Adopted Levels, Gammas

History

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

Q(β^-)=−1507 *3*; S(n)=7921.93 *13*; S(p)=8241.5 *21*; Q(α)=812 *3* 2012Wa38
Note: Current evaluation has used the following Q record.
Q(β^-)=−1507 *3*; S(n)=7921.92 *13*; S(p)=8246.6 *17*; Q(α)=808.1 *26* 2003Au03
Other reactions: ^{197}Au(p,2p): 1990Co31.
^{196}Pt(n,xnypγ) (2001Ta31): E(n)=1-250 MeV. White spectrum spallation neutron source; prompt γ-rays measured with Compton-suppressed HPGe detectors.
Photonuclear reactions: 1987Da29.
Hyperfine structure and isotope-shift measurements: 1992Hi07, 1990Hi08, 1988Bo31, 1988Le22, 1987Ne09.
Cross section and yield measurements: 1991Se04, 1990HoZV, 1988Bo08, 1988Co16, 1988Co19.
Nuclear structure calculations: 1993Fe07, 1993Wo06, 1993Za05, 1992Da02, 1992Ba59, 1992La05, 1992Sh18, 1991Ku17, 1991Li08, 1991Na14, 1990Ha27, 1990Lo06, 1990Ma47, 1990Mu18, 1990Na19, 1990Su08, 1989Bo24, 1989Gu01, 1989Ia01, 1988Ba47, 1988Bh04, 1988Bh07, 1988Ca15, 1988Ga23, 1988Hi07, 1988Sa37, 1988Va19, 1988Zg01, 1997De21, 1997De28, 1997Ha33.

^{196}Pt Levels

There are additional tentative higher-energy levels reported in (n,γ) E=thermal.

Cross Reference (XREF) Flags

A	^{196}Ir β^- decay (52 s)	H	^{195}Pt(n,γ) E=2 keV: av res	O	^{197}Au(μ^-,nγ)
B	^{196}Ir β^- decay (1.40 h)	I	^{195}Pt(d,p)	P	^{197}Au(d,^{3}He)
C	^{196}Au ε decay (6.1669 d)	J	^{196}Pt(e,e′)	Q	^{198}Pt(p,t)
D	^{194}Pt(t,p)	K	^{196}Pt(n,n′γ)	R	^{196}Pt(γ,γ')
E	^{195}Pt(n,γ) E=thermal	L	^{196}Pt(d,pnγ)	S	^{196}Pt(p,p′γ)
F	^{195}Pt(n,γ) E=11.9 eV	M	^{196}Pt(p,p′),(pol p,p′),(d,d′)		
G	^{195}Pt(n,γ) E=19.6 eV	N	Coulomb excitation		

E(level)[†]	J$^{\pi}$[a]	T$_{1/2}$	XREF	Comments
0.0[‡]	0$^+$	stable	ABCDEFGHIJKLMNOPQ S	J$^{\pi}$: absence of hyperfine splitting (1935Fu06) consistent with J=0. Δ<r^2>(^{194}Pt,^{196}Pt)=0.926 fm^2 *4* (1987Ne09).
355.6841[‡] *20*	2$^+$	34.15 ps *15*	ABCDEFGHIJKLMNOPQ S	J$^{\pi}$: from E2 γ to 0$^+$ level. T$_{1/2}$: from B(E2)=1.372 *6*. Others: 35.4 ps *35* (RDM,1971NoZT), 30.2 ps 21 (delayed coin, 1972Be53), and 32.2 ps *15* (1981Bo32) (value recommended by 1981Bo32 based on their RDM, composite RDM, and DSA measurements). B(E2)↑: Weighted average of 1.368 *4* (1992Li14) and 1.382 *6* (1985Fe03, 1986Gy04). Others: see Coulomb excitation. μ: +0.588 *46* (1991St04), +0.604 *48* (1993Ta07). Compilation: 2005St24. μ: Others: +0.534 *14* from weighted average of g-factor measurements, see Coulomb excitation. Q: +0.62 *8* (1992Li14). Compilation: 2005St24. MOME2 Others: +0.63 *7* (based on Coulomb excitation), 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* (quoted by 1985Fe03 from 1978SpZW); +0.78 *6* (1981Bo32); +0.79 *12* (1985Fe03).
688.693[#] *5*	2$^+$	33.8 ps *7*	A CDEFGHI KLMNOPQ S	J$^{\pi}$: L=2 in ^{198}Pt(p,t). T$_{1/2}$: weighted average of 35.1 ps *29* (value recommended by

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Adopted Levels, Gammas (continued)

^{196}Pt Levels (continued)

E(level)[†]	J^{π}[a]	$T_{1/2}$	XREF	Comments
				1981Bo32 based on their RDM, composite RDM, and DSA measurements), 36 ps *3* (ce-γ(t),1972Be53), and 33.6 ps *8* from B(E2)=0.368 *9* (see Coulomb excitation, assuming E0 fraction of 333γ is negligible). μ=+0.54 *9* (1992Br03). Compilation: 2005St24. μ: Others: 0.49 *10* from g/g(356 level)=0.92 *19* (1981St24), see Coulomb excitation. Q=−0.39 *16* (1992Li14). Compilation: 2005St24.
876.865[‡] *5*	4^+	3.55 ps *5*	BCDEF IJKLMNOPQ S	B(E4)↑=0.0186 *21* J^{π}: L=4 in (p,t). $T_{1/2}$: weighted average of 3.5 ps *3* (value recommended by 1981Bo32 based on their RDM, composite RDM, and DSA measurements), and 3.55 ps *5* from B(E2) (weighted average of 1971Mi08, 1990Ma37, and 1992Li14. See Coulomb excitation). B(E4)↑: From ^{196}Pt(e,e′). Other: B(E4)=0.0308 *23* from (pol p,p′). B(E4)=0.012 *8* (1992Li14) from Coulomb excitation. μ=+1.38 *16* (1992Br03). Compilation: 2005St24. μ: Others: 1.11 *10* from g=0.277 *26*, see Coulomb excitation. Q=1.03 *12* (1992Li14). Compilation: 2005St24.
1015.044[#] *5*	3^+		C EF I KLMN P S	J^{π}: E2 γ to 2^+, γ-band member, nonpopulation of this level in ^{196}Pt(n,γ) E=2 keV.
1135.312[@] *5*	0^+	4.2 ps *+17−6*	A DEFGHI N PQ	J^{π}: L=0 in (p,t). $T_{1/2}$: from B(E2) and branching of 779γ. Others: 6 ps *3* (composite RDM, 1981Bo32), >2.6 ps or >3.1 ps (depending on the extreme feeding assumptions) (1990Bo29).
1270.214[&] *7*	5^-	1.1 ns *2*	BCDEF J LMNO Q	B(E5)↑=0.00204 *20* (1992Po09) J^{π}: E1 γ to 4^+, L=5 in (p,p′). $T_{1/2}$: from delayed coincidence (1970To14) in ^{196}Ir β^- decay (1.40 h).
1293.308[#] *7*	4^+	2.6 ps *+7−4*	DEF IJ LMN PQ	B(E4)↑=0.0224 *24* J^{π}: L=4 in (p,p′). $T_{1/2}$: weighted average of 2.9 ps *6* (RDM 1981Bo32) and 2.4 ps *+11−3* from B(E2). See Coulomb excitation. B(E4)↑: Weighted average of 0.0201 *28* from (e,e′) and 0.025 *3* from (pol p,p′).
1361.585[@] *5*	2^+		CDEF HI K MN Q	XREF: M(1350). J^{π}: E2 γ to 2^+, γ′s to 0^+ and 4^+. $T_{1/2}$: $T_{1/2}$=50 ps *+44−19* computed from B(E2)=0.0008 *+7−3* in Coulomb excitation and adopted γ-ray properties.
1373.60[&] *19*	7^-	5.2 ns *2*	B J LMN PQ	μ=−0.21 *14* XREF: P(1380). J^{π}: E2 γ to 5^-, L=7 in (p,p′). $T_{1/2}$: from γ(θ,H,t) (1983GoZP). Others: 4.01 ns *16* from delayed coin (1970ToZZ), 4.0 ns (1984Sc19). μ: From g=−0.03 *2* (1983GoZP). Compilation: 2005St24.
1402.727 *10*	0^+	1.6 ps *3*	A DEFGHI Q S	J^{π}: L=0 in (p,t). $T_{1/2}$: from >1.29 ps for lower limit; <1.9 ps for upper limit (1990Bo29).
1429.74? *25*	$(5^-,6^+)$		B	J^{π}: γ′s from 2455 to 7^- and 9^-, from 1430 to 4^+, and a connecting 2455 to 1430 γ give J^{π}(2455)=7^- or 8, and J^{π}(1430)=5 or 6^+.
1447.043 *7*	3^-	0.62 ns *17*	CDEF J MNO Q S	β_3=0.050 *5* (1988Co19) B(E3)↑=0.103 *4* J^{π}: E1 γ to 2^+, L=3 in (p,t).

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Adopted Levels, Gammas (continued)

^{196}Pt Levels (continued)

E(level)[†]	J^{π}[a]	$T_{1/2}$	XREF	Comments
				$T_{1/2}$: deduced from B(E3) and adopted γ-ray properties. See Coulomb excitation. B(E3)↑: See Coulomb excitation.
1525.8[‡] *5*	6^+	0.98 ps *+11−5*	LMN pQ	XREF: p(1530). J^{π}: g.s. band member. $T_{1/2}$: weighted average of 1.0 ps *3* (RDM, 1981Bo32) and 0.98 ps +12-5 from B(E2). See Coulomb excitation. Q=−0.18 *26* (1992Li14). Compilation: 2005St24.
1535.8 *6*	4^+		D LMN pQ S	B(E4)↑=0.0045 *8* (1991Se04) XREF: p(1530). Related to the K=4 two-phonon γ-vibration. J^{π}: γ's to 2^+ and 3^+, L=4 in (p,p′).
1604.494 *10*	2^+		DEF H M PQ	XREF: Q(1606),p(1600). J^{π}: L=2 in (p,p′) and (p,t).
1609.74[#] *20*	(5^+)		KL N	J^{π}: from boson expansion theory (1980We08) and γ-band systematics (1983Ra24), γ's to 3^+.
1677.256 *12*	2^+		DEFGHI M PQ S	XREF: P(1670). XREF: Q(1675),p(1670). J^{π}: E0 component in 989γ to 2^+.
1679.81[&] *20*	(6^-)		LM	J^{π}: from level energy systematics in ^{196}Pt(d,pnγ), γ's to 5^-.
1754.655 *9*	3^-,4^+		EF M	J^{π}: γ's from 2469 to 0^+ and 2^+, from 1755 to 3^- and 5^-, and a connecting 2469 to 1755 γ give J^{π}(2469)=1^- or 2^+, and J^{π}(1755)=3^- or 4^+.
1795.09 *6*	2^+,(1^-)		dEFGH Q	XREF: d(1798). J^{π}: γ's to 2^+ and 0^+ gives 1, 2^+. ARC suggests 0^+, 2^+, (0^-, 1^-, 2^-).
1802.302 *10*	1^+,2^+		dEFGH	XREF: d(1798). J^{π}: γ's to 0^+ and 2^+. ARC suggests 0^+, 1^+, 2^+.
1804.80 *10*	(3^+),4^+		K	J^{π}: E2 γ to 2^+.
1820.69[&] *24*	9^-	<1 ns	B L N	J^{π}: E2 γ to 7^-, negative-parity band member. $T_{1/2}$: from γγ(t) (1968Ja06) in ^{196}Ir β^- decay (1.40 h).
1823.23 *6*	0^+		A DEF H M Q	XREF: d(1819),M(1826),Q(1824). J^{π}: L=0 in ^{198}Pt(p,t) and ^{194}Pt(t,p).
1825.715 *8*	2^+		EF	J^{π}: γ's to 0^+ and 3^- allows 1^- or 2^+. ARC gives 0^+,1^+,2^+, so perhaps 1^- is ruled out.
1831.99 *13*	3^+		K	J^{π}: M1+E2 γ to 2^+,3^+,4^+.
1847.348 *18*	2^+		DEF H Q S	XREF: d(1846),Q(1848). J^{π}: L=2 in ^{198}Pt(p,t) and ^{194}Pt(t,p).
1853.659 *12*	2^+		EF H	J^{π}: γ's to 0^+ and 4^+.
1883.34 *9*	3^+,4^+		D J M PQ S	B(E4)↑=0.0400 *19* XREF: M(1887),p(1880),Q(1884). J^{π}: M1+E2 γ to 2^+,4^+, L=4 in ^{196}Pt(p,p′). B(E4)↑: Weighted average of 0.044 *13* (1985Bo14), 0.0398 *19* (1991Se04), and 0.044 *13* (1992Po09).
1888.139 *13*	1^+,2^+	1.3 ps *+8−6*	EFGH	J^{π}: γ's to 0^+ and 2^+, ARC gives 1^+,(0^+, 2^+). $T_{1/2}$: from Doppler broadening (1990Bo29) in ^{195}Pt(n,γ) E=thermal.
1901.7[&] *3*	(8^-)		L	J^{π}: from level energy systematics in ^{196}Pt(d,pnγ), γ's to 7^-.
1901.89 *10*	5,6,7		K	J^{π}: From excitation functions in 2002Ta14.
1918.54 *4*	0^+		A DEF H	XREF: d(1916). J^{π}: E0 to 0^+, γ's to 2^+.
1932.01 *11*	0^+,1^+,2^+		DEF H Q	XREF: d(1935). J^{π}: γ's to 2^+, ARC gives 0^+,1^+,2^+.

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Adopted Levels, Gammas (continued)

^{196}Pt Levels (continued)

E(level)[†]	J^{π}[a]	$T_{1/2}$	XREF	Comments
1957.25 *20*	(4),5$^+$,6$^+$		K	J^{π}: From excitation functions in 2002Ta14.
1968.906 *12*	1$^+$,(2$^+$)		DEFGH M P	XREF: d(1971),M(1964),p(1960). J^{π}: γ's to 0$^+$ and 2$^+$, L=2+4 in ^{197}Au(d,^{3}He).
1984.93 *5*	1$^+$,2$^+$		EF H K q	XREF: Q(1987). J^{π}: γ's to 0$^+$ and 3$^+$.
1988.218 *9*	1$^+$,2$^+$		EF q	XREF: Q(1987). J^{π}: J^{π}=0$^+$, 1$^+$ and 2$^+$ from E1 deexcitation from capture level 0$^-$, and 1$^-$, 0$^+$ is ruled out from γ's to 3$^-$.
1991.7 *4*	3,4$^+$		K	J^{π}: γ to 2$^+$, ARC in 1979Ci04, large uncertainties of A_2 and A_4 in 2002Ta14. 3 in figure 2 of 2002Ta14.
1998.96 *4*	2$^+$		EFGHi	XREF: I(2010). J^{π}: γ's to 0$^+$ and 4$^+$.
2002.36 *20*	(3$^+$),4$^+$		K	J^{π}: M1+E2 γ to 4$^+$.
2006 *4*	4$^+$		D iJK M q	XREF: I(2010),Q(2006). J^{π}: L=4 in (p,p′) and (t,p). A_2>0 inconsistent with the known spin assignment in 2002Ta14.
2007.4[#] *5*	6$^+$	0.77 ps *19*	i K N q	XREF: I(2010),Q(2006). J^{π}: E2 γ to 4$^+$, γ's to 6$^+$, γ-band member. $T_{1/2}$: deduced from B(E2) and adopted γ-ray properties, see Coulomb excitation.
2013.88 *3*	2$^+$		EFGHi	XREF: I(2010). J^{π}: γ's to 4$^+$ and 3$^-$, E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal.
2029.8 *3*	3$^+$		K	J^{π}: M1+E2 γ to 2$^+$.
2046.99 *6*	2$^+$		DEF H pq S	XREF: p(2050),Q(2052). J^{π}: γ's to 3$^+$, L=(2) natural parity in ^{194}Pt(t,p). E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal.
2055 *3*	1$^+$,2$^+$		M pq	XREF: p(2050),Q(2052). J^{π}: L=0+2 in ^{197}Au(d,^{3}He).
2067.06 *11*	5$^-$,6		K	J^{π}: From $\gamma(\theta)$ and excitation functions in 2002Ta14. 5,6,7 in figure 2 of 2002Ta14.
2069.29 *20*	0$^+$,1$^+$,2$^+$		EF H	J^{π}: γ's to 2$^+$.
2072	6$^+$		Q	J^{π}: from $\gamma(\theta)$ and DWBA in ^{198}Pt(p,t).
2084.30 *11*	4$^-$,5,6$^-$		K	J^{π}: From $\gamma(\theta)$ and excitation functions in 2002Ta14. (5) in figure 2 of 2002Ta14.
2087.327 *21*	3$^-$,4$^+$		EF	J^{π}: γ's to 2$^+$ and 5$^-$.
2093.0 *3*	(2$^+$)		DEFGH Q S	XREF: Q(2095). J^{π}: L=(2) in ^{194}Pt(t,p), γ's to 2$^+$ and 3$^-$.
2116 *2*			d M Q	XREF: d(2120).
2124.389 *22*	3$^-$,4$^+$		dEF pq	XREF: d(2120),p(2120),Q(2128). J^{π}: γ's to 2$^+$ and 5$^-$.
2126.935 *15*	2$^+$		dEF H M pq	XREF: d(2120),p(2120),Q(2128). J^{π}: γ's to 2$^+$ and 3$^-$, 4$^+$, L=2 in ^{197}Au(d,^{3}He). E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal.
2161.5? *4*	(9$^-$,10,11$^-$)		B	J^{π}: γ's to 9$^-$, γ's from (9$^-$,10,11$^-$).
2162.70 *8*	2$^+$		EFGH Q	XREF: Q(2164). J^{π}: γ's to 2$^+$ and 3$^-$.
2170.73 *19*	(5),6$^{(-)}$		K	J^{π}: From $\gamma(\theta)$ and excitation functions in 2002Ta14. 6$^-$,7$^-$ in figure 2 of 2002Ta14.
2174.43 *12*	0$^+$,2$^+$		DEF H m Q	XREF: M(2179). J^{π}: E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal.
2183.6 *3*	1$^+$,2$^+$		EF H m	XREF: M(2179). J^{π}: γ's to 0$^+$.
2199.45 *5*	0$^+$		DEF H Q	XREF: d(2196),Q(2193). J^{π}: L=0 in ^{194}Pt(t,p).

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Adopted Levels, Gammas (continued)

^{196}Pt Levels (continued)

E(level)[†]	J$^{\pi}$[a]	T$_{1/2}$	XREF	Comments
2204.431 *12*	1$^+$,2$^+$		EFGH Q	J$^{\pi}$: γ's to 0$^+$, E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal.
2229.6 *3*	2$^+$		EFGH	J$^{\pi}$: γ's to 2$^+$ and 4$^+$.
2236.32 *21*	(5),6$^-$,7$^-$		K	J$^{\pi}$: From excitation functions. (5),6,7 in figure 2 of 2002Ta14.
2244.57 *20*	3$^+$,4,5$^+$		K	J$^{\pi}$: γ to 4$^+$, $\gamma(\theta)$ and excitation functions in 2004Ta14. 3$^+$,4$^+$,5$^+$,(6$^+$) in figure 2 of 2002Ta14.
2245.559 *14*	1$^+$,2$^+$	0.13 ps *4*	EFGH M RS	XREF: M(2243). T$_{1/2}$: from Γ_0/Γ=0.77 *3*, Γ_0=2.7 meV 9 in ^{196}Pt(γ,γ'). J$^{\pi}$: γ's to 0$^+$, E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal.
2252.7[‡] *6*	8$^+$	0.42 ps *+4−5*	N	J$^{\pi}$: E2 γ to 6$^+$, γ's to 7$^-$ and 9$^-$, ground-state band member. T$_{1/2}$: deduced from B(E2) and adopted γ-ray properties, see Coulomb excitation.
2262.428 *16*	2$^+$		dEF H Q S	XREF: d(2267). J$^{\pi}$: γ's to 1$^+$ and 3$^+$, L=(2) in ^{194}Pt(t,p) for E=2267 *6*.
2271.2 *4*	2$^+$		d H K	XREF: d(2267). J$^{\pi}$: M1+E2 γ to 2$^+$.
2277 *4*	9$^-$		Q	J$^{\pi}$: from $\gamma(\theta)$ and DWBA (1981HyZY) in ^{198}Pt(p,t).
2280 *2*	4$^+$		J M	J$^{\pi}$: L=4 in ^{196}Pt(p,p$'$).
2296 *4*	(7$^-$,8$^+$)		Q	J$^{\pi}$: from L=7; J^{π}=8$^+$, E=2293 keV from $\gamma(\theta)$ and DWBA (1981HyZY).
2309.23 *4*	(2)$^+$		DEF H M	XREF: d(2305),K(2305). J$^{\pi}$: L=(2) in ^{194}Pt(t,p), γ's to 0$^+$ and 2$^+$.
2324.224 *22*	1$^+$,2$^+$		DEF H M	XREF: d(2326),M(2331). J$^{\pi}$: γ's to 2$^+$ and 0$^+$.
2345.3 *3*	1$^+$,2$^+$		EF H M	XREF: M(2349). J$^{\pi}$: γ's to 0$^+$.
2365.976 *19*	2$^+$		EF H M q	XREF: Q(2370). J$^{\pi}$: γ's to 2$^+$ and 3$^-$.
2375.11 *19*	1$^+$,2$^+$		EF H q	XREF: Q(2370). J$^{\pi}$: γ's to 0$^+$ and 2$^+$.
2383.33 *6*	0$^+$,1$^+$,2$^+$		EF H Q	XREF: Q(2386). J$^{\pi}$: γ's to 2$^+$.
2393 *2*			M	
2403.66 *6*	2$^+$		EFGH	J$^{\pi}$: γ's to 2$^+$ and 4$^+$.
2420.4 *1*	(2,3,4$^+$)	68 fs	K	J$^{\pi}$: from data on $\gamma(\theta)$, excitation functions, decay patterns and T$_{1/2}$. See (n,n$'\gamma$). T$_{1/2}$: from DSA in (n,n$'\gamma$), ΔT$_{1/2}$=+400-37 (1993Di05).
2422.51 *4*	0$^+$,1$^+$,2$^+$		DEF H	XREF: d(2419). J$^{\pi}$: γ's to 2$^+$.
2423.42 *7*	(1$^+$,2$^+$,3)	67 fs *+58−24*	K	J$^{\pi}$: from data on $\gamma(\theta)$, excitation functions, decay patterns and T$_{1/2}$. See (n,n$'\gamma$). T$_{1/2}$: from DSA in (n,n$'\gamma$) (1993Di05).
2423.7 *3*	3$^-$		Q S	J$^{\pi}$: γ to 2$^+$,3$^-$. $\gamma(\theta)$ and DWBA from 1981HyZY suggests 7$^-$.
2429.7 *4*	3$^-$	>166 fs	JK M	β_3=0.042 *4* (1988Co19) B(E3)↑=0.079 *10* J$^{\pi}$: L=3 in ^{196}Pt(p,p$'$). T$_{1/2}$: from DSA in (n,n$'\gamma$) (1993Di05). B(E3)↑: Weighted average of 0.070 *14* (1988Co19) and 0.087 *14* (1992Po09).
2433.7 *2*	(0,1,2,3,4)	17 fs *+12−7*	K	J$^{\pi}$: from data on $\gamma(\theta)$, excitation functions, decay patterns and T$_{1/2}$.

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Adopted Levels, Gammas (continued)

^{196}Pt Levels (continued)

E(level)[†]	J^{π}[a]	$T_{1/2}$	XREF	Comments
2438.0 *1*	(1$^+$,2,3,4$^+$)	53 fs +*37*−*17*	K	$T_{1/2}$: from DSA (1993Di05). J^{π}: from data on $\gamma(\theta)$, excitation functions, decay patterns and $T_{1/2}$. $T_{1/2}$: from DSA (1993Di05).
2443.93 *22*	2$^+$		DEFGH Q	XREF: d(2449),Q(2440). J^{π}: γ's to 2$^+$ and 4$^+$.
2454.2 *3*	(7$^-$,8$^+$)		B	J^{π}: see 1430 level.
2460.1 *3*	0$^+$,1$^+$,2$^+$		EF H Q	XREF: Q(2462). J^{π}: γ's to 2$^+$.
2468.0 *3*	10$^-$,11$^-$	<1 ns	B	J^{π}: E2 γ to 9$^-$, no γ to J^{π}<9. $T_{1/2}$: from $\beta\gamma$(t) measurements (1968Ja06) in ^{196}Ir β^- decay (1.40 h).
2469.85 *17*	1$^-$,2$^+$		EF H M	J^{π}: see 1755 level.
2488.238 *24*	1$^+$,2$^+$		dEF H	XREF: d(2489). J^{π}: γ's to 0$^+$ and 2$^+$.
2493.5 *11*	0$^+$,1$^+$,2$^+$		d GH	XREF: d(2489).
2505.12 *5*	2$^+$		EF H M	XREF: M(2505). J^{π}: γ's to 0$^+$, E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal.
2527.84 *4*	1$^+$,2$^+$		dEF H Q	XREF: d(2529). J^{π}: γ's to 0$^+$ and 3$^-$, E1 γ from capture level in (n,γ) E=thermal.
2529.3 *3*	2$^+$		dEFGH Q	XREF: d(2529). J^{π}: γ's to 4$^+$, E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal.
2545 *5*			m Q	XREF: M(2550).
2553.8 *8*	0$^+$,2$^+$		E H m Q	XREF: M(2550). J^{π}: E1 γ from 0$^-$, 1$^-$ capture level in (n,γ) E=thermal. J^{π}: from the average capture results in ^{195}Pt(n,γ) E=2 keV.
2570.8 *7*	1$^+$	0.021 ps *4*	F H M R	J^{π}: from M1 excitation in ^{196}Pt(γ,γ'). $T_{1/2}$: from Γ_0/Γ=0.63 *6*, Γ_0=13.6 meV 22 in ^{196}Pt(γ,γ').
2586.9 *7*	0$^+$,2$^+$		d Hi M	XREF: d(2591),I(2600). J^{π}: L=(2) in ^{194}Pt(t,p).
2599.1 *9*	(0,1$^-$,2)		d F Hi	XREF: d(2591),I(2600). J^{π}: from the average capture results in ^{195}Pt(n,γ) E=2 keV.
2603.2 *2*	(1,2,3,4,5)	>66 fs	i K	XREF: I(2600). J^{π}: from data on $\gamma(\theta)$, excitation functions, decay patterns and $T_{1/2}$. $T_{1/2}$: from DSA (1993Di05).
2606.0 *1*	(2,3,4,5)	>111 fs	i K	XREF: I(2600). J^{π}: from data on $\gamma(\theta)$, excitation functions, decay patterns and $T_{1/2}$. $T_{1/2}$: from DSA (1993Di05).
2606.8 *8*	0$^+$,2$^+$,(1$^+$)		Hi q	XREF: I(2600),Q(2609). J^{π}: from the average capture results in ^{195}Pt(n,γ) E=2 keV.
2608.0 *2*	3$^-$	31 fs +*12*−*8*	i K M q	B(E3)↑=0.034 *7* (1988Co19); β_3=0.029 *3* (1988Co19) XREF: I(2600),Q(2609). J^{π}: L=3 in ^{196}Pt(p,p'). $T_{1/2}$: from DSA (1993Di05).
2614.5 *7*	0$^+$,1$^+$,2$^+$		E Hi q	XREF: I(2600),Q(2609). J^{π}: from the average capture results in ^{195}Pt(n,γ) E=2 keV.

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Adopted Levels, Gammas (continued)

^{196}Pt Levels (continued)

E(level)[†]	J^{π}[a]	$T_{1/2}$	XREF	Comments
2626.4 *1*	(1,2,3)	83 fs	K	J^{π}: from data on $\gamma(\theta)$, excitation functions, decay patterns and $T_{1/2}$. $T_{1/2}$: from DSA, $\Delta T_{1/2}$=+527−42 (1993Di05).
2629.9 *8*	2^+		D H Q	XREF: d(2626),Q(2627). J^{π}: $0^+,2^+,(0^-,1^-,2^-)$ from the average capture results. J^{π}: L=(2) in ^{194}Pt(t,p).
2631.1 *1*	$(2^+,3,4^+)$	24 fs *+14−8*	K	J^{π}: from data on $\gamma(\theta)$, excitation functions, decay patterns and $T_{1/2}$. $T_{1/2}$: from DSA (1993Di05).
2638 *3*	3^-		J M Q	B(E3)↑=0.071 *10*; β_3=0.042 *4* (1988Co19) XREF: Q(2635). J^{π}: L=3 in ^{196}Pt(p,p′). B(E3)↑: Weighted average of 0.070 *14* (1988Co19) and 0.072 *13* (1992Po09).
2659.8 *8*	$0^+,1^+,2^+$		E GHi Q	XREF: I(2670),Q(2655). J^{π}: from the average capture results in ^{195}Pt(n,γ) E=2 keV.
2667.246 *23*	$1^+,2^+$	0.14 ps *+2−1*	DEF Hi Q	XREF: I(2670). J^{π}: γ's to 0^+. $T_{1/2}$: from Doppler broadening (1990Bo29).
2676 *3*			i Q	XREF: I(2670).
2692.2 *8*			D K	
2711.0 *1*	3^-	>55 fs	K M	B(E3)↑=0.051 *10* (1988Co19); β_3=0.036 *4* (1988Co19) J^{π}: L=3 in ^{196}Pt(p,p′). $T_{1/2}$: from DSA (1993Di05).
2723 *5*			D	
2729	11^-		Q	J^{π}: from $\gamma(\theta)$ and DWBA in ^{198}Pt(p,t) (1981HyZY).
2736.1	(1^+)	0.13 ps *5*	R	J^{π}: from M1 excitation in ^{196}Pt(γ,γ'). $T_{1/2}$: from Γ_0/Γ=1, Γ_0=3.6 meV 13 in ^{196}Pt(γ,γ').
2749.6[#] *6*	$(7^-,8^+)$	0.46 ps *+8−6*	N	J^{π}: γ's to 6^+ and 9^-. $T_{1/2}$: deduced from B(E2) and adopted γ-ray properties.
2757 *4*			D Q	XREF: d(2756).
2766 *3*			Q	
2774 *4*			D M	XREF: d(2774).
2779 *3*			Q	
2797 *3*			M	
2817 *6*			D	
2824.0	1^+	7.1 fs *13*	R	J^{π}: from M1 excitation in ^{196}Pt(γ,γ'). $T_{1/2}$: from Γ_0/Γ=0.41 *4*, Γ_0=27.5 meV 42 in ^{196}Pt(γ,γ').
2834 *5*			D	
2875.4	$1^+,(2)^+$	0.088 ps *15*	D R	J^{π}: $J^{\pi}=1^+$ from M1 excitation in ^{196}Pt(γ,γ'), L=(2) in ^{194}Pt(t,p). $T_{1/2}$: from Γ_0/Γ=1, Γ_0=5.2 meV 9 in ^{196}Pt(γ,γ').
2888.8? *4*	$(9^-,10,11^-)$		B	J^{π}: γ's to 11^- and 9^-, log *ft*=6.5 from $(10,11^-)$.
2974	9^-		Q	J^{π}: from $\gamma(\theta)$ and DWBA (1981HyZY) in ^{198}Pt(p,t).
3044.0[‡] *9*	(10^+)		N	J^{π}: γ's to 8^+, ground-state band member.
3124.2	1,2	0.13 ps *4*	R	J^{π}: γ excitation in ^{196}Pt(γ,γ'). $T_{1/2}$: from Γ_0/Γ=1, Γ_0=3.5 meV 10 in ^{196}Pt(γ,γ').
3131.8	1,2	0.13 ps *4*	R	J^{π}: γ excitation in ^{196}Pt(γ,γ'). $T_{1/2}$: from Γ_0/Γ=1, Γ_0=3.4 meV 10 in ^{196}Pt(γ,γ').
3161.9 *4*	$(9^-,10,11^-)$		B	J^{π}: γ's to 11^- and 9^-, log *ft*=5.9 from $(10,11^-)$.
3176.3? *4*	(9^-)		B	J^{π}: γ's to 7^- and 9^-, log *ft*=6.7 from $(10,11^-)$.
3214.8? *4*	(9^-)		B	J^{π}: γ's to 7^- and 9^-, log *ft*=6.5 from $(10,11^-)$.
3298.0	2^+	0.029 ps *4*	R	J^{π}: γ excitation in ^{196}Pt(γ,γ').

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Adopted Levels, Gammas (continued)

^{196}Pt Levels (continued)

E(level)[†]	J^{π}[a]	$T_{1/2}$	XREF	Comments
				$T_{1/2}$: from Γ_0/Γ=1, Γ_0=15.7 meV 21 in ^{196}Pt(γ,γ').
3303.5 *3*	(10,11$^-$)		B	J^{π}: γ's to 11$^-$ and 9$^-$, log *ft*=5.1 from (10,11$^-$).
3366.8	1,2	0.13 ps *3*	R	J^{π}: γ excitation in ^{196}Pt(γ,γ'). $T_{1/2}$: from Γ_0/Γ=1, Γ_0=3.5 meV 7 in ^{196}Pt(γ,γ').
3424.3	1,2	0.064 ps *12*	R	J^{π}: γ excitation in ^{196}Pt(γ,γ'). $T_{1/2}$: from Γ_0/Γ=1, Γ_0=7.1 meV 13 in ^{196}Pt(γ,γ').

† From least-squares fit to Eγ's. In addition to the (d,p) levels shown, broad peaks at 2010 *20*, 2600 *20*, and 2670 *20* are reported. Each of these could correspond to one or more Adopted Levels.

‡ Band(A): ground-state rotational band.

Band(B): γ vibrational band.

@ Band(C): Band based on the 0+(2) state Related either to the β-vibration or to the K=0 two-phonon γ-vibration.

& Band(D): semi-decoupled negative-parity band.

a From the average capture results in ^{195}Pt(n,γ) E=2 keV, and other arguments as noted.

$\gamma(^{196}Pt)$

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[d]	δ[f]	α[g]	Comments
355.6841	2^+	355.684 *2*	100.0	0.0	0^+	E2		0.0603	α(K)=0.0402 *6*; α(L)=0.01520 *22*; α(M)=0.00377 *6*; α(N+..)=0.001081 *16* B(E2)(W.u.)=40.60 *20* Mult.: based on α(K)exp=0.0395 *22* (1962Ja10),0.041 *3* and 0.042 *3* (1962Ge07), 0.0367 *24* (1960De17), 0.042 *3* (1956Th10). Supported by K/L=2.1 *1*, L/M+=2.9 *7*; see also ^{196}Au ε decay and ^{196}Pt Coulomb excitation. Measured prompt yrast γ production cross sections in ^{196}Pt reaction with 1-250 MeV spallation neutrons (2001Ta31).
688.693	2^+	332.983 *24*	100.0 *23*	355.6841	2^+	E0+M1+E2	−5.2 *5*	0.0782 *17*	B(E2)(W.u.)=54 *+11−12*; B(M1)(W.u.)=0.00058 *+13−9* α(K)=0.0523 *14*; α(L)=0.0197 *3*; α(M)=0.00488 *7*; α(N+..)=0.001399 *21* δ: from ^{196}Au ε decay (6.1669 d). Mult.: ce(E0)/I$\gamma\approx$0.003 or 0.009 from Q^2=ce(E0)/ce(E2)$\approx$0.05 or 0.17 with α(K)=0.0529 from ^{196}Au ε decay. B(M1)(W.u.) and B(E2)(W.u.) values corrected, B. Singh, Aug 13, 2021. Previous value of B(M1)(W.u.)=0.0158 *7* in this dataset was incorrect since it corresponded to pure M1 for 332.98γ, not M1+E2, δ=−5.2 *5*. Note that E0 admixture is considered insignificant, as indicated by measured ce(E0)/I$\gamma\approx$0.003 or 0.009 in ^{196}Au ε decay. Measured prompt nonyrast γ production cross sections in ^{196}Pt reaction with 1-250 MeV spallation neutrons (2001Ta31).
		688.76 *10*	<0.0005	0.0	0^+	(E2)		0.01184	α(K)=0.00924 *13*; α(L)=0.00199 *3*; α(M)=0.000473 *7*; α(N+..)=0.0001375 *20* B(E2)(W.u.)<7.8×10^{-6} B(E2)(W.u.) value edited, B. Singh, Aug 13, 2021. Previous value was 4×10^{-6} *4* in this dataset.
876.865	4^+	521.175 *5*	100	355.6841	2^+	E2		0.0224	α(K)=0.01667 *24*; α(L)=0.00436 *6*; α(M)=0.001055 *15*; α(N+..)=0.000305 *5* B(E2)(W.u.)=60.0 *9* Measured prompt yrast γ production cross sections in ^{196}Pt reaction with 1-250 MeV spallation neutrons (2001Ta31).
1015.044	3^+	138.178 *4*	1.3 *4*	876.865	4^+	[M1]		2.65	α(K)=2.18 *3*; α(L)=0.360 *5*; α(M)=0.0833 *12*; α(N+..)=0.0246 *4*
		326.349 *4*	100 *8*	688.693	2^+	E2		0.0769	α(K)=0.0496 *7*; α(L)=0.0207 *3*; α(M)=0.00516 *8*; α(N+..)=0.001478 *21* Mult.: from K/L=2.7 *8* in ^{195}Pt(n,γ) E=thermal. Measured prompt nonyrast γ production cross sections in ^{196}Pt reaction with 1-250 MeV spallation neutrons (2001Ta31).
		659.389 *12*	4.4 *9*	355.6841	2^+	(M1)		0.0379	α(K)=0.0314 *5*; α(L)=0.00501 *7*; α(M)=0.001153 *17*; α(N+..)=0.000340 *5*
1135.312	0^+	446.613 *3*	39 *3*	688.693	2^+	E2		0.0328	B(E2)(W.u.)=18 *10*

Adopted Levels, Gammas (continued)

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

E_i(level)	J_i^π	E_γ†	I_γ‡	E_f	J_f^π	Mult.d	αg	$I_{(\gamma+ce)}$	Comments
									α(K)=0.0236 *4*; α(L)=0.00704 *10*; α(M)=0.001723 *25*; α(N+..)=0.000496 *7* Mult.: from K/L=2.4 *9* in ^{195}Pt(n,γ) E=thermal.
1135.312	0^+	779.630 *7*	100 *8*	355.6841	2^+	E2	0.00908		B(E2)(W.u.)=2.8 *15* α(K)=0.00720 *10*; α(L)=0.001445 *21*; α(M)=0.000342 *5*; α(N+..)=9.96×10^{-5} *14* Mult.: from α(K)exp=0.017 *7* in ^{195}Pt(n,γ) E=thermal.
		1135.3 *7*		0.0	0^+	E0		<0.024	$I_{(\gamma+ce)}$: Iε: Ice(K)/Σ Iγ <0.01 (1982Ka28), Σ Iγ/Iγ(779γ)=1.39. ce(K)<0.6 (1982Ka28). ce(K): ce(K) is given for per 1000 capture events where it is assumed that 80% percent of capture events populate the 2(1)$^+$ state ce(K)<0.01% for E0 branch, relative to the total depopulating intensity from 1135-keV level (1982Ka28). X(E0)=B(E0)[0$^+$ to 0+(0)]/B(E2)[0$^+$ to 2+(356)]<0.005 (1982Ka28) in ^{195}Pt(n,γ) E=thermal.
1270.214	5^-	393.346 *7*	100	876.865	4^+	E1	0.01396		B(E1)(W.u.)=2.9×10^{-6} *6* α(K)=0.01159 *17*; α(L)=0.00182 *3*; α(M)=0.000419 *6*; α(N+..)=0.0001220 *17* Measured prompt yrast γ production cross sections in ^{196}Pt reaction with 1-250 MeV spallation neutrons (2001Ta31).
		914.6 *3*	0.30 *5*	355.6841	2^+	[E3]	0.01533		B(E3)(W.u.)=2.7 *7* α(K)=0.01145 *16*; α(L)=0.00295 *5*; α(M)=0.000716 *10*; α(N+..)=0.000209 *3* α: E3 α(theory)'s mult. By 0.975 *10* (Cf. 1990Ne01). I_γ,E_γ: from ^{196}Ir β^- decay (1.40 h). Mult.: γ's to 2$^+$, and from recommended upper limits for γ-ray strengths.
1293.308	4^+	416.443 *6*	17 *5*	876.865	4^+				α(K)= 0.0346; α(L)=0.00968; α(M)=0.00235; α(N+..)=0.00072 B(M1)(W.u.)=0.0076 *25*; B(E2)(W.u.)=17 *6* Mult.: from recommended upper limits for γ-ray strengths. δ: extrapolated using a theoretical model of Greiner (1966Gr32), see Coulomb excitation (1990Ma37). 1966GrZX reference corrected to 1966Gr32, B. Singh, Aug 13, 2021.
		604.616 *7*	100 *8*	688.693	2^+	[E2]	0.01582		α(K)=0.01211 *17*; α(L)=0.00283 *4*; α(M)=0.000680 *10*; α(N+..)=0.000197 *3* B(E2)(W.u.)=29 *+6−29* Mult.: from γ's to 2$^+$ and Coulomb excitation.
		937.62 *7*	17 *2*	355.6841	2^+	[E2]	0.00622		α(K)=0.00502 *7*; α(L)=0.000926 *13*; α(M)=0.000217 *3*; α(N+..)=6.34×10^{-5} *9* B(E2)(W.u.)=0.56 *+12−17* Mult.: from γ's to 2$^+$ and Coulomb excitation.
1361.585	2^+	226.270 *3*	4.3 *10*	1135.312	0^+	[E2]	0.238		B(E2)(W.u.)=5 *5* α(K)=0.1244 *18*; α(L)=0.0855 *12*; α(M)=0.0217 *3*; α(N+..)=0.00618 *9*
		346.541 *3*	22 *4*	1015.044	3^+	[M1]	0.207		B(M1)(W.u.)=0.0010 *9* α(K)=0.1707 *24*; α(L)=0.0277 *4*; α(M)=0.00640 *9*; α(N+..)=0.00189 *3*

$^{196}_{78}Pt_{118}$-10

γ(^{196}Pt) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[d]	α[g]	$I_{(\gamma+ce)}$	Comments
1361.585	2^+	484.707 *25*	4.7 *13*	876.865	4^+	[E2]	0.0267		B(E2)(W.u.)=0.13 *12* α(K)=0.0196 *3*; α(L)=0.00544 *8*; α(M)=0.001323 *19*; α(N+..)=0.000382 *6*
		672.900 *7*	100 *7*	688.693	2^+	(M1+E2)	0.024 *12*		B(M1)(W.u.)=0.0003 *3*; B(E2)(W.u.)=0.26 *23* α(K)=0.020 *10*; α(L)=0.0034 *14*; α(M)=0.0008 *3*; α(N+..)=0.00023 *9* Mult.: from α(K)exp and K/L in ^{195}Pt(n,γ) E=thermal.
		1005.894 *20*	80 *7*	355.6841	2^+				
		1361.0 *10*	18 *3*	0.0	0^+	[E2]	0.00305		B(E2)(W.u.)=0.0025 *24* α(K)=0.00249 *4*; α(L)=0.000410 *6*; α(M)=9.48×10^{-5} *14*; α(N+..)=5.61×10^{-5} *8* E_γ: from ^{196}Au ε decay.
1373.60	7^-	103.3 *2*	100[@]	1270.214	5^-	E2	4.28 *7*		α(K)=0.685 *10*; α(L)=2.70 *5*; α(M)=0.699 *12*; α(N+..)=0.197 *4* B(E2)(W.u.)=25.9 *13*
1402.727	0^+	714.041 *20*	<2.4[a]	688.693	2^+	[E2]	0.01095		B(E2)(W.u.)<0.41 α(K)=0.00858 *12*; α(L)=0.00181 *3*; α(M)=0.000430 *6*; α(N+..)=0.0001250 *18*
		1047.044 *20*	100 *7*	355.6841	2^+	(E2)	0.00500		B(E2)(W.u.)<5.0 α(K)=0.00406 *6*; α(L)=0.000720 *10*; α(M)=0.0001681 *24*; α(N+..)=4.92×10^{-5} *7*
		1402.7 *7*		0.0	0^+	E0		1.36 *16*	ce(K)=26.9 *11* (1982Ka28). ce(K): Iε is given for per 1000 capture events where it is assumed that 80% of capture events populate the 2(1)$^+$ state. ce(K)=0.90% for E0 branch, relative to the total depopulating intensity from 1403-keV level (1982Ka28). $I_{(\gamma+ce)}$: Iε: From Ice(K)/Σ Iγ=0.90 (1982Ka28), Σ Iγ/Iγ(1047γ)=1.024. X(E0)=B(E0)[O+ to 0+(0)]/B(E2)[0^+ to 2+(356)]=0.092 (1982Ka28).
1429.74?	(5^-,6^+)	553.0 *3*	100	876.865	4^+	[E2]	0.0194		α(K)=0.01465 *21*; α(L)=0.00366 *6*; α(M)=0.000882 *13*; α(N+..)=0.000255 *4*
1447.043	3^-	176.830 *3*	8.7 *23*	1270.214	5^-	[E2]	0.551		B(E2)(W.u.)=4.1 *16* α(K)=0.231 *4*; α(L)=0.241 *4*; α(M)=0.0617 *9*; α(N+..)=0.01749 *25*
		431.982 *24*	8.7 *13*	1015.044	3^+	[E1,M2]	0.19 *18*		B(E1)(W.u.)=1.1×10^{-7} *4*; B(M2)(W.u.)=2.6 *9* α(K)=0.15 *14*; α(L)=0.03 *3*; α(M)=0.007 *7*; α(N+..)=0.0021 *21*
		570.203 *18*	4.7 *13*	876.865	4^+	(E1+M2)	0.08 *8*		α(K)=0.07 *7*; α(L)=0.013 *13* B(E1)(W.u.)=(2.5×10^{-8} *10*); B(M2)(W.u.)=(0.36 *14*) Mult.: α(K)exp=0.016 *6* consistent with E1+M2 or M1+E2. The decay scheme requires $\Delta\pi$=yes. α(K)exp gives δ=0.31 *+9−11*.
		758.358 *10*	20 *7*	688.693	2^+	E1	0.00356		B(E1)(W.u.)=9.E−8 *4* α(K)=0.00298 *5*; α(L)=0.000445 *7*; α(M)=0.0001016 *15*; α(N+..)=2.98×10^{-5} *5*

$^{196}_{78}Pt_{118}$-11

γ(^{196}Pt) (continued)

E_i(level)	J^π_i	E_γ†	I_γ‡	E_f	J^π_f	Mult.[d]	α[g]	Comments
								Measured prompt nonyrast γ production cross sections in ^{196}Pt reaction with 1-250 MeV spallation neutrons (2001Ta31).
1447.043	3^-	1091.331 *17*	100 *7*	355.6841	2^+	E1	0.00181	B(E1)(W.u.)=1.5×10^{-7} *5* α(K)=0.001521 *22*; α(L)=0.000222 *4*; α(M)=5.06×10^{-5} *7*; α(N+..)=1.486×10^{-5} *21* Measured prompt nonyrast γ production cross sections in ^{196}Pt reaction with 1-250 MeV spallation neutrons (2001Ta31).
		1446.84[i] *12*	15[i] *3*	0.0	0^+	[E3]	0.00554	B(E3)(W.u.)=5.9 *21* α(K)=0.00441 *7*; α(L)=0.000849 *12*; α(M)=0.000200 *3*; α(N+..)=7.99×10^{-5} *12* α: E3 α(theory)′s mult. By 0.975 *10* (Cf. 1990Ne01).
1525.8	6^+	649.3 *7*	100[b]	876.865	4^+	[E2]	0.01348	α(K)=0.01043 *15*; α(L)=0.00233 *4*; α(M)=0.000556 *8*; α(N+..)=0.0001614 *24* B(E2)(W.u.)=73 *+4−73* Mult.: from Coulomb excitation.
1535.8	4^+	521 *1*	100[b] *7*	1015.044	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*
		847 *1*	0.18[b] *7*	688.693	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*
		1180 *1*	0.22[b] *9*	355.6841	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*
1604.494	2^+	201.769 *6*	4 *1*	1402.727	0^+	(E2)	0.349	α(K)=0.1662 *24*; α(L)=0.1375 *20*; α(M)=0.0351 *5*; α(N+..)=0.00995 *14* Mult.: from K/L in ^{195}Pt(n,γ) E=thermal.
		589.434 *20*	4 *2*	1015.044	3^+	[M1,E2]	0.034 *17*	α(K)=0.027 *15*; α(L)=0.0049 *19*; α(M)=0.0011 *4*; α(N+..)=0.00033 *13*
		727.581 *23*	44 *9*	876.865	4^+	(E2)	0.01051	α(K)=0.00826 *12*; α(L)=0.001722 *25*; α(M)=0.000409 *6*; α(N+..)=0.0001190 *17* Mult.: from ce(K) in ^{195}Pt(n,γ) E=thermal.
		915.80 *6*	40 *4*	688.693	2^+	[M1,E2]	0.011 *5*	α(K)=0.009 *5*; α(L)=0.0016 *6*; α(M)=0.00036 *14*; α(N+..)=0.00011 *4*
		1248.84 *3*	100 *9*	355.6841	2^+	E0+M1+E2	0.0055 *20*	α(K)exp=0.058 *5* (1982Ka28) α(K)=0.0046 *17*; α(L)=0.00073 *24*; α(M)=0.00017 *6*; α(N+..)=6.2×10^{-5} *19* ce(K): Relative to 1249γ intensity as 100 from 1982Ka28. Mult.: from α(K)exp in ^{195}Pt(n,γ) E=thermal.
		1604.3 *3*	20 *4*	0.0	0^+	[E2]	0.00233	α(K)=0.00185 *3*; α(L)=0.000294 *5*; α(M)=6.76×10^{-5} *10*; α(N+..)=0.0001218 *17*
1609.74	(5^+)	594.7 *2*	100[&]	1015.044	3^+	[E2]	0.01643	α(K)=0.01254 *18*; α(L)=0.00297 *5*; α(M)=0.000713 *10*; α(N+..)=0.000207 *3*
1677.256	2^+	315.58 *8*	3 *1*	1361.585	2^+	[M1,E2]	0.18 *9*	α(K)=0.14 *9*; α(L)=0.030 *7*; α(M)=0.0071 *12*; α(N+..)=0.0021 *4*
		541.942 *20*	5 *1*	1135.312	0^+	[E2]	0.0204	α(K)=0.01531 *22*; α(L)=0.00388 *6*; α(M)=0.000937 *14*; α(N+..)=0.000271 *4*
		662.188 *16*	13 *3*	1015.044	3^+	[M1,E2]	0.025 *13*	α(K)=0.021 *11*; α(L)=0.0036 *14*; α(M)=0.0008 *3*; α(N+..)=0.00024 *10*
		800.38 *5*	5 *1*	876.865	4^+	[E2]	0.00860	α(K)=0.00683 *10*; α(L)=0.001353 *19*; α(M)=0.000320 *5*; α(N+..)=9.32×10^{-5} *13*

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

E_i(level)	J_i^π	E_γ [†]	I_γ [‡]	E_f	J_f^π	Mult. [d]	α [g]	$I_{(\gamma+ce)}$	Comments
1677.256	2^+	988.54 *7*	21 *3*	688.693	2^+	E0+M1+E2	0.010 *4*		α(K)exp=0.089 *11* (1982Ka28); ce(K)=1.6 *3* α(K)=0.008 *4*; α(L)=0.0013 *5*; α(M)=0.00030 *11*; α(N+..)=9.E−5 *4* ce(K): Relative to 1678γ intensity as 100 from 1982Ka28. α(K)(E2)=0.0046; α(K)(M1)=0.015. Mult.: from α(K)exp in ^{195}Pt(n,γ) E=thermal. E0 violates the O(6) selection rules for both σ and τ (1982Ka28).
		1321.74 *4*	60 *20*	355.6841	2^+	[M1,E2]	0.0049 *17*		α(K)=0.0040 *14*; α(L)=0.00064 *21*; α(M)=0.00015 *5*; α(N+..)=6.9×10^{-5} *20*
		1677.5 *2*	100 *13*	0.0	0^+	[E2]	0.00218		α(K)=0.001702 *24*; α(L)=0.000269 *4*; α(M)=6.18×10^{-5} *9*; α(N+..)=0.0001481 *21*
1679.81	(6^-)	409.6 *2*	100 [&]	1270.214	5^-	[M1,E2]	0.09 *5*		α(K)=0.07 *5*; α(L)=0.014 *5*; α(M)=0.0033 *10*; α(N+..)=0.0010 *3*
1754.655	$3^-,4^+$	307.616 *9*	73 *14*	1447.043	3^-	[M1,E2]	0.19 *10*		α(K)=0.15 *9*; α(L)=0.032 *7*; α(M)=0.0077 *13*; α(N+..)=0.0022 *4*
		484.438 *11*	100 *32*	1270.214	5^-	[M1,E2]	0.06 *3*		α(K)=0.05 *3*; α(L)=0.009 *4*; α(M)=0.0020 *7*; α(N+..)=0.00063 *22*
		877.77 *3*	86 *14*	876.865	4^+	[E1,M2]	0.024 *22*		α(K)=0.020 *18*; α(L)=0.003 *4*; α(M)=0.0008 *8*; α(N+..)=0.00024 *22*
1795.09	$2^+,(1^-)$	1106.6 *2*	40 *7*	688.693	2^+				
		1439.38 *6*	100 *8*	355.6841	2^+				
		1795.0 *3*	25 *6*	0.0	0^+				
1802.302	$1^+,2^+$	440.709 *9*	3 *2*	1361.585	2^+	[M1,E2]	0.07 *4*		α(K)=0.06 *4*; α(L)=0.011 *4*; α(M)=0.0026 *9*; α(N+..)=0.0008 *3*
		666.99 *3*	2 *1*	1135.312	0^+				
		1113.72 *4*	19 *3*	688.693	2^+	[M1,E2]	0.007 *3*		α(K)=0.006 *3*; α(L)=0.0010 *4*
		1446.84 [i] *12*	12 [i] *3*	355.6841	2^+	[M1,E2]	0.0040 *13*		α(K)=0.0033 *11*; α(L)=0.00052 *16*; α(M)=0.00012 *4*; α(N+..)=9.9×10^{-5} *24*
		1802.3 *2*	100 *8*	0.0	0^+				
1804.80	$(3^+),4^+$	443.21 *10*	100	1361.585	2^+	E2	0.0335		α(K)=0.0240 *4*; α(L)=0.00722 *11*; α(M)=0.001767 *25*; α(N+..)=0.000509 *8*
1820.69	9^-	447.1 *2*	100 [@]	1373.60	7^-	E2	0.0327		B(E2)(W.u.)>0.45 α(K)=0.0235 *4*; α(L)=0.00702 *10*; α(M)=0.001717 *25*; α(N+..)=0.000495 *7*
1823.23	0^+	1134.55 *8*	<0.8 [a]	688.693	2^+	[E2]	0.00428		α(K)=0.00349 *5*; α(L)=0.000604 *9*; α(M)=0.0001404 *20*; α(N+..)=4.18×10^{-5} *6*
		1467.53 *8*	100 *10*	355.6841	2^+	[E2]	0.00268		α(K)=0.00217 *3*; α(L)=0.000351 *5*; α(M)=8.11×10^{-5} *12*; α(N+..)=8.01×10^{-5} *12*
		1823.2 *4*		0.0	0^+	E0		<0.11	ce(K)<0.6 (1982Ka28). ce(K): Iε is given for 1000 capture events where it is assumed that 80% of capture events populate the 2(1)$^+$ state. ce(K)<0.08% for E0 branch, relative to the total depopulating intensity from 1823-keV level (1982Ka28).

γ(^{196}Pt) (continued)

E$_i$(level)	J$^\pi_i$	E$_\gamma$ [†]	I$_\gamma$ [‡]	E$_f$	J$^\pi_f$	Mult. [d]	α [g]	Comments
								X(E0)=B(E0)(0$^+$ to 0+(0))/B(E2)(0$^+$ to 2+(356))<0.03 (1982Ka28).
1825.715	2$^+$	378.675 *14*	22 *3*	1447.043	3$^-$	[E1]	0.01520	α(K)=0.01262 *18*; α(L)=0.00199 *3*; α(M)=0.000458 *7*; α(N+..)=0.0001333 *19*
		423.00 *3*	9 *1*	1402.727	0$^+$	[E2]	0.0378	α(K)=0.0267 *4*; α(L)=0.00841 *12*; α(M)=0.00206 *3*; α(N+..)=0.000594 *9*
		464.126 *9*	4.2 *9*	1361.585	2$^+$			
		690.403 *12*	17 *3*	1135.312	0$^+$	[E2]	0.01177	α(K)=0.00919 *13*; α(L)=0.00197 *3*; α(M)=0.000470 *7*; α(N+..)=0.0001367 *20*
		1137.01 *3*	32 *10*	688.693	2$^+$			
		1826.0 *2*	100 *8*	0.0	0$^+$	[E2]	0.00195	α(K)=0.001459 *21*; α(L)=0.000227 *4*; α(M)=5.22×10^{-5} *8*; α(N+..)=0.000207 *3*
1831.99	3$^+$	816.94 *14*	100 *3*	1015.044	3$^+$	M1+E2 [e]	0.015 *7*	α(K)=0.012 *6*; α(L)=0.0021 *8*; α(M)=0.00048 *18*; α(N+..)=0.00014 *6*
		955.5 *5*	7 *2*	876.865	4$^+$	M1+E2 [e]	0.010 *5*	α(K)=0.009 *4*; α(L)=0.0014 *6*; α(M)=0.00032 *12*; α(N+..)=0.00010 *4*
		1143.2 *3*	32 *3*	688.693	2$^+$	M1+E2 [e]	0.007 *3*	α(K)=0.0056 *22*; α(L)=0.0009 *4*; α(M)=0.00021 *7*; α(N+..)=6.3×10^{-5} *22*
		1476.01		355.6841	2$^+$	M1+E2 [e]	0.0038 *12*	α(K)=0.0031 *10*; α(L)=0.00049 *15*; α(M)=0.00011 *4*; α(N+..)=0.00011 *3*
1847.348	2$^+$	242.858 *17*	1.1 *5*	1604.494	2$^+$	[M1,E2]	0.37 *18*	α(K)=0.28 *18*; α(L)=0.069 *5*; α(M)=0.0166 *5*; α(N+..)=0.00482 *21*
		1158.82 *13*	5 *1*	688.693	2$^+$	E0+M1+E2	0.0066 *25*	α(K)exp<0.02 (1982Ka28); ce(K)≤0.06 α(K)=0.0054 *21*; α(L)=0.0009 *3*; α(M)=0.00020 *7*; α(N+..)=6.1×10^{-5} *21* ce(K): Relative to 1492γ intensity as 100 from 1982Ka28. Mult.: from ^{195}Pt(n,γ) E=thermal.
		1491.60 *4*	100 *9*	355.6841	2$^+$	[M1,E2]	0.0038 *12*	α(K)=0.0030 *10*; α(L)=0.00048 *14*; α(M)=0.00011 *4*; α(N+..)=0.00011 *3*
1853.659	2$^+$	560.354 *10*	9.6 *24*	1293.308	4$^+$	[E2]	0.0189	α(K)=0.01424 *20*; α(L)=0.00352 *5*; α(M)=0.000848 *12*; α(N+..)=0.000246 *4*
		1497.85 *6*	100 *9*	355.6841	2$^+$	[M1,E2]	0.0037 *12*	α(K)=0.0030 *10*; α(L)=0.00048 *14*; α(M)=0.00011 *4*; α(N+..)=0.00012 *3*
		1853.6 *3*	20 *3*	0.0	0$^+$	[E2]	0.00191	α(K)=0.001420 *20*; α(L)=0.000221 *3*; α(M)=5.07×10^{-5} *8*; α(N+..)=0.000219 *3*
1883.34	3$^+$,4$^+$	589.99 *11*		1293.308	4$^+$	M1+E2 [e]	0.034 *17*	α(K)=0.027 *15*; α(L)=0.0049 *19*; α(M)=0.0011 *4*; α(N+..)=0.00033 *13*
		868.22 *19*	100 *2*	1015.044	3$^+$			
		1195.0 *2*	47 *2*	688.693	2$^+$	M1+E2 [e]	0.0061 *23*	α(K)=0.0051 *19*; α(L)=0.0008 *3*; α(M)=0.00019 *7*; α(N+..)=6.0×10^{-5} *20*
		1527.56		355.6841	2$^+$			
1888.139	1$^+$,2$^+$	526.58 *3*	2.6 *7*	1361.585	2$^+$	[M1,E2]	0.045 *24*	B(M1)(W.u.)=0.0006 *4*; B(E2)(W.u.)=0.8 *6* α(K)=0.036 *20*; α(L)=0.0066 *25*; α(M)=0.0016 *6*; α(N+..)=0.00046 *16*
		752.823 *14*	13 *2*	1135.312	0$^+$			
		1199.50 *4*	66 *13*	688.693	2$^+$	[M1,E2]	0.0061 *23*	B(M1)(W.u.)=0.0013 *9*; B(E2)(W.u.)=0.34 *22* α(K)=0.0050 *19*; α(L)=0.0008 *3*; α(M)=0.00019 *7*; α(N+..)=6.0×10^{-5} *20*
		1532.30 [i] *5*	72 [i] *20*	355.6841	2$^+$	[M1,E2]	0.0036 *11*	B(M1)(W.u.)=0.0007 *5*; B(E2)(W.u.)=0.11 *8* α(K)=0.0029 *9*; α(L)=0.00045 *13*; α(M)=0.00010 *3*; α(N+..)=0.00013 *3*
		1888.4 *2*	100 *8*	0.0	0$^+$			
1901.7	(8$^-$)	528.1 *2*	100 [&]	1373.60	7$^-$	[M1,E2]	0.045 *23*	α(K)=0.036 *20*; α(L)=0.0066 *24*; α(M)=0.0015 *6*; α(N+..)=0.00045 *16*
1901.89	5,6,7	631.68 *10*	100	1270.214	5$^-$			
1918.54	0$^+$	1229.65 *13*	18 *4*	688.693	2$^+$	[E2]	0.00367	α(K)=0.00301 *5*; α(L)=0.000508 *8*; α(M)=0.0001177 *17*; α(N+..)=4.17×10^{-5} *6*
		1562.85 *5*	100 *10*	355.6841	2$^+$	[E2]	0.00242	α(K)=0.00194 *3*; α(L)=0.000310 *5*; α(M)=7.13×10^{-5} *10*; α(N+..)=0.0001080 *16*

γ(^{196}Pt) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[d]	α[g]	$I_{(\gamma+ce)}$	Comments
1918.54	0+	1918.5 *8*		0.0	0+	E0		0.16 *3*	ce(K)=1.4 *2* (1982Ka28). ce(K): Iε is given for 1000 capture events where it is assumed that 80% of capture events populate the 2(1)+ state. ce(K)=0.088% for E0 branch, relative to the total depopulating intensity from 1919-keV level (1982Ka28). X(E0)=B(E0)[0+ to 0+(0)]/B(E2)[0+ to 2+(356)]=0.060 (1982Ka28).
1932.01	0+,1+,2+	1576.32 *11*	100	355.6841	2+				
1957.25	(4),5+,6+	1080.39 *20*	100	876.865	4+				B(E2)↓=0.49 *6* (2002Ta14)
1968.906	1+,(2+)	566.174 *8*	23 *6*	1402.727	0+				
		833.58 *5*	31 *3*	1135.312	0+				
		1613.1 *3*	14 *3*	355.6841	2+				
		1969.1 *2*	100 *13*	0.0	0+				
1984.93	1+,2+	623.34 *5*	100 *17*	1361.585	2+	[M1,E2]	0.029 *15*		α(K)=0.024 *13*; α(L)=0.0042 *16*; α(M)=0.0010 *4*; α(N+..)=0.00029 *11*
		849.74[j] *9*	58 *17*	1135.312	0+				
		969.94 *12*	67 *17*	1015.044	3+				
		1296.6 *3*	100 *15*	688.693	2+				
1988.218	1+,2+	541.174 *7*	35 *8*	1447.043	3−				
		626.636 *18*	14 *2*	1361.585	2+				
		1632.4 *2*	100 *8*	355.6841	2+				
1991.7	3,4+	1303.0 *4*	100	688.693	2+				
1998.96	2+	705.65 *4*	13 *3*	1293.308	4+	[E2]	0.01123		α(K)=0.00879 *13*; α(L)=0.00186 *3*; α(M)=0.000443 *7*; α(N+..)=0.0001289 *18*
		1643.4 *2*	100 *8*	355.6841	2+	[M1,E2]	0.0031 *9*		α(K)=0.0025 *7*; α(L)=0.00038 *11*; α(M)=8.8×10^{-5} *24*; α(N+..)=0.00017 *4*
		1999.3 *4*	42 *13*	0.0	0+	[E2]	1.76×10^{-3}		α(K)=0.001238 *18*; α(L)=0.000191 *3*; α(M)=4.37×10^{-5} *7*; α(N+..)=0.000282 *4*
2002.36	(3+),4+	1125.5 *2*	100	876.865	4+	M1+E2[e]	0.007 *3*		α(K)=0.0058 *23*; α(L)=0.0009 *4*; α(M)=0.00022 *8*; α(N+..)=6.4×10^{-5} *23*
2006	4+	735.67 *9*	100	1270.214	5−				
2007.4	6+	481.4 *7*	9.2[b] *18*	1525.8	6+	[E2,M1]	0.06 *3*		α(K)=0.05 *3*; α(L)=0.009 *4*; α(M)=0.0021 *7*; α(N+..)=0.00064 *22* B(M1)(W.u.)=0.010 *3*; B(E2)(W.u.)=16 *5* Mult.: γ′s to 6+. δ: extrapolated using a theoretical model of Greiner (1966GrZX) see Coulomb excitation (1990Ma37). 1966GrZX: w.greiner nucl.phys. 80 *417* (1966).
		714.0 *7*	100[b] *3*	1293.308	4+	E2	0.01095		B(E2)(W.u.)=49 *13* α(K)=0.00859 *13*; α(L)=0.00181 *3*; α(M)=0.000430 *7*; α(N+..)=0.0001250 *18* Mult.: from Coulomb excitation.

From ENSDF

$^{196}_{78}$Pt$_{118}$-15

γ(^{196}Pt) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[d]	α[g]	Comments
2007.4	6⁺	1130.7 *7*	9.8[b] *12*	876.865	4⁺	E2	0.00431	B(E2)(W.u.)=0.48 *14* α(K)=0.00352 *5*; α(L)=0.000608 *9*; α(M)=0.0001414 *20*; α(N+..)=4.20×10^{-5} *6* Mult.: from Coulomb excitation.
2013.88	2⁺	566.55[j] *4*	57 *14*	1447.043	3⁻	[E1]	0.00636	α(K)=0.00531 *8*; α(L)=0.000811 *12*; α(M)=0.000186 *3*; α(N+..)=5.42×10^{-5} *8*
		1137.01 *3*	1.0×10^2 *5*	876.865	4⁺	[E2]	0.00426	α(K)=0.00348 *5*; α(L)=0.000601 *9*; α(M)=0.0001397 *20*; α(N+..)=4.17×10^{-5} *6*
2029.8	3⁺	1014.25[j]		1015.044	3⁺			
		1341.4 *3*	82 *7*	688.693	2⁺	M1+E2[e]	0.0047 *16*	α(K)=0.0039 *14*; α(L)=0.00062 *20*; α(M)=0.00014 *5*; α(N+..)=7.3×10^{-5} *20*
		1672.7 *7*	100 *7*	355.6841	2⁺	M1+E2[e]	0.0030 *8*	α(K)=0.0024 *7*; α(L)=0.00037 *10*; α(M)=8.4×10^{-5} *23*; α(N+..)=0.00019 *4*
2046.99	2⁺	1031.93 *8*	17 *3*	1015.044	3⁺	[M1]	0.01209	α(K)=0.01004 *14*; α(L)=0.001578 *22*; α(M)=0.000363 *5*; α(N+..)=0.0001070 *15*
		1358.30 *8*	100 *9*	688.693	2⁺	[M1,E2]	0.0046 *16*	α(K)=0.0038 *13*; α(L)=0.00060 *19*; α(M)=0.00014 *5*; α(N+..)=7.6×10^{-5} *21*
		1691.7[j] *2*	33 *6*	355.6841	2⁺	[M1,E2]	0.0029 *8*	α(K)=0.0023 *7*; α(L)=0.00036 *10*; α(M)=8.2×10^{-5} *22*; α(N+..)=0.00019 *5*
2067.06	5⁻,6	796.85 *11*	100	1270.214	5⁻			
2069.29	0⁺,1⁺,2⁺	1713.6 *2*	100	355.6841	2⁺			
2084.30	4⁻,5,6⁻	814.09 *11*	100	1270.214	5⁻			
2087.327	3⁻,4⁺	726.0[h] *7*	46[h] *10*	1361.585	2⁺			
		817.112 *20*	85 *8*	1270.214	5⁻			
		1210.2 *4*	44 *10*	876.865	4⁺			
		1397.9[j] *4*	38 *13*	688.693	2⁺			
		1731.9 *3*	100 *18*	355.6841	2⁺			
2093.0	(2⁺)	245.655[j] *5*	3.4 *14*	1847.348	2⁺			
		645.95[j] *3*	11 *3*	1447.043	3⁻			
		1404.6[j] *2*	29 *3*	688.693	2⁺			
		1736.9[j] *2*	100 *8*	355.6841	2⁺			
2124.389	3⁻,4⁺	677.34 *3*	38 *14*	1447.043	3⁻			
		854.18 *3*	55 *10*	1270.214	5⁻			
		1768.9 *5*	100 *24*	355.6841	2⁺			
2126.935	2⁺	372.292[j] *22*	2.2 *10*	1754.655	3⁻,4⁺			α(K)= 0.471; α(L)= 0.1008; α(M)=0.02407; α(N+..)=0.00753
		522.440 *11*	40 *11*	1604.494	2⁺			
		1771.5 *3*	100 *11*	355.6841	2⁺			
2161.5?	(9⁻,10,11⁻)	340.7 *4*	100	1820.69	9⁻			
2162.70	2⁺	715.3[h] *4*	8[h] *2*	1447.043	3⁻			
		1473.97 *8*	100 *17*	688.693	2⁺			
		1807.3 *2*	92 *9*	355.6841	2⁺			
2170.73	(5),6$^{(-)}$	900.52 *19*	100	1270.214	5⁻			

$^{196}_{78}$Pt$_{118}$-16

Adopted Levels, Gammas (continued)

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

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[d]	α[g]	$I_{(\gamma+ce)}$	Comments
2174.43	$0^+,2^+$	1485.81 *15*	100 *22*	688.693	2^+				
		1818.6 *2*	78 *17*	355.6841	2^+				
2183.6	$1^+,2^+$	1048.3 *7*	48 *14*	1135.312	0^+				
		2183.6 *3*	100 *13*	0.0	0^+				
2199.45	0^+	1510.75 *5*	100	688.693	2^+				
		2199.4 *8*		0.0	0^+	E0		0.128 *15*	ce(K)=1.1 *2* (1982Ka28). ce(K): Iε is given for 1000 capture events where it is assumed that 80% of capture events populate the 2(1)$^+$ state. ce(K)=0.085% for E0 branch, relative to the total depopulating intensity from 2199-keV level (1982Ka28).
2204.431	$1^+,2^+$	316.27[j] *3*	47 *26*	1888.139	$1^+,2^+$				
		402.130 *7*	68 *11*	1802.302	$1^+,2^+$				
		1069.4 *2*	79 *21*	1135.312	0^+	[E2]	0.00480		α(K)=0.00390 *6*; α(L)=0.000687 *10*; α(M)=0.0001602 *23*; α(N+..)=4.69×10^{-5} *7*
		1515.5 *3*	100 *32*	688.693	2^+				
		1848.7 *4*	95 *21*	355.6841	2^+				
2229.6	2^+	1353.0[h j] *4*	17[h] *7*	876.865	4^+	[E2]	0.00308		α(K)=0.00252 *4*; α(L)=0.000415 *6*; α(M)=9.60×10^{-5} *14*; α(N+..)=5.47×10^{-5} *8*
		1873.9 *3*	100 *11*	355.6841	2^+				
2236.32	$(5),6^-,7^-$	966.11 *21*	100	1270.214	5^-				
2244.57	$3^+,4,5^+$	1367.7 *2*	100	876.865	4^+				
2245.559	$1^+,2^+$	443.258 *9*	14 *3*	1802.302	$1^+,2^+$				
		641.12[j] *4*	16 *3*	1604.494	2^+				
		2245.8 *3*	100 *7*	0.0	0^+				
2252.7	8^+	432 *1*	19[b] *3*	1820.69	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* B(E1)(W.u.)=0.00089 *+18−17*
		727.4 *7*	100[b] *3*	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* B(E2)(W.u.)=78 *+10−78* Mult.: from Coulomb excitation.
		878 *1*	5.7[b] *11*	1373.60	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* B(E1)(W.u.)=3.2×10^{-5} *+8−7*
2262.428	2^+	293.522 *10*	26[a] *5*	1968.906	$1^+,(2^+)$	[M1,E2]	0.21 *11*		α(K)=0.17 *11*; α(L)=0.037 *7*; α(M)=0.0089 *12*; α(N+..)=0.0026 *4*
		1246.8 *6*	33[a] *10*	1015.044	3^+	[M1]	0.00752		α(K)=0.00624 *9*; α(L)=0.000976 *14*; α(M)=0.000224 *4*; α(N+..)=8.05×10^{-5} *12*
		1573.5 *3*	100[a] *25*	688.693	2^+				
		1907.0 *6*	21[a] *5*	355.6841	2^+				

$^{196}_{78}Pt_{118}$-17

Adopted Levels, Gammas (continued)

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

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[d]	α[g]	Comments
2271.2	2^+	1582.5 *4*	100	688.693	2^+	M1+E2[e]	0.0033 *10*	α(K)=0.0027 *8*; α(L)=0.00042 *12*; α(M)=0.00010 *3*; α(N+..)=0.00015 *4*
2309.23	$(2)^+$	461.86 *3*	2.5 *5*	1847.348	2^+	[M1,E2]	0.06 *4*	α(K)=0.05 *3*; α(L)=0.010 *4*; α(M)=0.0022 *7*; α(N+..)=0.00066 *22*
		947.4 *6*	11 *5*	1361.585	2^+	[M1,E2]	0.011 *5*	α(K)=0.009 *4*; α(L)=0.0015 *6*
		1620.7 *3*	52 *9*	688.693	2^+			
		1953.1 *6*	14[a] *5*	355.6841	2^+			
		2310.9[i] *3*	100[i] *18*	0.0	0^+	[E2]	1.56×10^{-3}	α(K)=0.000954 *14*; α(L)=0.0001446 *21*; α(M)=3.31×10^{-5} *5*; α(N+..)=0.000425 *6*
2324.224	$1^+,2^+$	470.567 *19*	4.4 *15*	1853.659	2^+	[M1,E2]	0.06 *4*	α(K)=0.05 *3*; α(L)=0.009 *4*; α(M)=0.0022 *8*; α(N+..)=0.00068 *23*
		1188.9 *2*	29 *6*	1135.312	0^+			
		1635.2 *2*	100 *15*	688.693	2^+			
2345.3	$1^+,2^+$	1330.6 *5*	52 *16*	1015.044	3^+			
		1656.5 *3*	100 *13*	688.693	2^+			
		2344.1 *10*	0.10[c]	0.0	0^+			
2365.976	2^+	761.482 *16*	100 *13*	1604.494	2^+	[M1,E2]	0.018 *9*	α(K)=0.015 *8*; α(L)=0.0026 *11*
		918.81 *14*	78 *9*	1447.043	3^-	[E1]	0.00247	α(K)=0.00208 *3*; α(L)=0.000307 *5*; α(M)=6.99×10^{-5} *10*; α(N+..)=2.05×10^{-5} *3*
2375.11	$1^+,2^+$	770.8 *4*	7[a] *4*	1604.494	2^+			
		1686.6 *3*	39 *10*	688.693	2^+			
		2374.8 *3*	100 *10*	0.0	0^+			
2383.33	$0^+,1^+,2^+$	369.46 *5*	15 *8*	2013.88	2^+			
		1694.3 *4*	100 *23*	688.693	2^+			
2403.66	2^+	418.73 *3*	24[a] *6*	1984.93	$1^+,2^+$	[M1,E2]	0.08 *5*	α(K)=0.07 *4*; α(L)=0.013 *5*; α(M)=0.0031 *9*; α(N+..)=0.0010 *3*
		726.0[h] *7*	39[ha] *6*	1677.256	2^+	[M1,E2]	0.020 *10*	α(K)=0.016 *9*; α(L)=0.0028 *11*; α(M)=0.00065 *25*; α(N+..)=0.00019 *8*
		956.4 *5*	65 *22*	1447.043	3^-	[E1]	0.00230	α(K)=0.00193 *3*; α(L)=0.000284 *4*; α(M)=6.48×10^{-5} *9*; α(N+..)=1.90×10^{-5} *3*
		1042.4 *6*	14[a] *6*	1361.585	2^+	[M1,E2]	0.008 *4*	α(K)=0.007 *3*; α(L)=0.0011 *4*; α(M)=0.00026 *10*; α(N+..)=8.E−5 *3*
		1526.7 *2*	100[a] *16*	876.865	4^+	[E2]	0.00252	α(K)=0.00202 *3*; α(L)=0.000325 *5*; α(M)=7.48×10^{-5} *11*; α(N+..)=9.67×10^{-5} *14*
2420.4	$(2,3,4^+)$	1731.7 *1*	100	688.693	2^+			
2422.51	$0^+,1^+,2^+$	423.7 *3*	6.5 *22*	1998.96	2^+			
		568.85 *3*	4.3 *14*	1853.659	2^+			
		2066.5 *3*	100 *14*	355.6841	2^+			
2423.42	$(1^+,2^+,3)$	1408.4 *1*	18 *5*	1015.044	3^+			
		2067.7 *1*	100 *5*	355.6841	2^+			
2423.7	3^-	976.7 *3*	100 *25*	1447.043	3^-			
		2067.6 *7*	92 *42*	355.6841	2^+			

Adopted Levels, Gammas (continued)

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

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[d]	α[g]	Comments
2429.7	3^-	1552.9 *3*	100	876.865	4^+			
2433.7	(0,1,2,3,4)	2078.0 *2*	100	355.6841	2^+			
2438.0	(1^+,2,3,4^+)	1076.4 *1*	56 *8*	1361.585	2^+			
		1422.9 *1*	100 *10*	1015.044	3^+			
		1749.0 *2*	37 *12*	688.693	2^+			
2443.93	2^+	430.2[j] *3*	40 *9*	2013.88	2^+	[M1,E2]	0.08 *4*	α(K)=0.06 *4*; α(L)=0.012 *4*; α(M)=0.0028 *9*; α(N+..)=0.00081 *25*
		1150.8 *3*	100 *20*	1293.308	4^+	[E2]	0.00416	α(K)=0.00340 *5*; α(L)=0.000585 *9*; α(M)=0.0001360 *19*; α(N+..)=4.10×10^{-5} *6*
		1428.7 *3*	87 *20*	1015.044	3^+	[M1]	0.00541	α(K)=0.00444 *7*; α(L)=0.000692 *10*; α(M)=0.0001587 *23*; α(N+..)=0.0001165 *17*
2454.2	(7^-,8^+)	633.5 *3*	100[@] *4*	1820.69	9^-			
		1024.6 *3*	23[@] *3*	1429.74?	(5^-,6^+)			
		1080.5 *5*	10[@] *2*	1373.60	7^-			
2460.1	0^+,1^+,2^+	2104.4 *3*	100	355.6841	2^+			
2468.0	10^-,11^-	647.3 *2*	100[@]	1820.69	9^-	E2	0.01357	B(E2)(W.u.)>0.073 α(K)=0.01050 *15*; α(L)=0.00235 *4*; α(M)=0.000561 *8*; α(N+..)=0.0001628 *23* Mult.: from ^{196}Ir β^- decay (1.40 h).
2469.85	1^-,2^+	715.3[h] *4*	10[h] *3*	1754.655	3^-,4^+			α(K)= 0.0676; α(L)=0.01250 E_γ: questionable energy value.
		1334.3 *3*	33 *7*	1135.312	0^+			α(K)=0.00260; α(L)=0.00043
		2114.4 *3*	56 *7*	355.6841	2^+			
		2469.7[i] *4*	100[i] *3*	0.0	0^+			
2488.238	1^+,2^+	225.810 *18*	16 *7*	2262.428	2^+			
		1353.0[hj] *4*	30[h] *11*	1135.312	0^+			
		1799.5 *4*	100 *23*	688.693	2^+			
		2132.9 *7*	45 *16*	355.6841	2^+			
		2488.1 *6*	59 *9*	0.0	0^+			
2505.12	2^+	1143.53 *5*	40 *8*	1361.585	2^+			
		2149.1 *7*	26 *10*	355.6841	2^+			
		2505.2 *4*	100 *10*	0.0	0^+			
2527.84	1^+,2^+	639.701 *32*	13 *3*	1888.139	1^+,2^+			
		1080.5[j] *4*	18 *8*	1447.043	3^-			α(K)=0.00155; α(L)=0.00023
		1839.4 *3*	100 *13*	688.693	2^+			
		2526.9 *10*	0.53[c]	0.0	0^+			
2529.3	2^+	775.1 *5*	15[a] *6*	1754.655	3^-,4^+			α(K)= 0.0541; α(L)=0.00984
		2173.5 *3*	100[a] *24*	355.6841	2^+			
2570.8	1^+	1883	<100	688.693	2^+	(M1)	0.00301	α(K)=0.00224 *4*; α(L)=0.000346 *5*; α(M)=7.93×10^{-5} *12*; α(N+..)=0.000349 *5* B(M1)(W.u.)=0.06 *+7−6* E_γ,I_γ,Mult.: from ^{196}Pt(γ,γ′).

$^{196}_{78}Pt_{118}$-19

γ(^{196}Pt) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[d]	α[g]	Comments
2570.8	1^+	2216	33 *8*	355.6841	2^+	(E2)	1.60×10^{-3}	B(E2)(W.u.)=1.8 *9* α(K)=0.001029 *15*; α(L)=0.0001566 *22*; α(M)=3.58×10^{-5} *5*; α(N+..)=0.000381 *6* E_γ,I_γ,Mult.: from ^{196}Pt(γ,γ').
		2571	56 *9*	0.0	0^+	M1	0.00202	B(M1)(W.u.)=0.025 *11* α(K)=0.001041 *15*; α(L)=0.0001594 *23*; α(M)=3.65×10^{-5} *6*; α(N+..)=0.000788 *11* E_γ,I_γ,Mult.: from ^{196}Pt(γ,γ').
2603.2	(1,2,3,4,5)	1588.1 *1*	100	1015.044	3^+			E_γ: from level scheme deduced by evaluators, Eγ=1558.1 keV from fig. 2 and table 1 of 1993Di05 may misprint.
2606.0	(2,3,4,5)	1729.2 *1*	100	876.865	4^+			
2608.0	3^-	2252.3 *1*	100	355.6841	2^+			
2626.4	(1,2,3)	1264.8 *1*	100 *5*	1361.585	2^+			
		1938.3 *3*	37 *5*	688.693	2^+			
2631.1	(2^+,3,4^+)	2275.4 *2*	100	355.6841	2^+			
2667.246	1^+,2^+	698.23 *4*	6.5 *12*	1968.906	1^+,(2^+)			
		748.66 *6*	3.8 *15*	1918.54	0^+			
		864.72[j] *8*	2.8 *6*	1802.302	1^+,2^+			
		1062.66 *6*	9 *2*	1604.494	2^+			
		1264.6 *2*	13 *2*	1402.727	0^+	[E2]	0.00349	α(K)=0.00285 *4*; α(L)=0.000478 *7*; α(M)=0.0001108 *16*; α(N+..)=4.39×10^{-5} *7* B(E2)(W.u.)=0.97 *+18−22*
		1305.59 *4*	40 *3*	1361.585	2^+			
		1532.30[i] *5*	35[i] *12*	1135.312	0^+	[E2]	0.00250	α(K)=0.00201 *3*; α(L)=0.000322 *5*; α(M)=7.42×10^{-5} *11*; α(N+..)=9.84×10^{-5} *14* B(E2)(W.u.)=1.0 *1*
		1978.6 *2*	100 *8*	688.693	2^+			
		2310.9[i] *3*	38[i] *8*	355.6841	2^+			
2692.2		2336.5 *6*	100	355.6841	2^+			
2711.0	3^-	2022.2 *1*	100 *8*	688.693	2^+			
		2355.3 *1*	59 *8*	355.6841	2^+			
2736.1	(1^+)	2736.1	100	0.0	0^+			
2749.6	(7^-,8^+)	497 *1*	26[b] *9*	2252.7	8^+			
		742 *1*	100[b] *11*	2007.4	6^+			
		930 *1*	20[b] *5*	1820.69	9^-			
		1375 *1*	11[b] *5*	1373.60	7^-			
2824.0	1^+	2135	38 *13*	688.693	2^+	(M1)	0.00246	α(K)=0.001643 *23*; α(L)=0.000253 *4*; α(M)=5.80×10^{-5} *9*; α(N+..)=0.000509 *8* B(M1)(W.u.)=0.050 *20* E_γ,I_γ,Mult.: from ^{196}Pt(γ,γ').
		2468	105 *18*	355.6841	2^+	(E2)	1.50×10^{-3}	B(E2)(W.u.)=5.6 *16* α(K)=0.000848 *12*; α(L)=0.0001276 *18*; α(M)=2.92×10^{-5} *4*;

$^{196}_{78}Pt_{118}$-20

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

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[d]	α[g]	Comments
								α(N+..)=0.000497 *7*
								E_γ,I_γ,Mult.: from $^{196}Pt(\gamma,\gamma')$.
2824.0	1^+	2824	100 *15*	0.0	0^+	M1	0.00193	B(M1)(W.u.)=0.057 *15*
								α(K)=0.000827 *12*; α(L)=0.0001264 *18*; α(M)=2.89×10^{-5} *4*; α(N+..)=0.000943 *14*
								E_γ,I_γ,Mult.: from $^{196}Pt(\gamma,\gamma')$.
2875.4	$1^+,(2)^+$	2875.4	100	0.0	0^+			
2888.8?	$(9^-,10,11^-)$	420.9 *3*	96 *37*	2468.0	$10^-,11^-$			
		727.3 *2*	100 *37*	2161.5?	$(9^-,10,11^-)$			
		1068 *2*	2.7 *7*	1820.69	9^-			
3044.0	(10^+)	791.3 *7*	100[b]	2252.7	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*
3124.2	1,2	3124.2	100	0.0	0^+			
3131.8	1,2	3131.8	100	0.0	0^+			
3161.9	$(9^-,10,11^-)$	693.9 *2*	100[@] *7*	2468.0	$10^-,11^-$			
		1341.5 *5*	6.6[@] *7*	1820.69	9^-			
3176.3?	(9^-)	722.0[#] *4*	100 *10*	2454.2	$(7^-,8^+)$			
		1355.8[#] *5*	9.0 *15*	1820.69	9^-			
3214.8?	(9^-)	760.6[#] *3*	100 *6*	2454.2	$(7^-,8^+)$			
		1394.0[#] *5*	9.5 *19*	1820.69	9^-			
3298.0	2^+	3298.0	100	0.0	0^+			
3303.5	$(10,11^-)$	835.6 *2*	100[@] *3*	2468.0	$10^-,11^-$			
		849.4 *3*	8.0[@] *8*	2454.2	$(7^-,8^+)$			
		1482.5 *4*	36[@] *3*	1820.69	9^-			
3366.8	1,2	3366.8	100	0.0	0^+			
3424.3	1,2	3424.3	100	0.0	0^+			

† From $^{195}Pt(n,\gamma)$ E=thermal, except where noted. For primary γ observed following neutron capture see $^{195}Pt(n,\gamma)$. For unplaced γ's (not listed here) see ^{196}Ir β^- decay (1.40 h), $^{195}Pt(n,\gamma)$ E=thermal and E=11.9 eV, and Coulomb excitation.

‡ Relative photon branching ratios from each level, obtained mainly from $^{195}Pt(n,\gamma)$ E=thermal, except where noted.

Placement based primarily on decay scheme.

@ From ^{196}Ir β^- decay (1.40 h).

& From $^{196}Pt(d,pn\gamma)$.

a From $^{195}Pt(n,\gamma)$ E=11.9 eV.

b From Coulomb excitation.

c Photons per 100 n-captures in natural Pt (1970Ro05).

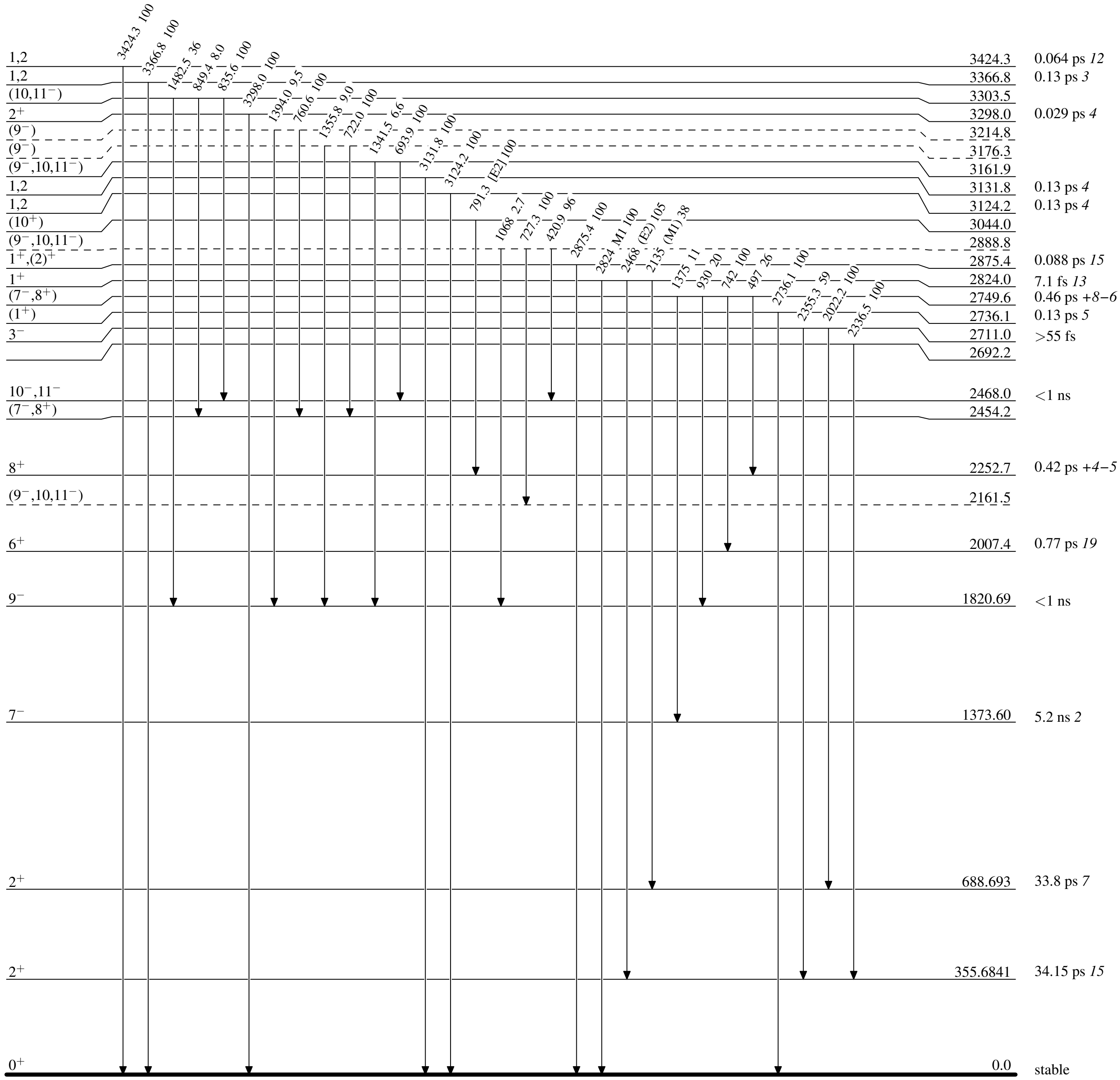
$\gamma(^{196}Pt)$ (continued)

[d] From α(K)exp, K/L, L/M+ in ^{196}Au ε decay (6.1669 d) and ^{196}Ir β^- decay (1.40 h), except where noted.
[e] From $\gamma(\theta)$ in 2002Ta14.
[f] From $\gamma\gamma(\theta)$ in ^{196}Au ε decay (6.1669 d) when sign is given; otherwise, the value is given in Coulomb excitation.
[g] 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.
[h] Multiply placed with undivided intensity.
[i] Multiply placed with intensity suitably divided.
[j] Placement of transition in the level scheme is uncertain.

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

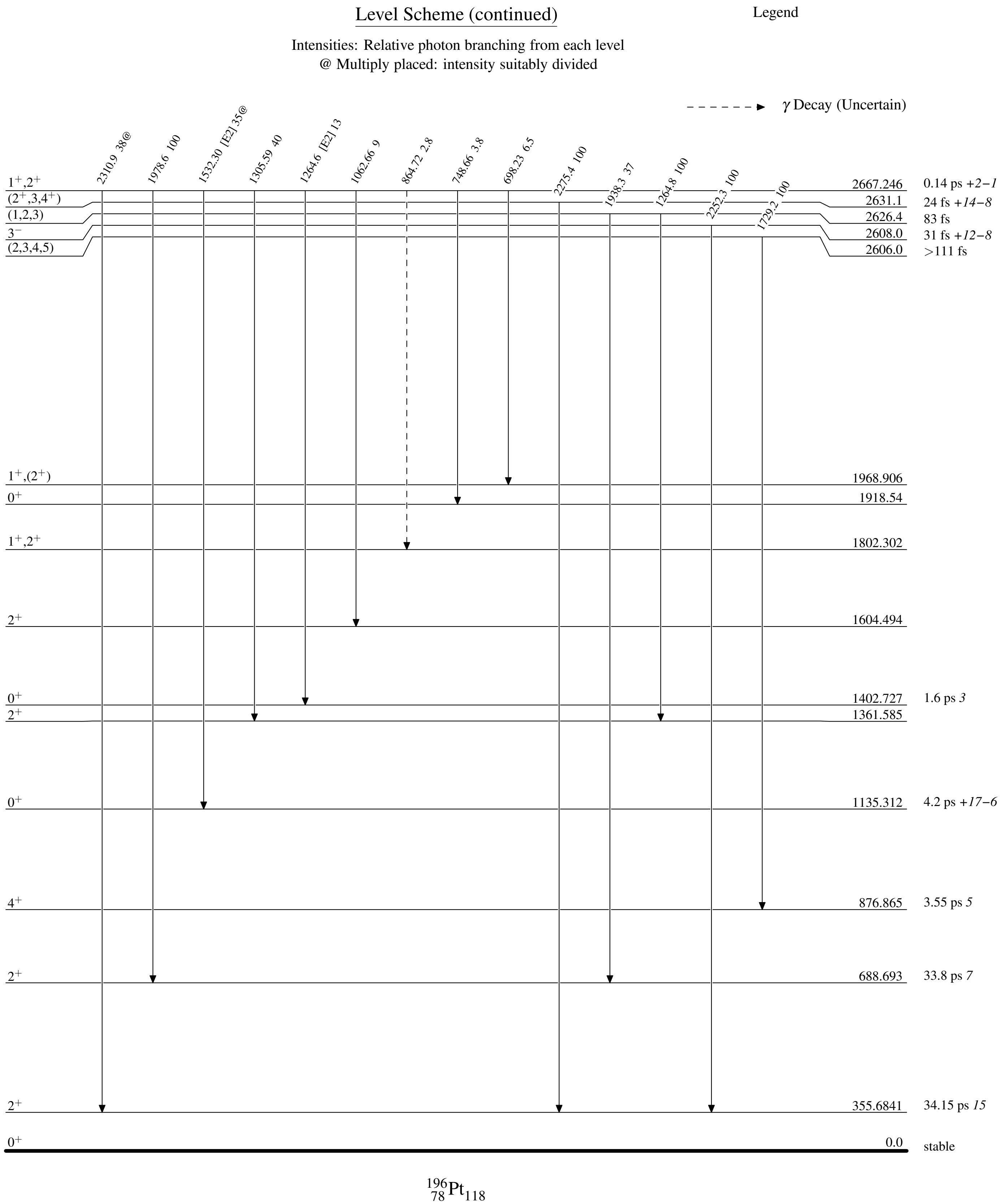


$^{196}_{78}Pt_{118}$

Adopted Levels, Gammas

Level Scheme (continued)

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



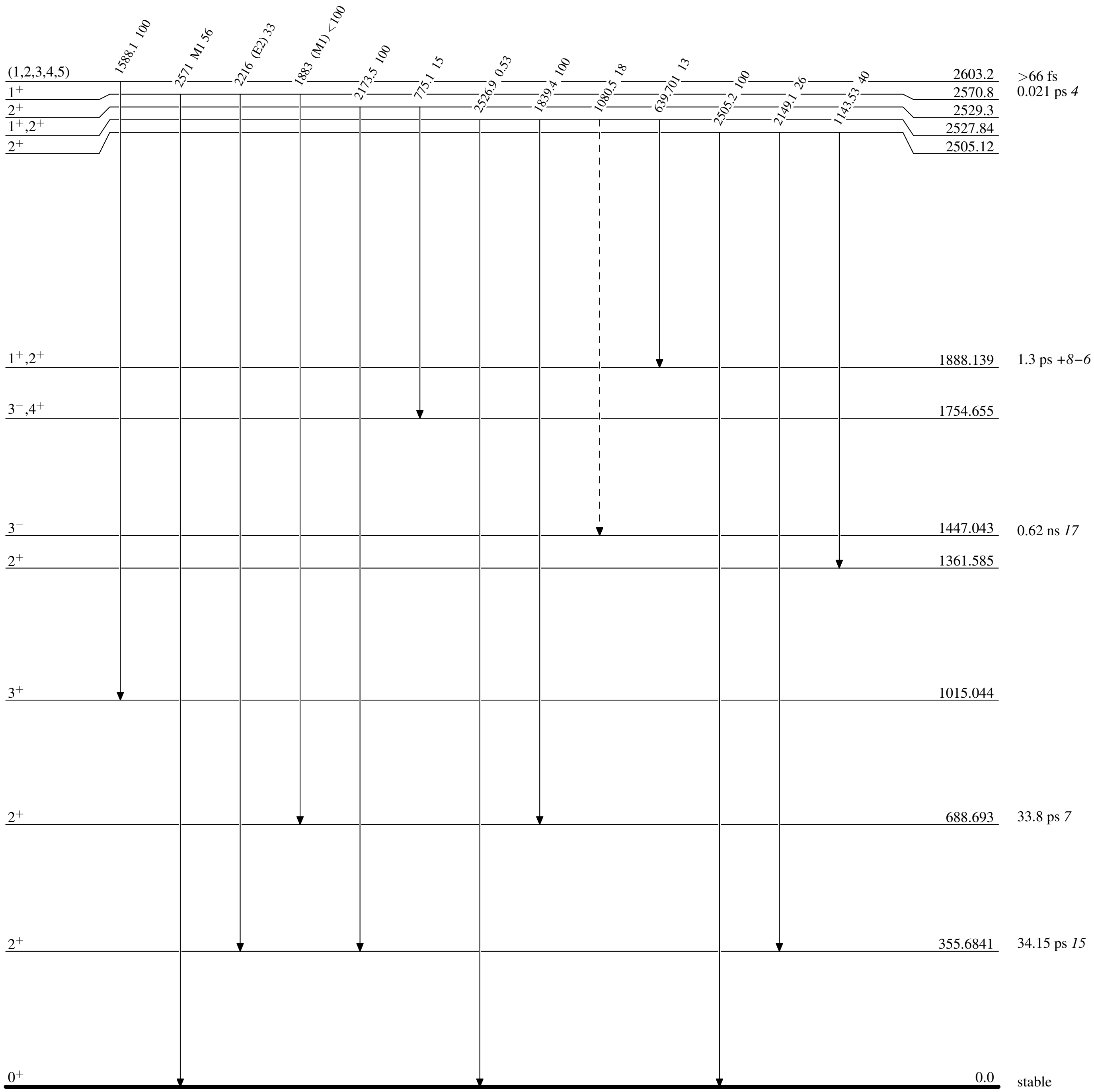
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

γ Decay (Uncertain)



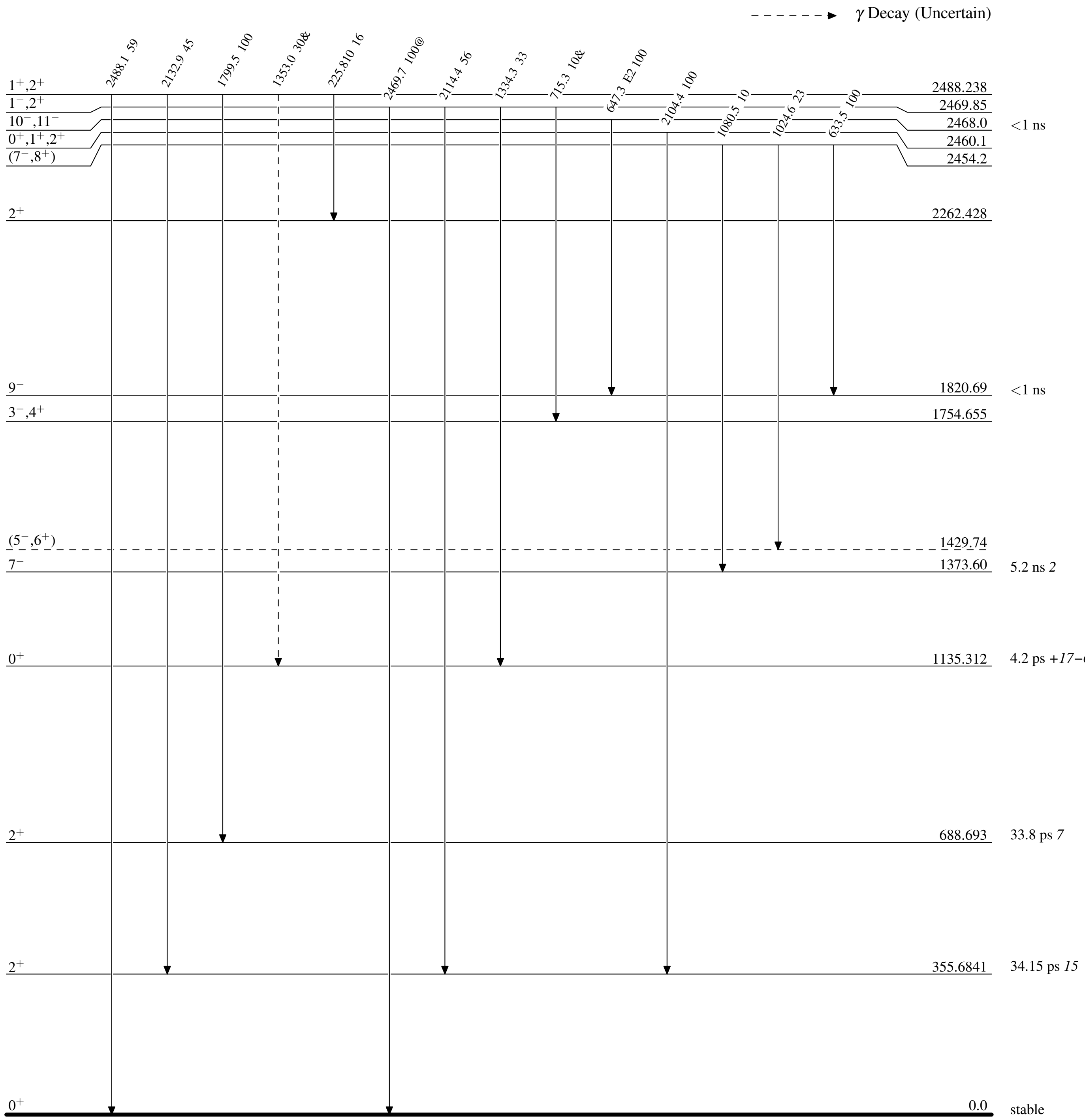
$^{196}_{78}Pt_{118}$

Adopted Levels, Gammas

Level Scheme (continued)

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

Legend



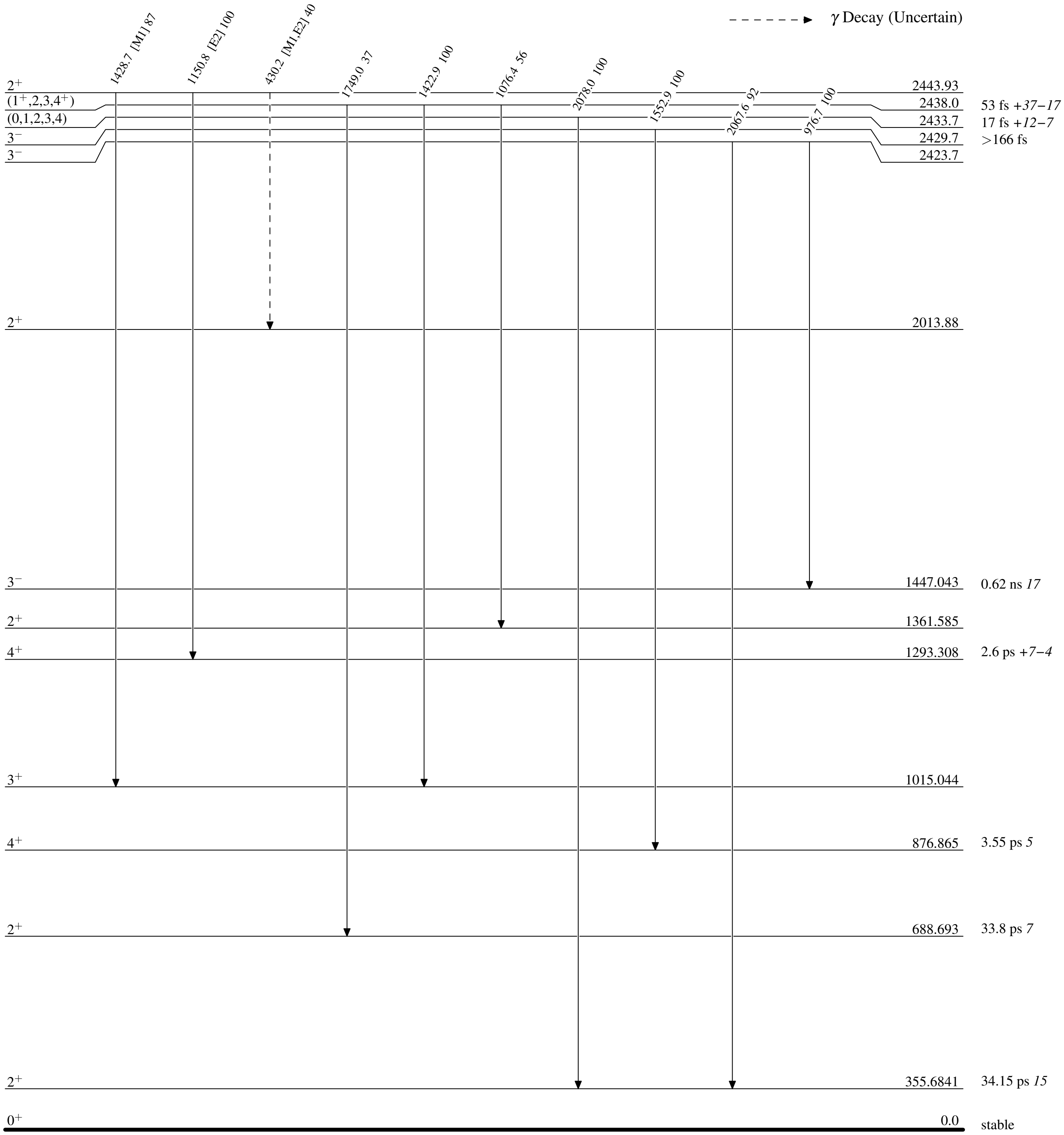
$^{196}_{78}Pt_{118}$

Adopted Levels, Gammas

Level Scheme (continued)

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

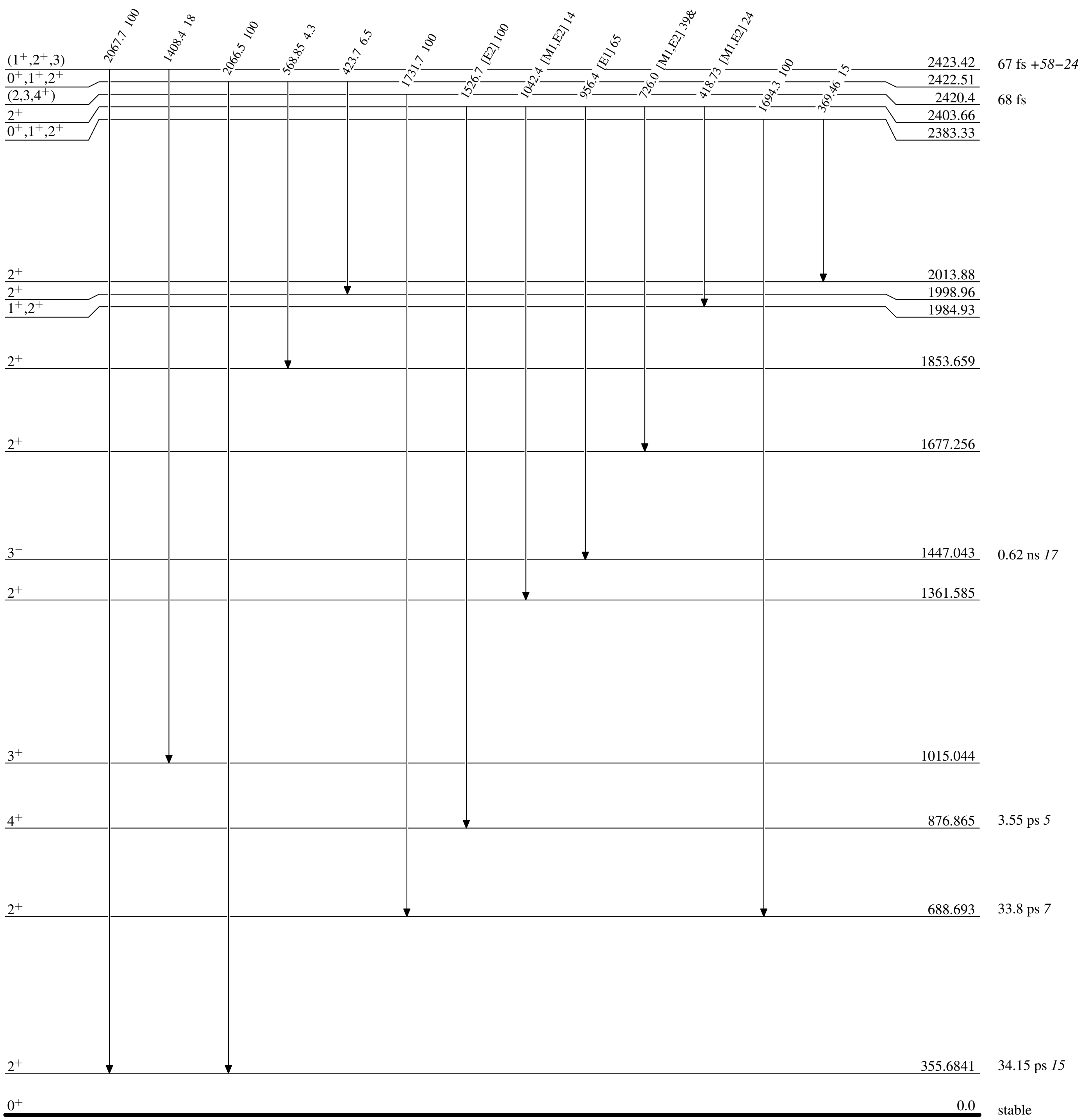
Legend



Adopted Levels, Gammas

Level Scheme (continued)

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

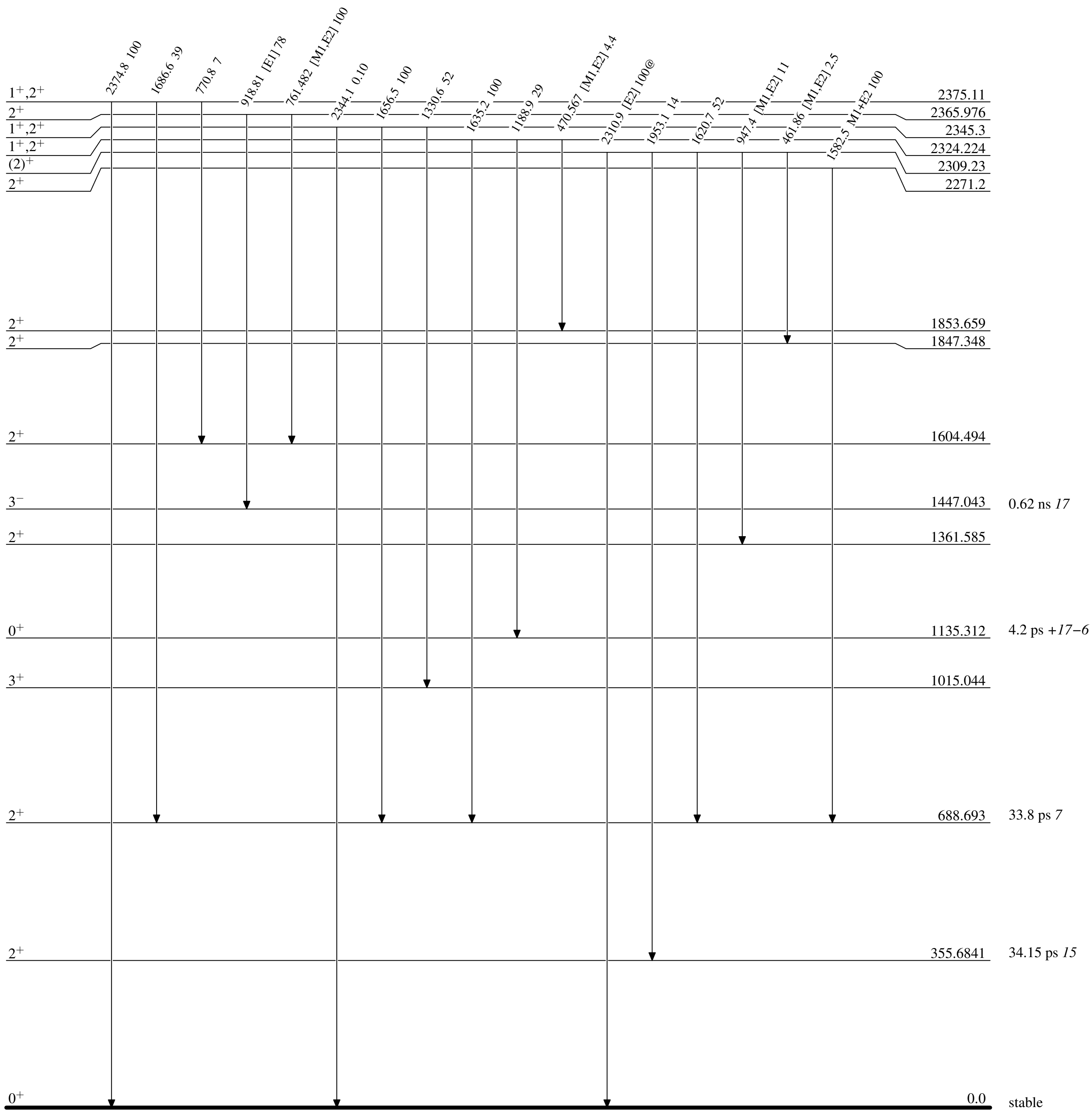


$^{196}_{78}Pt_{118}$

Adopted Levels, Gammas

Level Scheme (continued)

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



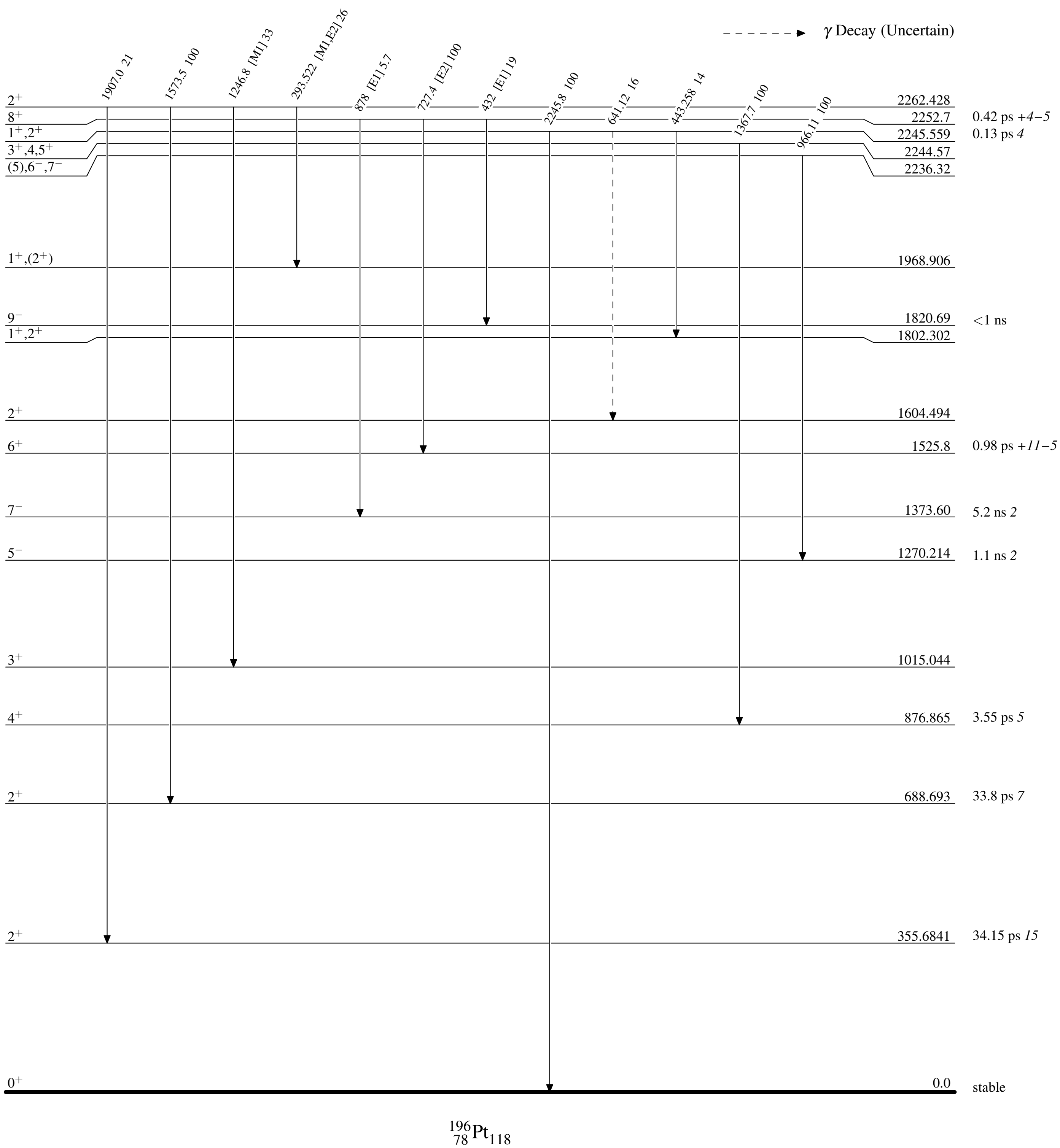
$^{196}_{78}Pt_{118}$

Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

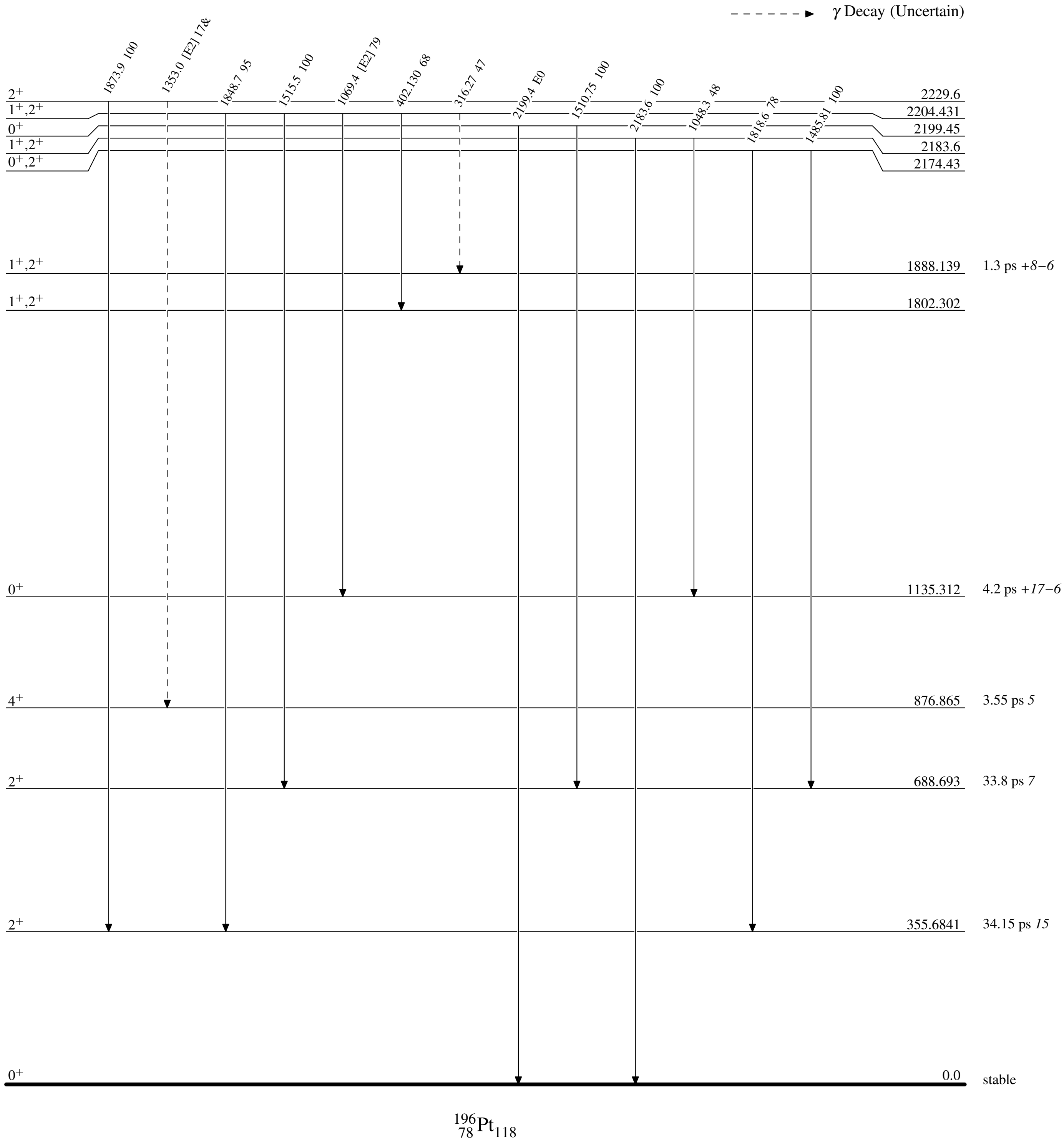


Adopted Levels, Gammas

Level Scheme (continued)

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

Legend



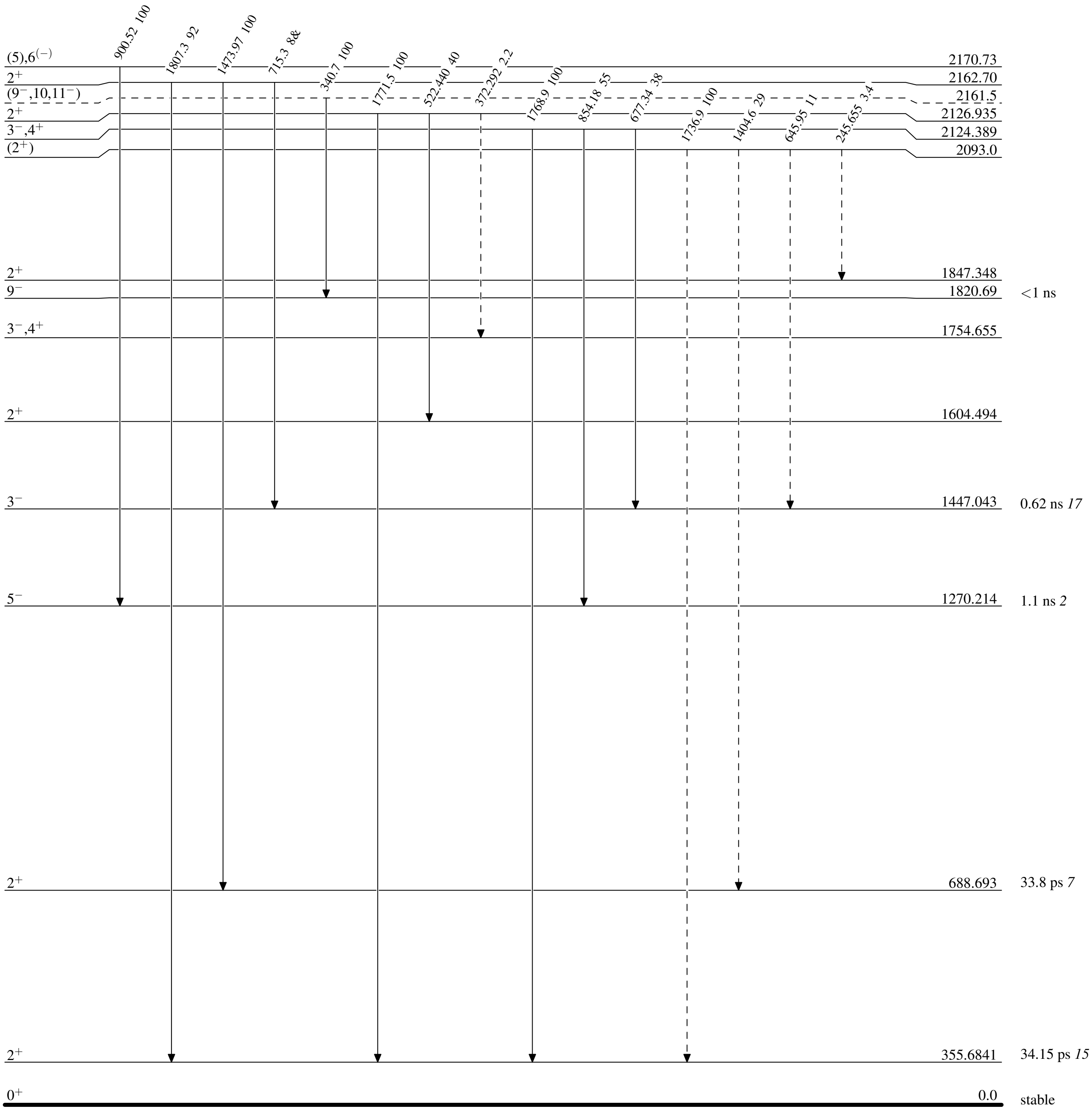
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

γ Decay (Uncertain)



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

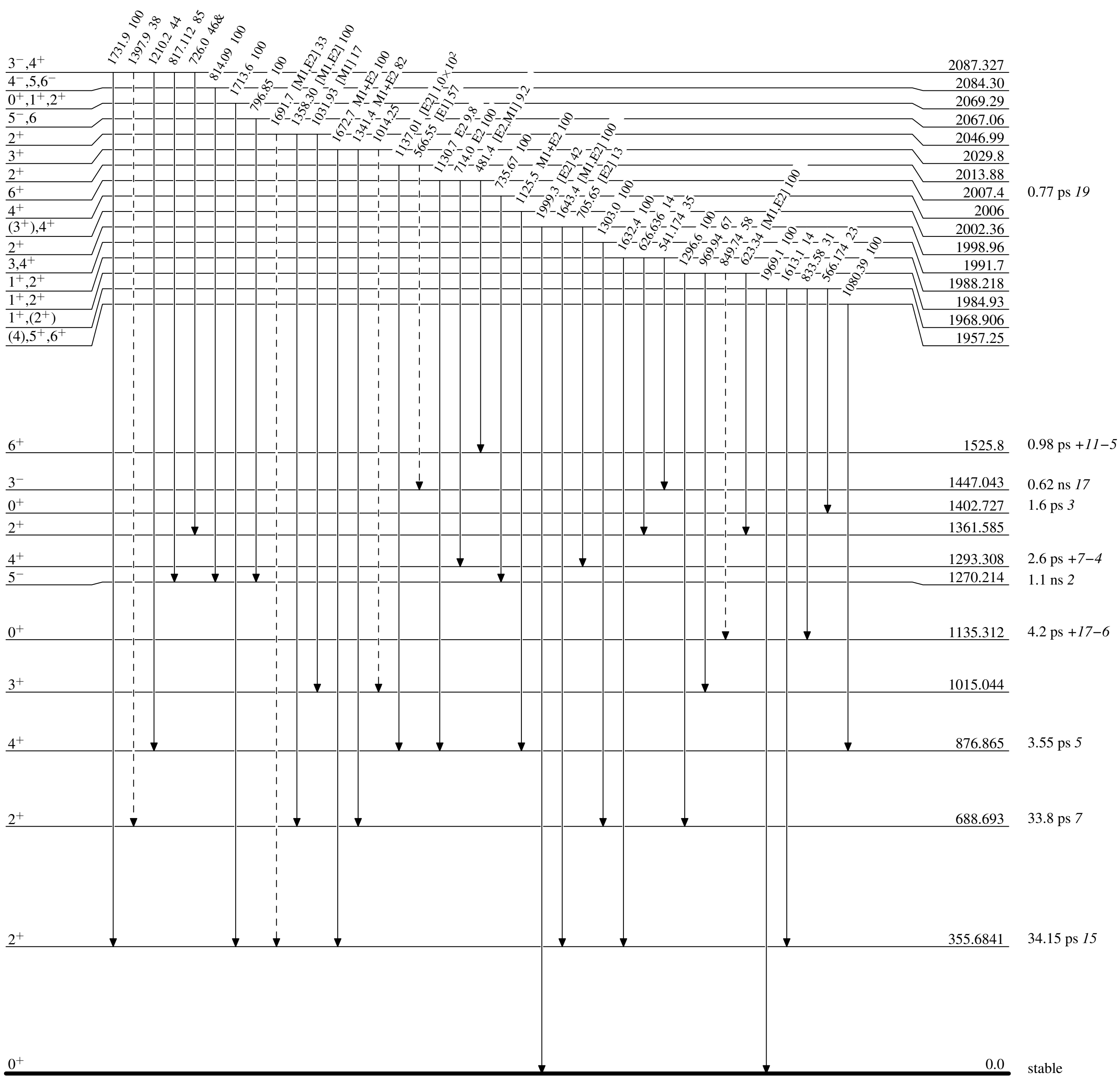
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

γ Decay (Uncertain)

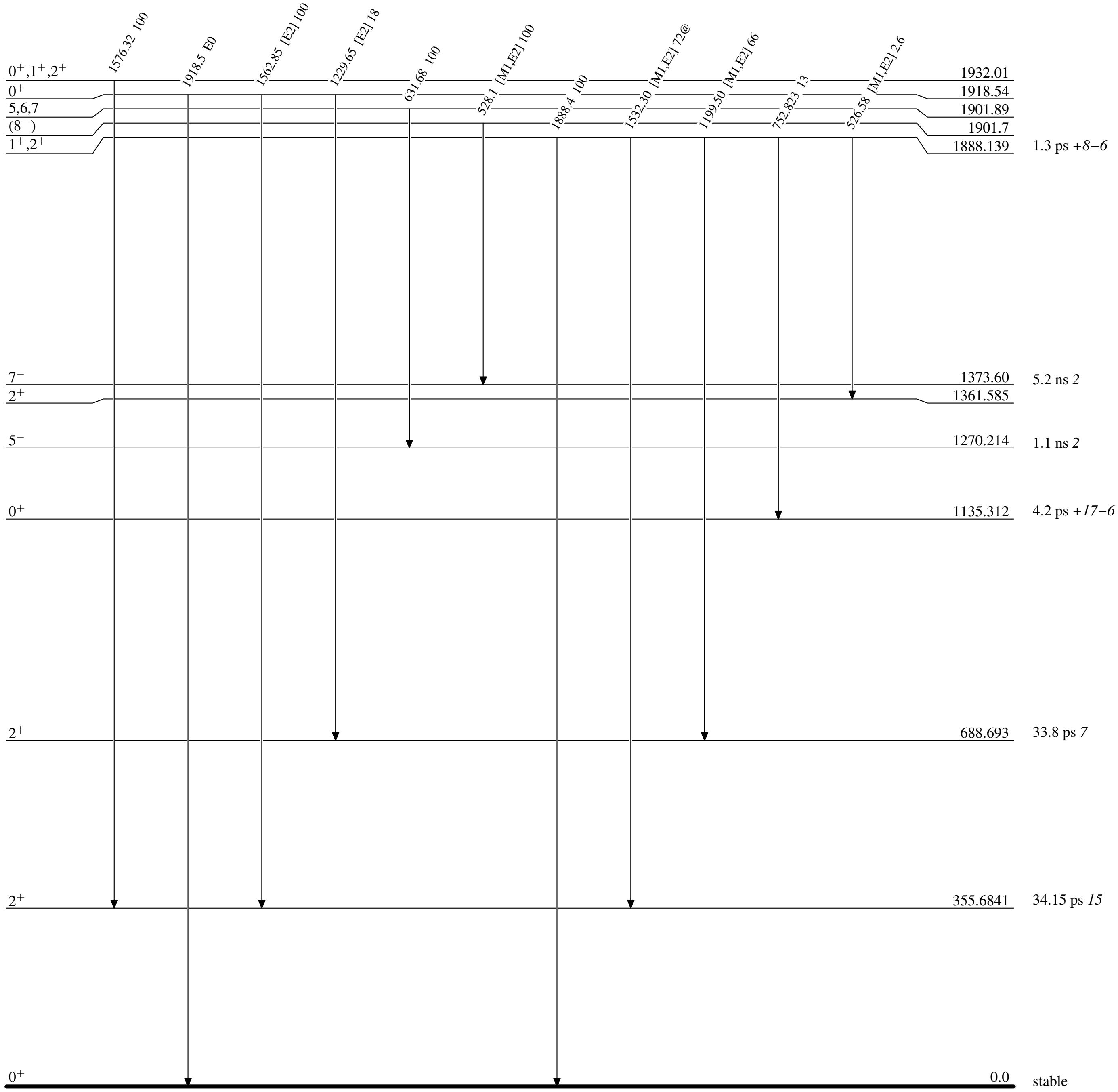


$^{196}_{78}Pt_{118}$

Adopted Levels, Gammas

Level Scheme (continued)

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

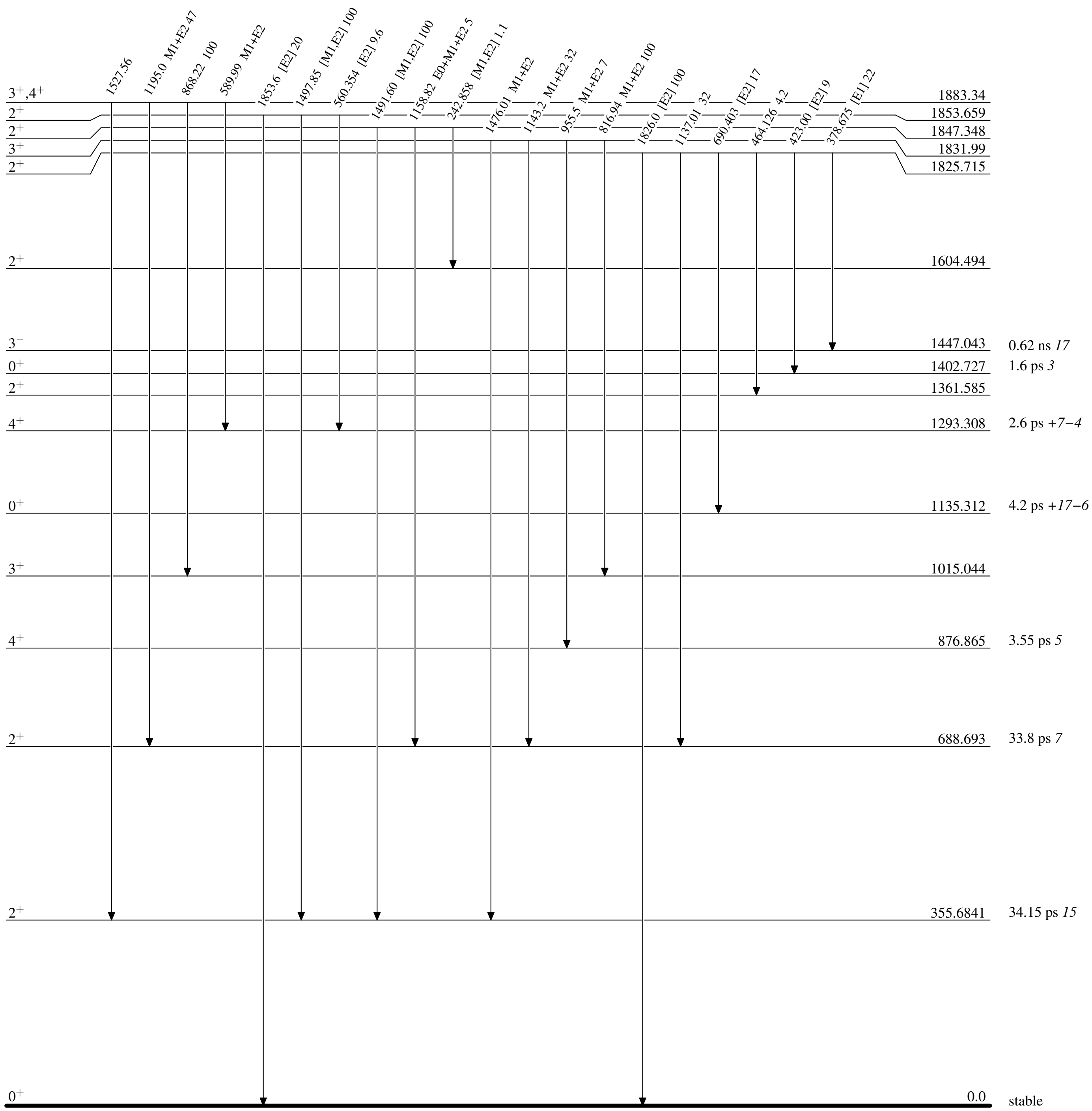


$^{196}_{78}Pt_{118}$

Adopted Levels, Gammas

Level Scheme (continued)

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

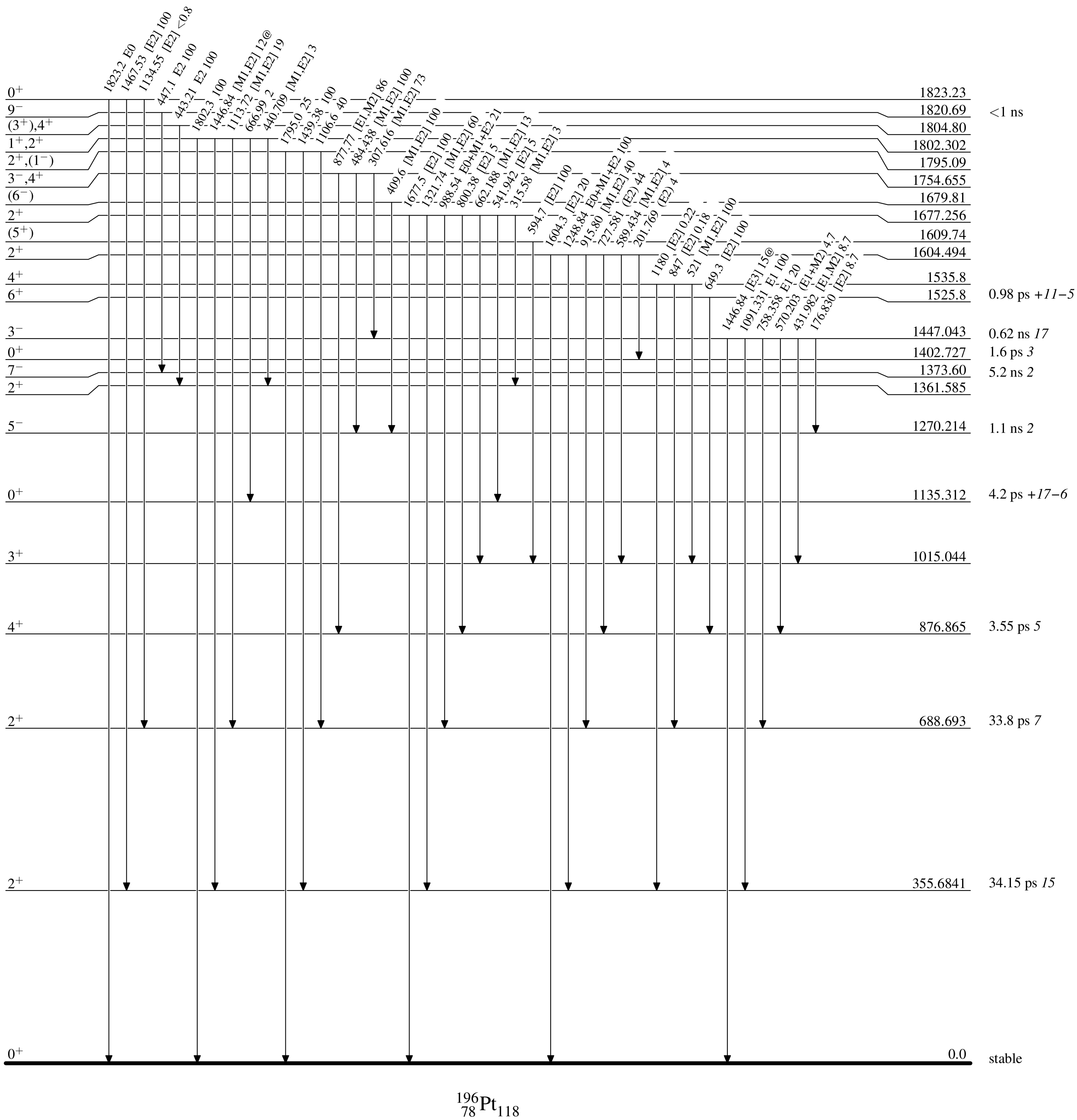


$^{196}_{78}Pt_{118}$

Adopted Levels, Gammas

Level Scheme (continued)

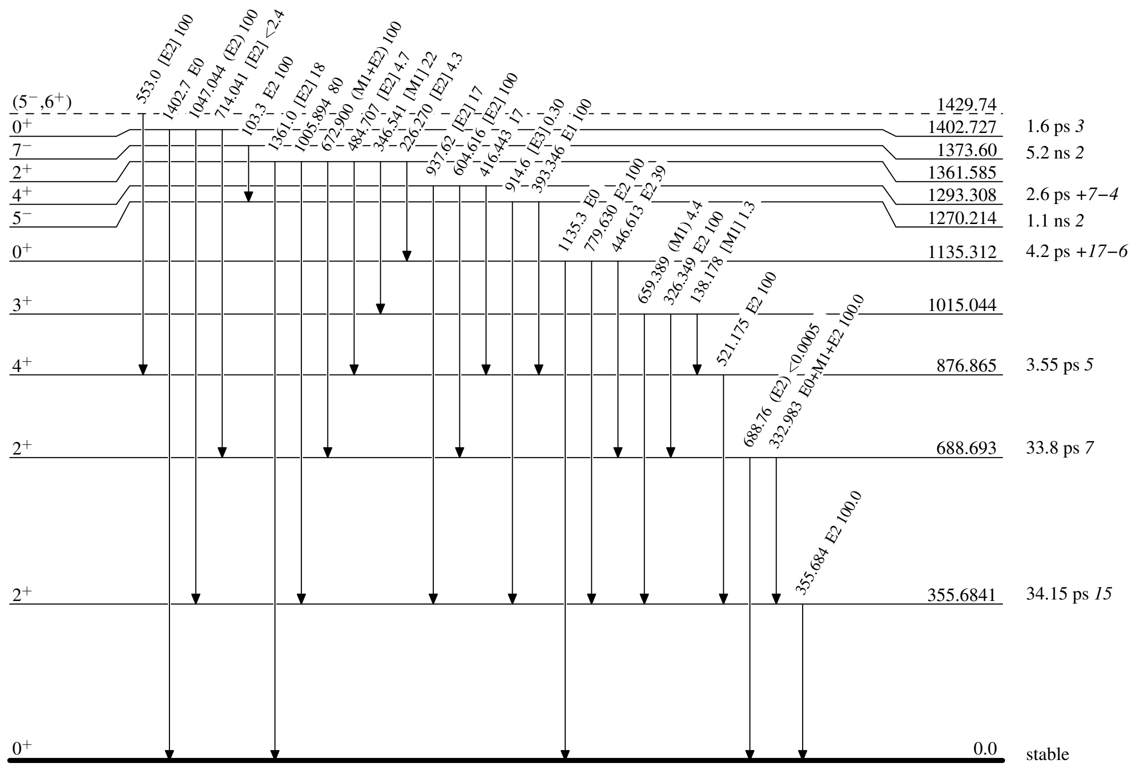
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



Adopted Levels, Gammas

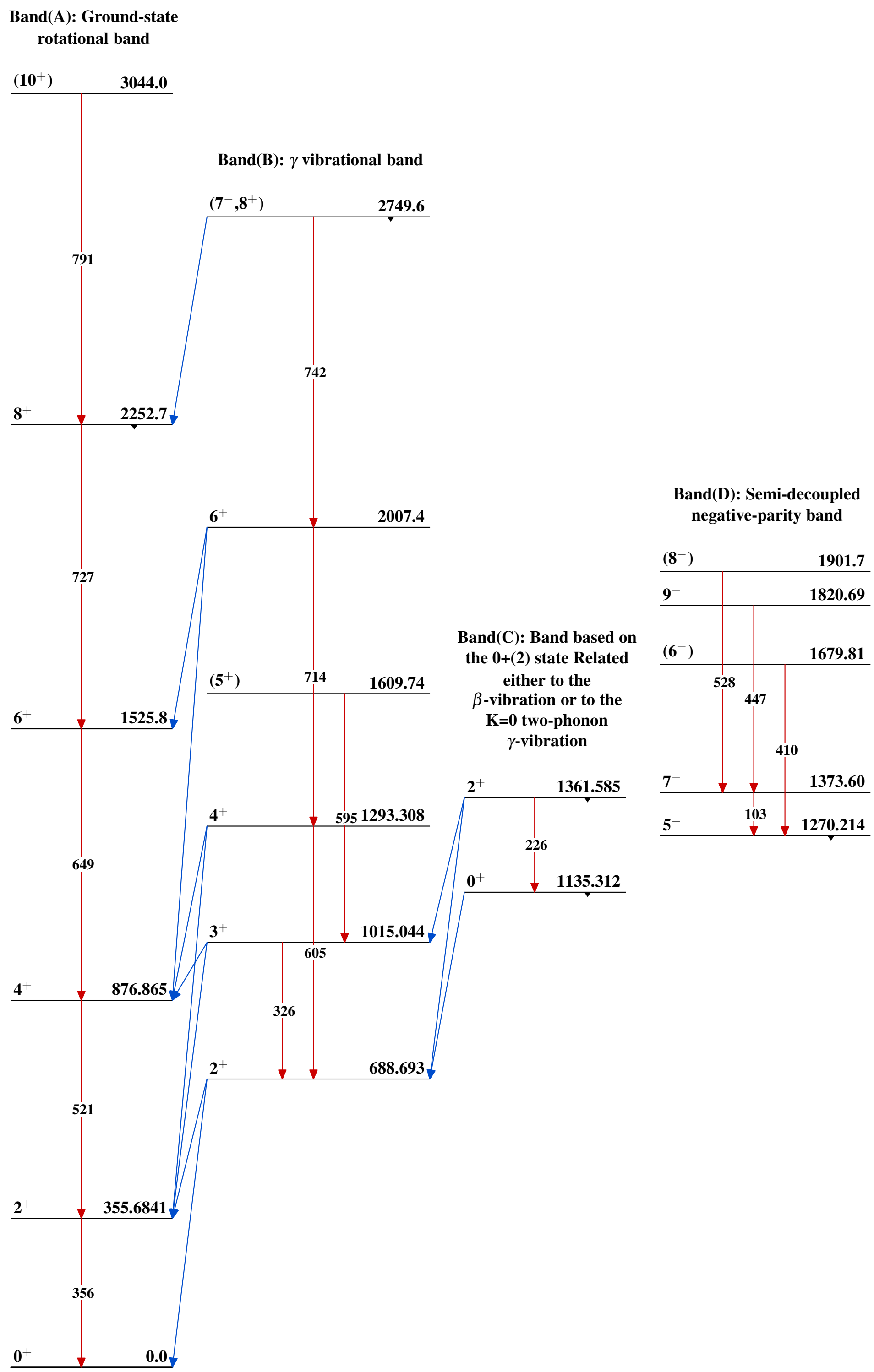
Level Scheme (continued)

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



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

Adopted Levels, Gammas



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