; ce(O)/(γ+ce)=1.91×10^{-5} *3*; ce(P)/(γ+ce)=1.083×10^{-6} *16* α(K)=0.00827 *12*; α(L)=0.00177 *3*; α(M)=0.000423 *6* α(N)=0.0001057 *15*; α(O)=1.93×10^{-5} *3*; α(P)=1.095×10^{-6} *16*

$^{193}_{80}Hg_{113}$-24

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ[†]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[c]	$I_{(\gamma+ce)}$[‡]	Comments
									1986Hu02 report a complex line, Iγ=5.0 estimated from coincidence spectra. Mult.: A_2(757.4γ+757.8γ)=+0.42 *20* (1986Hu02), DCO=1.19 *9* (1997FoZX); band structure.
758.2 *8*	3.2 *2*	3260.3	$33/2^+$	2502.1	$29/2^+$	(E2)	0.01057	3.0 *2*	ce(K)/(γ+ce)=0.00817 *12*; ce(L)/(γ+ce)=0.001746 *25*; ce(M)/(γ+ce)=0.000418 *6* ce(N)/(γ+ce)=0.0001044 *15*; ce(O)/(γ+ce)=1.91×10^{-5} *3*; ce(P)/(γ+ce)=1.081×10^{-6} *16* α(K)=0.00826 *12*; α(L)=0.00176 *3*; α(M)=0.000422 *6* α(N)=0.0001055 *15*; α(O)=1.93×10^{-5} *3*; α(P)=1.093×10^{-6} *16* 1986Hu02 report a complex line, Iγ=3.0 estimated from coincidence spectra. Mult.: A_2(757.4γ+757.7γ)=+0.42 *10* (1986Hu02), DCO=1.01 *5* (1997FoZX).
764.6 *6*	5.6 *1*	6832.4	$55/2^{(+)}$	6067.7	$51/2^{(+)}$	Q		5.4 *1*	Iγ=2.69 (1993Ro03). Mult.: DCO=1.06 *7*.
765.0 *8*	1.8 *2*	6103.9	$(51/2^-)$	5339.1	$(47/2^-)$	[E2][&]	0.01037	1.7 *2*	ce(K)/(γ+ce)=0.00803 *12*; ce(L)/(γ+ce)=0.001707 *25*; ce(M)/(γ+ce)=0.000408 *6* ce(N)/(γ+ce)=0.0001020 *15*; ce(O)/(γ+ce)=1.87×10^{-5} *3*; ce(P)/(γ+ce)=1.062×10^{-6} *15* α(K)=0.00811 *12*; α(L)=0.001725 *25*; α(M)=0.000412 *6* α(N)=0.0001031 *15*; α(O)=1.88×10^{-5} *3*; α(P)=1.073×10^{-6} *16*
769.4 *8*	3.8 *2*	4889.9	$45/2^+$	4120.5	$41/2^+$	E2	0.01025	3.6 *2*	ce(K)/(γ+ce)=0.00794 *12*; ce(L)/(γ+ce)=0.001683 *24*; ce(M)/(γ+ce)=0.000402 *6* ce(N)/(γ+ce)=0.0001005 *15*; ce(O)/(γ+ce)=1.84×10^{-5} *3*; ce(P)/(γ+ce)=1.050×10^{-6} *15* α(K)=0.00802 *12*; α(L)=0.001700 *25*; α(M)=0.000406 *6* α(N)=0.0001015 *15*; α(O)=1.86×10^{-5} *3*; α(P)=1.061×10^{-6} *15* Mult.: DCO=1.11 *8* (1997FoZX); band structure.
770.7 *8*	2.1 *1*	8331.0	$(65/2^-)$	7560.4	$(61/2^-)$	E2	0.01021	2.0 *1*	ce(K)/(γ+ce)=0.00792 *12*; ce(L)/(γ+ce)=0.001676 *24*; ce(M)/(γ+ce)=0.000401 *6* ce(N)/(γ+ce)=0.0001001 *15*; ce(O)/(γ+ce)=1.83×10^{-5} *3*; ce(P)/(γ+ce)=1.047×10^{-6} *15* α(K)=0.00800 *12*; α(L)=0.001693 *25*; α(M)=0.000405 *6* α(N)=0.0001011 *15*; α(O)=1.85×10^{-5} *3*; α(P)=1.058×10^{-6} *15* Mult.: DCO=2.55 *60* (gate ΔJ=1).
772.2 *4*	16.1 *3*	6839.9	$55/2^{(+)}$	6067.7	$51/2^{(+)}$	E2	0.01017	15.4 *3*	ce(K)/(γ+ce)=0.00789 *11*; ce(L)/(γ+ce)=0.001667 *24*; ce(M)/(γ+ce)=0.000399 *6* ce(N)/(γ+ce)=9.96×10^{-5} *14*; ce(O)/(γ+ce)=1.82×10^{-5} *3*; ce(P)/(γ+ce)=1.043×10^{-6} *15* α(K)=0.00797 *12*; α(L)=0.001684 *24*; α(M)=0.000403 *6* α(N)=0.0001006 *15*; α(O)=1.84×10^{-5} *3*; α(P)=1.054×10^{-6} *15* Iγ=8.88 (1993Ro03).

$^{193}_{80}Hg_{113}$-25

(HI,xnγ) **1995Fo13,1993De42,1993Ro03 (continued)**

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									Mult.: DCO=1.02 *6*; ΔJ=2 from DCO (1993De42). 1998We23 report A_2=0.26 *3*, A_4=−0.06 *2* for an E2 transition of 772.0 keV at high excitation energies.
[x]772.3[b] *8*						(Q)			Iγ=2.7 (1986Hu02). Mult.: A_2=+0.50 *12* (1986Hu02).
[x]774.6[b] *8*						(Q)			From 1986Hu02; complex line, Iγ=1.4 estimated from coincidence spectra. Mult.: A_2=+0.43 *15* (1986Hu02).
777.6 *8*	5.1 *1*	7699.5	(59/2$^-$)	6921.9	(55/2$^-$)	E2	0.01003	4.9 *1*	ce(K)/(γ+ce)=0.00778 *11*; ce(L)/(γ+ce)=0.001639 *24*; ce(M)/(γ+ce)=0.000392 *6* ce(N)/(γ+ce)=9.78×10^{-5} *14*; ce(O)/(γ+ce)=1.79×10^{-5} *3*; ce(P)/(γ+ce)=1.029×10^{-6} *15* α(K)=0.00786 *12*; α(L)=0.001655 *24*; α(M)=0.000395 *6* α(N)=9.88×10^{-5} *14*; α(O)=1.81×10^{-5} *3*; α(P)=1.039×10^{-6} *15* Mult.: DCO=1.91 *20* (gate ΔJ=1).
784.8 *8*	2.6 *2*	4539.1	(41/2$^+$)	3754.2	(37/2$^+$)	Q		2.5 *2*	Mult.: DCO=1.02 *10* (1997FoZX).
789.0 *10*	1.0 *1*	5747.5	(49/2$^-$)	4958.5	45/2$^-$				
801.9 *8*	1.1 *1*	6163.6	(51/2$^+$)	5361.7	47/2$^+$	[E2]	0.00941	1.1 *1*	ce(K)/(γ+ce)=0.00733 *11*; ce(L)/(γ+ce)=0.001518 *22*; ce(M)/(γ+ce)=0.000362 *6* ce(N)/(γ+ce)=9.05×10^{-5} *13*; ce(O)/(γ+ce)=1.659×10^{-5} *24*; ce(P)/(γ+ce)=9.69×10^{-7} *14* α(K)=0.00740 *11*; α(L)=0.001533 *22*; α(M)=0.000366 *6* α(N)=9.13×10^{-5} *13*; α(O)=1.675×10^{-5} *24*; α(P)=9.78×10^{-7} *14*
806.0 *8*	1.1 *1*	6145.2	(51/2$^-$)	5339.1	(47/2$^-$)				
807.9 *6*	6.8 *1*	4688.4	45/2$^+$	3880.5	41/2$^+$	E2	0.00926	6.5 *1*	ce(K)/(γ+ce)=0.00723 *10*; ce(L)/(γ+ce)=0.001491 *21*; ce(M)/(γ+ce)=0.000355 *5* ce(N)/(γ+ce)=8.88×10^{-5} *13*; ce(O)/(γ+ce)=1.629×10^{-5} *23*; ce(P)/(γ+ce)=9.55×10^{-7} *14* α(K)=0.00729 *11*; α(L)=0.001505 *22*; α(M)=0.000359 *5* α(N)=8.96×10^{-5} *13*; α(O)=1.644×10^{-5} *24*; α(P)=9.63×10^{-7} *14* Iγ=4 (1986Hu02). Mult.: A_2=+0.31 *9*, A_4=−0.10 *11* (1986Hu02), DCO=0.91 *6* (1997FoZX); band structure.
808.2 *8*	2.4 *1*	5698.1	49/2$^+$	4889.9	45/2$^+$	E2	0.00926	2.3 *1*	ce(K)/(γ+ce)=0.00722 *11*; ce(L)/(γ+ce)=0.001489 *22*; ce(M)/(γ+ce)=0.000355 *5* ce(N)/(γ+ce)=8.87×10^{-5} *13*; ce(O)/(γ+ce)=1.628×10^{-5} *24*; ce(P)/(γ+ce)=9.54×10^{-7} *14* α(K)=0.00729 *11*; α(L)=0.001503 *22*; α(M)=0.000358 *5* α(N)=8.96×10^{-5} *13*; α(O)=1.643×10^{-5} *24*; α(P)=9.63×10^{-7} *14* Mult.: DCO=1.11 *10*; band structure.
818.2 *8*	3.8 *1*	6921.9	(55/2$^-$)	6103.9	(51/2$^-$)	Q		3.6 *1*	Mult.: DCO=1.11 *9*.
826.6 *8*	3.5 *1*	9221.5	(69/2$^-$)	8394.8	(65/2$^-$)	E2	0.00884	3.4 *1*	ce(K)/(γ+ce)=0.00692 *10*; ce(L)/(γ+ce)=0.001410 *20*;

$^{193}_{80}Hg_{113}$-26

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
									ce(M)/(γ+ce)=0.000336 *5* ce(N)/(γ+ce)=8.39×10^{-5} *12*; ce(O)/(γ+ce)=1.540×10^{-5} *22*; ce(P)/(γ+ce)=9.13×10^{-7} *13* α(K)=0.00698 *10*; α(L)=0.001422 *21*; α(M)=0.000339 *5* α(N)=8.46×10^{-5} *12*; α(O)=1.554×10^{-5} *22*; α(P)=9.21×10^{-7} *13* DCO=0.89 *8*.
833.6 *8*	4.0 *1*	8388.8	65/2$^{(+)}$	7555.2	61/2$^{(+)}$	E2	0.00869	3.8 *1*	ce(K)/(γ+ce)=0.00680 *10*; ce(L)/(γ+ce)=0.001381 *20*; ce(M)/(γ+ce)=0.000329 *5* ce(N)/(γ+ce)=8.22×10^{-5} *12*; ce(O)/(γ+ce)=1.509×10^{-5} *22*; ce(P)/(γ+ce)=8.98×10^{-7} *13* α(K)=0.00686 *10*; α(L)=0.001393 *20*; α(M)=0.000332 *5* α(N)=8.29×10^{-5} *12*; α(O)=1.522×10^{-5} *22*; α(P)=9.06×10^{-7} *13* Iγ=2.56 (1993Ro03). Mult.: DCO=2.14 *20* (gate ΔJ=1).
837.8 *8*	2.2 *1*	8757.9	(67/2$^-$)	7920.0	(63/2$^-$)				Mult.: D+Q from DCO=1.55 *20* (gate ΔJ=1). However, it is a (67/2$^-$) to (63/2$^-$) transition.
843.5 *8*	2.2 *1*	4964.0	43/2	4120.5	41/2$^+$	D			Mult.: DCO=0.55 *6*. a 844γ was seen by 1986Hu02, but not placed in level scheme.
848.9 *8*	3.3 *9*	7681.3		6832.4	55/2$^{(+)}$				
851.1 *8*	3.9 *8*	5899.1	51/2$^-$	5048.0	47/2$^-$				Iγ=1.0 (1986Hu02). Mult.: DCO=0.86 *8* (1997FoZX).
857.1 *6*	8.1 *5*	7276.6	(57/2$^-$)	6419.4	(53/2$^-$)	E2	0.00821	7.8 *5*	ce(K)/(γ+ce)=0.00645 *9*; ce(L)/(γ+ce)=0.001292 *19*; ce(M)/(γ+ce)=0.000307 *5* ce(N)/(γ+ce)=7.67×10^{-5} *11*; ce(O)/(γ+ce)=1.411×10^{-5} *20*; ce(P)/(γ+ce)=8.51×10^{-7} *12* α(K)=0.00650 *10*; α(L)=0.001302 *19*; α(M)=0.000310 *5* α(N)=7.74×10^{-5} *11*; α(O)=1.423×10^{-5} *20*; α(P)=8.58×10^{-7} *12* Mult.: DCO=0.96 *5*.
857.5 *4*	11.3 *9*	1380.3	19/2$^+$	522.75	17/2$^+$	(M1+E2)	0.0154 *72*	11.0 *8*	ce(K)/(γ+ce)=0.0124 *60*; ce(L)/(γ+ce)=0.00213 *85*; ce(M)/(γ+ce)=5.0×10^{-4} *20* ce(N)/(γ+ce)=1.24×10^{-4} *49*; ce(O)/(γ+ce)=2.34×10^{-5} *94*; ce(P)/(γ+ce)=1.69×10^{-6} *85* α(K)=0.0126 *61*; α(L)=0.00216 *86*; α(M)=5.0×10^{-4} *20* α(N)=1.26×10^{-4} *49*; α(O)=2.37×10^{-5} *96*; α(P)=1.72×10^{-6} *86* Iγ=18 (1986Hu02). Mult.: A$_2$=−0.66 *2*, A$_4$=0.13 *1* (1998We23). Other: A$_2$=−0.67 *5*, A$_4$=+0.02 *7* (1986Hu02).
869.0 *10*	1.0 *3*	6428.5	(53/2$^+$)	5559.5	49/2$^+$				
871.1 *8*	3.8 *8*	5559.5	49/2$^+$	4688.4	45/2$^+$	E2	0.00794	3.6 *8*	ce(K)/(γ+ce)=0.00626 *9*; ce(L)/(γ+ce)=0.001243 *18*; ce(M)/(γ+ce)=0.000295 *5* ce(N)/(γ+ce)=7.37×10^{-5} *11*; ce(O)/(γ+ce)=1.358×10^{-5} *20*;

$^{193}_{80}Hg_{113}$-27

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ[†]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[c]	$I_{(\gamma+ce)}$[‡]	Comments
									ce(P)/(γ+ce)=8.25×10^{-7} *12* α(K)=0.00631 *9*; α(L)=0.001252 *18*; α(M)=0.000297 *5* α(N)=7.43×10^{-5} *11*; α(O)=1.368×10^{-5} *20*; α(P)=8.31×10^{-7} *12* 1986Hu02 report a 868.8γ with Iγ=1.0, part of a complex line, from this level.
873.4 *6*	6.6 *1*	5547.6	47/2$^{(+)}$	4674.1	45/2$^-$	(E1)	0.00295	6.3 *1*	Iγ=1.0 (1986Hu02). Mult.: A_2=+0.21 *13*, A_4=−0.14 *18* (1986Hu02), DCO=1.04 *8* (1997FoZX); band structure. ce(K)/(γ+ce)=0.00246 *4*; ce(L)/(γ+ce)=0.000371 *6*; ce(M)/(γ+ce)=8.52×10^{-5} *12* ce(N)/(γ+ce)=2.13×10^{-5} *3*; ce(O)/(γ+ce)=4.00×10^{-6} *6*; ce(P)/(γ+ce)=2.97×10^{-7} *5* α(K)=0.00247 *4*; α(L)=0.000372 *6*; α(M)=8.55×10^{-5} *12* α(N)=2.13×10^{-5} *3*; α(O)=4.01×10^{-6} *6*; α(P)=2.98×10^{-7} *5* 1986Hu02 report a 873.1γ with Iγ=1.4, but, based on very weak arguments. suggest an (E2) multipolarity. Mult.: DCO=0.53 *1*; Δπ=yes from level scheme (1995Fo13).
881.5 *8*	3.9 *1*	7186.7	(57/2$^-$)	6305.2	(53/2$^-$)	[E2][&]	0.00776	3.7 *1*	ce(K)/(γ+ce)=0.00612 *9*; ce(L)/(γ+ce)=0.001208 *17*; ce(M)/(γ+ce)=0.000287 *4* ce(N)/(γ+ce)=7.17×10^{-5} *11*; ce(O)/(γ+ce)=1.320×10^{-5} *19*; ce(P)/(γ+ce)=8.06×10^{-7} *12* α(K)=0.00616 *9*; α(L)=0.001217 *18*; α(M)=0.000289 *4* α(N)=7.22×10^{-5} *11*; α(O)=1.330×10^{-5} *19*; α(P)=8.12×10^{-7} *12*
[x]881.7 *8*	1.9 *5*								γ is related to Structure (2) (1995Fo13).
885.7 *8*	3.8 *1*	1026.5	(13/2$^+$,15/2$^+$)	140.76	13/2$^{(+)}$	Q		3.6 *1*	1986Hu02 report a complex line, Iγ=4.0 estimated from coincidence spectra. Mult.: DCO=0.93 *20* (1997FoZX).
[x]898.7 *10*	0.8 *1*								
[x]902.4[b] *10*									From 1986Hu02; complex line, Iγ=0.7 estimated from coincidence spectra.
903.5 *6*	6.8 *1*	5442.6	45/2$^{(+)}$	4539.1	(41/2$^+$)	Q		6.5 *1*	Mult.: DCO=1.08 *6* (1997FoZX).
908.2 *8*	2.1 *3*	4792.0	41/2$^-$	3883.8	39/2$^-$	D		2.0 *3*	Mult.: DCO=0.61 *9*.
915.1 *6*	7.3 *1*	4412.6	41/2$^-$	3497.5	37/2$^-$	E2	0.00720	7.0 *1*	ce(K)/(γ+ce)=0.00570 *8*; ce(L)/(γ+ce)=0.001106 *16*; ce(M)/(γ+ce)=0.000262 *4* ce(N)/(γ+ce)=6.55×10^{-5} *10*; ce(O)/(γ+ce)=1.208×10^{-5} *17*; ce(P)/(γ+ce)=7.50×10^{-7} *11* α(K)=0.00574 *8*; α(L)=0.001114 *16*; α(M)=0.000264 *4* α(N)=6.60×10^{-5} *10*; α(O)=1.217×10^{-5} *18*; α(P)=7.55×10^{-7} *11* 1986Hu02 report a complex line, Iγ=1.7 estimated from coincidence spectra. Mult.: DCO=1.05 *20* (1997FoZX).

$^{193}_{80}Hg_{113}$-28

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
924.9 *8*	2.1 *1*	9675.9	(71/2$^-$)	8750.9	(67/2$^-$)	E2	0.00704	2.0 *1*	ce(K)/(γ+ce)=0.00558 *8*; ce(L)/(γ+ce)=0.001079 *16*; ce(M)/(γ+ce)=0.000255 *4* ce(N)/(γ+ce)=6.39×10^{-5} *9*; ce(O)/(γ+ce)=1.179×10^{-5} *17*; ce(P)/(γ+ce)=7.35×10^{-7} *11* α(K)=0.00562 *8*; α(L)=0.001087 *16*; α(M)=0.000257 *4* α(N)=6.43×10^{-5} *10*; α(O)=1.187×10^{-5} *17*; α(P)=7.40×10^{-7} *11* Mult.: DCO=2.03 *20* (gate ΔJ=1).
937.4 *8*	1.2 *1*	6496.9	(53/2$^+$)	5559.5	49/2$^+$				
[x]938.0 *8*	1.3 *2*								γ is related to Structure (2) (1995Fo13).
[x]942.7[b] *8*									Iγ=2.3 (1986Hu02). Transition feeds 37/2$^+$ level, but exact placement not determined.
943.5 *8*	3.8 *1*	4119.7	39/2$^+$	3176.2	37/2$^+$	(M1)	0.0177	3.7 *1*	ce(K)/(γ+ce)=0.01436 *20*; ce(L)/(γ+ce)=0.00232 *4*; ce(M)/(γ+ce)=0.000536 *8* ce(N)/(γ+ce)=0.0001345 *19*; ce(O)/(γ+ce)=2.55×10^{-5} *4*; ce(P)/(γ+ce)=1.98×10^{-6} *3* α(K)=0.01462 *21*; α(L)=0.00236 *4*; α(M)=0.000546 *8* α(N)=0.0001369 *20*; α(O)=2.59×10^{-5} *4*; α(P)=2.02×10^{-6} *3* Mult.: DCO=0.40 *4*.
962.0 *8*	3.8 *1*	8886.8	67/2$^{(+)}$	7924.8	63/2$^{(+)}$	E2	0.00651	3.6 *1*	ce(K)/(γ+ce)=0.00518 *8*; ce(L)/(γ+ce)=0.000985 *14*; ce(M)/(γ+ce)=0.000233 *4* ce(N)/(γ+ce)=5.82×10^{-5} *9*; ce(O)/(γ+ce)=1.076×10^{-5} *16*; ce(P)/(γ+ce)=6.82×10^{-7} *10* α(K)=0.00522 *8*; α(L)=0.000992 *14*; α(M)=0.000234 *4* α(N)=5.86×10^{-5} *9*; α(O)=1.083×10^{-5} *16*; α(P)=6.86×10^{-7} *10* Iγ=1.88 (1993Ro03). Mult.: DCO=1.04 *20*; ΔJ=2 from DCO (1993De42).
965.0 *8*	1.3 *5*	3727.0	(37/2$^-$)	2762.2	33/2$^-$	[E2][&]	0.00647	1.2 *5*	ce(K)/(γ+ce)=0.00515 *8*; ce(L)/(γ+ce)=0.000978 *14*; ce(M)/(γ+ce)=0.000231 *4* ce(N)/(γ+ce)=5.78×10^{-5} *9*; ce(O)/(γ+ce)=1.068×10^{-5} *15*; ce(P)/(γ+ce)=6.78×10^{-7} *10* α(K)=0.00519 *8*; α(L)=0.000985 *14*; α(M)=0.000233 *4* α(N)=5.82×10^{-5} *9*; α(O)=1.075×10^{-5} *16*; α(P)=6.82×10^{-7} *10*
974.4 *8*	1.2 *3*	4198.0	(39/2$^-$)	3223.6	35/2$^-$				Iγ=1.5 (1986Hu02).
983.4 *8*	2.5 *1*	6394.9	53/2$^-$	5411.5	49/2$^-$	E2	0.00624	2.4 *1*	ce(K)/(γ+ce)=0.00497 *7*; ce(L)/(γ+ce)=0.000937 *14*; ce(M)/(γ+ce)=0.000221 *4* ce(N)/(γ+ce)=5.53×10^{-5} *8*; ce(O)/(γ+ce)=1.023×10^{-5} *15*; ce(P)/(γ+ce)=6.54×10^{-7} *10* α(K)=0.00501 *7*; α(L)=0.000943 *14*; α(M)=0.000223 *4* α(N)=5.56×10^{-5} *8*; α(O)=1.030×10^{-5} *15*; α(P)=6.58×10^{-7} *10* Mult.: DCO=0.91 *8* (1995Fo13); band structure.
989.0 *8*	2.4 *1*	1735.8	(19/2$^+$)	746.8	15/2$^+$	Q		2.3 *1*	Mult.: DCO=1.01 *10*. 988.4γ seen in coin with 606.4γ by 1986Hu02.

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

γ(^{193}Hg) (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [c]	$I_{(\gamma+ce)}$ [‡]	Comments
993.6 *8*	2.5 *3*	4720.6	(39/2$^-$)	3727.0	(37/2$^-$)				
1000.4 *4*	10.9 *2*	1523.2	(17/2$^+$,19/2$^+$)	522.75	17/2$^+$	D+Q		10.5 *2*	Iγ=9 (1986Hu02). Mult.: A_2=−0.09 *4*, A_4=+0.16 *6* (1986Hu02), DCO=1.03 *4* (1997FoZX).
1013.4 *8*	1.6 *5*	3202.5	(33/2$^-$)	2189.1	29/2$^-$				
1014.3 *8*	1.7 *1*	6913.4	(55/2$^-$)	5899.1	51/2$^-$				Mult.: DCO=0.73 *9*.
1020.3 *8*	3.0 *2*	9409.1	(69/2$^+$)	8388.8	65/2$^{(+)}$				
[x]1021.6 *8*	1.7 *5*								γ is related to Structure (1) (1995Fo13).
1022.7 *10*	0.5 *2*	6921.8		5899.1	51/2$^-$				
[x]1026.0 *10*	<0.5								γ is related to Structure (2) (1995Fo13).
1036.3 *10*	0.8 *1*	9923.1	(71/2$^+$)	8886.8	67/2$^{(+)}$				
1046.0 *8*	1.9 *1*	5442.6	45/2$^{(+)}$	4396.8	43/2$^-$	D		1.8 *1*	Mult.: DCO=0.46 *6* (1997FoZX); Δπ=yes from level scheme.
1053.3 *8*	2.0 *1*	8978.1		7924.8	63/2$^{(+)}$				
1058.6 *10*	0.7 *1*	3754.2	(37/2$^+$)	2695.6	33/2$^+$				
1064.8 *10*	0.9 *3*	4792.0	41/2$^-$	3727.0	(37/2$^-$)				
1068.9 *8*	1.7 *3*	10290.4	(73/2$^-$)	9221.5	(69/2$^-$)	E2	0.00530	1.6 *3*	ce(K)/(γ+ce)=0.00426 *6*; ce(L)/(γ+ce)=0.000777 *11*; ce(M)/(γ+ce)=0.000183 *3* ce(N)/(γ+ce)=4.57×10^{-5} *7*; ce(O)/(γ+ce)=8.48×10^{-6} *12*; ce(P)/(γ+ce)=5.58×10^{-7} *8* α(K)=0.00428 *6*; α(L)=0.000781 *11*; α(M)=0.000184 *3* α(N)=4.59×10^{-5} *7*; α(O)=8.53×10^{-6} *12*; α(P)=5.61×10^{-7} *8* Mult.: DCO=2.01 *50* (gate ΔJ=1).
1081.5 *10*	1.0 *1*	7476.4	(57/2$^-$)	6394.9	53/2$^-$				Mult.: DCO=0.82 *20*.
1088.5 *8*	1.8 *1*	3850.7	37/2$^-$	2762.2	33/2$^-$	Q		1.7 *1*	Mult.: DCO=1.17 *20*.
1097.4 *10*	0.7 *1*	7492.3		6394.9	53/2$^-$				Mult.: DCO=1.30 *20* (1997FoZX).
1115.0[d] *10*	1.0 *1*	3811?		2695.6	33/2$^+$				
1139.0 *10*	1.0 *1*	7038.1		5899.1	51/2$^-$				
[x]1145.0 *8*	1.5 *5*								γ is related to Structure (1) (1995Fo13).
[x]1149.0 *8*	2.4 *5*								γ is related to Structure (1) (1995Fo13).
1152.6 *10*	1.0 *1*	5033.1		3880.5	41/2$^+$				Mult.: DCO=0.47 *9* (1997FoZX).
1169.0 *8*	1.5 *1*	5319.9	(43/2)	4150.8	41/2$^-$				Mult.: DCO=0.48 *10* (1997FoZX).
1177.7 *8*	2.0 *1*	10853.6	(75/2$^-$)	9675.9	(71/2$^-$)	Q			Mult.: DCO=2.06 *30* (gate ΔJ=1).
1206.6 *8*	2.3 *1*	2351.9	25/2$^+$	1145.4	21/2$^+$				
[x]1232.2 *8*	2.1 *1*								
1240.5 *8*	2.3 *1*	4416.7		3176.2	37/2$^+$				
1286.0 *10*	0.5 *1*	4462.2		3176.2	37/2$^+$				
1294.4 *10*	0.7 *3*	4792.0	41/2$^-$	3497.5	37/2$^-$				
1362.8 *8*	1.4 *1*	4539.1	(41/2$^+$)	3176.2	37/2$^+$	Q			Mult.: DCO=1.25 *20* (1997FoZX).
1511.5 *8*	1.2 *1*	5391.9		3880.5	41/2$^+$	(D+Q)			Mult.: DCO=1.35 *30* (1997FoZX).
1562.0 *10*	0.4 *1*	5442.6	45/2$^{(+)}$	3880.5	41/2$^+$				

$^{193}_{80}Hg_{113}$-30

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

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

† From 1995Fo13, unless indicated otherwise. γ-ray energy uncertainties have been assigned by the evaluator, based on the estimates according to their intensities, as suggested in 1995Fo13.

‡ Total intensity from 1995Fo13, 1997FoZX, for transitions for which they could establish a definite multipolarity (see Note at beginning of γ-ray table). These authors state that they have corrected the measured Iγ for internal conversion, if the multipolarity of the γ is confirmed. The distinction, whether the intensity given in those references is Iγ or I(γ+ce) is based on this comment. All intensities are relative to I(382.0γ)=100.

The Iγ values are either from 1995Fo13, when they could not confirm the transition multipolarity, or has been calculated by the evaluator from the I(γ+ce) quoted in that reference, and the corresponding conversion coefficient, for those transitions with confirmed multipolarities (see also Note at beginning of the γ-ray table). All γ intensities are relative to Iγ=100 for the 382.0γ.

@ Deduced from γ-ray angular distributions (1986Hu02, 1998We23) and DCO ratios (1995Fo13,1997FoZX). The DCO ratios are measured as (Iγ(158°)I(gate,90°))/Iγ(90°)I(gate,158°). With a gate on a ΔJ=2 Q transition a DCO≈1.0 indicates a ΔJ=2, Q γ, while a DCO≈0.5 indicates a ΔJ=1, D γ. With a gate on a ΔJ=1 D transition, a value of DCO≈2.0 indicates a ΔJ=2, Q γ, and, finally, a value of DCO≈1.0 indicates a ΔJ=1, D γ. Unless otherwise noted, all DCO ratios were measured gating on a ΔJ=2 γ. For intraband and interband transitions, evaluator assumed sign of the multipolarity based on the decay scheme.

& Multipolarity assumed by evaluator on the only basis of the ΔJ^{π} of the connected levels in the proposed level scheme.

a Uncertain transition due to low statistics (1995Fo13).

b γ-ray seen by 1986Hu02; uncertainty assigned by the evaluator depending on intensity.

c Additional information 2.

d Placement of transition in the level scheme is uncertain.

x γ ray not placed in level scheme.

$^{193}_{80}Hg_{113}$-31

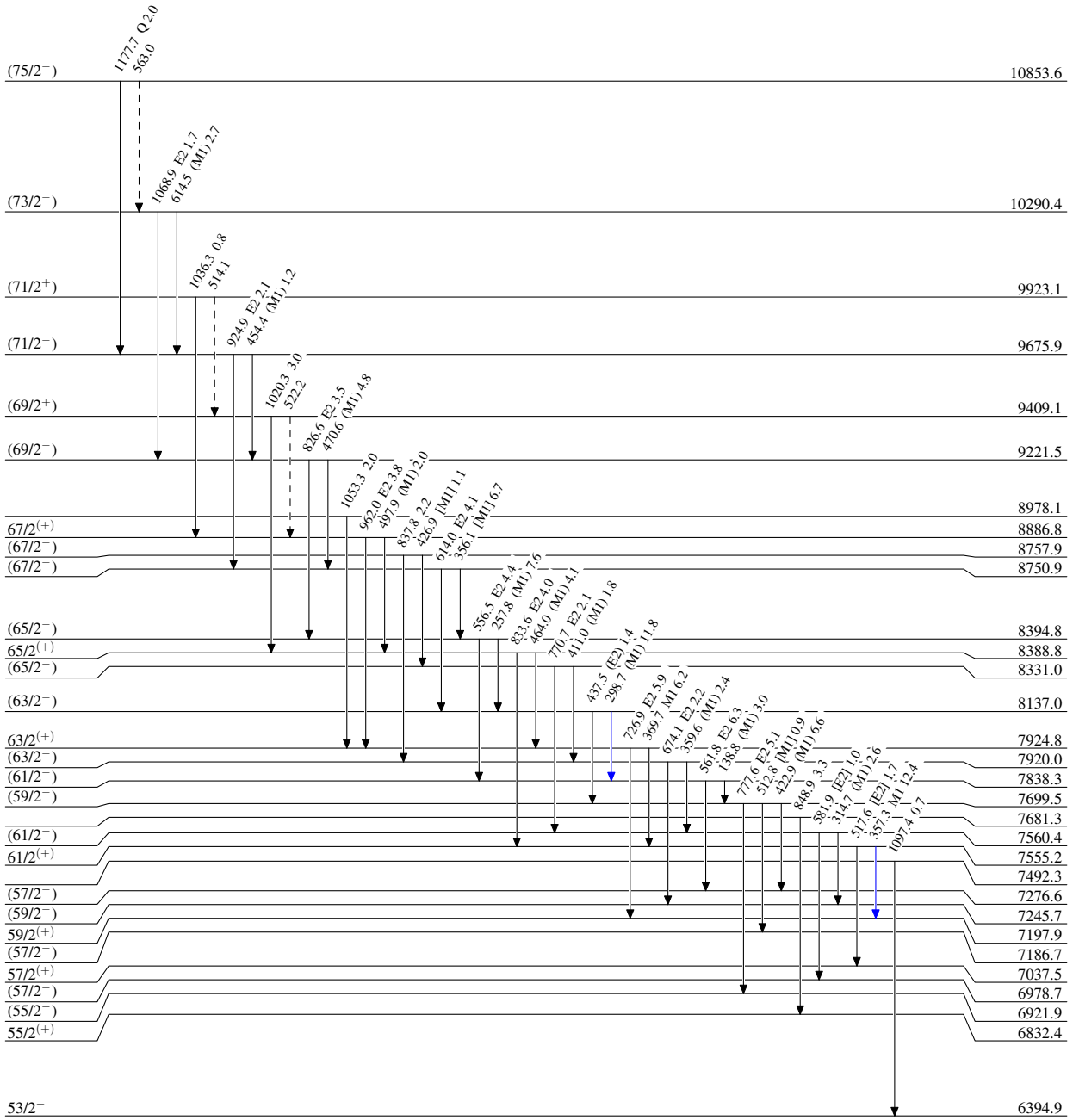
(HI,xnγ) 1995Fo13,1993De42,1993Ro03

Level Scheme

Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



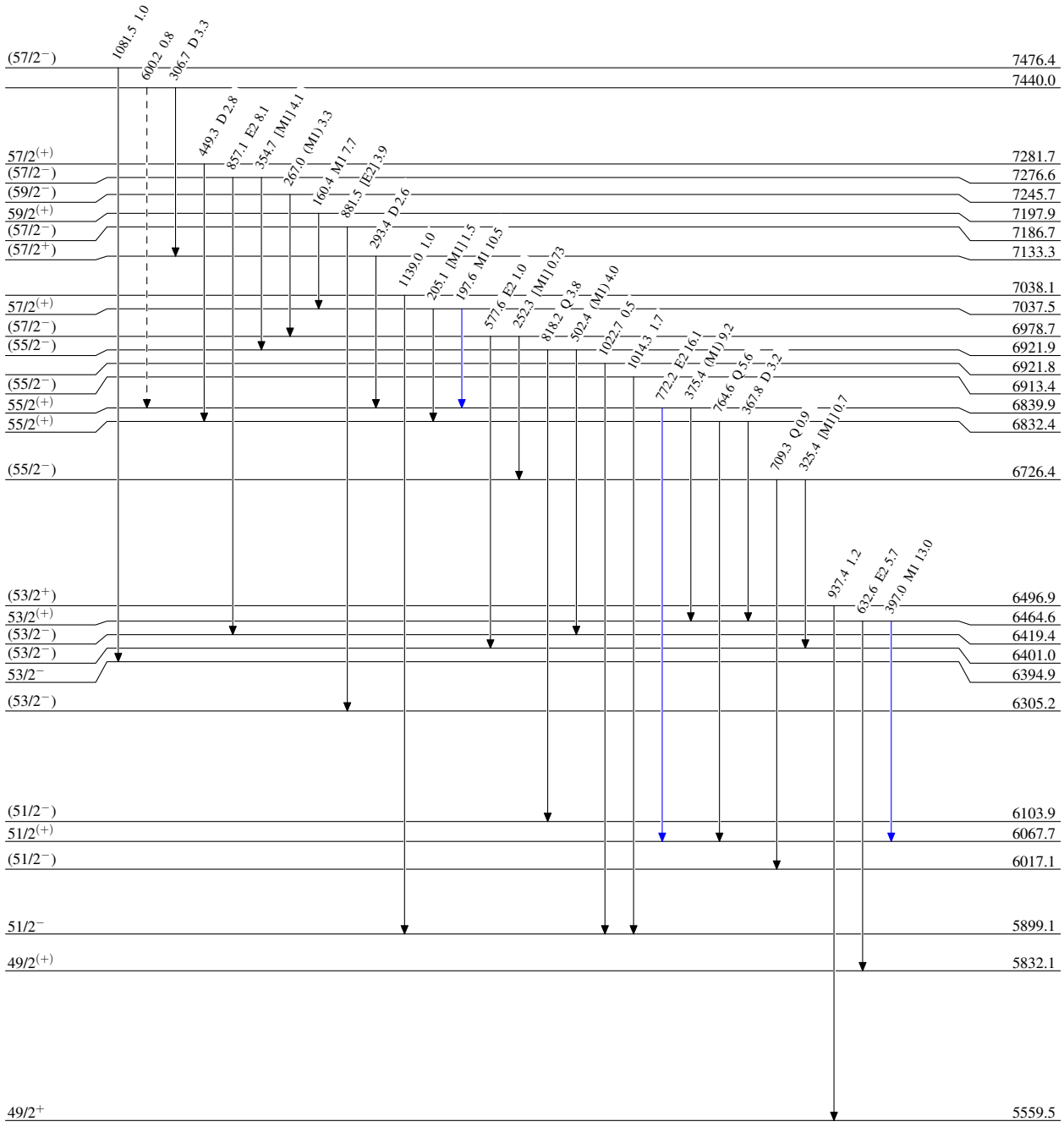
$^{193}_{80}Hg_{113}$

(HI,xnγ) 1995Fo13,1993De42,1993Ro03

Level Scheme (continued)

Intensities: Relative I_γ

Legend
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)



$^{193}_{80}Hg_{113}$

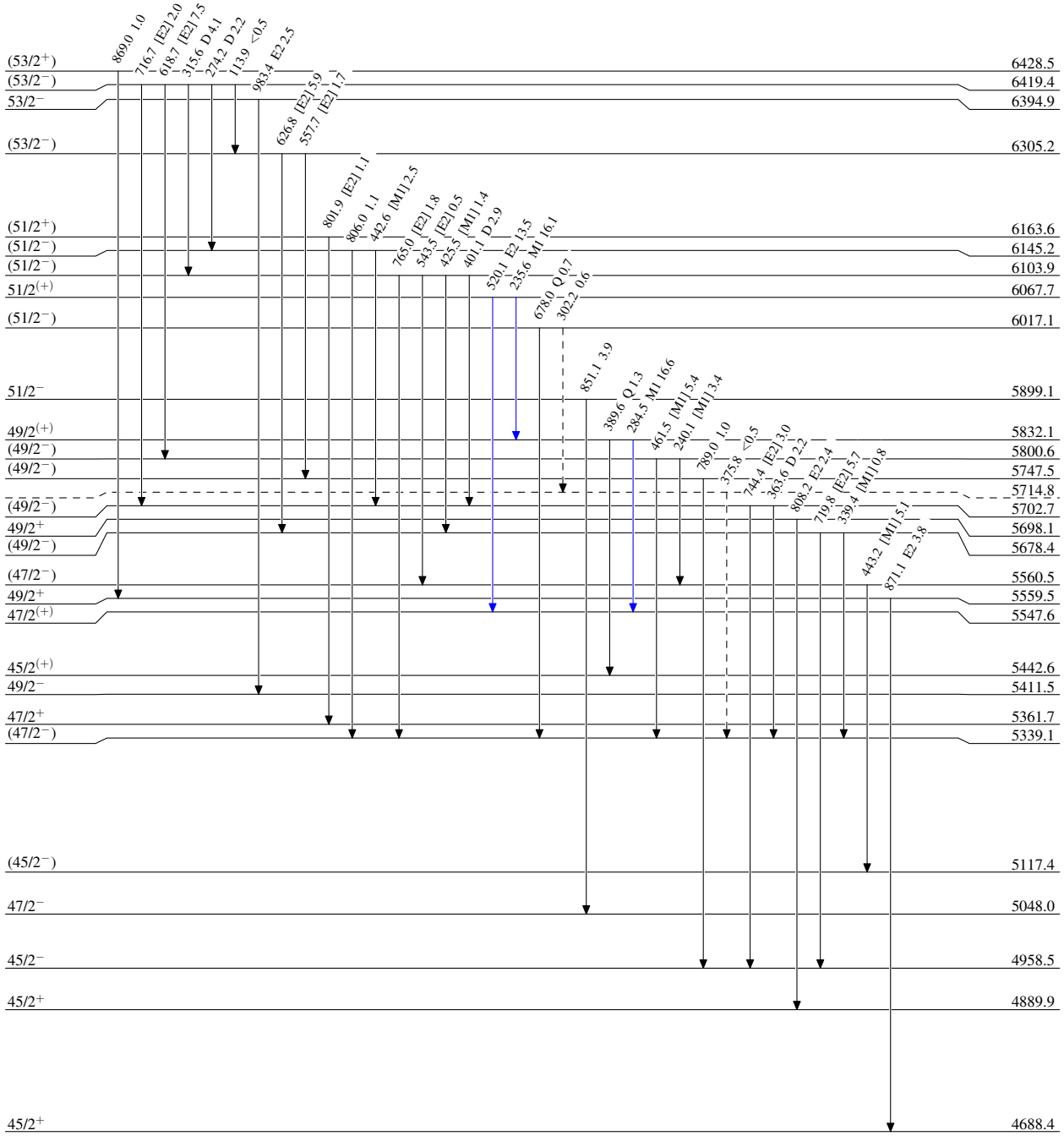
(HI,xnγ) 1995Fo13,1993De42,1993Ro03

Level Scheme (continued)

Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)

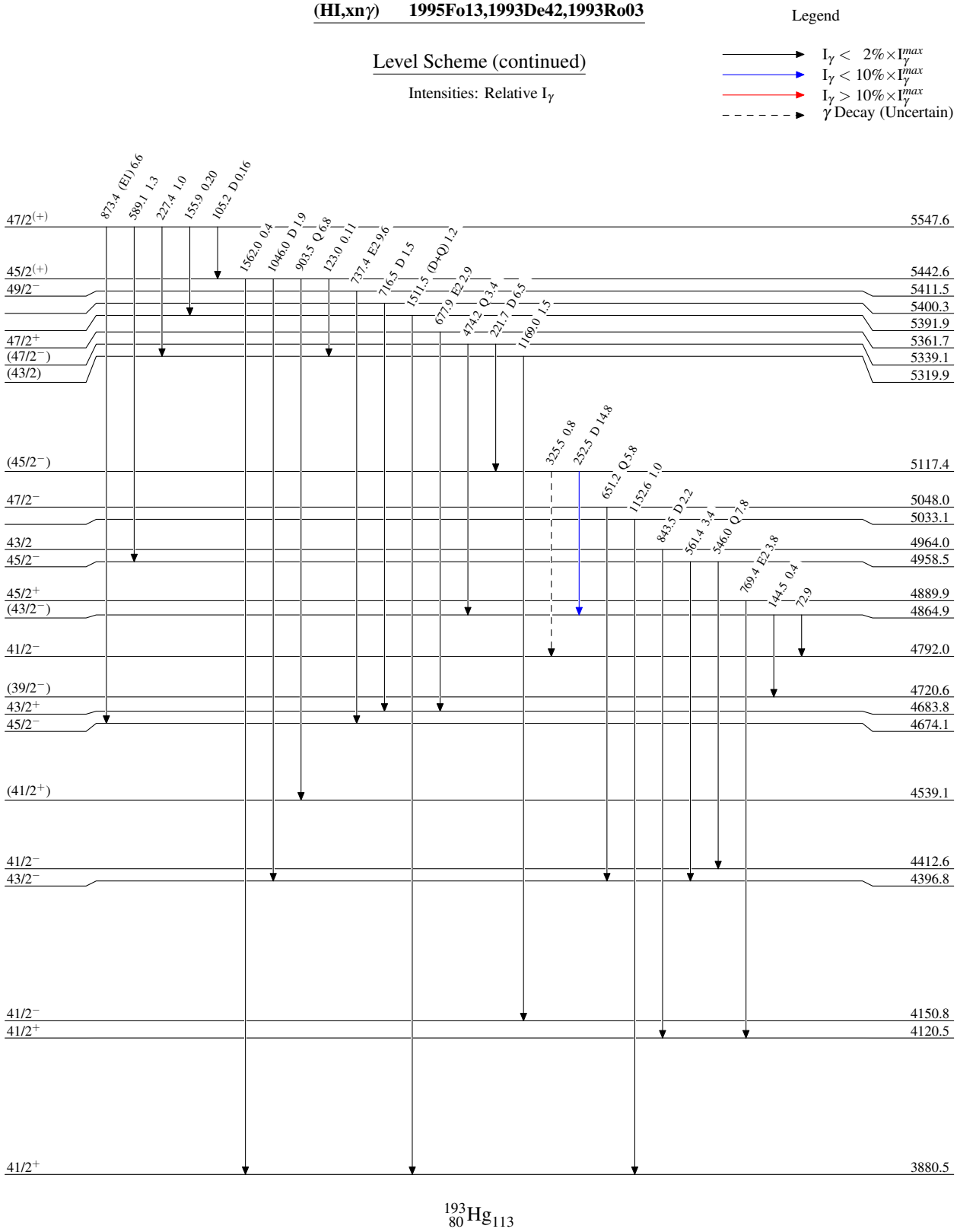


$^{193}_{80}Hg_{113}$

(HI,xnγ) 1995Fo13,1993De42,1993Ro03

Level Scheme (continued)

Intensities: Relative I_γ



$^{193}_{80}Hg_{113}$

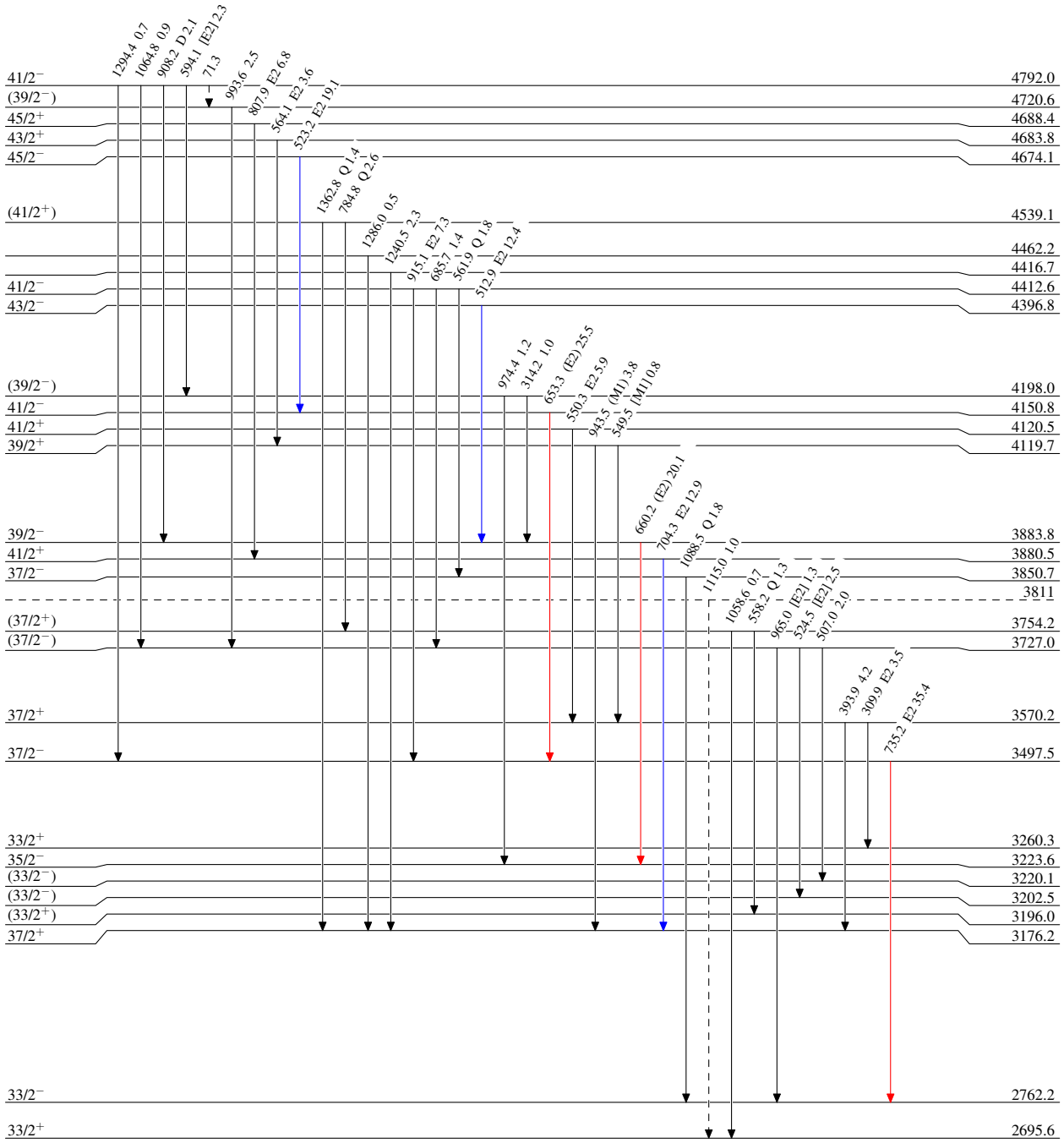
(HI,xnγ) 1995Fo13,1993De42,1993Ro03

Level Scheme (continued)

Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



$^{193}_{80}Hg_{113}$

(HI,xnγ) 1995Fo13,1993De42,1993Ro03

Level Scheme (continued)

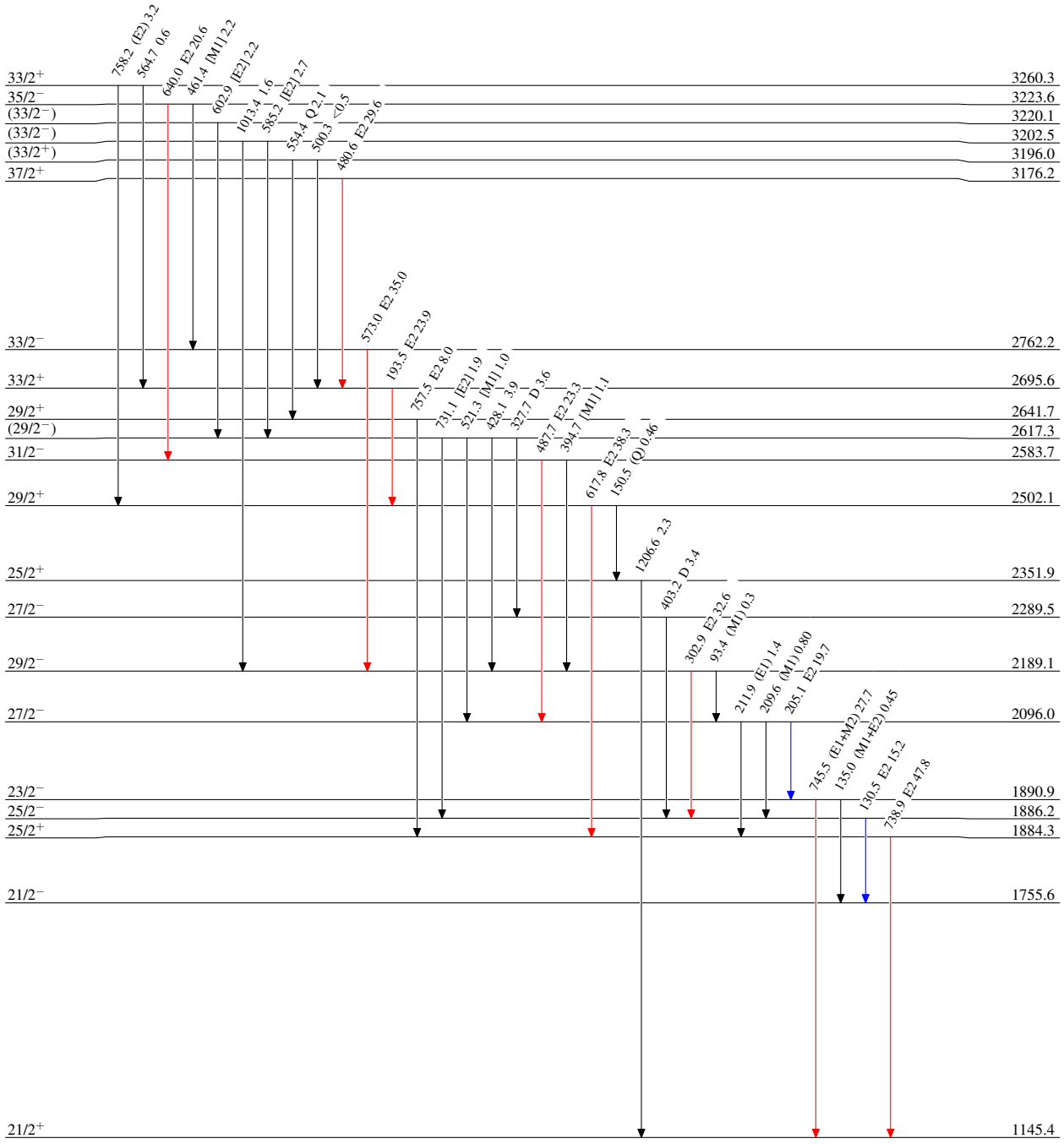
Intensities: Relative I_γ

Legend

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

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

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

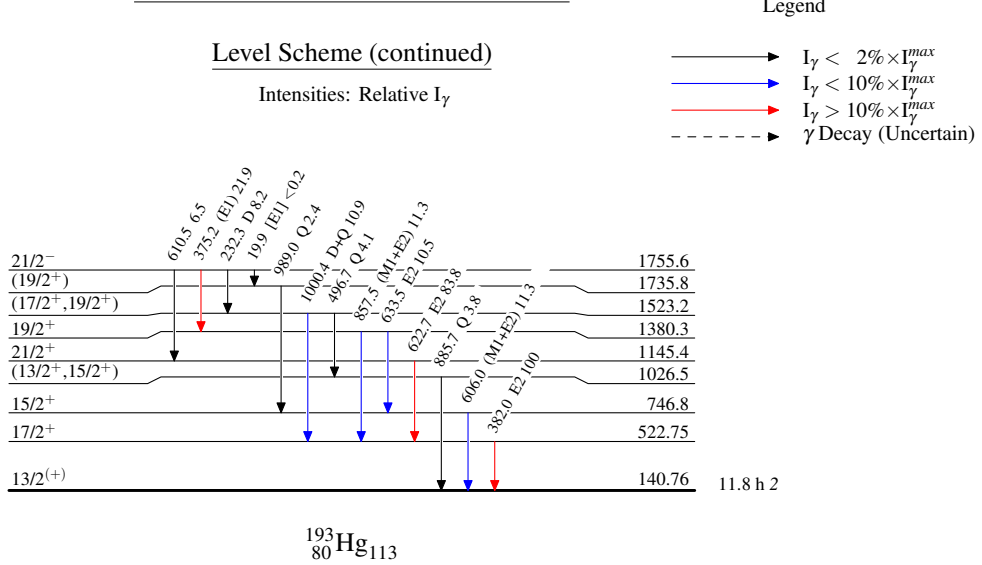


$^{193}_{80}Hg_{113}$

(HI,xnγ) 1995Fo13,1993De42,1993Ro03

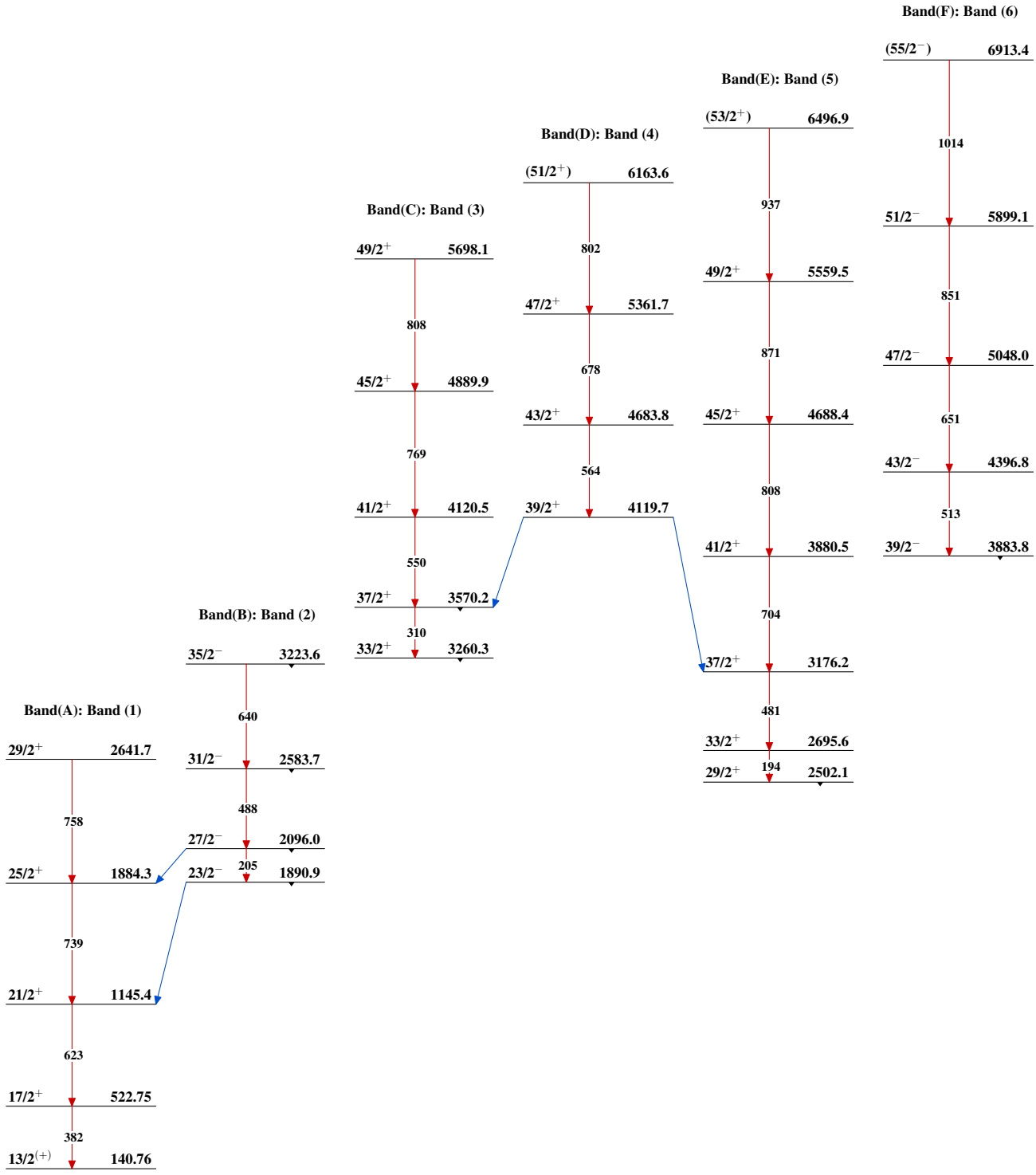
Level Scheme (continued)

Intensities: Relative I_γ



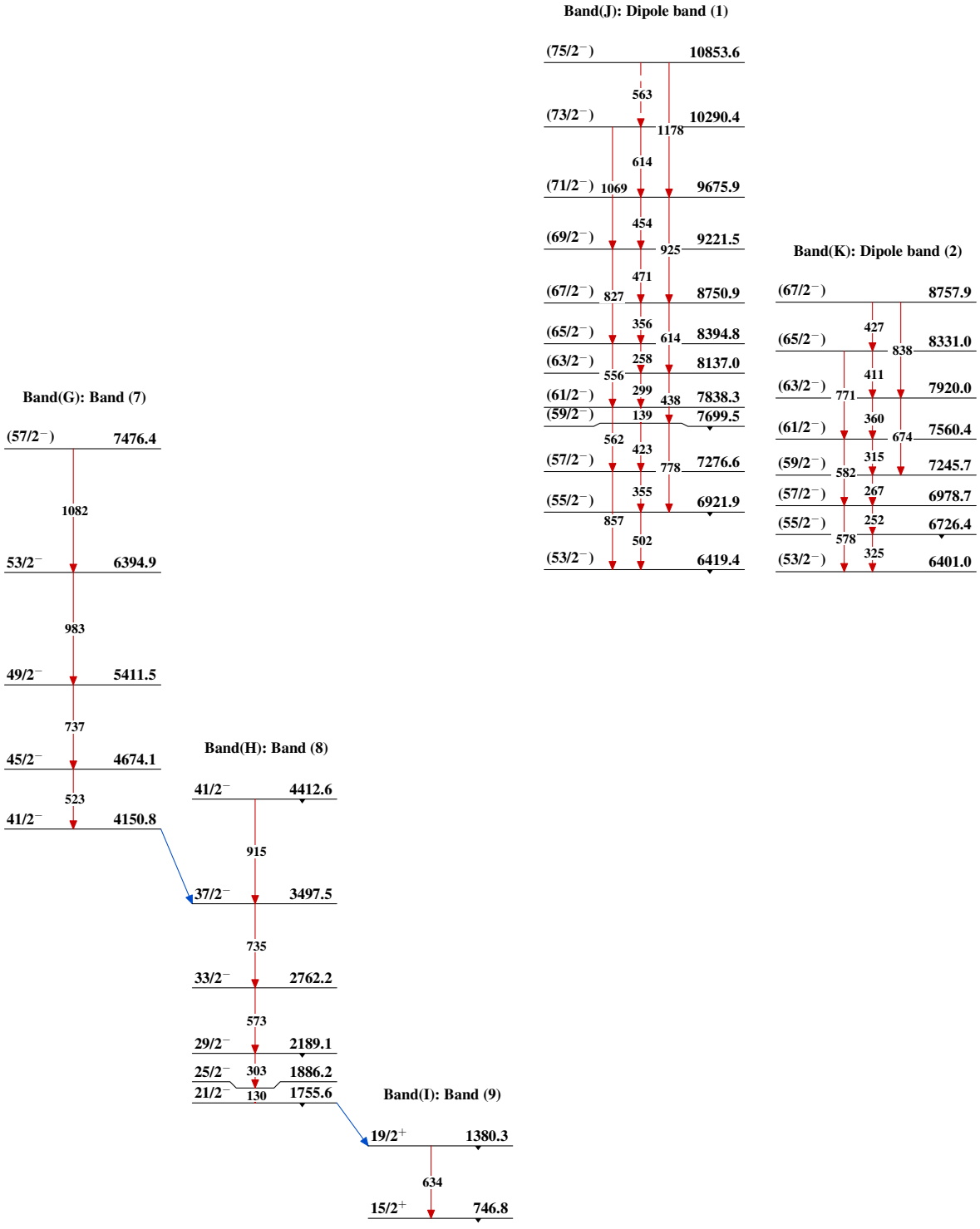
$^{193}_{80}Hg_{113}$

(HI,xnγ) 1995Fo13,1993De42,1993Ro03



$^{193}_{80}Hg_{113}$

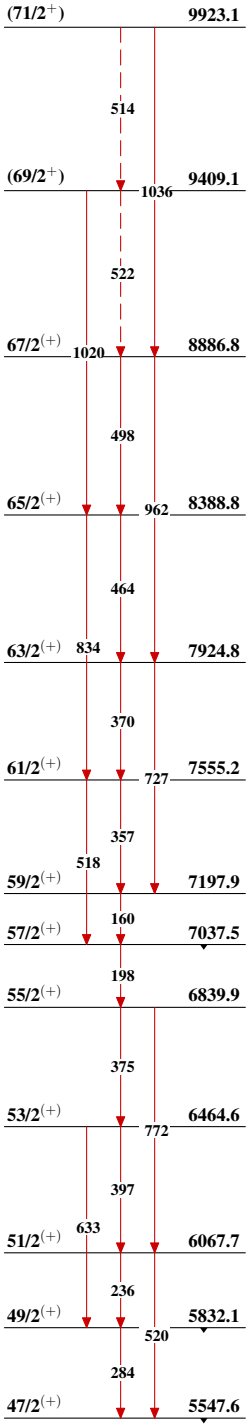
(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)



$^{193}_{80}Hg_{113}$

(HI,xnγ) 1995Fo13,1993De42,1993Ro03 (continued)

Band(L): Dipole band (3)



$^{193}_{80}Hg_{113}$