Coulomb excitation 1979Bo16,1985Ag01,2019Ke01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 196,342 (2024)	1-Sep-2023

1977BoYP, 1979Bo16: ^{202}Hg(^{16}O,^{16}O); ^{202}Hg(α,α). E(α)=13-16 MeV, E(^{16}O)=56-60 MeV; Target: Natural, thick Hg, Detectors: 6 Si detectors with FWHM<50 for α, FWHM≈120 for ^{16}O. One 30 cm^3 Ge(Li); one 60 cm^3 Ge(Li). Measured: B(E2).

1985Ag01: ^{202}Hg(^{208}Pb,^{208}Pb); E(^{208}Pb)=1040 MeV; Target: HgS enriched to 96% of ^{202}Hg with 800 μg/cm^2 thickness. Detectors: three Ge(Li) detectors, two position-sensitive plate avalanche detectors. Measured: Particle-γ coin, $\gamma(\theta)$. Deduced: B(E2).

2019Ke01: ^{nat}C(^{202}Hg,^{202}Hg); E(^{202}Hg)=890 MeV from the ATLAS facility at ANL. Target: 1 mg/cm^2 natural carbon target. Measured Eγ, Iγ, $\gamma\gamma$ coin using the Gammasphere array consisting of 100 HPGe detectors.

Others: 1970Ka09, 1974Do01, 1990Ba40, 1991Li03, 1995Br34.

^{202}Hg Levels

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]	Comments
0.0	0$^+$		
439.592 *20*	2$^+$	27.35 ps *23*	B(E2)↑=0.608 *5*, weighted average of B(E2)↑=0.616 *9* (1979Bo16) and 0.605 *5* (1980Sp05). Other: B(E2)↑=0.65 *8* (1970Ka09). μ: g=0.366 *35* (1990Ba40), 0.44 *9* (1986Ko02) and 0.59 *15* (1970Ka09). Q: 0.17 *14* or 0.32 *14* in 1979Bo16 and 1.01 *13* in 1980Sp05.
960.20 *17*	2$^+$	13.5 ps *28*	B(E2)↑(0$^+$ to 2$^+_2$)=0.0035 *10* and B(E2)↑(2$^+_1$ to 2$^+_2$)=0.053 *18* in 1979Bo16.
1119.6 *10*	4$^+$	2.05 ps *3*	B(E2)↑(2$^+_1$ to 4$^+_1$)=0.34 *1* in 1979Bo16.
1182.75 *27*	2$^+$	11 ps *+4−7*	
1311.78 *25*	4$^+$	5.7 ps *5*	From B(E2)(W.u.)(351.6γ) and B(E2)(W.u.)(872γ).
1347.6 *10*	(2$^+$)		
1389.6 *5*	2$^+$	8.0 ps *29*	
1564.6 *10*	0$^+$		
1575.4 *7*	2$^+$	2.1 ps *6*	
1643.6 *10*	0$^+$		
1793.4 *5*	2$^+$	0.09 ps *5*	
1823.6 *5*	2$^+$	0.27 ps *10*	
1965.8 *10*	5$^-$		
1966.7 *7*	2$^+$		
1988.5 *10*	6$^+$	0.647 ps *3*	
2134.8 *11*	(2$^+$)		
2292.6 *10*	(4$^+$)	0.042 ps *11*	J$^\pi$: Assumed by 2019Ke01 in the data analysis.
2356.7 *5*	3$^-$		
2455.2 *10*	(2$^+$)		
2516.0 *10*	(2$^+$)		J$^\pi$: Assumed by 2019Ke01 in the data analysis.
2681.0 *10*	(2$^+$)	0.29 ps *3*	
2706.8 *5*	3$^-$	≤23.3 ps	E(level): Other: 2709 keV *3* from 1981Ba45 (α,α') E(α)=27 MeV, magnetic spectrometer $\alpha'(\theta)$. B(E3)↑=0.42 *4* (1991Li03).
3164.4 *7*	3$^-$		

[†] From a least-squares fit to Eγ, unless otherwise stated.

[‡] From 2019Ke01. Values were adopted from 2008Zh05 or determined by the authors.

[#] From Adopted Levels.

Coulomb excitation 1979Bo16,1985Ag01,2019Ke01 **(continued)**

$\gamma(^{202}Hg)$

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α [a]	Comments
129	0.038 *17*	1311.78	4^+	1182.75	2^+	[E2]		1.967 *28*	B(E2)(W.u.)=3413 *1216* (2019Ke01) α(K)=0.444 *6*; α(L)=1.139 *16*; α(M)=0.297 *4* α(N)=0.0737 *10*; α(O)=0.01229 *17*; α(P)=6.13×10^{-5} *9* B(E2)(W.u.): violates RUL.
207	0.020 *5*	1389.6	2^+	1182.75	2^+	[E2]		0.347 *5*	B(E2)(W.u.)=234 *96* (2019Ke01) α(K)=0.1559 *22*; α(L)=0.1437 *20*; α(M)=0.0371 *5* α(N)=0.00921 *13*; α(O)=0.001559 *22*; α(P)=1.951×10^{-5} *27*
222.5# *3*	0.356 *15*	1182.75	2^+	960.20	2^+	M1+E2	−0.13 *3*	0.812 *13*	B(E2)(W.u.)=9 *+5−8*; B(M1)↓=0.13 *+7−12* (2019Ke01) α(K)=0.665 *11*; α(L)=0.1130 *16*; α(M)=0.0263 *4* α(N)=0.00661 *10*; α(O)=0.001248 *18*; α(P)=9.43×10^{-5} *15* I_γ: From 2019Ke01. Other: 0.026 *5* in 1985Ag01. Mult.,δ: A_2=0.12 *2*, A_4=−0.007 *22* in 2019Ke01.
351.6# *2*	0.221 *9*	1311.78	4^+	960.20	2^+	[E2]		0.0674 *9*	B(E2)(W.u.)=137 *17* (2019Ke01) α(K)=0.0432 *6*; α(L)=0.01824 *26*; α(M)=0.00458 *6* α(N)=0.001142 *16*; α(O)=0.0001988 *28*; α(P)=5.63×10^{-6} *8* I_γ: Other: 5.2 *5* in 1985Ag01.
429	0.039 *4*	1389.6	2^+	960.20	2^+	[E2]		0.0395 *6*	B(E2)(W.u.)=12 *4* (2019Ke01) α(K)=0.0273 *4*; α(L)=0.00921 *13*; α(M)=0.002286 *32* α(N)=0.000570 *8*; α(O)=0.0001006 *14*; α(P)=3.60×10^{-6} *5*
439.59‡ *2*	1000	439.592	2^+	0.0	0^+	E2		0.0371 *5*	α(K)=0.0259 *4*; α(L)=0.00850 *12*; α(M)=0.002108 *30* α(N)=0.000525 *7*; α(O)=9.29×10^{-5} *13*; α(P)=3.42×10^{-6} *5* Mult.: From adopted gammas.
520.6‡ *2*	4.444 *44*	960.20	2^+	439.592	2^+	M1+E2	+0.9 *1*	0.0565 *34*	α(K)=0.0455 *29*; α(L)=0.0084 *4*; α(M)=0.00198 *8* α(N)=0.000496 *21*; α(O)=9.2×10^{-5} *4*; α(P)=6.3×10^{-6} *4* B(E2)(W.u.)=2.7 *3*; B(M1)↓=43×10^{-4} *8* (2019Ke01) I_γ: Others: 23.4 *7* (1985Ag01). Mult.: From adopted gammas. A_2=0.11 *1*, A_4=0.012 *16* in 2019Ke01, consistent with ΔJ=0. δ: From adopted gammas. B(E2)(2_1^+ to 2_2^+)=0.034 e^2b^2 *7* in 1985Ag01.
615	0.026 *3*	1575.4	2^+	960.20	2^+	[E2]		0.01663 *23*	B(E2)(W.u.)=17 *6* (2019Ke01) α(K)=0.01258 *18*; α(L)=0.00308 *4*; α(M)=0.000747 *10* α(N)=0.0001865 *26*; α(O)=3.37×10^{-5} *5*; α(P)=1.670×10^{-6} *23*
641	0.037 *3*	1823.6	2^+	1182.75	2^+	[E2]		0.01517 *21*	B(E2)(W.u.)=19 *7* (2019Ke01) α(K)=0.01156 *16*; α(L)=0.00275 *4*; α(M)=0.000664 *9* α(N)=0.0001659 *23*; α(O)=3.00×10^{-5} *4*; α(P)=1.534×10^{-6} *21*
654	0.078 *5*	1965.8	5^-	1311.78	4^+	[E1]		0.00514 *7*	α(K)=0.00429 *6*; α(L)=0.000660 *9*; α(M)=0.0001518 *21* α(N)=3.79×10^{-5} *5*; α(O)=7.08×10^{-6} *10*; α(P)=5.11×10^{-7} *7*
655	0.014 *3*	1966.7	2^+	1311.78	4^+	[E2]		0.01446 *20*	B(E2)(W.u.)=55 *22* (2019Ke01)

$^{202}_{80}Hg_{122}$-2

Coulomb excitation 1979Bo16,1985Ag01,2019Ke01 **(continued)**

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

E_γ [†]	I_γ [†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α [a]	Comments
									α(K)=0.01106 *15*; α(L)=0.00259 *4*; α(M)=0.000625 *9* α(N)=0.0001562 *22*; α(O)=2.83×10^{-5} *4*; α(P)=1.467×10^{-6} *21*
680[‡]	4.008 *41*	1119.6	4$^+$	439.592	2$^+$	E2		0.01333 *19*	B(E2)(W.u.)=26.6 *5* (2019Ke01) α(K)=0.01026 *14*; α(L)=0.002342 *33*; α(M)=0.000564 *8* α(N)=0.0001409 *20*; α(O)=2.56×10^{-5} *4*; α(P)=1.360×10^{-6} *19* I_γ: Other: 282 *9* in 1985Ag01. Mult.: From adopted gammas. A_2=0.16 *2*, A_4=−0.01 *13* in 2019Ke01. B(E2)(4_1^+ to 2_1^+)=0.182 e^{2}b^2 *16* in 1985Ag01.
743	0.183 *4*	1182.75	2$^+$	439.592	2$^+$	M1+E2	2.1 *4*	0.0150 *16*	B(E2)(W.u.)=0.54 *+9−47*; B(M1)↓=33×10^{-5} *+5−29* (2019Ke01) α(K)=0.0120 *13*; α(L)=0.00232 *19*; α(M)=0.00055 *4* α(N)=0.000138 *11*; α(O)=2.55×10^{-5} *20*; α(P)=1.62×10^{-6} *19* Mult.,δ: A_2=0.21 *4*, A_4=−0.039 *54* in 2019Ke01.
[x]799.7[#] *3*	3.0[&] *3*								
833	0.033 *7*	1793.4	2$^+$	960.20	2$^+$	[E2]		0.00870 *12*	B(E2)(W.u.)=6 *3* (2019Ke01) α(K)=0.00687 *10*; α(L)=0.001396 *20*; α(M)=0.000332 *5* α(N)=8.30×10^{-5} *12*; α(O)=1.525×10^{-5} *21*; α(P)=9.07×10^{-7} *13*
864	0.091 *7*	1823.6	2$^+$	960.20	2$^+$	[E2]		0.00808 *11*	B(E2)(W.u.)=11 *4* (2019Ke01) α(K)=0.00641 *9*; α(L)=0.001277 *18*; α(M)=0.000303 *4* α(N)=7.58×10^{-5} *11*; α(O)=1.396×10^{-5} *20*; α(P)=8.45×10^{-7} *12*
868.9[#] *2*	0.021 *2*	1988.5	6$^+$	1119.6	4$^+$	E2		0.00798 *11*	B(E2)(W.u.)=24.9 *1* (2019Ke01) α(K)=0.00634 *9*; α(L)=0.001260 *18*; α(M)=0.000299 *4* α(N)=7.48×10^{-5} *10*; α(O)=1.377×10^{-5} *19*; α(P)=8.35×10^{-7} *12* Mult.: From adopted gammas. I_γ: Other: 32.8 *10* in 1985Ag01. B(E2)(6_1^+ to 4_1^+)=0.175 e^{2}b^2 *15* in 1985Ag01.
872	0.113 *13*	1311.78	4$^+$	439.592	2$^+$	[E2]		0.00793 *11*	B(E2)(W.u.)=0.74 *6* (2019Ke01) α(K)=0.00629 *9*; α(L)=0.001249 *17*; α(M)=0.000297 *4* α(N)=7.41×10^{-5} *10*; α(O)=1.365×10^{-5} *19*; α(P)=8.30×10^{-7} *12*
908	0.073 *7*	1347.6	(2$^+$)	439.592	2$^+$	[E2]		0.00731 *10*	B(E2)(W.u.)=1.52 *4* (2019Ke01) α(K)=0.00582 *8*; α(L)=0.001135 *16*; α(M)=0.000269 *4* α(N)=6.72×10^{-5} *9*; α(O)=1.240×10^{-5} *17*; α(P)=7.67×10^{-7} *11*
914	0.122 *14*	2706.8	3$^-$	1793.4	2$^+$	[E1]		0.00271 *4*	α(K)=0.002271 *32*; α(L)=0.000342 *5*; α(M)=7.84×10^{-5} *11* α(N)=1.956×10^{-5} *27*; α(O)=3.68×10^{-6} *5*; α(P)=2.74×10^{-7} *4*
950	0.136 *6*	1389.6	2$^+$	439.592	2$^+$	[E2]		0.00668 *9*	B(E2)(W.u.)<1; B(M1)↓<6×10^{-3} (2019Ke01) α(K)=0.00534 *7*; α(L)=0.001021 *14*; α(M)=0.0002414 *34* α(N)=6.03×10^{-5} *8*; α(O)=1.115×10^{-5} *16*; α(P)=7.03×10^{-7} *10*
960[‡]	0.620 *13*	960.20	2$^+$	0.0	0$^+$	[E2]		0.00654 *9*	B(E2)(W.u.)=0.039 *3* (2019Ke01) α(K)=0.00524 *7*; α(L)=0.000996 *14*; α(M)=0.0002355 *33*

$^{202}_{80}Hg_{122}$-3

Coulomb excitation 1979Bo16,1985Ag01,2019Ke01 **(continued)**

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

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α [a]	Comments
									α(N)=5.89×10^{-5} *8*; α(O)=1.088×10^{-5} *15*; α(P)=6.89×10^{-7} *10* I_γ: Other: 3.6 *4* in 1985Ag01. Iγ(520.6γ)/Iγ(959.7γ)=7.71 *27* in 1979Bo16.
x991.3# *3*	3.9& *4*								
1015.2# *5*	0.094 *6*	2134.8	(2$^+$)	1119.6	4$^+$	[E2]		0.00586 *8*	α(K)=0.00471 *7*; α(L)=0.000877 *12*; α(M)=0.0002067 *29* α(N)=5.17×10^{-5} *7*; α(O)=9.57×10^{-6} *13*; α(P)=6.19×10^{-7} *9*
1045	0.100 *9*	2356.7	3$^-$	1311.78	4$^+$	[E1]		2.13×10^{-3} *3*	I_γ: Other: 3.6 *4* in 1985Ag01. α(K)=0.001782 *25*; α(L)=0.000266 *4*; α(M)=6.09×10^{-5} *9* α(N)=1.522×10^{-5} *21*; α(O)=2.86×10^{-6} *4*; α(P)=2.162×10^{-7} *30*
x1108.5# *7*	0.8& *3*								
x1123.5# *4*	3.1& *5*								
1125	0.114 *6*	1564.6	0$^+$	439.592	2$^+$	[E2]		0.00480 *7*	B(E2)(W.u.)=5.8 *2* (2019Ke01) α(K)=0.00389 *5*; α(L)=0.000698 *10*; α(M)=0.0001637 *23* α(N)=4.09×10^{-5} *6*; α(O)=7.61×10^{-6} *11*; α(P)=5.09×10^{-7} *7*; α(IPF)=4.42×10^{-7} *6*
1136	0.015@ *5*	1575.4	2$^+$	439.592	2$^+$	[E2]		0.00471 *7*	B(E2)(W.u.)=0.47 *2* (2019Ke01) α(K)=0.00382 *5*; α(L)=0.000683 *10*; α(M)=0.0001602 *22* α(N)=4.01×10^{-5} *6*; α(O)=7.45×10^{-6} *10*; α(P)=5.00×10^{-7} *7*; α(IPF)=6.64×10^{-7} *9*
1174	0.100 *8*	2356.7	3$^-$	1182.75	2$^+$	[E1]		1.74×10^{-3} *2*	α(K)=0.001451 *20*; α(L)=0.0002151 *30*; α(M)=4.93×10^{-5} *7* α(N)=1.230×10^{-5} *17*; α(O)=2.319×10^{-6} *32*; α(P)=1.765×10^{-7} *25*; α(IPF)=9.30×10^{-6} *13*
1182	<0.050@	1182.75	2$^+$	0.0	0$^+$	[E2]		0.00437 *6*	B(E2)(W.u.)<0.015 (2019Ke01) α(K)=0.00355 *5*; α(L)=0.000627 *9*; α(M)=0.0001468 *21* α(N)=3.67×10^{-5} *5*; α(O)=6.84×10^{-6} *10*; α(P)=4.64×10^{-7} *6*; α(IPF)=2.66×10^{-6} *4*
1204	0.044 *6*	1643.6	0$^+$	439.592	2$^+$	[E2]		0.00422 *6*	B(E2)(W.u.)=2.6 *1* (2019Ke01) α(K)=0.00343 *5*; α(L)=0.000602 *8*; α(M)=0.0001410 *20* α(N)=3.53×10^{-5} *5*; α(O)=6.57×10^{-6} *9*; α(P)=4.48×10^{-7} *6*; α(IPF)=4.37×10^{-6} *6*
1354	1.086 *17*	1793.4	2$^+$	439.592	2$^+$	M1+E2	0.06 *4*	0.00710 *10*	B(E2)(W.u.)=0.1 *1*; B(M1)↓=0.18 *8* (2019Ke01) α(K)=0.00584 *8*; α(L)=0.000933 *13*; α(M)=0.0002157 *31* α(N)=5.41×10^{-5} *8*; α(O)=1.025×10^{-5} *15*; α(P)=8.01×10^{-7} *12*; α(IPF)=4.28×10^{-5} *6* Mult.,δ: A_2=0.23 *2*, A_4=0.028 *25* in 2019Ke01.
1384	0.221 *13*	1823.6	2$^+$	439.592	2$^+$	[E2]		0.00327 *5*	B(E2)(W.u.)<4; B(M1)↓<0.027 (2019Ke01) α(K)=0.00266 *4*; α(L)=0.000449 *6*; α(M)=0.0001046 *15* α(N)=2.62×10^{-5} *4*; α(O)=4.90×10^{-6} *7*; α(P)=3.46×10^{-7} *5*; α(IPF)=3.29×10^{-5} *5*

$^{202}_{80}Hg_{122}$-4

Coulomb excitation 1979Bo16,1985Ag01,2019Ke01 **(continued)**

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

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α [a]	Comments
1390	0.015 @ *6*	1389.6	2^+	0.0	0^+	[E2]	0.00325 *5*	B(E2)(W.u.)=0.013 *1* (2019Ke01) α(K)=0.00264 *4*; α(L)=0.000445 *6*; α(M)=0.0001037 *15* α(N)=2.59×10^{-5} *4*; α(O)=4.85×10^{-6} *7*; α(P)=3.43×10^{-7} *5*; α(IPF)=3.43×10^{-5} *5*
1396	0.247 *16*	2356.7	3^-	960.20	2^+	[E1]	1.39×10^{-3} *2*	α(K)=0.001075 *15*; α(L)=0.0001581 *22*; α(M)=3.62×10^{-5} *5* α(N)=9.03×10^{-6} *13*; α(O)=1.706×10^{-6} *24*; α(P)=1.314×10^{-7} *18*; α(IPF)=0.0001065 *15*
1495	0.042 *15*	2455.2	(2^+)	960.20	2^+	[E2]	0.00287 *4*	α(K)=0.002309 *32*; α(L)=0.000383 *5*; α(M)=8.91×10^{-5} *12* α(N)=2.230×10^{-5} *31*; α(O)=4.18×10^{-6} *6*; α(P)=3.00×10^{-7} *4*; α(IPF)=6.34×10^{-5} *9*
1524	0.373 *29*	2706.8	3^-	1182.75	2^+	[E1]	1.29×10^{-3} *2*	α(K)=0.000927 *13*; α(L)=0.0001359 *19*; α(M)=3.11×10^{-5} *4* α(N)=7.76×10^{-6} *11*; α(O)=1.466×10^{-6} *21*; α(P)=1.135×10^{-7} *16*; α(IPF)=0.0001904 *27*
1527	0.171 *30*	1966.7	2^+	439.592	2^+	[E2]	0.00277 *4*	B(E2)(W.u.)=10.0 *3* (2019Ke01) α(K)=0.002223 *31*; α(L)=0.000367 *5*; α(M)=8.54×10^{-5} *12* α(N)=2.135×10^{-5} *30*; α(O)=4.01×10^{-6} *6*; α(P)=2.89×10^{-7} *4*; α(IPF)=7.35×10^{-5} *10*
1747	2.431 *51*	2706.8	3^-	960.20	2^+	(E1)	1.23×10^{-3} *2*	α(K)=0.000739 *10*; α(L)=0.0001076 *15*; α(M)=2.459×10^{-5} *34* α(N)=6.14×10^{-6} *9*; α(O)=1.162×10^{-6} *16*; α(P)=9.06×10^{-8} *13*; α(IPF)=0.000351 *5* Mult.: A_2=−0.17 *2*, A_4=0.04 *3* in 2019Ke01.
1794	0.030 *14*	1793.4	2^+	0.0	0^+	[E2]	2.18×10^{-3} *3*	B(E2)(W.u.)=0.13 *6* (2019Ke01) α(K)=0.001661 *23*; α(L)=0.000266 *4*; α(M)=6.17×10^{-5} *9* α(N)=1.543×10^{-5} *22*; α(O)=2.90×10^{-6} *4*; α(P)=2.150×10^{-7} *30*; α(IPF)=0.0001755 *25*
1823	0.018 @ *7*	1823.6	2^+	0.0	0^+	[E2]	2.14×10^{-3} *3*	B(E2)(W.u.)=0.052 *3* (2019Ke01) α(K)=0.001613 *23*; α(L)=0.000258 *4*; α(M)=5.97×10^{-5} *8* α(N)=1.494×10^{-5} *21*; α(O)=2.81×10^{-6} *4*; α(P)=2.088×10^{-7} *29*; α(IPF)=0.0001879 *26*
1853	0.117 *8*	2292.6	(4^+)	439.592	2^+	[E2]	2.09×10^{-3} *3*	B(E2)(W.u.)=3.40 *5* (2019Ke01) α(K)=0.001567 *22*; α(L)=0.0002500 *35*; α(M)=5.78×10^{-5} *8* α(N)=1.447×10^{-5} *20*; α(O)=2.72×10^{-6} *4*; α(P)=2.027×10^{-7} *28*; α(IPF)=0.0002011 *28*
1917	0.328 *13*	2356.7	3^-	439.592	2^+	[E1]	1.23×10^{-3} *2*	α(K)=0.000634 *9*; α(L)=9.21×10^{-5} *13*; α(M)=2.103×10^{-5} *29* α(N)=5.26×10^{-6} *7*; α(O)=9.95×10^{-7} *14*; α(P)=7.79×10^{-8} *11*; α(IPF)=0.000475 *7*
1980	0.074 *6*	3164.4	3^-	1182.75	2^+	[E1]	1.24×10^{-3} *2*	α(K)=0.000601 *8*; α(L)=8.73×10^{-5} *12*; α(M)=1.992×10^{-5} *28* α(N)=4.98×10^{-6} *7*; α(O)=9.42×10^{-7} *13*; α(P)=7.39×10^{-8} *10*; α(IPF)=0.000521 *7*
2264	0.611 *23*	2706.8	3^-	439.592	2^+	[E1]	1.29×10^{-3} *2*	α(K)=0.000484 *7*; α(L)=7.00×10^{-5} *10*; α(M)=1.597×10^{-5} *22* α(N)=3.99×10^{-6} *6*; α(O)=7.56×10^{-7} *11*; α(P)=5.96×10^{-8} *8*; α(IPF)=0.000716 *10*
2357		2356.7	3^-	0.0	0^+	[E3]	0.00257 *4*	B(E3)(W.u.)=2.5 *1* (2019Ke01) α(K)=0.001875 *26*; α(L)=0.000318 *4*; α(M)=7.42×10^{-5} *10* α(N)=1.859×10^{-5} *26*; α(O)=3.50×10^{-6} *5*; α(P)=2.54×10^{-7} *4*; α(IPF)=0.000278 *4*

$^{202}_{80}Hg_{122}$-5

Coulomb excitation **1979Bo16,1985Ag01,2019Ke01 (continued)**

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

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α [a]	Comments
2516	0.181 *11*	2516.0	(2^+)	0.0	0^+	[E2]	1.59×10^{-3} *2*	B(E2)(W.u.)=0.11 *1* (2019Ke01) α(K)=0.000904 *13*; α(L)=0.0001389 *19*; α(M)=3.20×10^{-5} *4* α(N)=8.00×10^{-6} *11*; α(O)=1.513×10^{-6} *21*; α(P)=1.164×10^{-7} *16*; α(IPF)=0.000507 *7*
2681	0.226 *14*	2681.0	(2^+)	0.0	0^+	[E2]	1.55×10^{-3} *2*	B(E2)(W.u.)=0.20 *2* (2019Ke01) α(K)=0.000806 *11*; α(L)=0.0001232 *17*; α(M)=2.83×10^{-5} *4* α(N)=7.09×10^{-6} *10*; α(O)=1.342×10^{-6} *19*; α(P)=1.038×10^{-7} *15*; α(IPF)=0.000582 *8*
2709		2706.8	3^-	0.0	0^+	[E3]	2.15×10^{-3} *3*	B(E3)↓=21 *1* (2019Ke01) α(K)=0.001433 *20*; α(L)=0.0002364 *33*; α(M)=5.49×10^{-5} *8* α(N)=1.376×10^{-5} *19*; α(O)=2.59×10^{-6} *4*; α(P)=1.929×10^{-7} *27*; α(IPF)=0.000407 *6*
3166		3164.4	3^-	0.0	0^+	[E3]	1.86×10^{-3} *3*	B(E3)↓=1.0 *1* (2019Ke01) α(K)=0.001063 *15*; α(L)=0.0001708 *24*; α(M)=3.95×10^{-5} *6* α(N)=9.90×10^{-6} *14*; α(O)=1.871×10^{-6} *26*; α(P)=1.419×10^{-7} *20*; α(IPF)=0.000573 *8*

† From 2019Ke01, unless otherwise stated. Iγ normalized to Iγ(439γ)=1000.
‡ From 1979Bo16.
# From 1985Ag01.
@ Determined in 2019Ke01 using branching ratios from 2008Zh05.
& From 1985Ag01. Normalized to Iγ(439γ)=1000.
[a] Additional information 1.
[x] γ ray not placed in level scheme.

$^{202}_{80}Hg_{122}$-6

Coulomb excitation 1979Bo16,1985Ag01,2019Ke01

Level Scheme

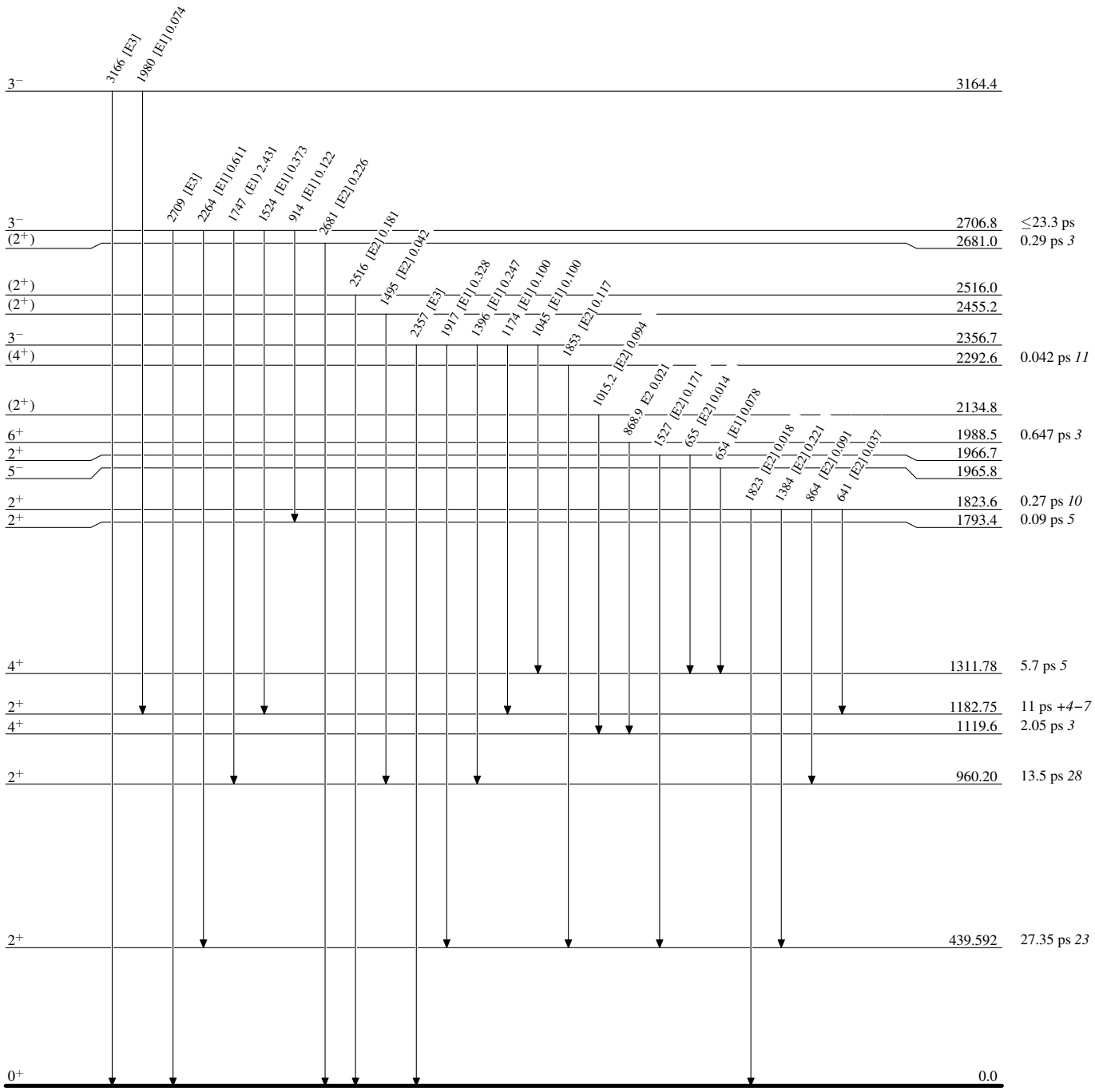
Intensities: Relative I_γ

Legend

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

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

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



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

Coulomb excitation 1979Bo16,1985Ag01,2019Ke01

Level Scheme (continued)

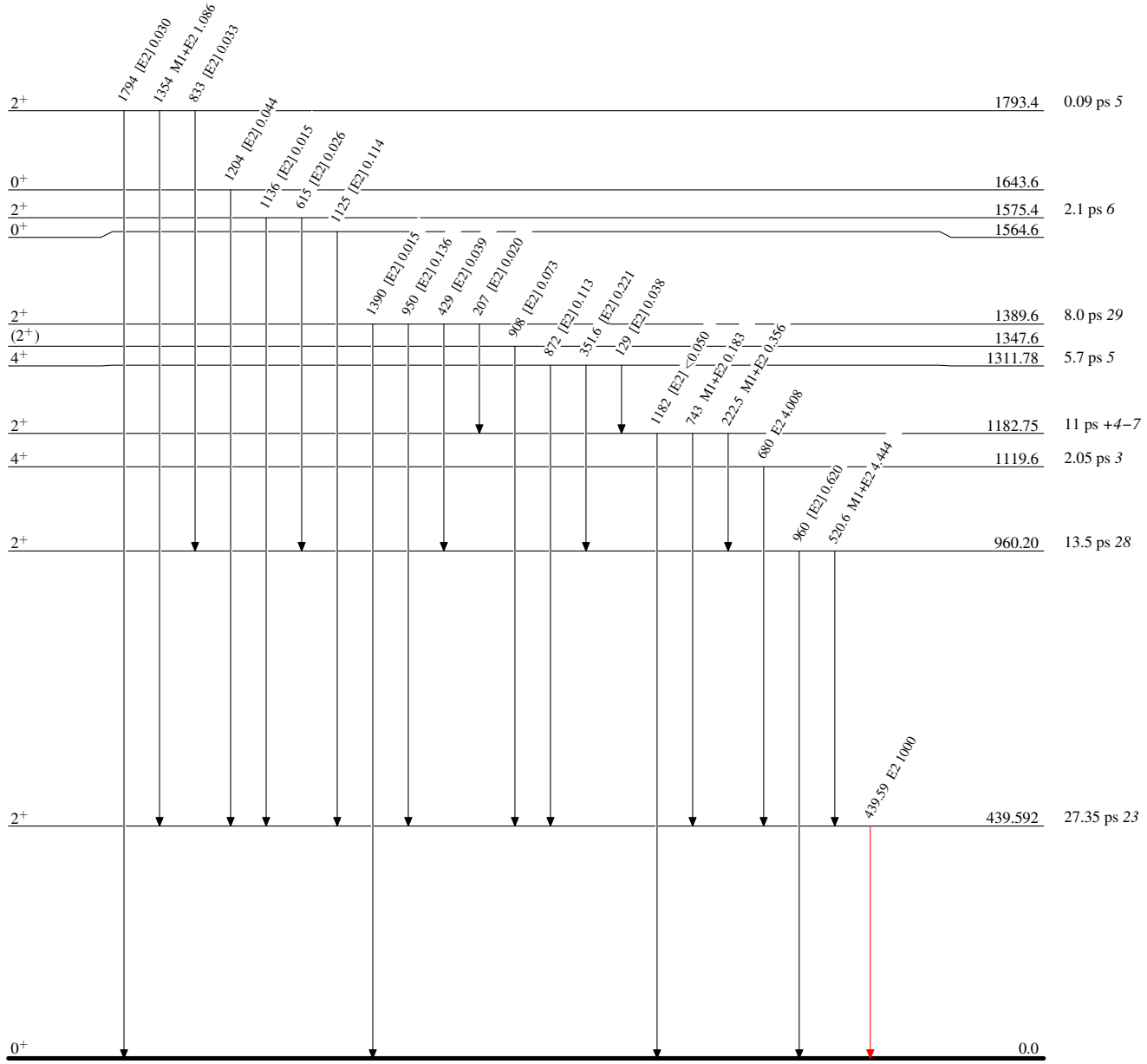
Intensities: Relative I_γ

Legend

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

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

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



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