		History	
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113,1871 (2012)	15-Jun-2012

 $Q(\beta^{-}) = -6.14 \times 10^{3} 4$; $S(n) = 9.49 \times 10^{3} 3$; $S(p) = 5.49 \times 10^{3} 4$; $Q(\alpha) = 3393 17$ 2012Wa38

Note: Current evaluation has used the following Q record -6140 35 9490 27 5490 40 3392 17 2003Au03,2011AuZZ.

 $Q(\beta^-),\,Q(\alpha):$ from 2011AuZZ (cf. -6140 40 and 3387 16 from 2003Au03).

Additional information 1.

 3×10^{-5} % limit set for population of ¹⁹²Hg by ¹⁹⁶Pb α decay (1963Ka17).

See 1985K109, 1986U102 for hfs and isotope shift data.

Theory (partial list only):

Calculations using Coulomb and proximity potential model: $T_{1/2}$ for g.s. α and cluster decay (2010Sa39).

¹⁹²Hg Levels

Cross Reference (XREF) Flags

Α	¹⁹² Tl ε decay (9.6 min+10.8 min)	D	$(HI,xn\gamma)$
В	¹⁹² Pt(α ,4n γ), ¹⁹⁴ Pt(α ,6n γ)	E	160 Gd(36 S,4n γ)
С	197 Au(p,6n γ)	F	(HI,xny):SD

E(level) [†]	Jπ‡	$T_{1/2}^{\#}$	XREF	Comments
0.0 ^{<i>a</i>}	0+ <i>b</i>	4.85 h 20	ABCDEF	$\% \varepsilon = 100$ $\Delta < r^2 > (^{192}Hg - ^{198}Hg) = -0.2405 \ 14 \ (1986U102).$ $< r^2 > ^{1/2} (charge) = 5.423 \ 4 \ (2004An14).$
				$\alpha < 4 \times 10^{-6}$ (1963Ka17). Other: 1961Fo06.
	a+b			$I_{1/2}$: from 1961Ja10. Other value: 5.7 h 5 (1952F106).
422.79 ^a 10	2+0		ABCDEF	J^{n} : E2 423 γ to 0 ⁺ g.s.
1057.58 ^{<i>a</i>} 14	4 ⁺		ABCDEF	J^{π} : E2 635 γ to 2 ⁺ 423; member of g.s. band.
1113.60 14	$(2)^{+}$		A	J^{n} : M1+E2 691 γ to 2 ⁺ ; D,E2 1113 γ to 0 ⁺ g.s.; J=2 favored by analogy with ¹⁹⁴ Hg.
1535.2 4	$(3)^+$		A	J^{π} : M1(+E2) 478 γ to 4 ⁺ 1058; M1,E2 1113 γ to 2 ⁺ 423; J=3 favored by analogy with ¹⁹⁴ Hg.
1732.98 16	$(4)^+$		Α	J^{π} : M1+E2 675 γ to 4 ⁺ 1058; E2 619 γ to (2) ⁺ 1114.
1803.05 ^a 16	6+ b		ABCDEF	J^{π} : E2 746 γ to 4 ⁺ 1058; member of g.s. band.
1831.62 21	$(2^+, 3, 4^+)$		A	J^{π} : 718 γ to (2) ⁺ 1114, 774 γ to 4 ⁺ 1058.
1843.90 ^c 16	(5)-		ABCDEF	J^{π} : E1 786 γ to 4 ⁺ 1058; J=5 required by band assignment and by analogy to ¹⁹⁴ Hg.
1844.59 23	(3,4)		Α	J^{π} : 1422 γ to 2 ⁺ 423; J=3,4 favored by I(1421 γ , low-J decay):I(1421 γ , high-J decay) in ¹⁹² TL ε decay (1981So09).
1908.58 25	$1,2^{+}$		Α	J^{π} : 1908 γ to 0 ⁺ g.s.; 1486 γ to 2 ⁺ 423.
1977.03 ^C 17	$(7)^{-}$	1.04 ns 6	AB DEF	J^{π} : E1 174 γ to 6 ⁺ 1803; stretched Q 133 γ to (5) ⁻ 1844.
				$T_{1/2}$: (α)(ce)(t) in (α,4nγ), (α,6nγ) (1978Me11). Other value: 2.5 ns 10 (1975Li16) in (α,xnγ).
1986.9? ^d 11	(6 ⁻)		Е	J ^{π} : D intraband 143 γ to (5) ⁻ 1844; band assignment.
2056.29 23	$(1,2^{+})$		Α	J^{π} : 1633 γ to 2 ⁺ 423; possible 2056 γ to 0 ⁺ g.s.
2081.69 23	$(1,2^+)$		Α	J^{π} : 1659 γ to 2 ⁺ 423; possible 2082 γ to 0 ⁺ g.s.
2186.98 21	(6) ⁻		Α	J^{π} : E1 384 γ to 6 ⁺ 1803; M1 343 γ to (5) ⁻ 1844; J=6 favored in (³⁶ S,4n γ).
2216.20 ^d 24	(8) ⁻	0.92 ns 5	AB DEF	J^{π} : M1+E2 239 γ to (7) ⁻ 1977; band assignment. T _{1/2} : (α)(ce)(t) in (α ,4n γ), (α ,6n γ) (1978Me11).
2223.85 ^c 24	(9)-		AB DEF	J^{π} : E2 247 γ to (7) ⁻ 1977; band assignment.
2276.9 4	$1,2^{+}$		Α	J^{π} : 2277 γ to 0 ⁺ g.s., 1854 γ to 2 ⁺ 423.
2284.7 5			Α	J^{π} : 1171 γ to (2) ⁺ so J \leq (4).

Continued on next page (footnotes at end of table)

2800.7 3 (6,7.8) (6,7.8) (a) \mathbf{F} : M1+E2.324y to (7) 1977. 2447.2 ⁴³ 8 ^{4b} B DEF F: E2.60y to 8* 2447; D.283y to (9) 72224, 2507.3 3 (10)* 3.6 ns 5 B DEF F: E2.60y to 8* 2447; D.283y to (9) 72224, 2534.27 A F: possible 999 yo (3). See also 2507 and 2353 levels). 2535.57 4 (12)* 11.1 ns 5 B DE T _{1/2} : celty, 7y(0 in ¹⁵⁹ Pf(a,4ny), ¹⁵⁹ Pf(a,6ny) (1983Gha05). See also comment on T _{1/2} for 2507 level. 2535.75 4 (12)* B DE comment on T _{1/2} for 2507 level. 2537.77 (10)* E comment on T _{1/2} for 2507 level. 2507 level. 2507.74 (14)* B DE comment on T _{1/2} for 2507 level. 2619.77 10* E E 2507.16 (10) 2507 level. 2632.74 (14)* B DE 2507 level. 2507 level. 275.65 (16)* DE T _{1/2} : (a)(cel(t) in ¹⁹² Pf(a,4ny), ¹⁹⁴ Pf(a,6ny) (1978Me11). 210499 level. 2839.94	E(level) [†]	$J^{\pi \ddagger}$	$T_{1/2}^{\#}$	XREF	Comments
2447 2^{a} 3 3^{a} (10) ⁺ 3.6 ns 5 B DEF 2507.3 3 (10) ⁺ 3.6 ns 5 B DEF $T_{1/2}$: ce(1), $77(1)$ in (α .4ny), (α .6ny) (1983Gu05). Other values: 16 ns 3 (1975L116). 15.9 ns 10 (1978Me11) in (α .my) (superposition of $T_{1/2}$ for 2534.27 5 A 2535.57 4 (12 ⁺) 11.1 ns 5 B DE 2535.57 4 (12 ⁺) 11.1 ns 5 B DE 2553.17 4 (12 ⁺) B DE 2553.17 4 (12 ⁺) B DE 2507.17 3 (11 ⁻) B DE 2507.17 4 (12 ⁺) B DE 2507.17 4 (12 ⁺) B DE 2507.17 4 (12 ⁺) B DE 2517.67 4 (12 ⁺) B DE 2531.67 4 (12 ⁺) B DE 2536.98 4 (14 ⁺) B DE 2448.78 5 (18 ⁺) B DE 4100.5 ^h 4 (15 ⁻) B DE 4100.5 ^h 4 (15 ⁻) B DE 4110.6 ^h 5 (16 ⁺) B DE 4130.6 ^f 5 (16 ⁺) B DE 4130.6 ^f 5 (16 ⁺) B DE 4130.6 ^f 5 (16 ⁺) B DE 4130.5 ^f 5 (16 ⁺) B DE 4130.5 ^f 5 (16 ⁺) B DE 5130.7 ^f 5 (20 ⁺) B DE 5130.7 ^f 6 (22 ⁺) DE 5130.7 ^f 7 (21 ⁻) E 5130.7 ^f 6 (22 ⁺) DE 5130.7 ^f 6 (22 ⁺) DE 5130.7 ^f 7 (21 ⁻) E 5130.7 ^f 7	2300.7 3	$(6,7,8)^{-}$		A	J^{π} : M1+E2 324 γ to (7) ⁻ 1977.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2447.2^{a} 3	8+ <i>b</i>		AB DEF	
2534.27 5 A (12 ⁺) 11.1 ns 5 B DE T _{1/2} : c(a)(c), y(10 in ¹⁹² P((α ,dny), 1 ¹⁹⁴ P((α ,dny)) (1983Gu05). See also comment on T _{1/2} for 2507 level. 2632.7 ^d 3 (10 ⁻) B DE C 2756.7 ² 3 (11 ⁻) B DE 2951.7 ^e 4 (14 ⁺) B DE 2951.7 ^e 5 (16 ⁺) B DE 2954.9 ^e 4 (14 ⁺) B DE 2954.9 ^e 4 (16	2507.3 3	(10)+	3.6 ns 5	B DEF	J ^π : E2 60γ to 8 ⁺ 2447; D 283γ to (9) ⁻ 2224. $T_{1/2}$: ce(t), γγ(t) in (α,4nγ), (α,6nγ) (1983Gu05). Other values: 16 ns 3 (1975Li16), 15.9 ns 10 (1978Me11) in (α,xnγ) (superposition of $T_{1/2}$ for 2507 and 2535 levels).
2535.5 ^{<i>c</i>} 4 (12 ⁺) 11.1 ns 5 B DE T _{1/2} : ce(0, $\gamma\gamma(0)$ in ¹⁹² Pt($\alpha,dn\gamma$). ¹⁹⁴ Pt($\alpha,dn\gamma$) (1983Gu05). See also comment on T _{1/2} for 2507 level. 2632,7 ^{<i>d</i>} 3 (10 ⁻) B DE C C C C C C C C C C C C C C C C C C	2534.2? 5			Α	J^{π} : possible 999 γ to (3) ⁺ .
2632.7 ^d 3 (10 ⁻) 2756.7 ^c 3 (11 ⁻) 2756.7 ^c 3 (11 ⁻) 2756.7 ^c 3 (11 ⁻) 2755.7 ^c 4 (14 ⁺) 2902.3 11 (10 ⁺) 291.7 ^d 4 (12 ⁺) 291.7 ^d 4 (12 ⁺) 291.9 ^d 3 (12 ⁻) 291.9 ^d 3 (12 ⁻) 292.9 ^d 4 (12 ⁻) 292.9 ^d 4 (13 ⁻) 292.9 ^d 4 (14 ⁺) 292.9 ^d 4 (14 ⁺) 292.9 ^d 4 (14 ⁺) 292.9 ^d 4 (15 ⁻) 293.9 ^d 5 (20 ⁻) 294.9 ^d 10 (15 ⁻) 293.9 ^d 5 (20 ⁻) 294.9 ^d 10 (15 ⁻) 293.9 ^d 5 (20 ⁻) 295.9 ^d 6 (20 ⁺) 295.9 ^d 6 (22 ⁺) 295.9 ^d 7 (22 ⁺)	2535.5 ^e 4	(12 ⁺)	11.1 ns 5	B DE	T _{1/2} : ce(t), $\gamma\gamma$ (t) in ¹⁹² Pt(α ,4n γ), ¹⁹⁴ Pt(α ,6n γ) (1983Gu05). See also comment on T _{1/2} for 2507 level.
2657.17 11 C 2902.3 11 (10 ⁺) E 2905.17 ⁶ 4 (14 ⁺) B DE 3261.9 ⁴ (12 ⁺) DE 3261.9 ⁴ (12 ⁺) DE 3261.9 ⁴ (12 ⁺) B DE 3360.86 ⁶ 5 (16 ⁺) B DE 3261.9 ⁴ (12 ⁺) DE 389.49 ⁴ (14 ⁺) DE 389.49 ⁴ (14 ⁺) B DE 3894.9 ⁴ (14 ⁻) B DE 389.49 ⁴ (15 ⁻) B DE 384.9 ⁶ (16 ⁻) 0.39 ns 4 B DE T _{1/2} : (a)(cc)(t) in ¹⁹² Pt(a,4ny), ¹⁹⁴ Pt(a,6ny) (1978Me11). 4130.6 ⁴ (17 ⁻) B DE 4387.8 ⁵ (18 ⁺) B DE 4216.9 ⁴ (17 ⁻) B DE 4387.8 ⁵ (18 ⁺) B DE 4310.6 ⁵ (18 ⁺) B DE 521.60 ⁴ /10 (17 ⁻) E 521.60 ⁴ /10 DE 521.60 ⁴ /10 (17 ⁻) DE 521.60 ⁴ /10 DE 521.60 ⁴ /10 DE 521.61 ⁴ /1	2632.7 ^d 3	(10 ⁻)		B DE	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2657.1? 11			С	
2902.3 $1/1$ (10 ⁻) E 2917. d^{4} (12 ⁺) DE 3047. 0^{f} 4 (12 ⁺) DE 3261. 9^{d} 3 (12 ⁻) B DE 3269. d^{3} 3 (12 ⁻) B DE 3608. d^{6} 5 (16 ⁺) B DE 3608. d^{6} 5 (16 ⁺) DE 3894. 9^{d} 4 (14 ⁻) B DE 3894. 9^{d} 4 (14 ⁻) B DE 4089. 9^{g} 4 (16 ⁻) 0.39 ns 4 B DE 4130. d^{5} 5 (16 ⁺) DE 4216. g^{h} 4 (17 ⁻) B DE 4387. 7^{g} 5 (18 ⁺) DE 4387. 7^{g} 5 (18 ⁺) B DE 4387. 7^{g} 5 (18 ⁺) B DE 4388. 4^{h} 4 (19 ⁻) DE 4389. 4^{d} 5 (18 ⁺) B DE 4388. 4^{h} 4 (19 ⁻) DE 510. d^{7} 5 (20 ⁻) DE 5221. d^{m} 10 (17 ⁻) E 5216. d^{h} 5 (21 ⁻) DE 5216. d^{h} 5 (21 ⁻) DE 5271. d^{6} 6 (20 ⁺) DE 5271. d^{6} 6 (20 ⁺) DE 5316. 5^{f} 6 (20 ⁺) DE 5316. 5^{f} 6 (20 ⁺) DE 5316. d^{h} 5 (21 ⁻) DE 5316. d^{h} 6 (22 ⁺) DE 5316. d^{h} 6 (22 ⁺) DE 5378.7 d^{h} 7 (21 ⁻) E 5378.7 d^{h} 7 (21 ⁻) DE 5378.7 d^{h} 7 (21	2756.7° 3	(11^{-})		B DE	
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$3608.8^{-5} 5$ (14^+) DE 3725.65 (14^+) DE 3725.65 (14^+) DE $384.9d^2 8$ (14^-) B $988.9d^2 8$ (14^-) B $988.9d^2 8$ (16^-) DS $4000.5^h 4$ (15^-) B $4089.9g^2 4$ (16^-) 0.39 ns 4 B $4130.6^f 5$ (16^+) DE $4216.9h^4 4$ (17^-) B DE $4387.7g^5 5$ (18^+) B DE $4389.4^d 5$ (18^+) B DE $4389.4^h 4$ (19^-) DE $4741.6^f 5$ (18^+) DE $4950.5^8 5$ (20^-) DE $5216.6h^{-1} 5$ (21^-) DE $5216.6h^{-1} 5$ (21^-) DE $5316.5f^-6$ (22^+) DE $5787.9f^-6$ (22^+) DE $5787.9f^-6$ (22^+) DE $6112.6^6 9$ (22^+) E 6233.6^+12 (22^+) E <td>3449.6° 4</td> <td>(13^{-})</td> <td></td> <td>B DE</td> <td></td>	3449.6° 4	(13^{-})		B DE	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2004.98 4	(14)		D DE	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3984.9 ^d 8	(14)		E	
4089.95 4 (16) 0.39 ns 4 B DE $T_{1/2}$: (a)(ce)(t) in ¹²⁻ Pt((a,4ny), ¹²⁻ Pt((a,5ny)) (19/8Mel1). 4130.6 ⁴ 5 (16 ⁺) DE 4216.9 ^h 4 (17 ⁻) B DE 4389.4 ^e 5 (18 ⁺) B DE 4389.4 ^e 5 (18 ⁺) DE 4519.8 ^m 10 (17 ⁻) E 4588.4 ^h 4 (19 ⁻) DE 5021.6 ^m 10 (19 ⁻) E 5130.7 ⁱ 5 (20 ⁺) B DE 5216.0 ^h 5 (21 ⁻) DE 5316.5 ^f 6 (20 ⁺) DE 5587.1 ^g 6 (22 ⁺) E 5652.2 ^g 6 (22 ⁻) DE 5787.9 ^f 6 (22 ⁺) DE 6012.2 ^h 6 (23 ⁻) DE 6125.5 ^m 8 (23 ⁻) E 6233.6 12 (22 ⁺) E 6303.3 ⁿ 9 (22 ⁺) E 6428.1 ⁱ 6 (24 ⁺) DE	4010.5" 4	(15^{-})	0.00 (B DE	T = (1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(
$4130.6^{J} 5$ (16^{+}) DE $4216.9^{h} 4$ (17^{-}) B DE $4387.7^{g} 5$ (18^{+}) B DE $4389.4^{e} 5$ (18^{+}) B DE $4389.4^{e} 5$ (18^{+}) B DE $4519.8^{m} 10$ (17^{-}) E $4741.6^{f} 5$ (18^{+}) DE $4950.5^{g} 5$ (20^{-}) DE $5021.6^{m} 10$ (19^{-}) E $5130.7^{i} 5$ (20^{+}) DE $5216.0^{h} 5$ (21^{-}) DE $5343.5^{m} 7$ (21^{-}) DE $5545.2^{g} 6$ $(22)^{-}$ DE $5700.6^{i} 6$ (22^{+}) DE $6012.2^{h} 6$ (22^{+}) DE $6125.5^{m} 8$ (23^{-}) DE $6125.6^{m} 8$ (23^{-}) DE $6233.6 12$ (22^{+}) E $6233.6^{i} 6$ (22^{+}) E $6303.3^{i} 9$ (22^{+}) E	4089.984	(16)	0.39 ns 4	B DE	$I_{1/2}$: (α)(ce)(t) in ^{1/2} Pt(α ,4n γ), ^{1/2} Pt(α ,6n γ) (19/8Me11).
$4216.9^{n} 4$ (17^{-}) B DE 4387.7^{g} (18^{+}) B DE 4389.4^{e} (18^{+}) B DE 4519.8^{m} 10 (17^{-}) E 4588.4^{h} (19^{-}) DE 4741.6^{f} (18^{+}) DE 4950.5^{g} (20^{-}) DE 5021.6^{m} (19^{-}) E 5130.7^{i} (20^{+}) DE 5216.0^{h} (21^{-}) DE 5216.6^{h} (21^{-}) DE 5271.6^{e} (20^{+}) DE 5316.5^{f} (20^{+}) DE 5343.5^{m} (21^{-}) DE 5587.18 (20^{+}) E 5552.8^{g} (22^{+}) DE 5787.9^{f} (22^{+}) DE 6112.6^{e} (22^{+}) E 6125.5^{m} (23^{-}) E 6233.6^{12} (22^{+}) E 6303.3^{r1} (22^{+}) E 6303.3^{r1} (22^{+})	4130.6 5	(16 ⁺)		DE	
$4387, 1^6$ 5 (18) B DE $4389, 4^e$ 5 (18 ⁺) B DE $4519, 8^m$ 10 (17) E $4588, 4^h$ 4 (19 ⁻) DE $4741, 6^f$ 5 (18 ⁺) DE $950, 5^g$ 5 (20 ⁻) DE $5021, 6^m$ 10 (19 ⁻) E $5130, 7^i$ 5 (20 ⁺) B $5216, 0^h$ 5 (21 ⁻) DE $5271, 6^e$ 6 (20 ⁺) DE $5316, 5^f$ 6 (20 ⁺) DE $5543, 5^m$ 7 (21 ⁻) E $5587, 1.8$ (20 ⁺) DE $5787, 9^f$ 6 (22 ⁺) DE $5787, 9^f$ 6 (22 ⁺) DE $6012, 2^h$ 6 (22 ⁺) DE $6125, 5^m$ 8 (23 ⁻) DE $6125, 5^m$ 8 (23 ⁻) E $6233, 6^12$ (22 ⁺) E $6303, 3^n 9$ (22 ⁺) E $6428, 1^i$ 6 (24) ⁺ DE	4216.9 ^{<i>n</i>} 4	(17^{-})		B DE	
$43694^{-7} 5$ (18^{-7}) E $451988^{m} 10$ (17^{-7}) E $45884^{h} 4$ (19^{-7}) DE $45876^{m} 10$ (19^{-7}) DE $4950.5^{g} 5$ (20^{-7}) DE $5021.6^{m} 10$ (19^{-7}) E $5130.7^{i} 5$ (20^{+}) DE $5216.6^{h} 5$ (21^{-7}) DE $5271.6^{e} 6$ (20^{+}) DE $5243.5^{m} 7$ (21^{-7}) E $5587.1 8$ (20^{+}) DE $5587.2^{g} 6$ $(22)^{-7}$ DE $5787.9^{f} 6$ (22^{+}) DE $6012.2^{h} 6$ (22^{+}) DE $612.5^{c} 9$ (22^{+}) E $6125.5^{m} 8$ (23^{-7}) E $6233.6 12$ (22^{+}) E $6303.3^{n} 9$ (22^{+}) E $6303.3^{n} 9$ (22^{+}) E	4387.78 5	(18)		B DE	
$4518, 4^{h} 4$ (19^{-}) DE $4588, 4^{h} 4$ (19^{-}) DE $4741, 6^{f} 5$ (18^{+}) DE $5950, 6^{5} 5$ (20^{-}) DE $5021, 6^{m} 10$ (19^{-}) E $5130, 7^{i} 5$ (20^{+}) DE $5216, 0^{h} 5$ (21^{-}) DE $5271, 6^{e} 6$ (20^{+}) DE $5271, 6^{e} 6$ (20^{+}) DE $5271, 6^{e} 6$ (20^{+}) DE $5583, 5^{m} 7$ (21^{-}) E $5587, 1.8$ (20^{+}) E $5700, 6^{i} 6$ $(22)^{+}$ DE $5787, 9^{f} 6$ (22^{+}) DE $6112, 6^{e} 9$ (22^{+}) E $6122, 5^{m} 8$ (23^{-}) E $6233, 6.12$ (22^{+}) E $6303, 3^{n} 9$ (22^{+}) E $6303, 3^{n} 9$ (22^{+}) E	4589.4° J 4510.8° 10	(10) (17^{-})		B DE F	
4306.4 4 (19') DE 4741.6 5 (18') DE 5021.6 10 (19') E 5021.6 10 (19') E 5130.7 5 (20') B DE 5216.0 h 5 (20') DE 5216.0 6 (20+) DE 5271.6 6 5271.6 6 (20+) DE 5316.5 f (20+) DE 5316.5 6 (20+) DE 5587.1 8 (20+) E 5787.9 6 (22+) DE 5787.9 6 (22+) DE 6012.2 h 6 (33-) DE 6112.6 9 (22+) E 6125.5 8 (23-) E 6233.6 I2 (22+) E 6233.6 I2 (22+) E 6303.3 I9 (22+) E 6428.1 6 (24) ⁺ DE DE 6303.3 IP IP	4519.0 10	(17)		DE	
4741.6^{-5} (18^{-5}) DE 4950.5^{g} (20^{-}) DE 5021.6^{m} 10^{-1} E 5130.7^{i} (20^{+}) B 5216.0^{h} $5^{-1}(21^{-})$ DE 5271.6^{e} (20^{+}) DE 5316.5^{f} (20^{+}) DE 5316.5^{f} (20^{+}) DE 5543.5^{m} $7^{-1}(21^{-})$ E 5587.1^{-8} (20^{+}) DE 5700.6^{i} (22^{+}) DE 5771.9^{f} (22^{+}) DE 6012.2^{h} C DE 6112.6^{e} (22^{+}) E 612.5^{m} $8^{-1}(22^{+})$ E 6233.6^{-12} (22^{+}) E 6233.6^{-10} (22^{+}) E 6428.1^{i} $(24)^{+}$ DE	4300.4 4	(19)		DE	
$5021.6^m \ 10 \ (19^-)$ E $5130.7^i \ 5 \ (20^+)$ B DE $5216.0^h \ 5 \ (21^-)$ DE $5271.6^e \ 6 \ (20^+)$ DE $5316.5^f \ 6 \ (20^+)$ DE $5543.5^m \ 7 \ (21^-)$ E $5587.1 \ 8 \ (20^+)$ DE $5587.1 \ 8 \ (20^+)$ E $5552^g \ 6 \ (22)^-$ DE $5700.6^i \ 6 \ (22)^+$ DE $5770.9^f \ 6 \ (22^+)$ DE $6112.6^e \ 9 \ (22^+)$ E $6122.5^m \ 8 \ (23^-)$ E $6233.6 \ 12 \ (22^+)$ E $6233.6 \ 12 \ (22^+)$ E $6303.3^n \ 9 \ (22^+)$ E $6428.1^i \ 6 \ (24)^+$ DE	4/41.05 5	(10) (20^{-})			
$5130.7^i 5$ (20^+) B DE $5216.0^h 5$ (21^-) DE $5271.6^e 6$ (20^+) DE $5316.5^f 6$ (20^+) DE $5543.5^m 7$ (21^-) E $5587.1 8$ (20^+) DE $5587.1 8$ (20^+) E $5655.2^g 6$ (22^-) DE $5700.6^i 6$ (22^+) DE $6012.2^h 6$ (23^-) DE $6112.6^e 9$ (22^+) E $6125.5^m 8$ (23^-) DE $6233.6 12$ (22^+) E $6303.3^n 9$ (22^+) E $6428.1^i 6$ $(24)^+$ DE	5021.6^{m} 10	(10^{-})		F	
5116.0 ^h 5 (21 ⁻) DE 5216.0 ^h 5 (21 ⁻) DE 5271.6 ^e 6 (20 ⁺) DE 5316.5 ^f 6 (20 ⁺) DE 5543.5 ^m 7 (21 ⁻) E 5587.1 8 (20 ⁺) DE 5787.9 ^f 6 (22) ⁺ DE 5787.9 ^f 6 (22 ⁺) DE 6012.2 ^h 6 (23 ⁻) DE 6112.6 ^e 9 (22 ⁺) E 6233.6 12 (22 ⁺) E 6303.3 ⁿ 9 (22 ⁺) E 6428.1 ⁱ 6 (24) ⁺ DE	5130.7^{i} 5	(20^+)		B DE	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$5216.0^{h}.5$	(20^{-})		DE	
$5316.5^f 6$ (20^+) DE $5543.5^m 7$ (21^-) E $5587.1 8$ (20^+) E $5655.2^g 6$ $(22)^-$ DE $5700.6^i 6$ $(22)^+$ DE $5787.9^f 6$ (22^+) DE $6012.2^h 6$ (23^-) DE $6112.6^e 9$ (22^+) E $6233.6 12$ (22^+) E $6294.6 10$ (22^+) E $6303.3^n 9$ (22^+) E $6428.1^i 6$ $(24)^+$ DE	5271.6 ^e 6	(20^+)		DE	
5543.5^m 7 (21^-) E $5587.1\ 8$ (20^+) E $5655.2^g\ 6$ $(22)^-$ DE $5700.6^i\ 6$ $(22)^+$ DE $5777.9^f\ 6$ (22^+) DE $6012.2^h\ 6$ (23^-) DE $6112.6^e\ 9$ (22^+) E $6125.5^m\ 8$ (23^-) E $6233.6\ 12$ (22^+) E $6294.6\ 10$ (22^+) E $6303.3^n\ 9$ (22^+) E $6428.1^i\ 6$ $(24)^+$ DE	5316.5 ^{<i>f</i>} 6	(20^{+})		DE	
$5587.1 \ 8$ (20^+) E $5655.2^g \ 6$ $(22)^-$ DE $5700.6^i \ 6$ $(22)^+$ DE $5787.9^f \ 6$ (22^+) DE $6012.2^h \ 6$ (23^-) DE $6112.6^e \ 9$ (22^+) E $6125.5^m \ 8$ (23^-) E $6233.6 \ 12$ (22^+) E $6294.6 \ 10$ (22^+) E $6303.3^n \ 9$ (22^+) E $6428.1^i \ 6$ $(24)^+$ DE	5543.5 ^m 7	(21-)		Е	
$5655.2^g \ 6$ $(22)^-$ DE $5700.6^i \ 6$ $(22)^+$ DE $5787.9^f \ 6$ (22^+) DE $6012.2^h \ 6$ (23^-) DE $6112.6^e \ 9$ (22^+) E $6125.5^m \ 8$ (23^-) E $6233.6 \ 12$ (22^+) E $6303.3^n \ 9$ (22^+) E $6428.1^i \ 6$ $(24)^+$ DE	5587.1 8	(20^{+})		E	
$5700.6^{i} \ 6 \ (22)^{+}$ DE $5787.9^{f} \ 6 \ (22^{+})$ DE $6012.2^{h} \ 6 \ (23^{-})$ DE $6112.6^{e} \ 9 \ (22^{+})$ E $6125.5^{m} \ 8 \ (23^{-})$ E $6233.6 \ 12 \ (22^{+})$ E $6294.6 \ 10 \ (22^{+})$ E $6303.3^{n} \ 9 \ (22^{+})$ E $6428.1^{i} \ 6 \ (24)^{+}$ DE	5655.2 <mark>8</mark> 6	(22)-		DE	
$5787.9^{f} 6$ (22^{+}) DE $6012.2^{h} 6$ (23^{-}) DE $6112.6^{e} 9$ (22^{+}) E $6125.5^{m} 8$ (23^{-}) E $6233.6 12$ (22^{+}) E $6294.6 10$ (22^{+}) E $6303.3^{n} 9$ (22^{+}) E $6428.1^{i} 6$ $(24)^{+}$ DE	5700.6 ¹ 6	$(22)^{+}$		DE	
$6012.2^h 6$ (23^-) DE $6112.6^e 9$ (22^+) E $6125.5^m 8$ (23^-) E $6233.6 12$ (22^+) E $6294.6 10$ (22^+) E $6303.3^n 9$ (22^+) E $6428.1^i 6$ $(24)^+$ DE	5787.9 ¹ 6	(22^{+})		DE	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6012.2 ^h 6	(23 ⁻)		DE	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6112.6 ^e 9	(22 ⁺)		E	
$0233.0 \ 12$ (22^+) E $6294.6 \ 10$ (22^+) E $6303.3^n \ 9$ (22^+) E $6428.1^i \ 6$ $(24)^+$ DE	6125.5 ^m 8	(23^{-})		E	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0233.0 <i>12</i>	(22^{+})		E	
$6428.1^{i} 6 (24)^{+}$ DE	$6303.3^{n}.9$	(22^{+})		L F	
	6428.1^{i} 6	$(22)^+$		DE	

E(level) [†]	$J^{\pi \ddagger}$	T _{1/2} #	XREF	Comments
6432.8 ⁿ 11	(23^{+})	10 ps +4 -3	E	
6437.6 ^g 7	(24 ⁻)		DE	
6709.4 ⁿ 11	(24 ⁺)	14 ps +3-4	E	
6855.0 ^h 6	(25 ⁻)		DE	
6878.4 <mark>0</mark> 11	(23 ⁻)		E	
6949.2 ^m 10	(25 ⁻)		E	
7035.3 <mark>0</mark> 10	(24 ⁻)		E	
7043.3^{n} 12	(25^{+})	0.7 ps +7-11	E	$T_{1/2}$: this value appears to have been misprinted.
7267.6 ⁸ 12	(26 ⁻)		E	
7272.50 8	(25 ⁻)		E	
7320.1 ¹ 12	(26 ⁺)		E	
7434.9" 13	(26^+)	2.5 ps $+13-7$	E	
7516.10 9	(26)		E	
/684.9 9	(25,26)		Ł	$J^{*}: Q \ 124/\gamma \text{ to } (24) \ 6438; \ 413\gamma \text{ to } (25) \ 72/3; \ 103\gamma \text{ from } (27) \ 7788.$
7722.0 ^h 12	(27 ⁻)		E	
7787.8 <mark>0</mark> 8	(27 ⁻)		E	
7819.6 ^m 10	(27-)		E	
7838.4 11	(27^{-})		E	J^{n} : Q 889 γ to (25 ⁻) 6949; γ from (28 ⁻).
7926.70 10	(28)	1.0 10	E	
/959.0* 14	(27^{+})	1.2 ps 10	E	
8101.6 <mark>8</mark> 16	(28^{-})		E	
8207.6.16	(28^{-})		F	
8224.3 11	(28^{-})		Ē	
8263.5° 11	(29 ⁻)		Е	
8302.6 ⁿ 14	(28 ⁺)	0.5 ps 5	Е	
8331.1 ⁱ 16	(28^{+})		Е	
8543.2 ⁰ 12	(30 ⁻)		Е	
8631.0 ^h 16	(29^{-})		Е	
8693.0 16	(29 ⁻)		Е	
8712.6 ⁿ 15	(29 ⁺)	0.14 ps +49-14	E	
8961.3 ⁿ 15	(30 ⁺)	0.9 ps 4	Е	
8990.2 ⁰ 13	(31-)		E	
9196.0 ⁿ 16	(31 ⁺)	2.4 ps +4-3	E	
9375.9 ⁿ 17	(32 ⁺)	1.5 ps <i>3</i>	E	
9443.4° <i>13</i>	(32^{-})		E	
9666.0" 18	(33^{+})		E	
9932.8° 14	(33)		E	
$10058.0^{\circ} 20$ $10464 4^{\circ} 17$	(34^{-})		E	
10404.4 <i>17</i>	(34)			$E(1,\dots,1)$, $\pi = 559(-500)$ (see semicont for 214.4 to $1,\dots,1$)
x ^j	$J \approx (8) $		r	E(level): x=5580, 500 (see comment for 214.4+x level).
214.4+x ^J 3	J+2	<77 ps	F	 E(level),J^{<i>i</i>}: From the study of quasi-continuum γ-ray spectra, 2000La31 estimate level energy as 5800 500 and J=9.7 10 using data for ¹⁹⁴Hg SD-1 band as a reference. T_{1/2}: from RDDS (1994Wi06) in (HI,xnγ):SD. Q(transition)>6 (1994Wi06) in (HI,xnγ):SD.
472.2+x ^j 4	J+4 [@]	3.7 ps +8-6	F	T _{1/2} : RDDS (1994Wi06). Others: 3.1 ps $+10-6$ (RDDS, 1994Le24); 3.1 ps 10 (RDDS, 1993De35). From (HI,xnγ):SD. Q(transition)=18.3 16 (1994Wi06), 19.3 $+50-25$ (1993De35) in (HI,xnγ):SD.

E(level) [†]	J ^π ‡	$T_{1/2}^{\#}$	XREF	Comments
				Q(transition)=18.3 <i>16</i> (1994Wi06), 19.3 +50-25 (1993De35) in (HI,xny):SD.
772.3+x ^j 4	J+6 [@]	1.74 ps +22-17	F	$\begin{array}{l} T_{1/2}: \mbox{ RDDS (1994Wi06). Others: 2.0 ps +8-6 (RDDS, 1994Le24);} \\ 2.1 \mbox{ ps } 12 \mbox{ (RDDS, 1993De35). From (HI,xn\gamma):SD.} \\ Q(\mbox{transition}) = 18.5 \ 10 \ (1994Wi06), \ 17.5 \ +35-25 \ (1994Le24), \ 17 \\ \ +11-3 \ (1993De35) \ \mbox{in (HI,xn\gamma):SD.} \end{array}$
1113.7+x ^j 4	J+8 [@]	0.84 ps +22-20	F	$T_{1/2}$: from RDDS (1994Wi06) in (HI,xn γ):SD. Q(transition)=19.2 +24-21 (1994Wi06) in (HI,xn γ):SD.
1495.3+x ^j 4	J+10 [@]	0.48 ps +62-13	F	$T_{1/2}$: from RDDS (1994Wi06) in (HI,xn γ):SD. Q(transition)=20 +4-7 (1994Wi06) in (HI,xn γ):SD.
1916.4+x ^j 5	J+12 [@]		F	
2375.2+x ^j 5	J+14 [@]	0.18 ps +5-4	F	$T_{1/2}$: DSAM (1994Wi06). Other: 0.16 ps 5 (1990Mo16). From (HI,xny):SD.
$2871.2 + \pi \frac{1}{5}$	L 16 ⁰	$0.127 m_{\odot} + 17.21$	F	Q((Iranshon)=20.7 + 51 - 25 (1994 W100) III (H1, XIIY):SD
2071.2+x3 5	J +10	0.137 ps +17-21	г	$1_{1/2}$. DSAW (1994W100). Others: 0.13 ps 5 (1990W010), 0.19 5 (1998Bu03). From (HI,xn γ):SD. Q(transition)=19.3 +17-11 (1994Wi06), 19.9 +31-25 (1998Bu03). From (HI,xn γ):SD.
3403.3+x ^j 6	J+18 [@]	0.093 ps +10-14	F	T _{1/2} : DSAM (1994Wi06). Others: 0.089 ps 31 (1990Mo16); 0.13 +2-3 (1998Bu03). From (HI,xn γ):SD. Q(transition)=19.6 +17-11 (1994Wi06), 20.3 +31-21 (1998Bu03). From (HI,xn γ):SD.
3970.7+x ^j 6	J+20 [@]	0.068 ps +10-11	F	T _{1/2} : DSAM (1994Wi06). Other: 0.058 ps <i>17</i> (1990Mo16). From (HI,xny):SD. O(transition)=19.6 + <i>19</i> - <i>13</i> (1994Wi06) in (HI,xny):SD.
4572.4+x ^j 6	J+22 [@]	0.062 ps +10-7	F	$T_{1/2}$: DSAM (1994Wi06). Other: 0.055 ps <i>14</i> (1990Mo16). From (HI,xny):SD. O(transition)=17.7 <i>12</i> (1994Wi06) in (HI,xny):SD.
5207.3+x ^j 7	J+24 [@]	0.050 ps +10-12	F	$T_{1/2}$: DSAM (1994Wi06). Other: 0.042 ps 17 (1990Mo16). From (HI,xny):SD. O(transition)=17.4 +24-15 (1994Wi06) in (HI,xny):SD.
5875.4+x ^j 7	J+26 [@]	0.031 ps +9-8	F	$T_{1/2}$: DSAM (1994Wi06). Other: 0.034 ps 9 (1990Mo16). From (HI,xny):SD. O(transition)=19.3 +29-23 (1994Wi06) in (HI xny):SD.
6575.5+x ^j 7	J+28 [@]	0.032 ps +9-8	F	$T_{1/2}$: DSAM (1994Wi06). Other: 0.032 ps 14 (1990Mo16). From (HI,xny):SD. Q(transition)=16.9 +15-20 (1994Wi06) in (HI,xny):SD.
7307.0+x ^j 8	J+30 [@]	0.021 ps +11-21	F	T _{1/2} : from DSAM (1994Wi06) in (HI,xn γ):SD. Q(transition)=19 + ∞ -4 (1994Wi06) in (HI,xn γ):SD.
8069.3+x ^j 8	J+32 [@]	0.019 ps +18-19	F	$T_{1/2}$: DSAM (1994Wi06). Other: <0.03 ps (1990Mo16). From (HI,xnγ):SD. Q(transition)=18 +∞-6 (1994Wi06) in (HI,xnγ):SD.
8862.0+x ^j 9	J+34 [@]		F	
9684.9+x ^j 10	J+36 [@]		F	
10538.0+x ^j 11	J+38 [@]		F	
11426.7+x? ^j 13	J+40 [@]		F	
у ^{k}	J1≈(10) ^{&}		F	
241.2+y ^k 10	J1+2 ^{&}		F	
523.6+y ^k 11	J1+4 ^{&}		F	
845.7+y ^k 11	J1+6 ^{&}		F	

¹⁹²Hg Levels (continued)

E(level) [†]	Jπ‡	T _{1/2} #	XREF	Comments
1207.0+y ^k 11	J1+8 ^{&}		F	
1607.2+y ^k 11	J1+10 ^{&}		F	
2045.2+y ^k 11	J1+12 ^{&}		F	
2520.4+y ^k 12	J1+14 ^{&}	0.14 ps 4	F	$T_{1/2}$: from DSAM (1995Ko17) in (HI,xn γ):SD. O(transition)=22.1 +29-30 (1995Ko17) in (HI,xn γ):SD.
3031.4+y ^k 12	J1+16 ^{&}	0.15 ps +5-3	F	$T_{1/2}$: from DSAM (1995Ko17) in (HI,xn γ):SD. O(transition)=17.8 +28-20 (1995Ko17) in (HI,xn γ):SD.
3578.1+y ^k 12	J1+18 ^{&}	0.100 ps 14	F	$T_{1/2}$: from DSAM (1995Ko17) in (HI,xn γ):SD. O(transition)=18.2 <i>13</i> (1995Ko17) in (HI.xn γ):SD.
4156.9+y ^k 12	J1+20 ^{&}	0.064 ps 8	F	$T_{1/2}$: from DSAM (1995Ko17) in (HI,xn γ):SD. O(transition)=19.4 <i>13</i> (1995Ko17) in (HI,xn γ):SD.
4761.3+y ^k 12	J1+22 ^{&}	0.052 ps +6-7	F	$T_{1/2}$: from DSAM (1995Ko17) in (HI,xn γ):SD. O(transition)=19.4 <i>13</i> (1995Ko17) in (HI,xn γ):SD.
5385.5+y ^k 13	J1+24 ^{&}	0.044 ps 6	F	$T_{1/2}$: from DSAM (1995Ko17) in (HI,xn γ):SD. O(transition)=19.5 <i>13</i> (1995Ko17) in (HI,xn γ):SD.
6037.7+y ^k 13	J1+26 ^{&}		F	
$6722.0 + y^{k}$ 13	J1+28 ^{&}		F	
7439.7+y ^k 14	J1+30 ^{&}		F	
8189.5+y ^k 14	J1+32 ^{&}		F	
8972.6+y ^k 15	J1+34 ^{&}		F	
9791.6+y? ^k 18	J1+36 <mark>&</mark>		F	
zl	J2		F	
333.1+z ^l 3	J2+2		F	
$705.9 + z^l 4$	J2+4		F	
$1118.0+z^{l}$ 5	J2+6		F	
$1568.6 + z^l 5$	J2+8		F	
$2056.9 + z^l 6$	J2+10		F	
$2582.4 + z^l 8$	J2+12		F	
3144.1+z ^l 9	J2+14		F	
3741.4+z ^l 10	J2+16		F	
4371.5+z ^l 11	J2+18		F	
5030.5+z ^l 14	J2+20		F	
5711.5+z ^l 20	J2+22		F	

[†] From least-squares fit to adopted E_{γ} , allowing $\Delta E_{\gamma}=1$ keV whenever authors failed to state the uncertainty in E_{γ} .

[‡] From γ -ray multipolarities, coincidence data, and band structure in (HI,xn γ) and ¹⁹²Pt(α ,4n γ), ¹⁹⁴Pt(α ,6n γ), except where noted; continuing J^{π} patterns established.

[#] For SD bands, values are from recoil distance Doppler shift (RDDS) and/or DSAM data in (HI,xn γ):SD. Values for other levels are from Doppler-shift recoil distance in ¹⁶⁰Gd(³⁶S,4n γ), unless noted to the contrary.

[@] From fit to expansions relating second moment of inertia and angular frequency (1990Be01).

& From fit to expansions relating second moment of inertia and angular frequency (1995Ko17), $J\approx(10)$ for E(level)=y.

^{*a*} Band(A): g.s. band, $\pi = +, \alpha = 0$.

^b Based on smooth progression of level energies and independently established $J^{\pi}(g.s.)$ and mult(423 γ), definite J^{π} has been assigned to all members of the g.s. band.

^c Band(B): Band AE, $\pi = -, \alpha = 1$. 2-quasineutron band involving 1/2[660] and 1/2[521] Nilsson orbitals (1986Hu02).

- ^{*d*} Band(C): Band AF, $\pi = -, \alpha = 0$. 2-quasineutron band involving 1/2[660] and 1/2[521] Nilsson orbitals (1986Hu02).
- ^{*e*} Band(D): Band AB, π =+, α =0. 2-quasineutron band involving 1/2[660] Nilsson orbital (1986Hu02).
- ^{*f*} Band(E): π =+, α =0 vibrational band (1986Hu02,1994Le08). Quasivibrational terminating band.
- ^g Band(F): Band ABCF, π =-, α =0. 4-quasineutron band involving 1/2[660], 3/2[651], 1/2[521] Nilsson orbitals (1986Hu02).
- ^h Band(G): Band ABCE, $\pi = -, \alpha = 1$. 4-quasineutron band involving 1/2[660], 3/2[651], 1/2[521] Nilsson orbitals (1986Hu02).
- ^{*i*} Band(H): Band ABCD, π =+, α =0 (1995Le33). 4-quasineutron band involving 1/2[660] and 3/2[651] Nilsson orbitals (1986Hu02).
- ^{*j*} Band(I): SD-1 band (1992La07,1994Ga07,1995Fa03,1997Mo12,1998Bu03). Percent population ≈ 2.0 (1992La07, 1995Fa03), ≈ 1.6 (1995Ko17). Average Q(transition)=20 2 (DSAM data, 1990Mo16), 18.6 *14* (1994Wi06, low-J states), 17.6 *10* (1997Mo12 text; 10%–15% uncertainty in stopping power not included), 20.2 *12* (1998Bu03). From experimental data, the bandhead (J=0 state) is estimated to lie at 5.2-6.2 MeV (1992La19); 1997Mo22 estimate that band lies 4.3 MeV 9 above yrast line at point of decay and that the average number of steps from SD states to yrast line is 3.2 *6*. Band exhibits integer alignment relative to SD-1 and SD-3 bands of ¹⁹⁴Hg for $\hbar\omega\approx 0.2$ MeV (1990St12) (identical bands). From the study of quasi-continuum γ -ray spectra, 2000La31 estimate level energy of 5800 *500* for the second member and J=9.7 *10*.
- ^{*k*} Band(J): SD-2 band (1995Fa03,1995Ko17). Percent population=0.11 (1995Ko17), 0.2 (1995Fa03). Average Q(transition)=19.5 *15* (1995Ko17). Transition energies in this band are within 3 keV of those for the SD-2 band of ¹⁹⁴Hg for $E\gamma \le 550$; a band crossing occurs near $\hbar\omega$ =0.3.
- ^{*l*} Band(K): SD-3 band (1995Fa03). Percent population=0.1 (1995Fa03). Note that transition energies in this band lie within 0.3 keV of those for transitions in the SD-2 band of ¹⁹¹Hg for $\hbar\omega \le 0.31$.
- ^{*m*} Band(L): Band ABDE (1994Le08,1995Le33). Possibly (($\nu i_{13/2}$)³($\nu p_{3/2}$)).
- ^{*n*} Band(M): $\pi = (+)$ dipole band (1994Le08,1995Le33). Possibly $((\pi h_{9/2})^2)K=8$ coupled with $((\nu i_{13/2})^4)J=20$ or with $(((\nu i_{13/2})^2)J=12)((\pi h_{11/2})^2)J=10)$.
- ^o Band(N): $\pi = (-)$ dipole band (1994Le08,1995Le33). Possibly ($(\pi h_{11/2})(\pi i_{13/2})$)K=11 coupled with ($(\nu i_{13/2})^4$)J=20 or with ($((\nu i_{13/2})^2)$ J=12($(\pi h_{11/2})^2$)J=10).

						Adopted Le	vels, Gammas (c	ontinued)	
							$\gamma(^{192}\text{Hg})$		
E _i (level)	\mathbf{J}_i^{π}	E_{γ}^{\dagger}	I_{γ}^{\ddagger}	E_{f}	\mathbf{J}_f^{π}	Mult. [†]	δ^{\dagger}	α^{i}	Comments
422.79	2+	422.8 1	100	0.0	0+	E2		0.0410	Mult.: stretched Q from $\gamma(\theta)$ in (HI,xn γ):SD; not M2 from K/L in (p.6n γ) and ¹⁹² Tl ε decay.
1057.58	4+	634.8 <i>1</i>	100	422.79	2+	E2		0.01550	
1113.60	$(2)^{+}$	690.8 <i>1</i>	100 6	422.79	2^{+}	M1+E2	1.7 +5-3	0.0197 23	
		1113.0 ^j 2	≈24 j	0.0	0^{+}	(E2)			
1535.2	$(3)^{+}$	477.6 <i>3</i>	≈23	1057.58	4+	M1(+E2)	0.4 + 5 - 4	0.093 23	
		1113.0 ^j 2	≈100 ^j	422.79	2^{+}	M1.E2			
1732.98	$(4)^+$	619.4 2	80 12	1113.60	$(2)^{+}$	E2		0.01637	
		675.4 1	100 6	1057.58	4 ⁺	M1+E2	0.7 + 3 - 2	0.032 5	
1803.05	6+	745.5 <i>1</i>	100	1057.58	4^{+}	E2		0.01095	
1831.62	$(2^+, 3, 4^+)$	717.9 <i>3</i>	100.0 ^e 14	1113.60	$(2)^{+}$				
		774.1 2	71 ^e 6	1057.58	4+				Other I γ (774)/I γ (718): 82 <i>12</i> from high-J ¹⁹² Tl ε decay.
1843.90	(5)-	786.3 <i>1</i>	100	1057.58	4+	E1			5
1844.59	(3,4)	1421.8 2	100	422.79	2^{+}				
1908.58	1,2+	1486.1 <i>4</i>	67 ^e 8	422.79	2+				Other I γ (1486):I γ (1908)=104 20:100 16 from ¹⁹² Tl ε decay.
		1908.4 <i>3</i>	100 ^e 8	0.0	0^{+}				
1977.03	$(7)^{-}$	133.1 <i>1</i>	42.4 27	1843.90	$(5)^{-}$	E2		1.740	B(E2)(W.u.)≈84
		174.0 <i>1</i>	100 4	1803.05	6+	E1		0.1048	$B(E1)(W.u.) \approx 3.7 \times 10^{-5}$
1986.9?	(6 ⁻)	143 <mark>8k</mark>	100 <mark>8</mark>	1843.90	$(5)^{-}$	(M1) ^g		2.84	
2056.29	$(1,2^+)$	1633.5 2	100 ^e 8	422.79	2+				
		2056.0 ^k 6	<58 ^e	0.0	0^{+}				
2081.69	$(1,2^{+})$	1658.9 2	100 ^e 8	422.79	2^{+}				
		2081.9 ^k 6	3.5 ^e 13	0.0	0^{+}				
2186.98	$(6)^{-}$	343.1 2	35 ^e 13	1843.90	$(5)^{-}$	M1		0.251	
	(-)	383.9 2	100 ^e 13	1803.05	6+	E1		0.01579	Mult.: E1,M1 from K/L in $(\alpha, 4n\gamma)$; E1,E2 from
									$\alpha(K)$ exp in ε decay.
2216.20	$(8)^{-}$	239.2 2	100	1977.03	$(7)^{-}$	M1+E2	0.64 11	0.54 4	B(M1)(W.u.)=0.00081 10; B(E2)(W.u.)=2.3 6
									δ: weighted average of 0.81 <i>15</i> , 1.1 <i>3</i> from ¹⁹² Tl ε decay (9.6 min+10.8 min) and 0.88 <i>16</i> , 0.50 8 from ¹⁹² Pt(α,4nγ), ¹⁹⁴ Pt(α,6nγ).
2223.85	(9)-	246.8 2	100	1977.03	$(7)^{-}$	E2		0.194	
2276.9	1,2+	1854.0 4	100 9	422.79	2^+				
		2277.0 6	56 9	0.0	0^{+}				
2284.7		1171.1 4	100	1113.60	$(2)^{+}$				
2300.7	$(6,7,8)^{-}$	323.7 2	100	1977.03	$(7)^{-}$	M1+E2	0.75 +17-16	0.218 22	
2447.2	8+	470 <mark>h</mark>		1977.03	$(7)^{-}$				Not observed in ε decay.

 $^{192}_{80} Hg_{112}$ -7

From ENSDF

						Ado	pted Levels, Gamm	has (continued)
							$\gamma(^{192}\text{Hg})$ (cont	inued)
E _i (level)	\mathbf{J}_i^{π}	E_{γ}^{\dagger}	I_{γ}^{\ddagger}	E_{f}	\mathbf{J}_{f}^{π}	Mult. [†]	α^{i}	Comments
2447.2	8+	644.1 2	100 18	1803.05	6+	(E2)	0.01501	Mult.: M1 from $\alpha(K)$ exp in ¹⁹² Tl ε decay, but stretched Q from $\gamma(\theta)$ in ¹⁷⁰ Er(Mg,xn γ); establishes $\Delta \pi$ =no.
2507.3	(10)+	60.1	≤3	2447.2	8+	E2	55.7	 B(E2)(W.u.)=24 +27-24 E_γ: from (α,xnγ). ΔE_γ unstated by authors; uncertainty in level energy difference is ≈0.4 keV. I_γ: from I(γ+ce) and α in ¹⁹²Pt(α,4nγ), ¹⁹⁴Pt(α,6nγ). Mult.: from (α,xnγ).
		283.4 ^b 2	100° 20	2223.85	(9)-	(E1) ^d	0.0318	$B(E1)(W.u.)=1.3\times10^{-6}$ 7
2534.2?	(12+)	999.0 ^k 3	100	1535.2	$(3)^+$		2 2 3 1 3	
2535.5	(12)	28.4	100	2507.3	(10)	(E2)	2.20×10 ³	B(E2)(W.u.)=19 4 E_{γ} ,Mult.: from ¹⁹² Pt(α ,4n γ), ¹⁹⁴ Pt(α ,6n γ). E_{γ} : uncertainty unstated by authors; $E\gamma$ =28.2 5 from level energy difference.
2632.7	(10 ⁻)	408.8 ^b 2	38 <mark>&</mark>	2223.85	(9)-	D [@]		
		416.5 ^b 2	100 &	2216.20	(8)-			
2657.1?		854 ^k	100	1803.05	6+			E_{γ} : from (p,6n γ).
2756.7	(11 ⁻)	532.9 <mark>b</mark> 2	100	2223.85	(9)-	(E2) ^{<i>a</i>}	0.0231	
2902.3	(10^{+})	395 <mark>h</mark>		2507.3	$(10)^{+}$			
2951.7	(14^{+})	416.3 ^b 2	100	2535.5	(12^{+})	(E2) ^{<i>a</i>}	0.0427	
3047.0	(12^{+})	144 ^h		2902.3	(10^{+})			
		511.3 ^{&} 3		2535.5	(12^{+})			E_{γ} : complex peak (wider than normal).
		539.7 <mark>&</mark> 3		2507.3	$(10)^{+}$	(E2) <mark>&</mark>	0.0224	
3261.9	(12^{-})	505.2 ^{&} 3	3.8 <mark>&</mark>	2756.7	(11^{-})			
		629.2 2	100	2632.7	(10-)	(E2)	0.01581	E_{γ} : Complex peak (wider than normal). Order of 629γ and 633γ in (α,4nγ) is the reverse of that adopted here.
3449.6	(13 ⁻)	692.9 ^b 2	100	2756.7	(11 ⁻)	(E2) ^{<i>a</i>}	0.01280	
3608.6	(16^{+})	656.8 ^b 2	100	2951.7	(14^{+})	(E2) ^{<i>a</i>}	0.01438	
3669.8	(14^{+})	622.7 3	100	3047.0	(12^{+})	(E2)	0.01618	E_{γ} , I_{γ} ,Mult.: from ¹⁷⁰ Er(Mg,xn γ); complex peak (wider than normal).
		718.4 ^{&} 3	63 <mark>&</mark>	2951.7	(14^{+})			
		1134 ^h		2535.5	(12^{+})	Q [@]		
3725.6	(14^{+})	678.7 ^{&} 3	100	3047.0	(12^{+})	(E2) ^{&}	0.01339	
		1190 <mark>h</mark>		2535.5	(12^{+})	Q [@]		
3894.9	(14 ⁻)	445.2 & 3	3.8 <mark>&</mark>	3449.6	(13-)	D [@]		
		633.0 ^b 2	100 <mark>&</mark>	3261.9	(12^{-})	(E2) ^{<i>a</i>}	0.01560	Order of 629 γ and 633 γ in (α ,4n γ) is the reverse of that adopted here.
3984.9	(14 ⁻)	723 ⁸	100 ^g	3261.9	(12-)	(E2) ^g	0.01169	

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 $^{192}_{80} \rm Hg_{112} \text{--}8$

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From ENSDF

 $^{192}_{80} Hg_{112}$ -8

Adopted Levels, Gammas (continued)									
γ ⁽¹⁹² Hg) (continued)									
E _i (level)	\mathbf{J}_i^{π}	E_{γ}^{\dagger}	I_{γ}^{\ddagger}	E_f	\mathbf{J}_{f}^{π}	Mult. [†]	α^{i}	Comments	
4010.5	(15 ⁻)	560.9 ^b 2	100 <mark>&</mark>	3449.6	(13 ⁻)	(E2) ^{<i>a</i>}	0.0205		
		1058.7 <mark>&</mark> 3	24 <mark>&</mark>	2951.7	(14+)	D		Mult.: from $\gamma(\theta)$ in (HI,xn γ).	
4089.9	(16 ⁻)	105 ^h		3984.9	(14 ⁻)				
		195.0 ^b 2		3894.9	(14 ⁻)	E2 ^a	0.427		
4130.6	(16^{+})	405.0 <i>3</i>	26	3725.6	(14 ⁺)	(E2)	0.0459	$E_{\gamma}, I_{\gamma}, Mult.$: from $\frac{170}{170}$ Er(Mg, xn γ).	
		460.9 3	100	3669.8	(14 ⁺)	(E2)	0.0329	$E_{\gamma}, I_{\gamma}, Mult.:$ from ^{1/0} Er(Mg, xn γ).	
		521.9 ^{cc} 3	30 °	3608.6	(16^{+})	. @			
10110		1179"	2 2 8 7	2951.7	(14 ⁺)	Qe			
4216.9	(17^{-})	126.9×3	330	4089.9	(16 ⁻)	D	0.050	Mult.: from $\gamma(\theta)$ in (HI,xn γ).	
4207 7	(10-)	$206.5^{\circ} 2$	100	4010.5	(15)	$(E2)^{\alpha}$	0.350		
4387.7	(18)	297.1° Z	100	4089.9	(10)	$(E2)^{e}$	0.1089		
4589.4	(18^{-})	$780.8^{\circ} 2$	100	3008.0 4216.0	(10^{-})	(E2)**			
4519.8	(17)	$200.7 \frac{\%}{2}$	<u>ه م 8</u>	4210.9	(17)	(M1)	1.005	Mult : D from $\alpha(0)$ in $170 \text{Er}(Mg \text{ ym})$	
4300.4	(19)	$200.7 \ 3$	0.2 100	4307.7	(10)	$(\mathbf{W}\mathbf{I}\mathbf{I})$	0.0570	Mult: O from $\alpha(\theta)$ in $EI(Mg, xhy)$. Mult: O from $\alpha(\theta)$ in 170 Er(Mg xhy) for cascade α	
4741.6	(18^{+})	611.0° 2	100	4210.9	(17) (16^+)	(E2)	0.0379	Mult.: Q from $\gamma(\sigma)$ in $Er(Mig, xir \gamma)$ for cascade γ .	
4950 5	(10^{-})	562.8° 3	100	4387.7	(10^{-})	(F2)	0.0204	Mult : O from $\gamma(\theta)$ in ¹⁷⁰ Er(Mg xn γ) for cascade γ	
5021.6	(19^{-})	502.0 5	100 ⁸	4519.8	(10^{-})	$(E2)^{g}$	0.0267		
5130.7	(20^{+})	741.3 <mark>b</mark> 2	100	4389.4	(18 ⁺)	(E2) ^{<i>a</i>}	0.01108		
5216.0	(21 ⁻)	627.6 ^{&} 2	100	4588.4	(19 ⁻)				
5271.6	(20^{+})	882.2 <mark>&</mark> <i>3</i>	100	4389.4	(18+)	(E2) [@]			
5316.5	(20^{+})	574.8 <mark>&</mark> <i>3</i>	100	4741.6	(18 ⁺)	(E2) <mark>&</mark>	0.0194		
5543.5	(21 ⁻)	522 ^h		5021.6	(19 ⁻)	[E2]	0.0243		
		593 ^h		4950.5	(20^{-})				
		955 <mark>h</mark>		4588.4	(19 ⁻)				
5587.1	(20^{+})	270 ^h		5316.5	(20^{+})	0			
		846 ^h		4741.6	(18^{+})	Q [@]			
5655.2	$(22)^{-}$	704.7 ^{&} 3	100	4950.5	(20^{-})	(E2) ^{&}	0.01234		
5700.6	$(22)^{+}$	569.9 ^{&} 2	100	5130.7	(20^{+})	(E2) ^{&}	0.0198		
5787.9	(22^{+})	471.4 ^{&} 3	100	5316.5	(20^{+})	(E2) [@]	0.0311		
6012.2	(23 ⁻)	796.2 [°] 3	100	5216.0	(21 ⁻)	(E2) ^{&}			
6112.6	(22^{+})	841 ^{<i>n</i>}		5271.6	(20+)	(E2) ^w			
		982 ["]		5130.7	(20 ⁺)	Q ^w			

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 $^{192}_{80} Hg_{112} \textbf{-} 9$

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					Adopted	Levels, Ga	mmas (continued)
						$\gamma(^{192}\text{Hg})$ (c	ontinued)
E _i (level)	\mathbf{J}_i^π	E_{γ}^{\dagger}	I_{γ}^{\ddagger}	$E_f \qquad J_f^{\pi}$	Mult. [†]	α^{i}	Comments
6125.5	(23 ⁻)	582 ^h		5543.5 (21 ⁻)	(E2) [@]	0.0188	
		910 ^h		5216.0 (21-)	(E2) [@]		
6233.6	(22^{+})	962 <mark>8</mark>	100 <mark>8</mark>	5271.6 (20 ⁺)	(Q) ^g		
6294.6	(22 ⁺)	978 <mark>8</mark>	1008	5316.5 (20+)	(E2) ⁸		
6303.3	(22^{+})	716		5587.1 (20 ⁺)	0		
		987 <mark>/</mark>		5316.5 (20 ⁺)	Q [@]		
6428.1	$(24)^+$	640 ^h		5787.9 (22+)			
		727.5 ^{&} 3	100	5700.6 (22)+	(E2) ^{&}	0.01153	
6432.8	(23 ⁺)	129.8 ^h		6303.3 (22+)	(M1) [@]	3.75	
		138 ^h		6294.6 (22+)			
6437.6	(24 ⁻)	782.3 ^{&} 3	100	5655.2 (22)-			
6709.4	(24+)	276.3 <mark>8</mark>	1008	6432.8 (23+)	(M1) ^g	0.452	B(M1)(W.u.)=0.042 + 13 - 10
		405.9 <mark>8</mark>	29 <mark>8</mark>	6303.3 (22+)	E28	0.0456	B(E2)(W.u.)=9.2 +27-20
6855.0	(25 ⁻)	842.8 [°] 3	100	6012.2 (23 ⁻)	(E2) [@]		E_{γ} : complex peak (wider than normal) in $^{1/0}$ Er(Mg,xn γ).
6949.2	(25 ⁻)	823 ⁸	1008	6125.5 (23 ⁻)	(E2) ⁸		
7035.3	(24^{-})	157"	100	$6878.4 (23^{-})$	(M1)	2.18	$\mathbf{D}(\mathbf{A}(1)(\mathbf{W}_{1})) = 0.20 + 22 - 20$
7043.3	(25^{+})	333.0 ⁸	338 1008	$6/09.4 (24^{+})$	(M1) ⁸	0.270	B(M1)(W.u.)=0.20+32-20 $B(F2)(W.u.)=1.0(10^2+16-10)$
7267.6	(26^{-})	8308	1008	6432.8 (23+) 6437.6 (24-)	$(E2)^{\circ}$	0.01088	$B(E2)(W.U.) = 1.0 \times 10^{-10} + 10 - 10^{-10}$
7207.0	(25^{-})	237h	100-	$7035.3 (24^{-})$	$(L2)^{-}$		
1212.3	(23)	$\frac{237}{304h}$		$6878 4 (23^{-})$			
		1149h		6125.5 (22 ⁻)			
		1140		(123.3 (23))	(E2) <mark>@</mark>		
7220 1	(26^{+})	1200 °	100	6012.2 (23)	(E2)		
7320.1	(26^{+})	892 ¹⁰ 301 08	100 80 <mark>8</mark>	$0428.1 (24)^{+}$ 7043 3 (25 ⁺)	(E2) (M1) ⁸	0 1752	$B(M1)(W_{11}) = 0.063 \pm 18 - 33$
74,7	(20)	725.3 ⁸	100 <mark>8</mark>	$6709.4 (24^+)$	[E2] ⁸	0.01161	B(R1)(W.u.)=0.005 + 10-55 B(E2)(W.u.)=8.3 + 24-44
7516.1	(26^{-})	244^{h}	100	$7272.5 (25^{-})$	$(M1)^{@}$	0.636	
/01011	(20)	$_{481}^{h}$		$7035.3(24^{-})$	$(F2)^{@}$	0.0296	
7684 0	$(25^{-}, 26^{-})$	$_{A13}h$		7033.3 (2+)	(L2)	0.0270	
/004.7	(23,20)	$\frac{+13}{1247h}$		$6/37.6 (2)^{-}$	0@		
7722.0	(27-)	067h		(24)	Q a		
7727.0	(27)	102h		00000 (20)	- \		
//8/.8	(27)	103 th		7084.9 (25,26)	0.470	
		272" 515h		/516.1 (26)	(M1)	0.4/2	
		515"		1212.5 (25 ⁻)			

						Adopted	Levels, Gammas (continued)
						<u>-</u>	y(¹⁹² Hg) (continued)
E _i (level)	\mathbf{J}_i^{π}	E_{γ}^{\dagger}	I_{γ}^{\ddagger}	$\mathbf{E}_f \mathbf{J}_f^{\pi}$	Mult. [†]	α ⁱ	Comments
7787.8	(27 ⁻)	933 <mark>h</mark>		6855.0 (25 ⁻)	Q [@]		
7819.6	(27 ⁻)	304 ^h		7516.1 (26 ⁻)			
		870 <mark>h</mark>		6949.2 (25-)	(E2) [@]		
7838.4	(27 ⁻)	889 <mark>8</mark>	100 <mark>8</mark>	6949.2 (25 ⁻)	Q <mark>8</mark>		
7926.7	(28 ⁻)	88 <mark>h</mark>		7838.4 (27-)	_		
		107 <mark>/</mark>		7819.6 (27 ⁻)	D [@]		
		139 ^h		7787.8 (27 ⁻)			
		410 ^{<i>hk</i>}	~	7516.1 (26 ⁻)			
7959.0	(27^{+})	524.4 ⁸	1008	7434.9 (26 ⁺)	$(M1)^{g}$	0.0809	B(M1)(W.u.)=0.08 7
0100 5		915.68	608	7043.3 (251)	(E2) ⁸		B(E2)(W.u.)=4.4
8180.7	(28^{-})	222 ⁿ 027 <mark>8</mark>	1008	$7959.0 (27^{+})$	(E2)		
8207.6	(28^{-})	9278 940 <mark>8</mark>	1008	$7207.0 (20^{-})$ $7267.6 (26^{-})$	$\left(\frac{E2}{8} \right)^{8}$		
8224 3	(28^{-})	386 ^h	100	$78384(27^{-})$	×		
0221.3	(20)	405^{h}		$7819.6 (27^{-})$	D [@]		
		708 ^h		$7516.1 (26^{-})$	D		
8263 5	(29^{-})	337 <mark>h</mark>		$7926.7 (28^{-})$			
0205.5	(2))	476 ^h		$7787.8(27^{-})$	$(F2)^{\textcircled{0}}$	0.0304	
8302.6	(28^{+})	343.4 <mark>8</mark>	59 <mark>8</mark>	7959.0 (27 ⁺)	$(M1)^{g}$	0.250	B(M1)(W.u.)=0.4 4
	. ,	867.6 <mark>8</mark>	100 <mark>8</mark>	7434.9 (26 ⁺)	[E2] ⁸		B(E2)(W.u.)=20 + 21 - 20
8331.1	(28^{+})	1011 <mark>8</mark>	100 <mark>8</mark>	7320.1 (26 ⁺)	(E2) ^g		
8543.2	(30 ⁻)	280 ⁿ		8263.5 (29 ⁻)	(M1) [@]	0.436	
		616 ⁿ		7926.7 (28 ⁻)	(E2) [@]	0.01657	
8631.0	(29-)	909 ^h		7722.0 (27-)			
8693.0	(29^{-})	9718 400.18	1008	$7722.0 (27^{-})$	$(\mathbf{Q})^{\mathbf{g}}$	0 15(2	$D(M1)(W_{rr}) = 1,2,12$
8/12.0	(29^{+})	409.18 753 7 <mark>8</mark>	100° 668	$8302.0 (28^{+})$ 7959 0 (27 ⁺)	$(M1)^{\circ}$ (F2) ⁸	0.1562	B(M1)(W.u.)=1.5 I S B(F2)(W.u.)=9 F+1 + 10-9
8961.3	(30^{+})	248.1 ⁸	100 ^g	8712.6 (29 ⁺)	[M1] ⁸	0.607	$B(M1)(W.u.)=0.6 \ 3 \ \text{if } 781 \ \text{branch negligible.}$
	. ,	659.2 <mark>8</mark>	90 <mark>8</mark>	8302.6 (28+)	[E2] ⁸	0.01426	B(E2)(W.u.)=27 13 if 781 branch negligible.
		781 ^h		8180.7 (28 ⁺)			
8990.2	(31 ⁻)	447 <mark>h</mark>		8543.2 (30-)	(M1) [@]	0.1234	
		727 <mark>h</mark>		8263.5 (29-)			
9196.0	(31 ⁺)	234.8 <mark>8</mark>	100 <mark>8</mark>	8961.3 (30 ⁺)	(M1) ^g	0.707	B(M1)(W.u.)=0.38+5-7
0275 0	(22^{+})	483.28	168	$8/12.6 (29^+)$	(E2) ⁸ (M1) ⁸	0.0293	B(E2)(W.u.)=11.6 + 15 - 20 P(M1)(W.u.)=0.04 + 10
7313.7	(32)	1/7.00	1000	5190.0 (SI ⁺)		1.407	D(1V11)(VV.u.) = 0.74 17

From ENSDF

 $^{192}_{80} {\rm Hg}_{112} {\rm -11}$

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	Adopted Levels, Gammas (continued)								
	γ ⁽¹⁹² Hg) (continued)								
E _i (level)	\mathbf{J}_i^{π}	E_{γ}^{\dagger}	I_{γ}^{\ddagger}	E_f	\mathbf{J}_{f}^{π}	Mult. [†]	α^{i}	$I_{(\gamma+ce)}^{\#}$	Comments
9375.9	(32 ⁺)	414.6 <mark>8</mark>	18 <mark>8</mark>	8961.3	(30 ⁺)	[E2] ^g	0.0431		B(E2)(W.u.)=31 7
9443.4	(32 ⁻)	454 ^h				(M1) [@]	0.1184		
		900 ^h		8543.2	(30 ⁻)	(E2) [@]			
9666.0	(33+)	290 ^h		9375.9	(32^{+})	(M1) [@]	0.396		
		470 ^h		9196.0	(31+)	0			
9932.8	(33 ⁻)	490 ⁿ		9443.4	(32 ⁻)	(M1) [@]	0.0967		
100000	(2.14)	942"		8990.2	(31 ⁻)	(E2)			
10038.0	(34')	372"		9666.0	(33^{+})				
10464.4	(34)	532^{h}		9932.8	(33)	$(\mathbf{F2})^{\textcircled{0}}$			
214 4+v	I+2	214 4f 3		y443.4	(32) I \sim (8)	(E2) (E2)	0.309	0.08.2	$R(F2)(W_{11}) > 190$
217.717	J 2	217.7 3		л	J ~(0)	$(L2)^{2}$	0.507	0.00 2	E_{γ} : 214.9 2 (1994Ga07) in (HI,xn γ):SD.
472.2+x	J+4	257.8 ^f 1		214.4+x	J+2	(E2) f	0.1693	0.88 5	$B(E2)(W.u.)=1.7\times10^3 + 3-4$
		£				£			E_{γ} : 258.2 <i>l</i> (1994Ga07) in (HI,xn γ):SD.
772.3+x	J+6	300.1 ^J 1		472.2+x	J+4	(E2) J	0.1063	1.01 5	$B(E2)(W.u.)=1.84\times10^{3}+18-24$
1113 7±x	I+8	341 4f I		772 3±x	I+6	$(F2)^{f}$	0.0732	1 07 6	B(F2)(W n) $-2.1 \times 10^3 \pm 5-6$
1115./ 1 X	310	5-1 1		//2.J A	310	$(L2)^{2}$	0.0752	1.07 0	Other Ey: $341.7 I$ (1994Ga07) in (HI,xny):SD.
1495.3+x	J+10	381.6 ^f 1		1113.7+x	J+8	(E2) f	0.0538	1.04 5	$B(E2)(W.u.)=2.1\times10^3 +6-21$
		£				£			Other Ey: 382.0 1 (1994Ga07) in (HI,xny):SD.
1916.4+x	J+12	421.1^{J}_{f} 2		1495.3+x	J+10	$(E2)_{f}^{J}$	0.0414		Other E γ : 421.2 <i>1</i> (1994Ga07) in (HI,xn γ):SD.
2375.2+x	J+14	458.8 ^J 2		1916.4+x	J+12	(E2) J	0.0333	1.08 6	$B(E2)(W.u.)=2.3\times10^3 + 5 - 7$ Other Eq. (1994Ga07) in (HI ypa):SD
2871 2±v	I+16	$496 0 \int 2$		$2375.2 \pm x$	I+14	$(F2)^{f}$	0.0275	0.94.6	$B(F2)(Wu) = 20 \times 10^3 \pm 4 - 3$
2071.21X	J +10	470.0 2		2373.21X	J 17	$(L2)^{2}$	0.0275	0.74 0	Other E γ : 496.8 <i>I</i> (1994Ga07) in (HI,xn γ):SD.
3403.3+x	J+18	532.1 ^{<i>f</i>} 2		2871.2+x	J+16	(E2) <i>f</i>	0.0232	0.88 5	$B(E2)(W.u.)=2.12\times10^3+32-23$
		£				£			Other Ey: 532.8 1 (1994Ga07) in (HI, xny):SD.
3970.7+x	J+20	567.4 ^J 2		3403.3+x	J+18	(E2) /	0.0200	0.69 4	$B(E2)(W.u.)=2.1\times10^{3} 4$
/572 /⊥v	1+22	$601.7f^{2}$		3070 7±v	I ⊥ 20	$(F2)^{f}$	0.01747	0.71.4	Other Ey: 508.07 (19940a07) III (Π , xiry):5D. B(E2)(Wu) = 1.73×10 ³ + 20=28
4J72.4TX	J+22	001.75 2		J710.7±X	J+20	$(\mathbf{E}\mathbf{Z})^{o}$	0.01747	0.714	Other Ey: $602.5 l$ (1994Ga07) in (HI,xny):SD.
5207.3+x	J+24	634.9 ^f 2		4572.4+x	J+22	(E2) f	0.01549		$B(E2)(W.u.)=1.6\times10^3 4$
		c				C			Other E _{γ} : 636.1 <i>1</i> (1994Ga07) in (HI,xn γ):SD.
5875.4+x	J+26	668.1 ^{<i>J</i>} 2		5207.3+x	J+24	(E2) 	0.01385	0.55 5	B(E2)(W.u.)= $2.1 \times 10^3 6$
6575 5	1-20	$700.1f_{2}$		5075 4	1-24	$(E2)^{f}$	0.01252	0.40.6	Other EY: $009.0 \neq (1994Ga07)$ in (HI, $xn\gamma$):SD. P(E2)(Wu) = 1.6 $\times 10^3 \pm 4.5$
0373.3+X	J+∠ð	/00.15 2		3873.4+X	J+20	(E2) ²	0.01232	0.49 0	Other Ey: 700.9 2 (1994Ga07) in (HI,xny):SD.

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 $^{192}_{80} \rm Hg_{112} \text{--} 12$

 $^{192}_{80}\text{Hg}_{112}$ -12

From ENSDF

$\gamma(^{192}\text{Hg})$ (continued)

E _i (level)	\mathbf{J}_i^π	E_{γ}^{\dagger}	\mathbf{E}_{f}	\mathbf{J}_f^{π}	Mult. [†]	α^{i}	$I_{(\gamma+ce)}^{\#}$	Comments
7307.0+x	J+30	731.5 ^{<i>f</i>} 2	6575.5+x	J+28	(E2) f	0.01140	0.42 6	B(E2)(W.u.)= $1.9 \times 10^3 + 20 - 11$ Other Ey: 732.2 1 (1994Ga07) in (HI,xny):SD.
8069.3+x	J+32	762.3 ^{<i>f</i>} 3	7307.0+x	J+30	(E2) ^{<i>f</i>}	0.01045	0.31 5	B(E2)(W.u.)= $1.7 \times 10^3 + 18 - 17$ Other Ey: 762.8 4 (1994Ga07) in (HI,xny):SD.
8862.0+x	J+34	792.7 <mark>5</mark> 4	8069.3+x	J+32	(E2) f		0.29 4	Other Ey: 793.0 3 (1994Ga07) in (HI,xny):SD.
9684.9+x	J+36	822.9 ^{<i>f</i>} 4	8862.0+x	J+34	(E2) f		0.06 2	Other E _Y : 822.5 4 (1994Ga07) in (HI,xny):SD.
10538.0+x	J+38	853.1 ^f 5	9684.9+x	J+36			0.03 1	Other E _Y : 852.1 6 (1994Ga07) in (HI,xn _y):SD.
11426.7+x?	J+40	888.7 ^{fk} 7	10538.0+x	J+38			≤0.05	Other Ey: 882 (1994Ga07) in (HI,xny):SD.
241.2+y	J1+2	241.2 ^{<i>f</i>}	У	J1≈(10)				E_{γ} : from 1995Ko17 only in (HI,xn γ):SD.
523.6+y	J1+4	282.4 ^f 2	241.2+y	J1+2	[E2]	0.1277	0.71 8	
845.7+y	J1+6	$322.1^{f} 2$	523.6+y	J1+4			1.03 8	
1207.0+y	J1+8	361.3 ^{<i>f</i>} 2	845.7+y	J1+6			1.00 7	
1607.2+y	J1+10	400.2 ^{<i>f</i>} 2	1207.0+y	J1+8			0.99 6	
2045.2+y	J1+12	438.0 ^{<i>f</i>} 2	1607.2+y	J1+10			0.96 6	
2520.4+y	J1+14	475.2 ^{<i>f</i>} 2	2045.2+y	J1+12	[E2]	0.0305	0.97 7	B(E2)(W.u.)=2500 700
3031.4+y	J1+16	511.0 ^f 2	2520.4+y	J1+14	[E2]	0.0256	1.08 7	$B(E2)(W.u.)=1.6\times10^3 + 4-6$
3578.1+y	J1+18	546.7 ^{<i>f</i>} 2	3031.4+y	J1+16	[E2]	0.0218	1.03 6	B(E2)(W.u.)=1720 250 Other Εγ: 547.5 (1995Ko17) in (HI,xnγ):SD.
4156.9+y	J1+20	578.8 ^f 2	3578.1+y	J1+18	[E2]	0.0191	0.91 7	B(E2)(W.u.)=2000 <i>300</i> Other Εγ: 579.9 (1995Ko17) in (HI,xnγ):SD.
4761.3+y	J1+22	604.4 ^{<i>f</i>} 2	4156.9+y	J1+20	[E2]	0.01730	0.82 7	$B(E2)(W.u.)=2.02\times10^3+28-24$
5385.5+y	J1+24	624.2 ^{<i>f</i>} 3	4761.3+y	J1+22	[E2]	0.01609	0.55 8	B(E2)(W.u.)=2000 300
6037.7+y	J1+26	652.2 ^{<i>f</i>} 3	5385.5+y	J1+24			0.65 8	
6722.0+y	J1+28	684.3 ^f 3	6037.7+y	J1+26			0.50 8	Other E _Y : 685.5 (1995Ko17) in (HI,xn _Y):SD.
7439.7+y	J1+30	717.7 <mark>5</mark> 3	6722.0+y	J1+28			0.30 7	
8189.5+y	J1+32	749.8 ^f 4	7439.7+y	J1+30			0.19 4	Other E ₂ : 750.7 (1995Ko17) in (HI,xn ₂):SD.
8972.6+y	J1+34	783.1 ^f 5	8189.5+y	J1+32			0.12 3	Other E _Y : 782 (1995Ko17) in (HI,xn _Y):SD.
9791.6+y?	J1+36	819 ^{fk} 1	8972.6+y	J1+34				E_{γ} : not reported by 1995Ko17 in (HI,xn γ):SD.
333.1+z	J2+2	333.1 ^f 3	Z	J2			0.66 7	
705.9+z	J2+4	372.8 ^f 2	333.1+z	J2+2			1.13 8	
1118.0+z	J2+6	412.1 ^{<i>f</i>} 2	705.9+z	J2+4			0.90 9	
1568.6+z	J2+8	450.6 ^{<i>f</i>} 3	1118.0+z	J2+6			0.95 8	
2056.9+z	J2+10	488.3 ^{<i>f</i>} 3	1568.6+z	J2+8			0.97 8	
2582.4+z	J2+12	525.5 ^f 4	2056.9+z	J2+10			0.80 8	

γ (¹⁹²Hg) (continued)

E _i (level)	\mathbf{J}_i^{π}	E_{γ}^{\dagger}	$\mathbf{E}_f \qquad \mathbf{J}_f^{\pi}$	$I_{(\gamma+ce)}^{\#}$
3144.1+z	J2+14	561.7 ^f 4	2582.4+z J2+12	0.44 7
3741.4+z	J2+16	597.3 ^ƒ 4	3144.1+z J2+14	0.50 7
4371.5+z	J2+18	630.1 ^{<i>f</i>} 5	3741.4+z J2+16	
5030.5+z	J2+20	659.0 ^f 8	4371.5+z J2+18	0.20 4
5711.5+z	J2+22	681.0 ^f 15	5030.5+z J2+20	0.15 8

[†] From ¹⁹²Tl ε decay (9.6 min+10.8 min), except where noted.

[‡] Relative photon branching from each level; values are weighted averages from the two mixtures of ¹⁹²Tl isomers in ¹⁹²Tl ε decay (9.6 min+10.8 min), except as noted.

[#] Relative intensities within a given SD band are given; data are from (HI,xn γ):SD and are for the ¹⁶⁰Gd(³⁶S,4n γ) reaction at E(³⁶S)=159 MeV.

[@] From γ asymmetry in (³⁶S,4n γ), assigning $\Delta \pi$ =(no) for intraband transitions.

[&] From ¹⁷⁰Er(Mg,xn γ).

^{*a*} From ¹⁹²Pt(α ,4n γ), ¹⁹⁴Pt(α ,6n γ) and ¹⁷⁰Er(Mg,xn γ).

^b Weighted average from ¹⁹²Pt(α ,4n γ), ¹⁹⁴Pt(α ,6n γ) and ¹⁷⁰Er(Mg,xn γ), rounded to the nearest tenth of a keV.

^c Deduced from I(γ +ce) in ¹⁹²Pt(α ,4n γ), ¹⁹⁴Pt(α ,6n γ) and α .

^{*d*} From ce data in ¹⁹²Pt(α ,4n γ), ¹⁹⁴Pt(α ,6n γ).

^e From ¹⁹²Tl ε decay using source enhanced in (2⁻) ¹⁹²Tl.

^{*f*} From (HI,xn γ):SD.

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^g From ¹⁶⁰Gd(³⁶S,4n γ). Authors do not state uncertainties in E γ or I γ . Multipolarity is based on γ anisotropy assigning $\Delta \pi$ =(no) for intraband transitions.

^{*h*} From ¹⁶⁰Gd(³⁶S,4n γ); ΔE_{γ} unstated by authors.

^{*i*} 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.

^{*j*} Multiply placed with intensity suitably divided.

^{*k*} Placement of transition in the level scheme is uncertain.

Legend

Level Scheme

Intensities: Relative photon branching from each level

 $--- \rightarrow \gamma$ Decay (Uncertain)



Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

 $--- \rightarrow \gamma$ Decay (Uncertain)

J1+30	7439.7+y	
J1+28	? 6722.0+у	
J1+26	6037.7+y	
J1+24	5385.5+y	0.044 ps 6
J1+22	4761.3+y	0.052 ps +6-7
<u>J1+20</u>	4156.9+y	0.064 ps 8
<u>J1+18</u>	× × × × × × × × × × × × × × × ×	0.100 ps 14
<u>J1+16</u>	<u>3031.4+y</u>	0.15 ps +5-3
<u>J1+14</u>	X 2520.4+y	0.14 ps 4
<u>J1+12</u>	2045.2+y	
<u>J1+10</u>	160/.2+y	
<u>J1+8</u>		
J1+6 I1+4	→ · · · · · · · · · · · · · · · · · · ·	
<u>J1+4</u> I1+2	241.2+y	
$\frac{J1}{J1\approx(10)}$	· · · · · · · · · · · · · · · · · · ·	
<u>J+40</u> /	~ <u></u>	
J+38	+ € ⊃ 10538.0+x	
1+36		
<u>J+30</u>		
1+34	- A	
<u>J+J+</u>	<u> </u>	
1.22	₩	$0.010 \text{ m} \pm 18 - 10$
J+32	<u> </u>	0.019 ps +10-19
J+30	▼ [∞]	0.021 ps +11-21
J+28	€	0.032 ps +9-8
1.20		0.021 + 0 - 8
<u>J+26</u>	<u>∀ ⊂ ⊂</u>	0.031 ps +9-8
J+24	♥ ♥ ♥ 5207.3+x	0.050 ps +10-12
J+22	<u></u>	0.062 ps +10-7
<u>J+20</u>	<u>→ ∽ & </u> <u>3970.7+x</u>	0.068 ps +10-11
<u>J+18</u>	♥ ♡ <u></u> 3403.3+x	0.093 ps +10-14
J+16	\$	0.137 ps +17-21
J+14	▼ ⁶	0.18 ps + 5 - 4
I+12		
J+12	¥\$\$1910.4+x	0.49
<u>J+1U</u>	¥¥1495.3+x	0.46 ps + 02 - 13
<u>J+ð</u> I+6	II13./+x ↓ 770.2	0.64 ps + 22 - 20 1 74 ps $\pm 22 - 17$
JTU	//2.3+x	1.1+ ps +22-1/
0+	0.0	4.85 h 20

 $^{192}_{80}\text{Hg}_{112}$



 $^{192}_{\ 80}Hg_{112}$

Level Scheme (continued)
Intensities: Relative photon branching from each level

Legend

 $--- \rightarrow \gamma$ Decay (Uncertain)



¹⁹²₈₀Hg₁₁₂

Level Scheme (continued)

Intensities: Relative photon branching from each level



Adopted Levels, Gammas Legend Level Scheme (continued) Intensities: Relative photon branching from each level $--- \rightarrow \gamma$ Decay (Uncertain) ⊣ 55_{6,8} (2) 100 ط هرام الم (16^{+}) 3608.6 1 202, 201 305, 2, 3, 8, 100 -(13-) 3449.6 (12-) 3261.9 100 (B) 539, 511,3 (E2) 144 (12^{+}) 3047.0 ×163 9 (14^{+}) 2951.7 (10^{+}) 2902.3 1_{6.5}6 00 100 0,38 Ş (11⁻) 2756.7 5 Ð 2657.1 2632.7 .8. (10-) 8 â (12^{+}) 2535.5 11.1 ns 5 ŝ -\$ 6 2534.2 - Q. 8 3 (10)+ 2507.3 3.6 ns 5 6 6 ñ 8 2447.2 2300.7 <u>8+</u> (6,7,8) 12 Ð -2 8 * 2284.7 5 in $\frac{1,2^+}{(9)^-}$ 2276.9 S 2223.85 (8) 2216.20 0.92 ns 5 (6) 2186.98 133. $(1,2^+)$ 8 2081.69 8-.I... (1,2⁺) 8'1251 1900 ¥ ¥ 0.001 2056.29 4 $\begin{array}{c} (1,2^{-}) \\ (6^{-}) \\ (7)^{-} \\ \hline 1,2^{+} \\ (3,4) \\ \hline (5)^{-} \\ (2^{+},3,4^{+}) \\ c^{+} \end{array}$ -07 1986.9 -~ -1-1-1-60 -2) 1977.03 1.04 ns 6 245 ¥ 1908.58 1844.59 1843.90 1831.62 $\frac{6^+}{(3)^+}$ 1803.05 1535.2 1 $(2)^+$ 1113.60 4+ 1057.58 * * 422.79 2^{+} 0.0 4.85 h 20 0^+

Level Scheme (continued)

Intensities: Relative photon branching from each level @ Multiply placed: intensity suitably divided



 $^{192}_{80}\text{Hg}_{112}$



¹⁹²₈₀Hg₁₁₂

<u>J+40</u>

J+38

J+36

J+34

	Band(J): SD-2 band (1995Fa03,1995Ko17)
	<u>J1+36</u> 9791.6+y
	J1+34 ⁸¹⁹ 8972.6+y
	J1+32 ⁷⁸³ 8189.5+y
	J1+30 ⁷⁵⁰ 7439.7+y
	J1+28 ⁷¹⁸ 6722.0+y
	J1+26 684 6037.7+y
	J1+24 652 5385.5+y
	J1+22 624 4761.3+y
	<u>J1+20</u> 604 4156.9+y
	$\frac{J1+18}{J1+16} = \frac{579}{3578.1+y} = \frac{3031}{4+y}$
	$\frac{J1+10}{11+14}$ $\frac{547}{2520.4+v}$
	$\frac{31}{11+12}$ $\frac{511}{2045.2+y}$
Band(I): SD-1 band	$\frac{3}{11+10}$ $\frac{475}{7}$ 1607.2+y
(1992La07.1994Ga07.	$\frac{31}{11+8}$ $\frac{438}{1207.0+y}$
1995Fa03.1997Mo12.	$\frac{11+6}{400}$ /845.7+v
1998Bu03)	<u>11+4</u> <u>361</u> / 523.6+y
	$\frac{321}{11+2}$ $\frac{322}{241\cdot2+y}$
J+40 11426.7+x	$\frac{J1\approx}{J1\approx}\frac{282}{y}$
	241
J+38 10538.0+x	
J+36 853 9684.9+x	
J+34 823 8862.0+x	
J+32 ⁷⁹³ 8069.3+x	

			J+32	793	8069.3+x
			J+30	762	7307.0+x
			J+28	732	6575.5+x
			J+26	700	5875.4+x
			J+24	668	5207.3+x
D d(C): D d ADCE	_		J+22	635	4572.4+x
Band(G): Band ABCE, $\alpha = 1$	$\pi = -,$ Band(H): Band	ABCD. π =+	J+20	602	3970.7+x
<i>u</i> =1	α=0 (1995	5Le33)	J+18	567	3403.3+x
(29 ⁻) 8631.)		J+16	522	2871.2+x
	(28+)	8331.1	J+14	552	2375.2+x
(27^{-}) 909 7722			J+12	496	<u>1916.4+x</u>
(27) 1722.	$\frac{1011}{(26^+)}$	7220 1	J+10	459	1495.3+x
(25-) 867	(20)	7320.1	J+8	421	1113.7+x
(23) 0855.	9 (24)+ 89 2		J+6	382	<u>772.3+x</u>
843	(24)	6428.1	<u>J+4</u>	341	/472.2+x
(23) 6012.2	$\frac{2}{2}$ (22) ⁺ 728	5700 6	<u>J+2</u>	300	<u>/214.4+x</u>
(21-) 796 5216.0	(22) (20 ⁺) 570	5130.7	J≈(8)∖-	ŧ	<u> </u>
(19-) 628 4588.4	4	•			
(17-) 4216.)				
$(15^{-})^{-}\frac{372}{206}$ 4010.	5				

$^{192}_{80}\text{Hg}_{112}$

Band(K): SD-3 band (1995Fa03)					
J2+22	5711.5+z				
J2+20	681 5030.5+z				
J2+18	659 4371.5+z				
J2+16	630 3741.4+z				
J2+14	597 3144.1+z				
J2+12	562 2582.4+z				
J2+10	526 2056.9+z				
J2+8	488 1568.6+z				
J2+6	451 1118.0+z				
J2+4	⁴¹² 705.9+z				
J2+2	³⁷³ 333.1+z				
J2	333 z				

Band(N): π =(-) dipole band
(1994Le08,1995Le33)

 (33+

 (32+

 (31+

 (30+

 (29+

 (1994Le08,1995Le33)

 (28+



(34+)		10038.0
(33+)	372	9666.0
(32+)	290 470	9375.9
(31 ⁺)	180	9196.0
(30 ⁺) 41	5 235	8961.3
(29+)	248 483	8712.6
(28 ⁺) 65	9 409 754	8302.6
(27 ⁺)	343	7959.0
86	8	
(26+)	524 916	7434.9
(25 ⁺) 72	392 5	7043.3
(24 ⁺)	334	6709.4
(23+)	011	6432.8
(22 ⁺)	- 130	6303.3

Band(M): π=(+) dipole band (1994Le08,1995Le33)

(34-)		10464.4
(33-)	532	9932.8
<u>(32⁻)</u> 9	490 42	9443.4
(31-)	9	8990.2
(30 ⁻) ₇	447 27	8543.2
(29-)	280	8263.5
$\frac{(28^{-})}{(27^{-})}$ 4	766	7926.7
(26 ⁻)	15	7516.1
(25-) 5	244	7272.5
$\frac{(24^{-})}{(23^{-})}$	48	6878.4

¹⁹²₈₀Hg₁₁₂