Coulomb excitation 1990Ma37,1988Fe08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong	NDS 108, 1093 (2007)	1-Jan-2006

The level scheme is from 1990Ma37. E(^{208}Pb)=4.8-5.38 MeV/U, 97.5% enriched ^{196}Pt, measured Eγ, Iγ, particle-γ, and particle-γ-γ coincidences,Ge(Li), position-sensitive parallel plate avalanche counter.
Coincidence ratio of γ yields: 1990Ma37.
Excitation probabilities: 1992Da02, 1988Fe08.
Ion Implantation Perturbed Angular Correlation Technique(IMPAC), transient field: 1974Ga31 (^{16}O), 1991St04 (^{58}Ni).
IMPAC, polarized hosts: 1981St13, 1981St24, 1992Br03 (^{58}Ni).
Reorientation effects: 1985Fe03 (^{16}O,^{12}C,^{4}He).
γ(θ,H,t), γ(θ,H): 1982Le02 (^{32}S), 1974Ga31 (^{16}O), 1981St17 (^{32}S,^{58}Ni).
γ-particle(θ): 1986Bi13 (^{32}S).
(p,p′): E=4MeV (1955St57); E=4-5 MeV (1961Mc01); E=4.5 MeV (1971Mi08).
(α,α′): E=14.2-15.8 MeV (1992Li14); E=14.1-15.6 MeV at 174.8°, E=16.8-18.6 MeV at 90° (1985Fe03,1986Gy04,1988Fe08); E=14-24 MeV (1976Ba35); E=15 MeV (1970Br26).
(^{7}Li,^{7}Li′): E=22, 22.5 MeV (1992Li14); (1989Li05).
(^{12}C,^{12}C′): E=42-46 MeV (1992Li14); E=41-56 MeV (1985Fe03,1988Fe08); E=41-45 MeV (1986Gy04); E=43 MeV (1989Li05).
(^{16}O,^{16}O′): E=36 MeV (1966Gr20); E=33 MeV (1967Ka16); E=41 MeV (1970Br26); E=42 MeV (1968Gl01, 1969Gl08); E=43.75 (1971Mi08); E=55-61 MeV (1985Fe03,1988Fe08); E=55-63 MeV (1986Gy04).
(^{20}Ne,^{20}Ne′γ): E=90 MeV (1979Bo31).
(^{32}S,^{32}S′): E=77 MeV (1993Ta07); E=80-120 MeV (1981St17,1982Le02,1986Bi13).
(^{37}Cl,^{37}Cl′γ): E=115 MeV (1991St04). Measured particle-γ coincidence, final transient field IMPAC.
(^{40}Ca,^{40}Ca′γ): E=120 MeV (1979Ha06).
(^{58}Ni,^{58}Ni′γ): E=150 MeV (1993Ta07); E=214-226 MeV (1992Li14); E=180-210 MeV (1992Br03); E=160 MeV (1991St04); E=150 MeV (1986Ba19); E=220 MeV (1981Bo32,1981St24,1980Ke04,1979Bo31); E=80-130 MeV (1978SpZW). 97.5% enriched ^{196}Pt. Measured γ(θ,H), t, Recoil Distance Measurement(RDM), Doppler Shift Attenuation(DSA), (particle)γ-coin. IMPAC.
(^{63}Cu,^{63}Cu′γ): E=180 MeV (1986Ba19). (particle)-γ coin.
(^{81}Br,^{81}Br′γ): E=190 MeV (1979Ha06).
(^{136}Xe,^{136}Xe′γ): E=620 MeV (1977Le15). (particle)γ-coin.
(^{208}Pb,^{208}Pb′γ): E=4.8-5.38 MeV/U (1990Ma37,1990MaZV).

^{196}Pt Levels

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$[#]	Comments
0.0[@]	0^{+}	stable	
355.7[@] *7*	2^{+}	34.15 ps *15*	B(E2)↑=1.372 *6* μ=+0.534 *14* Q=+0.63 *7* g=+0.267 *7* $T_{1/2}$: from B(E2). Others: 32.2 ps *15* (RDM,1981Bo32), 35.4 ps *35* (RDM,1971NoZT), 30.2 ps *21* (delayed coin., 1972Be53). For comparison, the evaluation of 1987Ra01 gives 33.5 ps *10* which is based on half-life as well as B(E2) measurements. B(E2)↑: Weighted average of 1.382 *6* (1985Fe03,1986Gy04) and 1.368 *4* (1992Li14). Others: 1.42 *6* (1984Mu19), 1.36 *7* (1971Mi08), 1.35 *4* (1970Br26), 1.49 *5* (1969Gl08), 1.39 *15* (1967Ka16), 1.34 *16* (1966Gr20). These B(E2) values have been renormalized to B(E2,328)=1.649 *15* of ^{194}Pt from 1989Si01. The evaluation of 1987Ra01 gives B(E2)=1.400 *40* based on half-life and B(E2) data. Others: 1976Ba35, 1968Gl01, 1967Mi15, 1961Mc01, 1955St57. μ: From weighted average of g factor. Other: 0.55 *3* (1976Fu06). Q: Weighted average of +0.62 *8* (1992Li14) and +0.66 *12* based on Coulomb excitation reorientation (1986Gy04,1989Ra17). Others: 0.51 *18* or 0.58 *18* (1969Gl08) dependent upon the + or − sign of interference; +0.56 *18* (1978LeZA); +0.84 *6* (quoted by 1981Bo32); 0.82 *6*

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Coulomb excitation 1990Ma37,1988Fe08 (continued)

^{196}Pt Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
			(quoted by 1985Fe03 from 1978SpZW); +0.78 *6* (1981Bo32); +0.79 *12* (1985Fe03). g: weighted average of g=0.255 *11* (from g(^{196}Pt)/g(^{194}Pt)=R=1.007 *38*, 1992Br03, transient field), 0.266 *12* (R=1.05 *4*, 1986Ba19) , 0.266 *21* (R=1.05 *8*, 1979Ha06), 0.268 *28* (R=1.06 *11* 1972Sp03) [1992Br03, 1986Ba19, 1979Ha06 and 1972Sp03 scaled by evaluators to g(^{194}Pt,328)=0.253 *6*], 0.294 *23* (1991St04, IMPAC), 0.296 *46* (1974Ga31, IMPAC), 0.292 *28* (1972Be53), and 0.284 *47* (1968Be61). Lifetime-dependent results of 1974Ga31, 1972Be53 and 1968Be61 have been corrected for present adopted $T_{1/2}$. Others: g=0.213 *21* (1982Le02); 0.346 *13* (1981Ka23, IPAC); 0.265 *35* (1968Mu02); 0.27 *4* (1967Ka16). Value given by 1982Le02 is much lower as compared to other values from Coulomb excitation and from IPAC, see 1983St01 for a possible explanation of this low value.
688.7[&] *8*	2+	33.8 ps *7*	B(E2)↑=0.368 *9* g=0.245 *50* Q=−0.39 *16* (1992Li14) $T_{1/2}$: weighted average of 35.1 ps *30* (RDM,1981Bo32), 36 ps *3* (ce-γ(t),1972Be53), and 33.6 ps *8* from B(E2)=0.368 *9* (assuming E0 fraction of 333γ is negligible). B(E2)↑: Weighted average of B(E2)(2+(356) to 2+(689))=0.370 *5* (1992Li14), 0.242 *+52−50* (1990Ma37 scaled by evaluators to B(E2)(0+ to 2+)=1.382 *6*), and 0.342 *34* (1972Be53). g: From IMPAC, g(2+,355)/g(2+,688)=1.09 *22* (1981St24).
876.6[@] *9*	4+	3.55 ps *5*	B(E2)↑=0.730 *10* B(E4)↑=0.012 *8* (1992Li14) g=0.277 *26* Q=+1.03 *12* (1992Li14) $T_{1/2}$: weighted average of 3.5 ps *3* (RDM,1981Bo32) and 3.55 ps *5* from B(E2). B(E2)↑: Weighted average of B(E2)(2+ to 4+)=0.67 *11* (1971Mi08), 0.734 *+52−34* (1990Ma37 scaled by evaluators to B(E2)(0+ to 2+)=1.382 *6*), and 0.73 *1* (1992Li14). B(E2)↑: M(E2 to 355)=1.83 *15* COUL.EX (1971Mi08, quoted by 1988Fe08), 1.90 *8* recoil distance (1981Bo32 quoted by 1988Fe08), 1.94 *2* (quoted by 1986Gy04), 2.07 *7* (1988Fe08). Others: B(E4)=0.0070 (1976Ba35), E4 matrix element M(E4)=−0.155 *16* (e,e′) (quoted by 1988Fe08 from 1985Bo14), −0.203 (quoted by 1988Fe08 from 1981De12), −0.084 (quoted by 1988Fe08 from 1976Ba35), M(E4 to 0)=0.18 *7* (quoted by 1986Gy04), −0.11 *11* (1988Fe08). −0.19 *7* if M(E2 to 688)=0 or 0.5 (1988Fe08). g: Weighted average of 0.296 *33* (from g/g(2+,^{194}Pt)=1.169 *129*, 1992Br03 scaled by evaluators to g(^{194}Pt,328)=0.253 *6*) and 0.245 *43* from IMPAC, g(2+,356)/g(4+,876)=1.09 *19* (1981St24). Q: Others: +2.5 *11* if M(E2,4+,(877) to 2+,(356))=1.88 *6* and M(E2,4+,(877) to 2+,(689))=0, (1988Fe08); or Q=2.3 *11* (if M(E2,4+,(877) to 2+,(356)))=1.88 *6* and M(E2)(4+,(877) to 2+,(689))=0.5 (1988Fe08).
1015.1[&] *10*	3+		
1135.3[a] *9*	0+	4.2 ps *+17−6*	B(E2)↑=0.0058 *+7−9* B(E2)↑=0.02 *20* (1992Li14) $T_{1/2}$: from B(E2) and branching of 779γ. Other: 6 ps *3* (composite RDM, 1980Ke04). B(E2)↑: Weighted average of B(E2) 2+(356) to 0+(1135)=0.0056 *10* (1992Li14) and 0.0061 *+9−17* (1990Ma37 scaled by evaluators to B(E2)(0+ to 2+)=1.382 *6*). 0.0044 *20* (1979Bo31,1981Bo32) and 0.0045 *9* (from M(E2 to 356)=0.15 *3* (1986Gy04)). B(E2)↑: From 2+(689) to 0+(1135).
1270.6[c] *14*	5−		
1293.3[&] *9*	4+	2.6 ps *+7−4*	B(E2)↑=0.0038 *+9−17* B(E2)↑=0.362 *+40−110* $T_{1/2}$: weighted average of 2.9 ps *6* (RDM 1981Bo32) and $T_{1/2}$=2.4 ps *+11−3* from B(E2). B(E2)↑: From 2+(356) to 4+(1293). 1990Ma37 scaled by evaluators to B(E2)(0+ to

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Coulomb excitation 1990Ma37,1988Fe08 (continued)

^{196}Pt Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
			2^+)=1.382 *6*. Other: 0.002 *4* (1992Li14). and 0.0054 *18* (1979Bo31,1981Bo32). Others: M(E2,4$^+$ to 2+(356))=0.164 *27* (quoted by 1986Gy04). B(E2)↑: From 2+(689) to 4+(1293). 1990Ma37 scaled by evaluators to B(E2)(0$^+$ to 2$^+$)=1.382 *6*. Other: 0.33 *3* (1992Li14). Others: M(E2,4$^+$ to 689)=1.26 *13* (quoted by 1986Gy04). B(E2)=0.200 *56*. B(E2)↑: weighted average of B(E2)(4+(1293) to 4+(877))=0.201 *+73−26* (1990Ma37 scaled by evaluators to B(E2)(0$^+$ to 2$^+$)=1.382 *6*), 0. 193 *97* (1979Bo31,1981Bo32), and 0.084 *14* (1992Li14 877 to 1293).
1361.7[a] *10*	2$^+$		B(E2)↑=0.0008 *+7−3* $T_{1/2}$: from B(E2) and adopted γ-ray properties. B(E2)↑: From 2+(356) to 2+(1362). 1990Ma37 scaled by evaluators to B(E2)(0+(0) to 2+(356))=1.382 *6*.
1374.5[c] *12*	7$^-$		
1446.8 *10*	3$^-$	0.62 ns *17*	B(E3)↑=0.103 *4* E(level): from 1989Li05. $T_{1/2}$: from B(E3) and adopted γ-ray properties. B(E3)↑: Weighted average of B(E3)(0+(0) to 3−(1447))=0.103 *18* (1988Bo08), 0.116 *14* (1992Po09) (^{196}Pt(e,e′)), 0.099 *10* (^{196}Pt(p,p′), 1988Co16), and 0.102 *4* (1989Li05).
1525.8[@] *10*	6$^+$	0.98 ps *+11−5*	B(E2)↑=0.658 *+29−69* Q=−0.18 *26* (1992Li14) $T_{1/2}$: weighted average of 1.0 ps *3* (RDM,1981Bo32) and 0.98 ps *+12−5* from B(E2). B(E2)↑: From 4+(877) to 6+(1526). 1990Ma37 scaled by evaluators to B(E2)(0+(0) to 2+(356))=1.382 *6*. Other:0.64 *4* (1992Li14).
1535.8[b] *10*	4$^+$		
1609.1[&] *15*	(5$^+$)		
1820.6[c] *12*	9$^-$		
2007.4[&] *10*	6$^+$	0.77 ps *19*	B(E2)↑=0.47 *+16−11* (1990Ma37) B(E2)↑=0.0049 *+23−20* (1990Ma37) $T_{1/2}$: from weighted average of computed $T_{1/2}$ from B(E2) and adopted γ-ray properties. B(E2)↑: From 4+(1293) to 6+(2007). 1990Ma37 scaled by evaluators to B(E2)(0+(0) to 2+(356))=1.382 *6*. B(E2)↑: From 4+(877) to 6+(2007). 1990Ma37 scaled by evaluators to B(E2)(0+(0) to 2+(356))=1.382 *6*. B(E2)=0.078 *+151−72* (1990Ma37). B(E2)↑: from 6+(1526) to 6+(2007), calculated with the assumption δ(E2/M1)=−2.6. 1990Ma37 scaled by evaluator to B(E2)(0+(0) to 2+(356))=1.383 *6*.
2252.9[@] *11*	8$^+$	0.42 ps *+4−5*	B(E2)↑=0.696 *+66−74* (1990Ma37) $T_{1/2}$: computed from B(E2) and adopted γ-ray properties. B(E2)↑: From 6+(1526) to 8+(2253). 1990Ma37 scaled by evaluators to B(E2)(0+(0) to 2+(356))=1.382 *6*.
2749.8[&] *11*	(7$^-$,8$^+$)	0.46 ps *+8−6*	B(E2)↑=0.452 *+72−60* (1990Ma37) $T_{1/2}$: computed from B(E2) and adopted γ-ray properties. B(E2)↑: From 6+(2007) to 8+(2750). 1990Ma37 scaled by evaluators to B(E2)(0+(0) to 2+(356))=1.382 *6*.
3044.2[@] *13*	(10$^+$)		

[†] From least-squares fit to Eγ′s.
[‡] From Adopted Levels.
[#] Value recommended by 1981Bo32 based on their RDM, composite RDM and DSA measurements. These data presumably supersede the authors′ earlier results: 1979Bo31, 1980Ke04.
[@] Band(A): ground-state rotational band.

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Coulomb excitation 1990Ma37,1988Fe08 (continued)

^{196}Pt Levels (continued)

[&] Band(B): γ-vibrational band.
[a] Band(C): band based on the 0+(2) state, related either to a β^{-}vibration or to a K=0 two-phonon γ-vibration.
[b] Band(D): related to K=4 two-phonon γ-vibration.
[c] Band(E): negative-parity states.

$\gamma(^{196}Pt)$

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ	α[a]	Comments
327 *1*	0.84 *18*	1015.1	3+	688.7	2+	E2		0.0765 *13*	α(K)=0.0494 *8*; α(L)=0.0206 *4*; α(M)=0.00513 *10*; α(N+..)=0.00147 *3* E_γ: superimposed by the transition of ^{194}Pt.
333.3 *7*	21.1 *3*	688.7	2+	355.7	2+	E0+M1+E2	−5.2 *5*	0.0780 *17*	α(K)=0.0522 *14*; α(L)=0.0196 *4*; α(M)=0.00486 *8*; α(N+..)=0.001394 *23* δ: from adopted value.
355.7 *7*	100	355.7	2+	0.0	0+	E2		0.0603	α(K)=0.0402 *6*; α(L)=0.01519 *24*; α(M)=0.00377 *6*; α(N+..)=0.001081 *17*
394 *1*	1.1 *4*	1270.6	5−	876.6	4+	E1		0.01391 *21*	α(K)=0.01155 *18*; α(L)=0.00182 *3*; α(M)=0.000417 *7*; α(N+..)=0.0001216 *19* I_γ: from detectorGe(Li) R, Pt-event.
[x]406 *1*	0.22 *12*								
416.7[&] *7*	1.18 *13*	1293.3	4+	876.6	4+				if M=E2 α=0.0396\$$\alpha$(K)= 0.0278\$$\alpha$(L)=0.0089\$$\alpha$(M)= 0.00219\$$\alpha$(N+..)=0.00067. Mult.: from recommended upper limits for γ-ray strengths. δ: extrapolated using a theoretical model of GREINER (1966GrZX). 1966GrZX: W.GREINER nucl. PHYS.80,417 (1966). I_γ: 417γ:604γ:938g=13:75:12 (1981Bo32).
[x]425 *1*	0.59 *15*								
432[@b] *1*	0.43[b] *15*	1446.8	3−	1015.1	3+				
432[@b] *1*	0.43[b] *15*	2252.9	8+	1820.6	9−	[E1]		0.01133 *17*	α(K)=0.00943 *14*; α(L)=0.001471 *22*; α(M)=0.000337 *5*; α(N+..)=9.85×10^{-5} *15*
446.4[b&] *7*	1.87[b] *19*	1135.3	0+	688.7	2+	E2		0.0329	α(K)=0.0236 *4*; α(L)=0.00705 *11*; α(M)=0.00173 *3*; α(N+..)=0.000497 *8* I_γ: Br(446γ)/Br(780γ)=28/72 (1981Bo32).
446.4[&b] *7*	1.87[b] *19*	1820.6	9−	1374.5	7−	E2		0.0329	α(K)=0.0236 *4*; α(L)=0.00705 *11*; α(M)=0.00173 *3*; α(N+..)=0.000497 *8*
481.4[@] *7*	0.46 *9*	2007.4	6+	1525.8	6+	[E2,M1]		0.06 *3*	α(K)=0.05 *3*; α(L)=0.009 *4*;

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Coulomb excitation 1990Ma37,1988Fe08 (continued)

$\gamma(^{196}Pt)$ (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	α[a]	Comments
								α(M)=0.0021 *7*; α(N+..)=0.00064 *22* Superimposed by the transition of ^{194}Pt.
497[@] *1*	0.24 *8*	2749.8	(7⁻,8⁺)	2252.9	8⁺			
521.0[b] *7*	54.3[b] *4*	876.6	4⁺	355.7	2⁺	E2	0.0224	α(K)=0.01668 *24*; α(L)=0.00436 *7*; α(M)=0.001056 *16*; α(N+..)=0.000305 *5* Assignment according to 1984Sc19, Iγ(4+(1) to 2⁺)<1%.
521.0[b] *7*	54.3[b] *4*	1535.8	4⁺	1015.1	3⁺	[M1,E2]	0.046 *24*	α(K)=0.037 *21*; α(L)=0.0068 *25*; α(M)=0.0016 *6*; α(N+..)=0.00047 *17* Assignment according to 1984Sc19, Iγ(4+(1) to 2⁺)<1%.
ˣ567 *1*	0.32 *14*							
594 *1*	0.42 *9*	1609.1	(5⁺)	1015.1	3⁺	[E2]	0.01647	α(K)=0.01257 *19*; α(L)=0.00298 *5*; α(M)=0.000715 *11*; α(N+..)=0.000207 *3* E_γ: also observed in coincidence (1984Sc19).
604.4 *7*	14.36 *20*	1293.3	4⁺	688.7	2⁺	[E2]	0.01583	α(K)=0.01212 *18*; α(L)=0.00283 *4*; α(M)=0.000680 *10*; α(N+..)=0.000197 *3*
649.3 *7*	22.5 *3*	1525.8	6⁺	876.6	4⁺	[E2]	0.01348	α(K)=0.01043 *15*; α(L)=0.00233 *4*; α(M)=0.000556 *8*; α(N+..)=0.0001614 *24*
673[&] *1*	0.20 *10*	1361.7	2⁺	688.7	2⁺	(M1+E2)	0.024 *12*	α(K)=0.020 *10*; α(L)=0.0034 *14*; α(M)=0.0008 *3*; α(N+..)=0.00023 *9*
714.0 *7*	5.01 *15*	2007.4	6⁺	1293.3	4⁺	E2	0.01095	α(K)=0.00859 *13*; α(L)=0.00181 *3*; α(M)=0.000430 *7*; α(N+..)=0.0001250 *18*
727.4 *7*	5.30 *14*	2252.9	8⁺	1525.8	6⁺	[E2]	0.01052	α(K)=0.00827 *12*; α(L)=0.001723 *25*; α(M)=0.000409 *6*; α(N+..)=0.0001190 *17*
742.1[@] *7*	0.92 *10*	2749.8	(7⁻,8⁺)	2007.4	6⁺			
ˣ753 *1*	0.11 *9*							
759[@] *1*	0.12 *7*	1446.8	3⁻	688.7	2⁺	E1	0.00355	α(K)=0.00297 *5*; α(L)=0.000445 *7*; α(M)=0.0001015 *15*; α(N+..)=2.97×10⁻⁵ *5*
ˣ769 *1*	0.12 *6*							
779.7[&] *7*	0.75 *9*	1135.3	0⁺	355.7	2⁺	E2	0.00908	α(K)=0.00719 *11*; α(L)=0.001444 *21*; α(M)=0.000342 *5*; α(N+..)=9.95×10⁻⁵ *15*
791.3 *7*	0.20 *6*	3044.2	(10⁺)	2252.9	8⁺	[E2]	0.00880	α(K)=0.00699 *10*; α(L)=0.001392 *20*; α(M)=0.000329 *5*; α(N+..)=9.59×10⁻⁵ *14*
ˣ811 *1*	0.10 *5*							
847[@] *1*	0.10 *4*	1535.8	4⁺	688.7	2⁺	[E2]	0.00765	α(K)=0.00611 *9*; α(L)=0.001178 *17*; α(M)=0.000278 *4*; α(N+..)=8.10×10⁻⁵ *12*
878[@] *1*	0.30 *6*	2252.9	8⁺	1374.5	7⁻	[E1]	0.00269	α(K)=0.00226 *4*; α(L)=0.000335 *5*; α(M)=7.63×10⁻⁵ *11*; α(N+..)=2.24×10⁻⁵ *4*
ˣ894 *1*	0.10 *4*							
ˣ901 *1*	0.57 *7*							
930[@] *1*	0.18 *5*	2749.8	(7⁻,8⁺)	1820.6	9⁻			
937.7[&] *7*	0.97 *7*	1293.3	4⁺	355.7	2⁺	E2	0.00622	α(K)=0.00501 *7*; α(L)=0.000926 *13*; α(M)=0.000217 *3*; α(N+..)=6.34×10⁻⁵ *9*
ˣ958 *1*	0.20 *6*							
1006.0 *7*	0.55 *7*	1361.7	2⁺	355.7	2⁺			
ˣ1046 *1*	0.13 *5*							
1090[@] *1*	0.14 *4*	1446.8	3⁻	355.7	2⁺	E1	0.00181	α(K)=0.001525 *22*; α(L)=0.000223 *4*; α(M)=5.07×10⁻⁵ *8*; α(N+..)=1.489×10⁻⁵ *21*
ˣ1104 *1*	0.10 *5*							
1130.7[&] *7*	0.49 *6*	2007.4	6⁺	876.6	4⁺	E2	0.00431	α(K)=0.00352 *5*; α(L)=0.000608 *9*; α(M)=0.0001414 *20*; α(N+..)=4.20×10⁻⁵ *6*

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Coulomb excitation 1990Ma37,1988Fe08 (continued)

$\gamma(^{196}Pt)$ (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	α[a]	Comments
[x]1157 *1*	0.18 *5*							
[x]1170 *1*	0.12 *5*							
1180[@] *1*	0.12 *5*	1535.8	4^+	355.7	2^+	[E2]	0.00397	α(K)=0.00325 *5*; α(L)=0.000554 *8*; α(M)=0.0001288 *19*; α(N+..)=4.04×10^{-5} *6*
[x]1248 *1*	0.15 *5*							
[x]1311 *1*	0.14 *4*							
[x]1322 *1*	0.13 *4*							
1375[@] *1*	0.10 *5*	2749.8	$(7^-,8^+)$	1374.5	7^-			
[x]1383 *1*	0.15 *4*							
[x]1440 *1*	0.39 *5*							
[x]1469 *1*	0.21 *4*							
[x]1488 *1*	0.21 *4*							
[x]1542 *1*	0.16 *4*							

[†] From 1990Ma37. ΔE have been assigned by evaluators.
[‡] Relative γ-yields for the angle-integrated spectrum ofGe(Li), the intensity has been normalized to 356γ as 100 (1990Ma37).
[#] From adopted gammas.
[@] Placement based on level energies.
[&] Assignment according to 1979Ci04.
[a] 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.
[b] Multiply placed with undivided intensity.
[x] γ ray not placed in level scheme.

Coulomb excitation 1990Ma37,1988Fe08

Level Scheme

Intensities: Relative I_γ

& Multiply placed: undivided intensity given

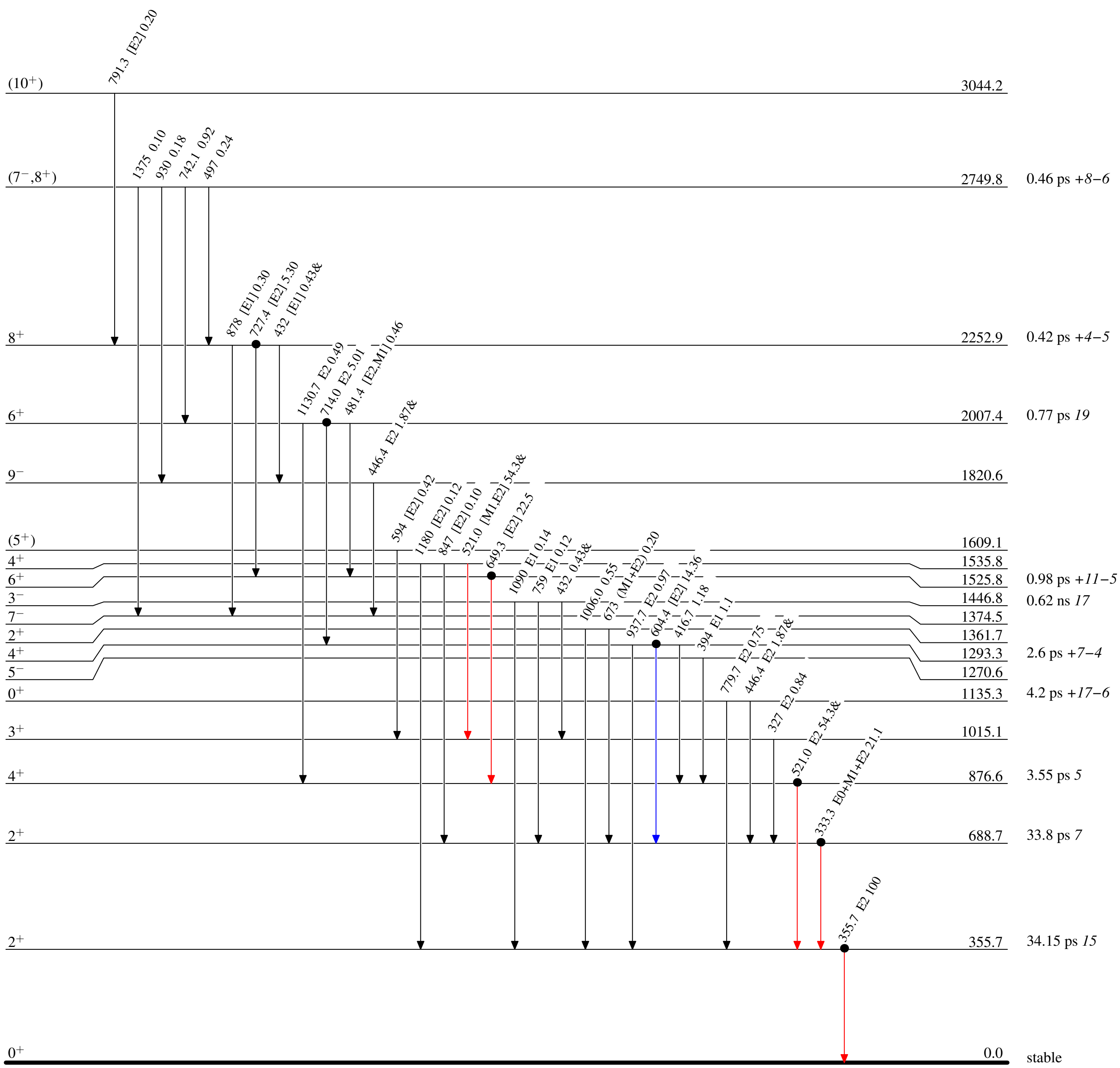
Legend

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

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

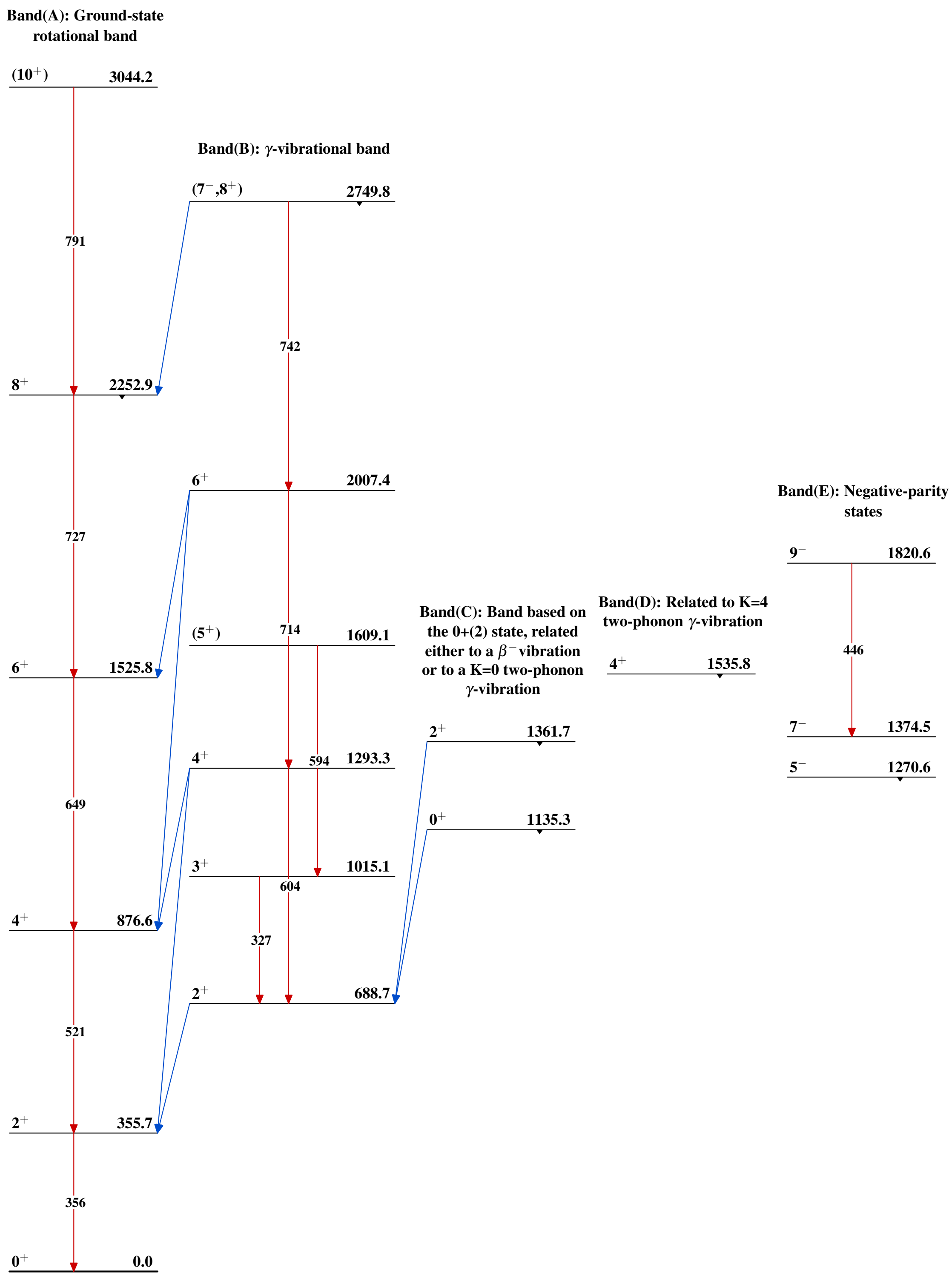
$I_\gamma > 10\% \times I_\gamma^{max}$

● Coincidence



$^{196}_{78}Pt_{118}$

Coulomb excitation 1990Ma37,1988Fe08



$^{196}_{78}Pt_{118}$