

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong, Zhou Chunmei		NDS 104,283 (2005)	1-Jan-2002

Q(β^-)=-2201 17; S(n)=6785.6 15; S(p)=6690 4; Q(α)=1516 4 [2012Wa38](#)
 Note: Current evaluation has used the following Q record -2200 17 6785.6 15 6689.9 34 1511.1 36 [2003Au03](#).

¹⁹⁷Hg Levels

For interacting boson model, see [1985Mo06](#), [1984Ku08](#), and [1984Va36](#).
 For new supersymmetry scheme, see [1983Su03](#).
 For coupled-channels calculations, see [1983Ha33](#).
 For particle-vibrator coupling model, see [1982So05](#).
 For cranking model, see [1982Gu06](#).
 For interacting boson-fermion model analysis of β decay for ¹⁹⁷Hg, see [1988Na03](#).
 For neutron resonance parameters and thermal cross section, see [1984MuZY](#).

Cross Reference (XREF) Flags

A	¹⁹⁷ Hg IT decay (23.8 h)	D	¹⁹⁸ Hg(p,d)
B	¹⁹⁷ Tl ϵ decay (2.84 h)	E	¹⁹⁸ Hg(d,t)
C	Pt(α ,xn γ)		

E(level) [†]	J $^\pi$	T _{1/2}	XREF	Comments
0.0	1/2 ⁻	64.14 h 5	ABCDE	$\% \epsilon = 100$ $\mu = +0.5273744$ 9 (¹⁹⁹ Hg standard, 2001StZZ , 1989Ra17 , 1973Re04). μ : Optical pumping, NMR (1973Re04). J^π : from optical spectroscopy and μ analysis (1973Re04 , 1976Fu06 , 1978LeZA). $T_{1/2}$: from 1966El09 . Others: 1943Fr01 , 1948Hu24 , 1952Co01 , 1963Ti02 , 1967Bu22 , 1967Ki11 . Change of mean-square charge radius $\Delta \langle r^2 \rangle = -0.0532$ (fm) ² 20 (1986UI02). $\langle \beta_2^2 \rangle^{1/2} = +0.106$ 2 (1986UI02). See also 1986He27 .
133.96 4	5/2 ⁻	8.07 ns 16	ABCDE	$\mu = +0.855$ 15 (¹⁹⁹ Hg 158 standard, 2001StZZ , 1989Ra17 , 1977Kr11). $Q = -0.081$ 6 (¹⁹⁹ Hg 158 standard, 2001StZZ , 1989Ra17 , 1981Kr16 , 1980Kr12 , 1980He05), 0.080 10 (¹⁹⁷ Hg 299 standard, 2001StZZ , 1989Ra17 , 1980He05 ; ¹⁹⁹ Hg standard, 1989Ra17 , 1973Re04). J^π : E2 γ to 1/2 ⁻ , M4 γ from 13/2 ⁺ . $T_{1/2}$: from 1977Kr11 ((ce) γ (t) in ¹⁹⁷ Hg IT decay (23.8 h)). Others: 8 ns 1 (1950De06), 7 ns 1 (1950Mc12), 7.0 ns 2 (1961Su11), 7.3 ns 2 (1970Ge01). J^π : M1 γ to 1/2 ⁻ , (M1) γ to 5/2 ⁻ .
152.14 4 250 I	(3/2) ⁻		BCDE E	
298.93 [‡] 8	13/2 ⁺	23.8 h 1	A C	$\% \epsilon = 8.6$ 7; $\% IT = 91.4$ 7 (1993Ch44) $\mu = -1.0276844$ 26 (¹⁹⁹ Hg standard, 2001StZZ , 1989Ra17 , 1978LeZA , 1973Re04). $Q = +1.24$ 14 (²⁰¹ Hg standard, 2001StZZ , 1989Ra17 , 1986UI02 , 1978LeZA). Change of mean-square charge radius $\Delta \langle r^2 \rangle = -0.0427$ (fm) ² 16 (1986UI02). $\langle \beta_2^2 \rangle^{1/2} = +0.110$ 2 (1986UI02). J^π : from optical spectroscopy and μ analysis (1973Re04 , 1976Fu06 , 1978LeZA). $T_{1/2}$: from 1966El09 . Other: 23.5 h 3 (1971KhZV). See also 1943Fr01 , 1951Hu17 , 1954Br56 , 1963Ti02 , 1967Bu22 , 1967Ki11 .
307.77 6	(5/2) ⁻		BCDE	XREF: E(305). J^π : M1 γ to 5/2 ⁻ , (E2) γ to 1/2 ⁻ ; relative excitation function in (α ,xn γ) indicates J(307.8) > J(308.5). J=3/2 is not favored.
308.50 6	(3/2) ⁻		BCD	J^π : (M1) γ to 1/2 ⁻ , (M1+E2) γ to (3/2) ⁻ . See also J^π comment on 307.8-keV

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Adopted Levels, Gammas (continued)

^{197}Hg Levels (continued)					
E(level) [†]	J^π	$T_{1/2}$	XREF	Comments	
477.72 13	9/2 ⁺ , 11/2 ⁺ , 13/2 ⁺		C E	level. XREF: E(475). J^π : M1+E2 351.4 γ from 11/2 ⁺ relative excitation function in Pt(α ,xn γ) suggests J=9/2.	
509.0 3			C		
557.77 12	(5/2 ⁻ , 7/2 ⁻)		BC	J^π : (M1,E2) γ to 5/2 ⁻ , no feeding to this level from 1/2 ⁺ ϵ decay (2.84 h).	
578.00 6	(3/2 ⁻)		B	J^π : γ 's to 1/2 ⁻ and 5/2 ⁻ are M1 and (M1), respectively.	
585.38 6	(3/2 ⁻)		B	J^π : γ 's to 1/2 ⁻ and 5/2 ⁻ are (M1) and M1, respectively.	
652.7 [‡] 3	17/2 ⁺		C	J^π : intraband E2 to 13/2 ⁺ base state, 354 γ (θ), Coul. ex.	
675 3	(5/2 ⁻ , 7/2 ⁻)		E	J^π : L=(3) in ^{198}Hg (d,t).	
676.75 24	1/2 ⁻ , 3/2 ⁻		B	M1 γ to 1/2 ⁻ (g.s.).	
715.36 11	9/2 ⁻		C	J^π : E2 γ to 5/2 ⁻ , 581 γ (θ) in Pt(α ,xn γ).	
792.04 5	1/2 ⁻ , 3/2 ⁻		B E	XREF: E(789). J^π : γ 's to 1/2 ⁻ and 3/2 ⁻ are M1.	
829.07 16	11/2 ⁺		C	J^π : γ 's to 9/2 ⁺ and 13/2 ⁺ are M1+E2; Coul. ex.	
892.53 6	(3/2 ⁻)		B	J^π : M1 γ to 1/2 ⁻ , (M1) γ to (5/2) ⁻ .	
903.6 3	(7/2 ⁻)		C	J^π : E2 γ to 3/2 ⁻ , γ (θ) in Pt(α ,xn γ).	
921.68 21			C		
940.72 24			C		
982.89 7	1/2 ⁻ , 3/2 ⁻		B	J^π : γ 's to 1/2 ⁻ and 3/2 ⁻ are M1.	
1009.32 7	(1/2 ⁻)		B	J^π : (E0+M1) γ to 1/2 ⁻ (g.s.).	
1026.24 20	15/2 ⁺		C	J^π : M1+E2 γ to 13/2 ⁺ , 727 γ (θ) and Coul. ex. in Pt(α ,xn γ).	
1032.02 24			C		
1120 5	(5/2 ⁻ , 7/2 ⁻)		E	J^π : L=(3) in ^{198}Hg (d,t).	
1128.56 23			C		
1145.24 17	(1/2 ⁻ , 3/2 ⁻)		B E	J^π : L=(1) in ^{198}Hg (d,t).	
1174.95 18	(13/2 ⁺)		C	J^π : γ 's to 9/2 ⁺ and 17/2 ⁺ .	
1180 5			E	J^π : L=(1,3) in ^{198}Hg (d,t).	
1259.3 4			C		
1273.5 [‡] 3	21/2 ⁺		C	J^π : E2 γ to 17/2 ⁺ , 621 γ excit and γ (θ) in Pt(α ,xn γ).	
1306 6			E		
1343.9 3			C	J^π : 691 γ excit suggests J=17/2 (1977Ke18).	
1381.66 23	13/2 ⁻		C	J^π : E2 γ to 9/2 ⁻ , 666 γ (θ) in Pt(α ,xn γ).	
1437.64 6	1/2 ⁻ , 3/2 ⁻		B E	J^π : (M1) γ to 1/2 ⁻ , M1(+E2) γ to (3/2) ⁻ , log ft=6.86 from 1/2 ⁺ .	
1536.8 4	(19/2 ⁺)		C	J^π : M1+E2 γ to 17/2 ⁺ , 884 γ excit in Pt(α ,xn γ).	
1563.43 6	1/2 ⁻ , 3/2 ⁻		B	J^π : log ft=6.1 from 1/2 ⁺ .	
1634.3 3	(21/2) ⁺		C	J^π : E2 γ to 17/2 ⁺ , 981 γ excit and γ (θ) in Pt(α ,xn γ).	
1634.6 11			C	J^π : γ to 13/2 ⁻ .	
1682.2 [#] 3	21/2 ⁻		C	J^π : E1 γ to 21/2 ⁺ , 408.7 γ (θ) in Pt(α ,xn γ).	
1693.73 6	1/2 ⁽⁻⁾ , 3/2 ⁽⁻⁾		B	J^π : γ -decays, probably M1, to 1/2 ⁻ , 3/2 ⁻ states; log ft=6.24 from 1/2 ⁺ .	
1702.2 4	(17/2) ⁺		C	J^π : M1+E2 γ to 15/2 ⁺ , γ (θ) Pt(α ,xn γ) (1977Ke18).	
1833.0 [#] 4	25/2 ⁻	1.13 ns 6	C	$T_{1/2}$: from (ce(L) 151 γ)(t) pulsed beam (1978Me11). J^π : E2 γ to 21/2 ⁻ , γ (θ) in Pt(α ,xn γ).	
1865 8			E		
1919 8			E		
1955.8 4			C		
2037.0 [‡] 4	25/2 ⁺		C	J^π : E2 γ to 21/2 ⁺ , γ (θ) in Pt(α ,xn γ).	
2081 9			E		
2095.9 4			C	J^π : 263 γ excit suggests J=27/2 (1977Ke18).	
2161.6 [#] 5	29/2 ⁻		C	J^π : E2 γ to 25/2 ⁻ , 328.6 γ (θ) in Pt(α ,xn γ).	
2196.2? 5			C		
2228.6 11			C		
2253? 9			E		

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Adopted Levels, Gammas (continued) ^{197}Hg Levels (continued)

<u>E(level)[†]</u>	<u>J^π</u>	<u>T_{1/2}</u>	<u>XREF</u>	<u>Comments</u>
2295.6 4	(23/2) ⁺		C	J ^π : M1+E2 γ to 21/2 ⁺ , γ(θ) in Pt(α,xnγ), 1022γ excit.
2710.4 [‡] 4	29/2 ⁺		C	J ^π : E2 γ to 25/2 ⁺ , 673γ(θ) in Pt(α,xnγ).
2768.6 [#] 5	33/2 ⁻		C	J ^π : E2 γ to 29/2 ⁻ , 607γ(θ) in Pt(α,xnγ).
3045.1 [‡] 5	33/2 ⁺	≤0.2 ns	C	T _{1/2} : from (ce(K) 335γ)(t) pulsed beam (1978Me11). J ^π : E2 γ to 29/2 ⁺ , 335γ(θ) in Pt(α,xnγ).
3464.0 [‡] 5	37/2 ⁺		C	J ^π : E2 γ to 33/2 ⁺ , 419γ(θ) in Pt(α,xnγ).
4061.2 [‡] 6	41/2 ⁺		C	J ^π : E2 γ to 37/2 ⁺ , 597γ(θ) in Pt(α,xnγ).

[†] For states connecting transition γ rays, E(levels) are from level scheme and Eγ's, using least-squares fit to data.

[‡] Band(A): Regular quadrupole band 1. ΔJ=2 sequence up to 41/2⁺ populated. See 1978Me11 for E(level) systematics of g.s. and 13/2⁺ bands in ^{190}Hg - ^{200}Hg .

[#] Band(B): Regular quadrupole band 2. See 1978Me11 for E(level) systematics in odd-mass ^{191}Hg - ^{199}Hg , compared with J^π=5⁻, 7⁻, 9⁻, 11⁻ sequences in even-mass ^{190}Hg - ^{200}Hg .

Adopted Levels, Gammas (continued)

$\gamma(^{197}\text{Hg})$

All data are from ¹⁹⁷Tl ϵ decay (2.84 h), except as noted.

$E_i(\text{level})$	J_i^π	E_γ	I_γ^\dagger	E_f	J_f^π	Mult.	δ	$\alpha\&$	Comments
133.96	5/2 ⁻	133.99 7	100	0.0	1/2 ⁻	E2		1.73	B(E2)(W.u.)=8.74 25
152.14	(3/2) ⁻	18.18 3	0.06 2	133.96	5/2 ⁻	(M1)		227	
		152.22 7	100 7	0.0	1/2 ⁻	M1		2.48	
298.93	13/2 ⁺	164.97 7	100	133.96	5/2 ⁻	M4		348	B(M4)(W.u.)=1.87 3
307.77	(5/2) ⁻	(155.60)	<2.73	152.14	(3/2) ⁻				
		173.78 10	17.4 13	133.96	5/2 ⁻	M1		1.71	
		307.8 2	100 18	0.0	1/2 ⁻	(E2)		0.100	
308.50	(3/2) ⁻	156.41 12	14 3	152.14	(3/2) ⁻	(M1+E2)	2.0 2	1.22 5	
		(174.6)	<1.2	133.96	5/2 ⁻				
		308.6 2	100 18	0.0	1/2 ⁻	(M1)		0.35	
477.72	9/2 ⁺ , 11/2 ⁺ , 13/2 ⁺	178.8 [‡] 1	100 [‡]	298.93	13/2 ⁺				
509.0		375.0 3	100	133.96	5/2 ⁻				
557.77	(5/2 ⁻ , 7/2 ⁻)	249.33 12	38 5	308.50	(3/2) ⁻				
		(250.2)	<7	307.77	(5/2) ⁻				
		(405.8)	<7	152.14	(3/2) ⁻				
		423.3 3	100 15	133.96	5/2 ⁻	(M1,E2)		0.10 [#] 5	$\alpha=0.148$ if mult=M1, $\alpha=0.0412$ if mult=E2.
		(558.0)	<21	0.0	1/2 ⁻				
578.00	(3/2) ⁻	269.57 10	4.0 3	308.50	(3/2) ⁻	M1		0.50	
		270.2	<0.2	307.77	(5/2) ⁻				
		425.84 10	100 7	152.14	(3/2) ⁻	M1		0.146	
		444.08 10	4.4 3	133.96	5/2 ⁻	(E2+M1)	2.1 +34-7	0.054 15	
		577.97 10	35 3	0.0	1/2 ⁻	M1		0.066	
585.38	(3/2) ⁻	(276.7)	<0.5	308.50	(3/2) ⁻				
		277.63 10	10.5 8	307.77	(5/2) ⁻	M1		0.464	
		433.14 10	100 7	152.14	(3/2) ⁻	M1		0.14	
		451.42 10	42 3	133.96	5/2 ⁻	(E2+M1)	1.7 +7-6	0.058 18	
		585.24 17	20 2	0.0	1/2 ⁻	(M1)		0.063	
652.7	17/2 ⁺	354.0 [‡]	100 [‡]	298.93	13/2 ⁺	E2 [‡]		0.067	
676.75	1/2 ⁻ , 3/2 ⁻	676.75 24	100	0.0	1/2 ⁻	M1		0.044	
715.36	9/2 ⁻	581.4 [‡] 1	100 [‡]	133.96	5/2 ⁻	E2 [‡]		0.019	
792.04	1/2 ⁻ , 3/2 ⁻	(206.8)	<0.8	585.38	(3/2) ⁻				
		(214.1)	<0.8	578.00	(3/2) ⁻				
		234.1	<1.5	557.77	(5/2 ⁻ , 7/2 ⁻)				
		483.98 10	14.0 11	308.50	(3/2) ⁻	M1+E2	0.66 +45-4	0.081 19	
		(484.3)	<1.5	307.77	(5/2) ⁻				
		639.92 10	49 4	152.14	(3/2) ⁻	M1		0.050	
		658.00 11	5.9 8	133.96	5/2 ⁻				

Adopted Levels, Gammas (continued)

$\gamma(^{197}\text{Hg})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ	I_γ^\dagger	E_f	J_f^π	Mult.	δ	$\alpha\&$
792.04	$1/2^-, 3/2^-$	792.06 10	100 8	0.0	$1/2^-$	M1+E2	$1.24 +71-3$	0.017 4
829.07	$11/2^+$	351.4 \ddagger 2	74 \ddagger	477.72	$9/2^+, 11/2^+, 13/2^+$	M1+E2 \ddagger		0.16 $\#$ 9
		530.1 \ddagger 2	100 \ddagger	298.93	$13/2^+$	M1+E2 \ddagger		0.05 $\#$ 3
892.53	$(3/2)^-$	(307.2)	<3.4	585.38	$(3/2)^-$			
		(314.5)	<1.1	578.00	$(3/2)^-$			
		(334.5)	<2.3	557.77	$(5/2^-, 7/2^-)$			
		(583.9)	<2.3	308.50	$(3/2^-)$			
		585.24 17	36 5	307.77	$(5/2^-)$	(M1)		0.064
		740.05 18	2.7 5	152.14	$(3/2)^-$			
		758.57 11	10 1	133.96	$5/2^-$			
		892.47 10	100 7	0.0	$1/2^-$	M1		0.021
903.6	$(7/2)^-$	595.1 \ddagger 3	100 \ddagger	308.50	$(3/2^-)$	E2 \ddagger		0.018
921.68		613.9 \ddagger 2	100 \ddagger	307.77	$(5/2^-)$			
940.72		463.0 \ddagger 2	100 \ddagger	477.72	$9/2^+, 11/2^+, 13/2^+$			
982.89	$1/2^-, 3/2^-$	397.49 11	6.8 8	585.38	$(3/2)^-$	(M1)		0.175
		405.01 17	14.4 12	578.00	$(3/2)^-$	M1		0.167
		674.28 17	100 7	308.50	$(3/2^-)$	M1+E2	$2.2 +49-8$	0.019 5
		(675.0)	<3	307.77	$(5/2^-)$			
		831.29 19	3.5 5	152.14	$(3/2)^-$			
		(848.8)	<0.9	133.96	$5/2^-$			
		982.75 10	86 6	0.0	$1/2^-$	M1		0.0167
1009.32	$(1/2^-)$	(424.0)	<0.6	585.38	$(3/2)^-$			
		(431.3)	<0.6	578.00	$(3/2)^-$			
		(451.3)	<1.3	557.77	$(5/2^-, 7/2^-)$			
		(700.7)	<0.6	308.50	$(3/2^-)$			
		701.53 10	50 4	307.77	$(5/2^-)$	E2		0.013
		857.18 10	100 7	152.14	$(3/2)^-$	M1		0.024
		(875.3)	<0.6	133.96	$5/2^-$			
		1009.35 10	19.2 15	0.0	$1/2^-$	(E0+M1)		0.06 $@$
1026.24	$15/2^+$	197 $\ddagger a$	$\approx 10\ddagger$	829.07	$11/2^+$			
		373.5 \ddagger 3	14 \ddagger	652.7	$17/2^+$			
		727.3 \ddagger 2	100 \ddagger	298.93	$13/2^+$	M1+E2 \ddagger		0.024 $\#$ 13
1032.02		554.3 \ddagger 2	100 \ddagger	477.72	$9/2^+, 11/2^+, 13/2^+$			
1128.56		413.2 2	100	715.36	$9/2^-$	\ddagger		
1145.24	$(1/2^-, 3/2^-)$	1145.2 2	100	0.0	$1/2^-$			
1174.95	$(13/2^+)$	148.8 $\ddagger a$ 3	6.7 \ddagger	1026.24	$15/2^+$			
		345.9 \ddagger 3	27 \ddagger	829.07	$11/2^+$			
		522.2 \ddagger 3	$\approx 83\ddagger$	652.7	$17/2^+$			

Adopted Levels, Gammas (continued)

$\gamma(^{197}\text{Hg})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ^\dagger	E_f	J_f^π	Mult.	δ	$\alpha^\&$	Comments
1174.95	(13/2 ⁺)	697.7 [±] <i>a</i>	≈67 [±]	477.72	9/2 ⁺ , 11/2 ⁺ , 13/2 ⁺				
		876.0 [±] 2	100 [±]	298.93	13/2 ⁺				
1259.3		430.2 [±] 3	100 [±]	829.07	11/2 ⁺				
1273.5	21/2 ⁺	620.8 [±] 1	100 [±]	652.7	17/2 ⁺	E2 [±]		0.017	
1343.9		691.1 [±] 2	100 [±]	652.7	17/2 ⁺				
1381.66	13/2 ⁻	666.3 [±] 2	100 [±]	715.36	9/2 ⁻	E2 [±]		0.014	
1437.64	1/2 ⁻ , 3/2 ⁻	545.12 11	16.3 14	892.53	(3/2) ⁻	M1+E2	0.78 +49-3	0.056 13	
		645.41 12	18.4 21	792.04	1/2 ⁻ , 3/2 ⁻	(M1)		0.049	
		851.9 4	3.4 11	585.38	(3/2) ⁻	(M1)		0.024	
		1130.1 3	7.5 10	307.77	(5/2) ⁻				
		1285.59 10	100 8	152.14	(3/2) ⁻	(M1)		0.0085	
		1437.67 10	72 5	0.0	1/2 ⁻	(M1)		0.0064	
1536.8	(19/2 ⁺)	511.7 [±] <i>a</i>	≈9 [±]	1026.24	15/2 ⁺				
		884.1 [±] 2	100 [±]	652.7	17/2 ⁺	M1+E2 [±]		0.015 [#] 7	
1563.43	1/2 ⁻ , 3/2 ⁻	771.23 12	1.9 3	792.04	1/2 ⁻ , 3/2 ⁻				
		1254.51 17	10.0 17	308.50	(3/2) ⁻				
		1255.73 12	7.1 15	307.77	(5/2) ⁻				
		1411.34 10	100 9	152.14	(3/2) ⁻	(M1)		0.0067	
		1429.59 10	19.4 15	133.96	5/2 ⁻				
		1563.42 12	1.7 2	0.0	1/2 ⁻				
1634.3	(21/2 ⁺)	290.3 [±] 3	8.9 [±]	1343.9					
		981.6 [±] 2	100 [±]	652.7	17/2 ⁺	E2 [±]		0.0063	
1634.6		252.9 [±]	100 [±]	1381.66	13/2 ⁻				
1682.2	21/2 ⁻	408.7 [±] 1	100 [±]	1273.5	21/2 ⁺	E1 [±]		0.014	
1693.73	1/2 ⁽⁻⁾ , 3/2 ⁽⁻⁾	548.4 3	3.0 8	1145.24	(1/2 ⁻ , 3/2 ⁻)				
		901.61 10	30 2	792.04	1/2 ⁻ , 3/2 ⁻	(M1)		0.021	
		1108.0 2	7.3 14	585.38	(3/2) ⁻				
		1385.35 10	100 7	308.50	(3/2) ⁻	(M1,E2)			
		1541.68 11	17.1 14	152.14	(3/2) ⁻				
		1693.67 10	55 4	0.0	1/2 ⁻				
1702.2	(17/2 ⁺)	358.7 [±] <i>a</i> 3	1.0 [±]	1343.9					
		527.4 [±] <i>a</i> 3	1.8 [±]	1174.95	(13/2 ⁺)				
		676.0 [±] 3	100 [±]	1026.24	15/2 ⁺	M1+E2 [±]		0.029 [#] 15	
		1049.1 [±] <i>a</i> 3	1.25 [±]	652.7	17/2 ⁺				
		1404.1 [±] <i>a</i> 3	1.70 [±]	298.93	13/2 ⁺				
1833.0	25/2 ⁻	150.8 [±] 2	100 [±]	1682.2	21/2 ⁻	E2 [±]		1.10	B(E2)(W.u.)=45 3

Adopted Levels, Gammas (continued)

$\gamma(^{197}\text{Hg})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ^\dagger	E_f	J_f^π	Mult.	$\alpha^\&$	Comments
1955.8		273.6 [‡] 2	100 [‡]	1682.2	21/2 ⁻			
2037.0	25/2 ⁺	763.5 [‡] 2	100 [‡]	1273.5	21/2 ⁺	E2 [‡]	0.0105	
2095.9		262.9 [‡] 2	100 [‡]	1833.0	25/2 ⁻			
2161.6	29/2 ⁻	328.6 [‡] 3	100 [‡]	1833.0	25/2 ⁻	E2 [‡]	0.0825	
2196.2?		659.3 [‡] 3	100 [‡]	1536.8	(19/2 ⁺)			
2228.6		395.6 [‡]	100 [‡]	1833.0	25/2 ⁻			
2295.6	(23/2) ⁺	1022.1 [‡] 2	100 [‡]	1273.5	21/2 ⁺	M1+E2 [‡]	0.010 [#] 5	
2710.4	29/2 ⁺	673.4 [‡] 2	100 [‡]	2037.0	25/2 ⁺	E2 [‡]	0.014	
2768.6	33/2 ⁻	607.0 [‡] 2	100 [‡]	2161.6	29/2 ⁻	E2 [‡]	0.017	
3045.1	33/2 ⁺	334.7 2	100	2710.4	29/2 ⁺	E2	0.078	B(E2)(W.u.)>9.1
3464.0	37/2 ⁺	418.8 [‡] 2	100 [‡]	3045.1	33/2 ⁺	E2 [‡]	0.042	
4061.2	41/2 ⁺	597.2 [‡] 2	100 [‡]	3464.0	37/2 ⁺	E2 [‡]	0.018	

[†] Relative photon branching from each level.

[‡] From Pt($\alpha, n\gamma$).

[#] From $\alpha=[\alpha(M1) + \alpha(E2)]/2$ and $\Delta\alpha=[\alpha(M1) - \alpha(E2)]/2$.

@ From ¹⁹⁷Tl ϵ decay (2.84 h).

& Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

^a Placement of transition in the level scheme is uncertain.

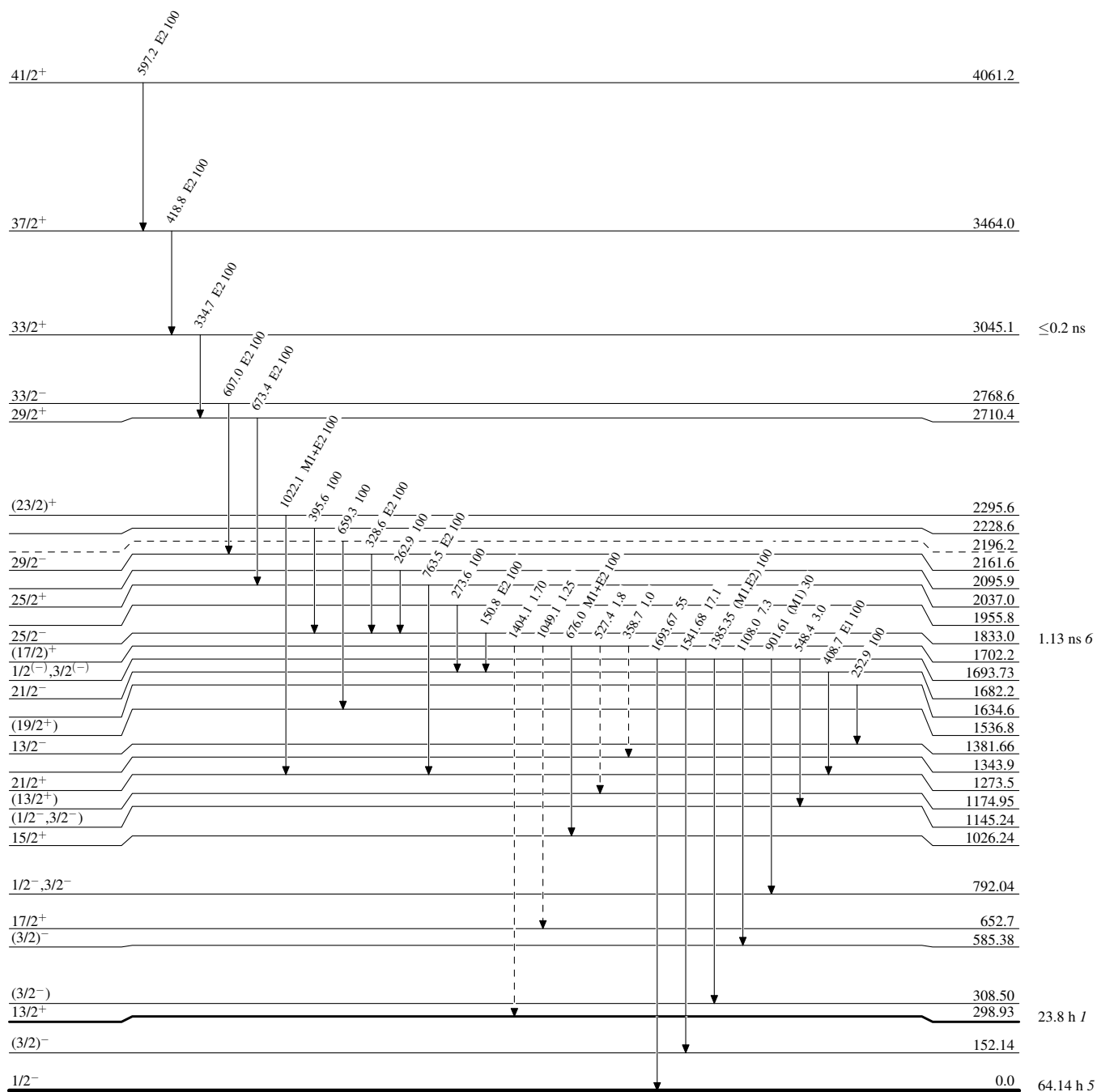
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

-----▶ γ Decay (Uncertain)



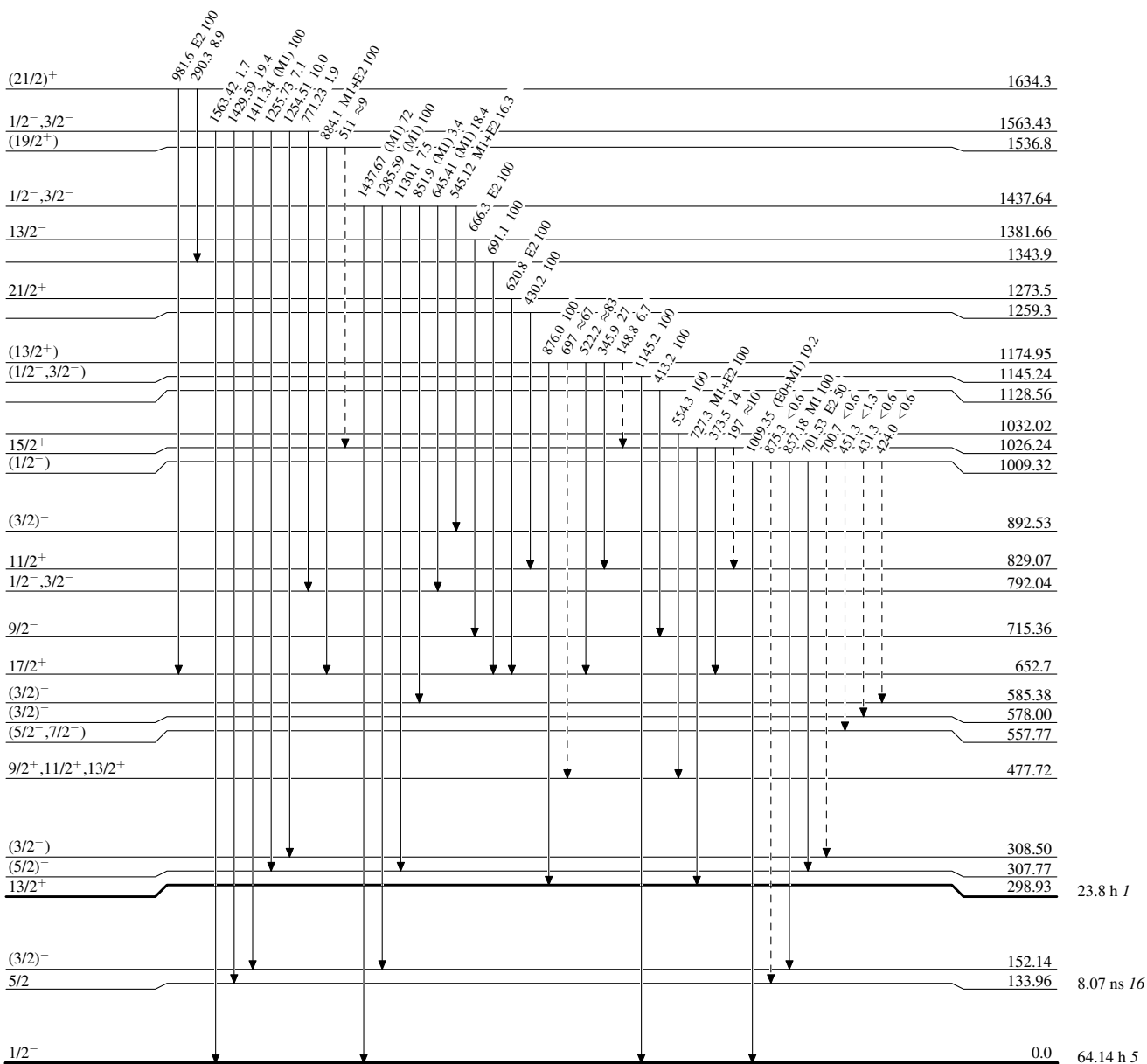
$^{197}_{80}\text{Hg}_{117}$

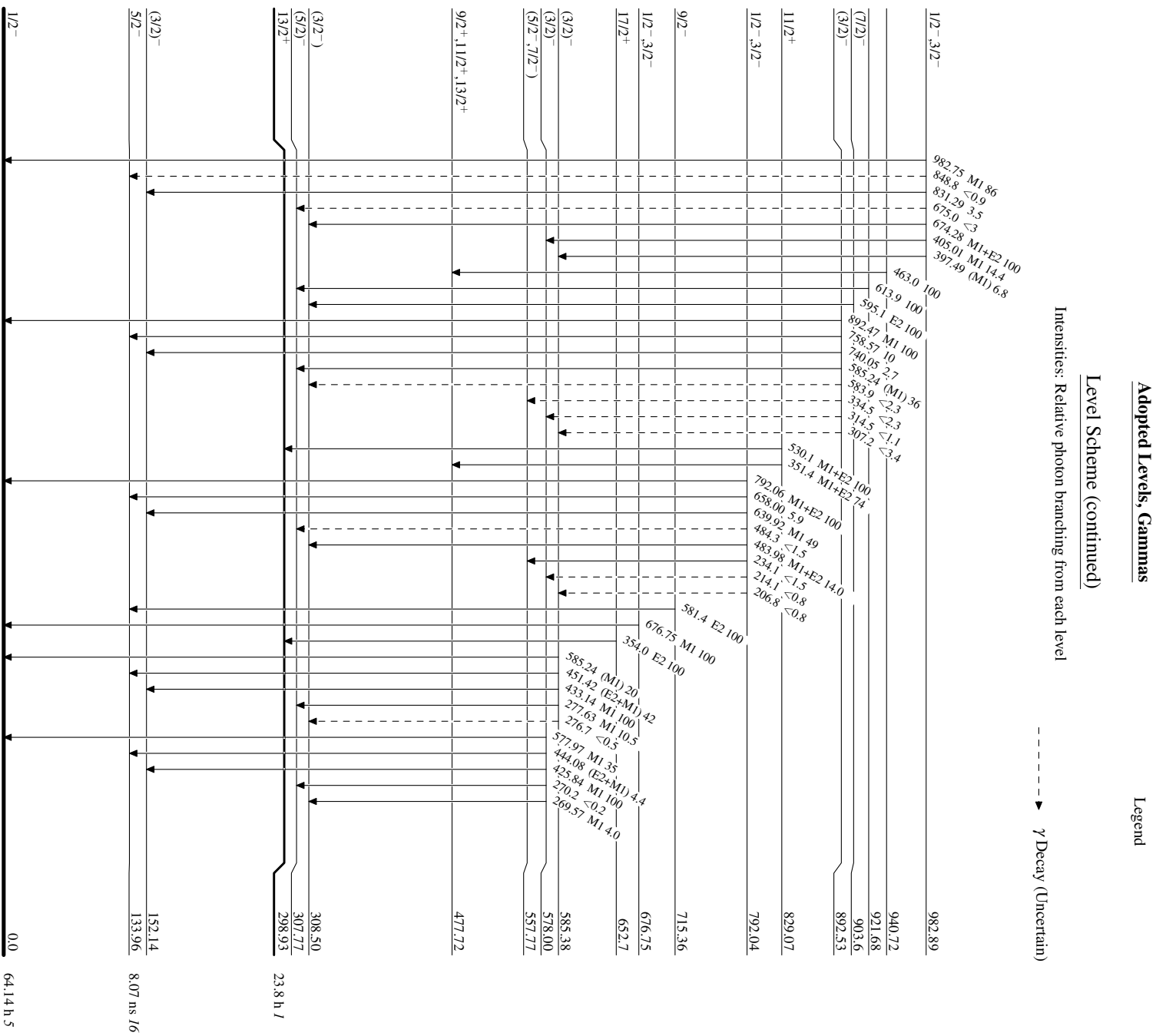
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----▶ γ Decay (Uncertain) $^{197}_{80}\text{Hg}_{117}$



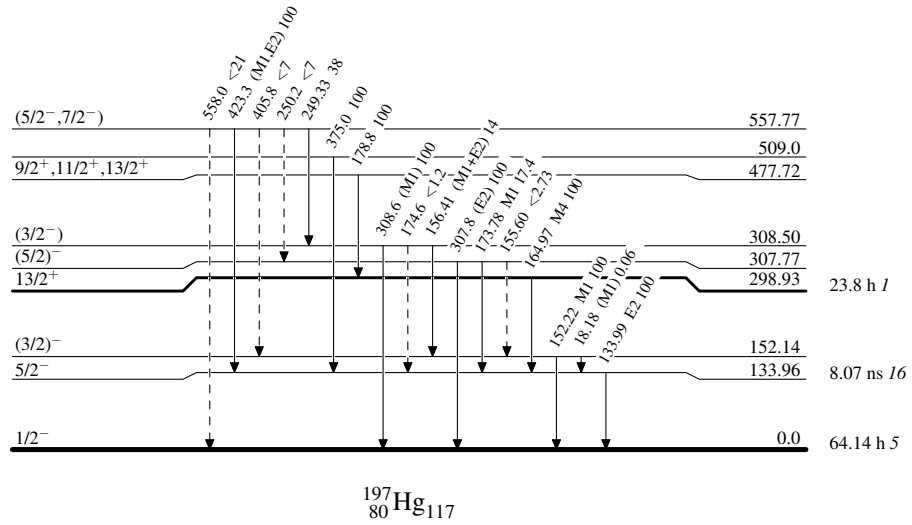
¹⁹⁷Hg₁₁₇

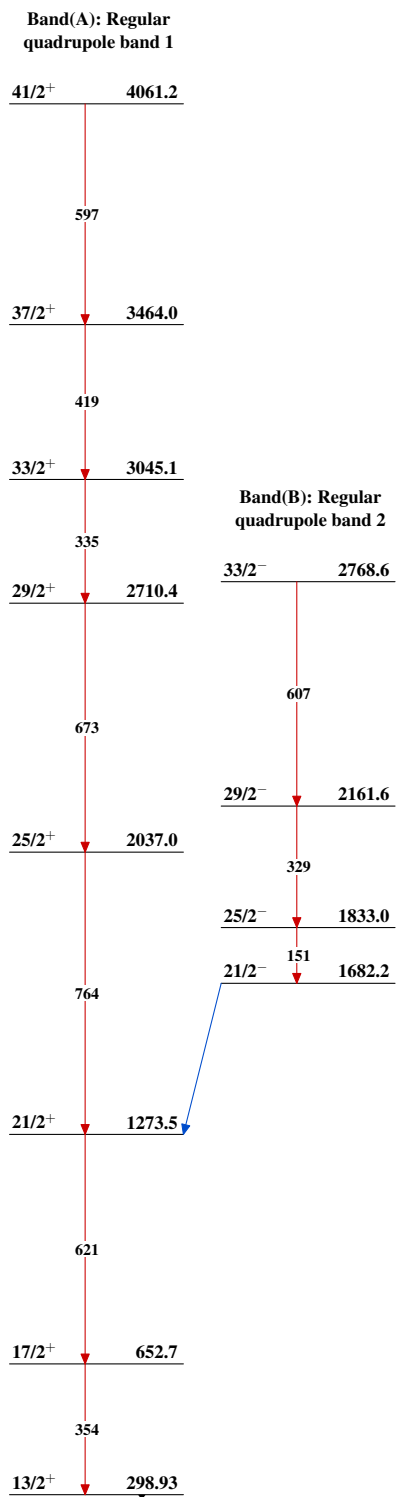
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain) $^{197}_{80}\text{Hg}_{117}$

Adopted Levels, Gammas $^{197}_{80}\text{Hg}_{117}$