^{202}**Hg(n,n$'\gamma$)**   **1989Ga07**

^{202}Hg Levels

E(level)[†]	J$^{\pi}$[‡]	E(level)[†]	J$^{\pi}$[‡]	E(level)[†]	J$^{\pi}$[‡]	E(level)[†]
0.0	0$^+$	1562.02 10	3$^+$	1823.55 10	1$^+$,2$^+$	2161.87 21
439.56 4	2$^+$	1564.97 21	0$^+$	1852.17 11	(2)$^+$	2249.74 23
959.98 6	2$^+$	1575.43 11	2$^+$	1861.56 13	(2)$^+$	2292.1 4
1119.96 11	4$^+$	1624.04 11	2$^+$,3,4$^+$	1959.44 25	1$^+$,2$^+$	2293.20 16
1182.29 7	2$^+$	1643.67 11	0$^+$	1965.66 13	5$^-$	2309.2 4
1311.56 8	4$^+$	1678.65 8	1$^+$,2$^+$	1966.36 11	1,2$^+$	2323.27 11
1348.02 8	1$^+$,2$^+$	1724.84 11	(4$^+$)	2071.27 11	2$^+$	2356.87 19
1389.60 9	2$^+$	1746.17 9	1,2$^+$	2126.67 21	2$^+$	2516.5 3
1411.53 19	0$^+$	1793.97 11	2$^+$	2133.97 15	(2$^+$)	

[†] From a least-squares fit to Eγ.
[‡] From 1989Ga07.

γ(^{202}Hg)

E$_\gamma$[†]	I$_\gamma$[‡]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[#]	Comments
172.1 4	3.1 15	1562.02	3$^+$	1389.60	2$^+$	D	Mult.: A$_2$=−0.52 12.
207.3 2	4.2 9	1389.60	2$^+$	1182.29	2$^+$	D	Mult.: A$_2$=−0.25 14.
222.2 1	58 6	1182.29	2$^+$	959.98	2$^+$	E2+M1	Mult.: A$_2$=0.40 3, ΔJ=0 transition.
227.4 1	5.2 11	1575.43	2$^+$	1348.02	1$^+$,2$^+$	(M1+E2)	Mult.: A$_2$=−0.05 20.
250.6 2	3.7 11	1562.02	3$^+$	1311.56	4$^+$	D	Mult.: A$_2$=−0.31 20.
312.5 1	12.4 20	1624.04	2$^+$,3,4$^+$	1311.56	4$^+$		Mult.: A$_2$=0.33 9.
351.6 1	56 6	1311.56	4$^+$	959.98	2$^+$	E2	Mult.: A$_2$=0.34 3.
379.7 1	6.3 12	1562.02	3$^+$	1182.29	2$^+$	D,E2	Mult.: A$_2$=+0.12 11.
388.0 1	24 3	1348.02	1$^+$,2$^+$	959.98	2$^+$	(M1+E2)	Mult.: A$_2$=0.08 6.
^{x}393.8 1	9.4 15					D	E$_\gamma$: De-excites a level below 2.5 MeV. Mult.: A$_2$=−0.11 20.
413.1 2	5.6 16	1724.84	(4$^+$)	1311.56	4$^+$	(E2+M1)	Mult.: A$_2$=0.68 31, ΔJ=0 transition.
429.8 2	14 3	1389.60	2$^+$	959.98	2$^+$	(E2+M1)	Mult.: A$_2$=0.28 11, ΔJ=0 transition.
439.55 4	1000	439.56	2$^+$	0.0	0$^+$	E2	Mult.: A$_2$=0.13 1.
496.2 2	3.4 14	1678.65	1$^+$,2$^+$	1182.29	2$^+$	(M1+E2)	Mult.: A$_2$=0.05 18.
520.3 1	348 18	959.98	2$^+$	439.56	2$^+$	E2+M1	Mult.: A$_2$=0.21 2, ΔJ=0 transition.
524.9 2	8.0 14	2249.74		1724.84	(4$^+$)		
542.6 1	20.6 20	1724.84	(4$^+$)	1182.29	2$^+$	(E2)	Mult.: A$_2$=0.42 13.
550.0 1	21.9 22	1861.56	(2)$^+$	1311.56	4$^+$		Mult.: A$_2$=−0.14 7.
554.8 2	6.5 16	1966.36	1,2$^+$	1411.53	0$^+$		Mult.: A$_2$=0.10 23.
602.1 2	9.5 16	1562.02	3$^+$	959.98	2$^+$	D	Mult.: A$_2$=−0.25 8.
615.6 2	9.6 15	1575.43	2$^+$	959.98	2$^+$	E2+M1	Mult.: A$_2$=0.23 8, ΔJ=0 transition.
654.1 1	38 3	1965.66	5$^-$	1311.56	4$^+$	D	Mult.: A$_2$=−0.27 5.
669.3 2	5.2 14	2293.20		1624.04	2$^+$,3,4$^+$		
680.4 1	121 7	1119.96	4$^+$	439.56	2$^+$	E2	Mult.: A$_2$=0.30 3.
718.6 1	11.9 18	1678.65	1$^+$,2$^+$	959.98	2$^+$	D,E2	Mult.: A$_2$=0.14 5.
742.8 1	35 5	1182.29	2$^+$	439.56	2$^+$	E2+M1	Mult.: A$_2$=0.44 2, ΔJ=0 transition.
^{x}757.0 4	3.9 15						E$_\gamma$: De-excites a level below 2.5 MeV.

^{202}**Hg(n,n$'\gamma$)**   **1989Ga07** (continued)

$\gamma(^{202}$Hg) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
786.3 *1*	2.6 *14*	1746.17	1,2$^+$	959.98	2$^+$		Mult.: A_2=0.00 *28*.
863.5 *2*	9.3 *17*	1823.55	1$^+$,2$^+$	959.98	2$^+$		Mult.: A_2=0.18 *10*.
872.0 *1*	27.8 *23*	1311.56	4$^+$	439.56	2$^+$	E2	Mult.: A_2=0.41 *4*.
^{x}886.1 *3*	7.0 *16*					D	E_γ: De-excites a level below 2.3 MeV. Mult.: A_2=−0.03 *15*.
902.5 *3*	5.1 *16*	2292.1		1389.60	2$^+$		Mult.: A_2=0.35 *40*.
908.5 *1*	48 *3*	1348.02	1$^+$,2$^+$	439.56	2$^+$	(M1+E2)	Mult.: A_2=0.03 *7*.
950.0 *1*	44 *3*	1389.60	2$^+$	439.56	2$^+$	(E2+M1)	Mult.: A_2=0.14 *4*, ΔJ=0 transition.
960.1 *1*	52 *4*	959.98	2$^+$	0.0	0$^+$	E2	Mult.: A_2=0.19 *4*.
971.9 *3*	6.2 *16*	1411.53	0$^+$	439.56	2$^+$		Mult.: A_2=0.02 *21*.
^{x}991.5 *4*	3.9 *20*						E_γ: De-excites a level below 2.5 MeV.
999.7 *3*	5.4 *17*	1959.44	1$^+$,2$^+$	959.98	2$^+$		Mult.: A_2=0.13 *34*.
^{x}1006.5 *7*	2.7 *15*						E_γ: De-excites a level below 2.75 MeV.
1014.0 *1*	14 *3*	2133.97	(2$^+$)	1119.96	4$^+$		
^{x}1022.3 *4*	4.0 *18*						E_γ: De-excites a level below 2.3 MeV.
1125.4 *2*	14.2 *22*	1564.97	0$^+$	439.56	2$^+$		Mult.: A_2=0.03 *11*.
1135.6 *3*	5.6 *18*	1575.43	2$^+$	439.56	2$^+$	(E2+M1)	Mult.: A_2=0.67 *27*, ΔJ=0 transition.
^{x}1177.2 *4*	7.4 *23*						E_γ: De-excites a level below 2.75 MeV.
1184.5 *2*	12.1 *22*	1624.04	2$^+$,3,4$^+$	439.56	2$^+$		Mult.: A_2=0.35 *6*.
1204.1 *1*	26 *3*	1643.67	0$^+$	439.56	2$^+$		Mult.: A_2=−0.02 *7*.
1239.2 *1*	25.9 *23*	1678.65	1$^+$,2$^+$	439.56	2$^+$	D,E2	Mult.: A_2=0.17 *8*.
1306.5 *1*	19.6 *21*	1746.17	1,2$^+$	439.56	2$^+$		Mult.: A_2=−0.06 *11*.
1354.4 *1*	22.3 *22*	1793.97	2$^+$	439.56	2$^+$	E2+M1	Mult.: A_2=0.40 *8*, ΔJ=0 transition.
1384.0 *1*	19 *3*	1823.55	1$^+$,2$^+$	439.56	2$^+$		Mult.: A_2=0.29 *5*.
1389.5 *2*	4.7 *18*	1389.60	2$^+$	0.0	0$^+$		Mult.: A_2=0.52 *17*.
1397.3 *4*	6.5 *20*	2356.87		959.98	2$^+$		
1412.6 *1*	12.0 *22*	1852.17	(2)$^+$	439.56	2$^+$	E2+M1	Mult.: A_2=0.23 *8*, ΔJ=0 transition.
1526.8 *1*	20.2 *23*	1966.36	1,2$^+$	439.56	2$^+$	D	Mult.: A_2=−0.35 *12*.
1631.7 *1*	11.2 *18*	2071.27	2$^+$	439.56	2$^+$		
1687.1 *2*	5.7 *16*	2126.67	2$^+$	439.56	2$^+$	M1+E2	Mult.: A_2=0.85 *29*.
1722.3 *2*	9.4 *24*	2161.87		439.56	2$^+$		
1853.5 *2*	3.4 *12*	2293.20		439.56	2$^+$		E_γ: Possibly a doublet.
1869.6 *4*	2.6 *11*	2309.2		439.56	2$^+$		
1883.7 *1*	6.0 *13*	2323.27		439.56	2$^+$		
1917.2 *2*	7.5 *20*	2356.87		439.56	2$^+$		
1959.0 *4*	7.6 *21*	1959.44	1$^+$,2$^+$	0.0	0$^+$		Mult.: A_2=0.13 *34*.
2516.5 *3*	2.8 *13*	2516.5		0.0	0$^+$		

[†] From 1989Ga07. In cases where a γ-ray was clearly attributed to ^{202}Hg, but it was not placed in the level scheme, the upper limit of the level energy is given, based on excitation functions data.

[‡] From E(n)=2.75 MeV data in 1989Ga07. Uncertainties include 5% syst contribution for $E\gamma$>500 keV and 10% syst one for $E\gamma$<500 keV.

[#] From $\gamma(\theta)$ and quoted spin differences in 1989Ga07.

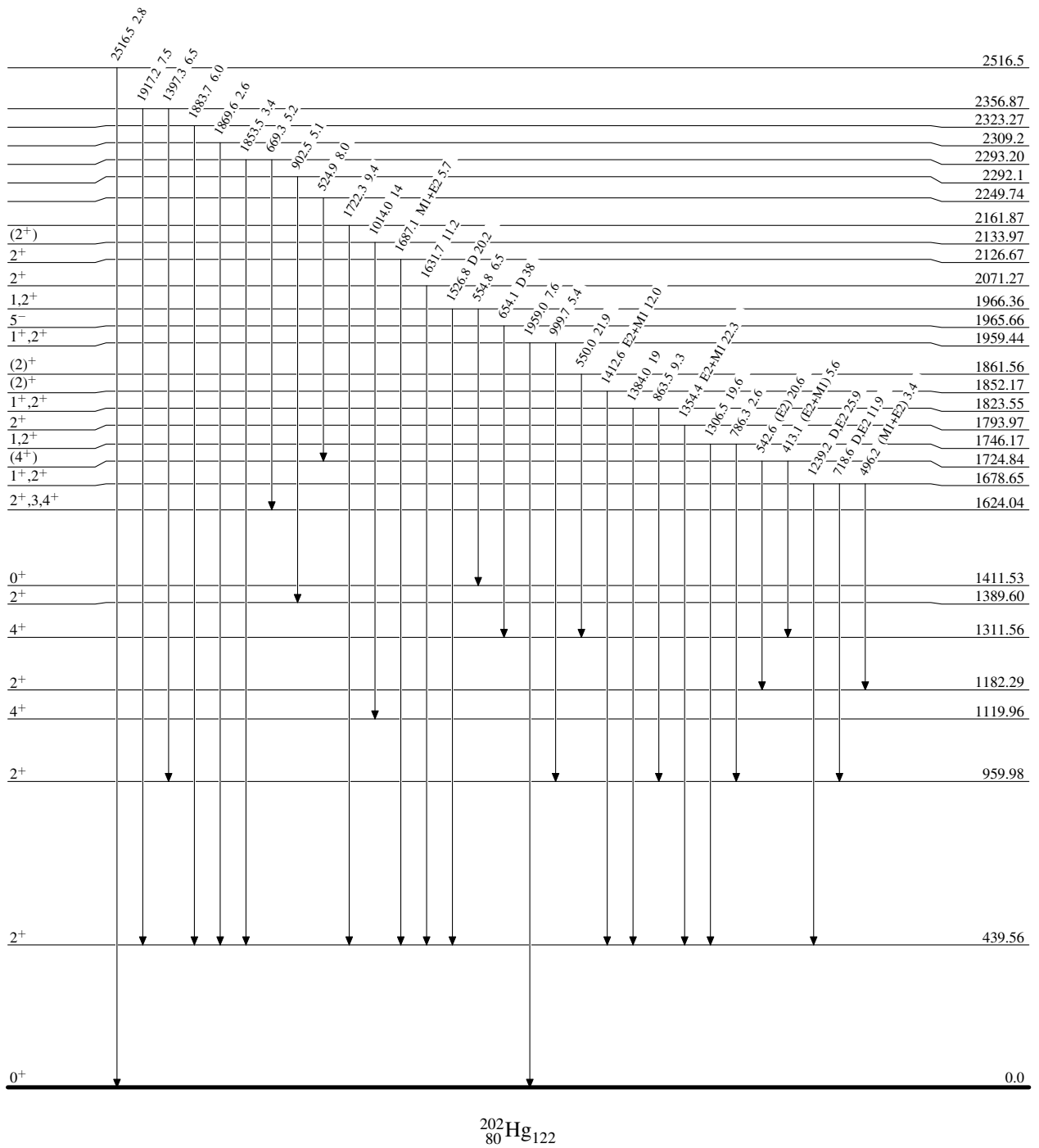[x] γ ray not placed in level scheme.

^{202}**Hg(n,n′γ)**　　**1989Ga07**

Level Scheme

Intensities: Relative I$_γ$

Legend

I$_γ$ < 2%×I$_γ^{max}$
I$_γ$ < 10%×I$_γ^{max}$
I$_γ$ > 10%×I$_γ^{max}$

$^{202}_{80}$Hg$_{122}$

From ENSDF

$^{202}_{80}\textbf{Hg(n,n'}\gamma\textbf{)}$ 1989Ga07

Level Scheme (continued)

Intensities: Relative I_γ

Legend

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

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

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