Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 134, 149 (2016)	15-Apr-2015

Q(β^-)=−5583 *18*; S(n)=7675 *20*; S(p)=4010 *26*; Q(α)=4822 *9* 2012Wa38
Q(εp)=1548 *27* (2012Wa38).
For hfs and isotope shift measurements, see 1992Hi07, 1999Le52, 1999Ro28, 1999Sa40.
For discussion of level-energy systematics for N=105 isotones, see 2013Sa43.

^{183}Pt Levels

Cross Reference (XREF) Flags

A	^{183}Pt IT decay	D	^{187}Hg α decay (1.9 min)
B	^{183}Au ε decay	E	(HI,xnγ)
C	^{187}Hg α decay (2.4 min)		

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$	XREF	Comments
0.0[e]	1/2−[f]	6.5 min *10*	AB E	%ε+%β^+=100; %α=0.0096 *5* (1995Bi01) μ=+0.502 *5* (1999Le52,1999Ro28,1999Sa40,2000SaZZ) μ: from LASER resonance ionization mass spectroscopy; ^{195}Pt reference standard. others: +0.51 *3* (1990Hi08), +0.52 *3* (1992Hi07). <r^2>$^{1/2}$(charge)=5.403 fm *4* (2004An14). Δ<r^2>(^{194}Pt,^{183}Pt)=−0.216 *8* (1999Le52,1999Ro28,1999Sa40). Other: −0.17 *5* (1992Hi07). %α: from 1995Bi01; based on comparison of Iα with intensity of ^{183}Pt ε+β^+ decay, taking into account the 43 s component of that decay. other %α: 0.0013 (1963Gr08); expected to be correct within a factor of three, but authors May not have corrected for possible contribution to ε+β^+ intensity from 43 s isomer (1995Bi01). μ: from LASER spectroscopy (1999Le52,1999Ro28,1999Sa40), relative to μ(^{195}Pt). Other: +0.521 *27* from resonance ionization mass spectroscopy and pulsed-LASER induced desorption (1992Hi07). J$^\pi$: J=1/2 from hfs spectrum (1992Hi07); μ consistent with that calculated for 1/2− 1/2[521] level (1999Le52,1999Ro28, 1999Sa40). bandhead for band with decoupling parameter a=+0.85, typical of ν 1/2[521] configuration In this mass region; T$_{1/2}$: from 1963Gr08. Other value: 7.0 min *25* (1966Si08).
34.74[&] *7*	7/2−	43 s *5*	AB E	%ε+%β^+=96.9 *8*; %α<3×10^{-4}; %IT=3.1 *8* (1998Ro32) μ=0.782 *14* (1999Le52,1999Ro28,1999Sa40,2000SaZZ) Q=3.4 *3* (1999Le52,1999Ro28,1999Sa40) μ,Q: from LASER resonance ionization mass spectroscopy. Sternheimer correction applied to Q. μ: ^{195}Pt reference standard. others: 0.96 *8* (1992Ro21), 1.03 *8* (1992St16); from static nuclear orientation with γ detection. other Q: +3.7 *3* (2000SaZZ). Δ<r^2>(^{194}Pt,^{183}Pt)=−0.106 *8* (1999Le52,1999Ro28,1999Sa40). %α: α decay not observed. an α branch to the 7/2− 7/2[514] ^{179}Os level At 145.4 keV would have HF<1, unless %α<3x10^{-4}. μ,Q: from LASER spectroscopy (1999Le52,1999Ro28,1999Sa40); μ relative to μ(^{195}Pt), sternheimer correction applied. T$_{1/2}$: from 1979Vi02. J$^\pi$: M3 35γ to 1/2− g.s..
84.73[e] *7*	3/2−[f]		B	J$^\pi$: E2 85γ to 1/2− g.s.; g.s. band member.
96.15[e] *7*	5/2−[f]		B E	J$^\pi$: E2 96γ to 1/2− g.s.; g.s. band member.

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Adopted Levels, Gammas (continued)

^{183}Pt Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$	XREF	Comments
149.91[&] *10*	(9/2)$^-$		B E	J$^{\pi}$: M1+E2 115γ to 7/2$^-$ 35; band assignment.
195.90[@] *10*	(9/2)$^+$	>150 ns	B E	J$^{\pi}$: E1 from (5/2,7/2)$^-$. T$_{1/2}$: from (HI,xnγ).
243.58[@] *14*	(11/2)$^+$		B E	J$^{\pi}$: M1(+E2) 48γ to (9/2)$^+$ 196.
289.74[&] *11*	(11/2)$^-$		B E	J$^{\pi}$: D+Q intraband 140γ to (9/2)$^-$ 150; intraband 255γ to 7/2$^-$ 35.
298.87[e] *8*	7/2$^-$[f]		B	J$^{\pi}$: E2 214γ to 3/2$^-$ 85; g.s. band member.
314.23[e] *10*	9/2$^-$[f]		B E	J$^{\pi}$: stretched E2 218γ to 5/2$^-$ 96; g.s. band member.
316.9[@] *7*	(13/2$^+$)		E	J$^{\pi}$: unhindered α-decay from 13/2$^{(+)}$ 57 level in ^{187}Hg; gammas to (11/2)$^+$ and to (9/2)$^+$.
347.72[b] *8*	(5/2)$^-$		B	J$^{\pi}$: M1+E2 313γ to 7/2$^-$ 35.
373.23[a] *9*	(7/2)$^-$		B	J$^{\pi}$: E2+M1 339γ to 7/2$^-$ 35.
375.44[#] *12*	(7/2)$^+$		B	J$^{\pi}$: M1 180γ to (9/2)$^+$ 196.
449.4[&] *7*	(13/2)$^-$		E	J$^{\pi}$: E2+M1 160γ to (11/2)$^-$ 290.
471.66[b] *10*	(7/2)$^-$		B	J$^{\pi}$: E2+M1 437γ to 7/2$^-$ 35.
477.7[@] *8*	(15/2$^+$)		E	J$^{\pi}$: E2+M1 160γ to (13/2)$^+$ 317; stretched E2 235γ to (11/2)$^+$ 243.
531.60[#] *12*	(9/2)$^+$		B	J$^{\pi}$: E1 from (5/2,7/2)$^-$.
535.91[a] *11*	(9/2$^-$)		B	
556.61[c] *13*	3/2$^-$		B	J$^{\pi}$: M1+E2 557γ to 1/2$^-$ g.s..
568.79[d] *12*	(1/2)$^-$		B	J$^{\pi}$: M1+E2 484γ to 3/2$^-$ 85.
590.1[@] *9*	(17/2$^+$)		E	
611.47 *22*			B	
613.16 *21*	(3/2,5/2)$^-$		B	J$^{\pi}$: M1+E2 517γ to 5/2$^-$ 96, possible (E2) 613γ to 1/2$^-$ g.s..
617.67[c] *16*	(5/2)$^-$		B	J$^{\pi}$: E2(+M1) 533γ to 3/2$^-$ 85; possible M1+E2 583γ to 7/2$^-$ 35; possible 303γ to 9/2$^-$ 314.
627.2[e] *10*	13/2$^-$[f]		E	XREF: E(627.0). J$^{\pi}$: 313γ to 9/2$^-$ 314; member of g.s. band.
629.2[&] *8*	(15/2)$^-$		E	J$^{\pi}$: intraband Q 339γ to (11/2)$^-$ 289; intraband 180γ to (13/2)$^-$ 449.
636.37 *17*	(7/2$^+$,9/2,11/2$^-$)		B	J$^{\pi}$: 165γ to (7/2)$^-$ 472; 393γ to (11/2)$^+$ 244; weak branch from (5/2)$^-$ In ε decay (log *ft*≈7.2) makes J>7/2 unlikely.
650.23[d] *11*	(3/2)$^-$		B	J$^{\pi}$: E2+M1 566γ to 3/2$^-$ 85; log *ft*=6.6 from (5/2)$^-$ In ε decay; band assignment.
678.45 *16*	(3/2,5/2)$^-$		B	J$^{\pi}$: E2 594γ to 5/2$^-$, uncertain γ to 1/2$^-$.
692.99 *13*	(3/2,5/2)$^-$		B	J$^{\pi}$: E2+M1 597γ to 5/2$^-$, uncertain 693γ to 1/2$^-$ g.s.; log *ft*=6.2 from (5/2)$^-$ In ε decay; 394γ to 7/2$^-$ 299.
702.44[c] *14*	(7/2)$^-$		B	J$^{\pi}$: E2+M1 607γ to 5/2$^-$. Note that if the 702γ were to deexcite this level, as suggested by 1989Ro21, this band assignment would be incorrect.
730.92 *18*	(≥5/2)$^+$		B	J$^{\pi}$: E2 535γ to (9/2)$^+$ 196.
762.22[d] *12*	(5/2)$^-$		B	J$^{\pi}$: M1+E2 463γ to 7/2$^-$ 299; 678γ to 3/2$^-$ 85; 613γ to (9/2)$^-$ 150; band assignment.
801.90 *13*	(3/2,5/2,7/2)$^-$		B	J$^{\pi}$: E2 717γ to 3/2$^-$ 85; 429γ to (7/2)$^-$ 373.
819.90 *17*	(7/2,9/2)$^-$		B	J$^{\pi}$: M1+E2 506γ to to 7/2$^-$ 299; M1+E2 521γ to 9/2$^-$ 314. log *ft*=6.7 from (5/2)$^-$ In ε decay for weak branch makes J=9/2 unlikely.
824.90 *16*	(5/2,7/2,9/2)$^-$		B	J$^{\pi}$: M1+E2 526γ to 7/2$^-$ 299; 477γ to (5/2)$^-$ 348. log *ft*=6.8 from (5/2)$^-$ In ε decay for weak branch makes J=9/2 unlikely.
825.3[&] *10*	(17/2)$^-$		E	J$^{\pi}$: intraband gammas to (13/2)$^-$ and to (15/2)$^-$.
834.2[@] *10*	(19/2$^+$)		E	J$^{\pi}$: intraband D+Q 244γ to (17/2$^+$) 590; intraband Q 356γ to (15/2$^+$) 478.
835.31 *16*	(3/2,5/2)$^-$		B E	J$^{\pi}$: M1+E2 739γ to 5/2$^-$ 96; possible 836γ to 1/2$^-$ g.s.; 536γ to 7/2$^-$ 299.
847.33 *23*	(7/2,9/2,11/2)$^-$		B	J$^{\pi}$: M1+E2 533γ to 9/2$^-$ 314.
879.74 *16*	(7/2$^-$,9/2$^-$)		B	J$^{\pi}$: (E2+M1) 730γ to (9/2)$^-$ 150; possible E2(+M1) 845γ to 7/2$^-$ 35.
919.02 *22*	(3/2,5/2,7/2)$^-$		B	J$^{\pi}$: E2+M1 571γ to (5/2)$^-$ 348.

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Adopted Levels, Gammas (continued)

^{183}Pt Levels (continued)

E(level)†	Jπ‡	XREF	Comments
930.64 *16*	−	B	Jπ: E2+M1 1010γ from π=− 1941 level.
931.88 *17*	(7/2,9/2)−	B	Jπ: M1+E2 617γ to 9/2− 314; 571γ to (7/2)+ 375.
963.80 *17*	(7/2,9/2,11/2)−	B E	Jπ: M1(+E2) 650γ to 9/2− 314; 665γ to 7/2− 299.
966.2@ *11*	(21/2+)	E	Jπ: intraband D+Q 132γ to (19/2+) 834; (E2) 376γ to (17/2+) 590.
978.62 *22*	(7/2)−	B	Jπ: M1+E2 829γ to (9/2)− 150; 631γ to (5/2)− 348; M1 944γ to 7/2− 35; log *ft*=6.9 for weak branch from (5/2)− In ε decay.
989.94 *23*	(+)	B	Jπ: (E2) 615γ to (7/2)+ 375 allows J=(3/2 to 11/2); log *ft*=7.2 for weak branch from (5/2)− In ε decay favors J≤(7/2).
998.72 *18*	(≥7/2)	B	Jπ: 623γ to (7/2)+ 375; 755γ to (11/2)+ 244 suggests Jπ=(7/2+,9/2, 11/2+). log *ft*=7.0 for weak branch from (5/2)− In ε decay favors J=(7/2).
1011.9e *15*	17/2− f	E	Jπ: stretched Q 385γ to 13/2− 627; g.s. band member.
1024.53 *22*	(5/2,7/2,9/2)−	B	Jπ: M1(+E2) 651γ to (7/2)− 373.
1035.11 *16*	(7/2,9/2)−	B	Jπ: M1+E2 736γ to 7/2− 299; 746γ to (11/2)− 290.
1038.2& *13*	(19/2)−	E	Jπ: intraband stretched Q 409γ to (15/2)− 629 In (HI,xnγ).
1058.03 *22*		B	Jπ: 685γ to (7/2)− 373 implies J=(3/2 to 11/2); log *ft*=7.2 from (5/2)− inconsistent with J=9/2, 11/2, but branching May be too weak to be reliable.
1071.54 *19*	(5/2,7/2)−	B	Jπ: E2(+M1) 1037γ to 7/2− 35; 696γ to (7/2)+ 375; log *ft*=6.5 from (5/2)− In ε decay.
1126.47 *17*		B	Jπ: 753γ to (7/2)− 373, 595γ to (9/2)+ 532 suggests Jπ=(5/2+, 7/2,9/2,11/2−); log *ft*=6.9 from (5/2)− for weak branch In ε decay disfavors J=(9/2,11/2).
1263.0& *14*	(21/2−)	E	Jπ: intraband 438γ to (17/2)− 825.
1280.1@ *12*	(23/2+)	E	
1421.3@ *13*	(25/2+)	E	
1444.0e *18*	21/2− f	E	
1501.3& *16*	(23/2−)	E	
1748.4& *17*	(25/2−)	E	
1790.9@ *14*	(27/2+)	E	
1810.8 *4*		B	Jπ: 1512γ to 7/2− 299.
1814.5 *3*	(3/2,5/2,7/2)−	B	Jπ: M1(+E2) 1467γ to (5/2)− 348.
1844.4 *3*	−	B	Jπ: E2(+M1) 1497γ to (5/2)− 348.
1847.8 *4*		B	Jπ: 1698γ to (9/2)− 150, possible 1813γ to 7/2− 35 imply Jπ=(5/2−,7/2,9/2,11/2−). log *ft*=6.5 for weak branch from (5/2)− In decay renders J=9/2 or 11/2 very unlikely.
1884.3 *3*	(3/2,5/2,7/2)+	B	Jπ: E1 1537γ to (5/2)− 348.
1892.4 *3*	(≤7/2)	B	Jπ: 1808γ to 3/2− 85; log *ft*=6.5 from (5/2)− In ε decay, but branch is weak.
1900.6e *20*	25/2− f	E	Jπ: intraband stretched Q 457γ to 21/2− 1444.
1907.6 *4*	(5/2,7/2)−	B	Jπ: E1 1532γ to (7/2)+ 375; log *ft*=5.6 from (5/2)− In ε decay.
1913.03 *23*	(5/2−,7/2−)	B	Jπ: 1828γ to 3/2− 85; 1763γ to (9/2)− 150.
1914.74 *19*	(3/2,5/2)−	B	Jπ: M1 1358γ to (3/2)− 557; 1616 γ to 7/2− 299.
1936.3@ *15*	(29/2+)	E	Jπ: intraband (E2) 515γ to (25/2+) 1421.
1938.66 *17*	(7/2)−	B	Jπ: E1 1407γ to (9/2)+ 532; log *ft*=5.8 from (5/2)−; 1843γ to 5/2− 96..
1940.67 *17*	(3/2,5/2)−	B	Jπ: E2 1593γ to (5/2)− 348; log *ft*=5.7 from (5/2)−; 1372γ to (1/2)− 569.
1948.65 *23*	(5/2−,7/2)	B	Jπ: log *ft*=6.0 from (5/2)− In ε decay; 1634γ to 9/2− 314.
1956.75 *13*	(7/2)−	B	Jπ: 1643γ to 9/2− 314; log *ft*=5.3 from (5/2)−; E1 1760γ to (9/2)+ 196; 1667γ to (11/2)− 290.
1968.7 *3*	(3/2,5/2,7/2)−	B	Jπ: E2(+M1) 1873γ to 5/2− 95; log *ft*<5.9 from (5/2)−.
1970.72 *16*	(7/2)−	B	Jπ: log *ft*<5.9 from (5/2)−; E2 1657γ to 9/2− 314; 1439γ to (9/2)+ 532.
1980.1 *4*		B	Jπ: 1681γ to 7/2− 299 suggests J=(3/2 to 11/2). log *ft*=6.7 In ε decay for weak branch from (5/2)− favors J=(3/2,5/2,7/2).
2005.5& *19*	(27/2−)	E	Jπ: stretched Q 504γ to (23/2−) 1501 In (HI,xnγ).
2268.5& *20*	(29/2−)	E	Jπ: intraband stretched Q 520γ to (25/2−) 1748 In (HI,xnγ).
2340.8@ *15*	(31/2+)	E	Jπ: intraband D+Q 404γ to (29/2+) 1936 In (HI,xnγ).
2373.7e *23*	29/2− f	E	Jπ: intraband stretched Q 473γ to 25/2− 1901; 1/2[521] band MEMBER..
2503.0@ *17*	(33/2+)	E	Jπ: intraband stretched (Q) 567γ to (29/2+) 1936.

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Adopted Levels, Gammas (continued)

^{183}Pt Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
2541.8[&] 22	(31/2−)	E	Jπ: stretched Q 536γ to (27/2−) 2005 In (HI,xnγ).
2818.5[&] 22	(33/2−)	E	Jπ: (E2) 550γ to (29/2−) 2269.
2872.1[e] 25	33/2−[f]	E	Jπ: stretched Q 498γ to 29/2− 2374; 1/2[521] band member.
2919.1[@] 17	(35/2+)	E	Jπ: intraband 416γ to (33/2+) 2503; intraband Q78G to (31/2+) 2341.
3108.8[&] 24	(35/2−)	E	Jπ: possible intraband 290γ to (33/2−) 2819; intraband 567γ to (31/2−) 2542.
3122.7[@] 18	(37/2+)	E	Jπ: intraband stretched Q 620γ to (33/2+) 2503.
3396.5[&] 25	(37/2−)	E	Jπ: intraband 578γ to (33/2−) 2819.
3423[e] 3	37/2−[f]	E	Jπ: 1/2[521] band member.
3543.4[@] 18	(39/2+)	E	Jπ: intraband 421γ to (37/2+) 3123; intraband 624γ to (35/2+) 2919.
3698[&] 3	(39/2−)	E	Jπ: intraband 589γ to (35/2−) 3109.
3793.7[@] 21	(41/2+)	E	Jπ: intraband 671γ to (37/2+) 3123.
4019[&] 3	(41/2−)	E	XREF: E(4018.2). Jπ: 622γ to 37/2− 3423; band assignment.
4025[e] 3	41/2−[f]	E	XREF: E(4024.9). Jπ: 1/2[521] band member.
4290[&] 3	(43/2−)	E	Jπ: intraband 592γ to (39/2−) 3698.
4507.7[@] 23	(45/2+)	E	Jπ: intraband 714γ to (41/2+) 3794.
4950[&] 3	(47/2−)	E	Jπ: intraband 660γ to (43/2−) 4290.
5256.7?[@] 25	(49/2+)	E	Jπ: intraband 749γ to (45/2+) 4508.

† From least-squares fit to Eγ, assigning 1 keV uncertainty to Eγ data for which authors did not state an uncertainty.

‡ From band assignments and connecting-transition multipolarities as indicated. Above 1.8 MeV, log *ft* arguments are reliable for only the strongly fed levels. Where missing feeding intensity is improbable, the parities of the levels associated with the 7/2[514], 9/2[624], and 7/2[633] bands are established by E1 transitions from the 1938 and 1954 levels into the 196 level and connecting transition multipolarities between these band members.

\# Band(A): 7/2[633] band (1989Ro21). Band parameters: E_0=315, α=17.4 (J=7/2,9/2).

@ Band(B): 9/2[624] band (1990Ny02).

& Band(C): 7/2[514] band (1990Ny02). E_0=−166.3, α=12.8.

a Band(D): 7/2[503] band (1989Ro21). Band parameters: E_0=310, α=18.1 (J=7/2,9/2).

b Band(E): 5/2[512] band (1989Ro21). E_0=303.5, α=17.7.

c Band(F): 3/2[512] band (1989Ro21). E_0=511.0, α=12.1.

d Band(G): 1/2[510] band (1989Ro21). E_0=559, α=24.8, a=0.096 (J=1/2,3/2,5/2).

e Band(H): 1/2[521] g.s. band (1990Ny02). E_0=5.3, α=15.3, a=+0.85 (J=1/2,3/2,5/2).

f Definite Jπ assigned to g.s. band members based on progression of level energies (decoupling parameter consistent with that expected for 1/2[521] band) and independently-determined J(g.s.)=1/2 and E2 multipolarity for intraband 85γ.

Adopted Levels, Gammas (continued)

$\gamma(^{183}Pt)$

E,Iγ,M,δ from ^{183}Au ε decay, except As noted.

E_i(level)	J^{π}_i	E_γ	I_γ	E_f	J^{π}_f	Mult.	δ	α†	Comments
34.74	7/2⁻	35.0 *1*	100	0.0	1/2⁻	M3		1.71×10⁵ *4*	B(M3)(W.u.)=0.0042 *12* E_γ,Mult.: from ^{183}Pt IT decay.
84.73	3/2⁻	84.6 *1*	100	0.0	1/2⁻	E2		9.93	
96.15	5/2⁻	11.4 *2*	≈0.0008	84.73	3/2⁻	[E2]		4.3×10⁴ *4*	
		96.0 *1*	100 *16*	0.0	1/2⁻	E2		5.80	
149.91	(9/2)⁻	115.2 *1*	100	34.74	7/2⁻	M1+E2		3.6 *9*	Mult.,δ: D(+Q), δ=−0.10 +*22*−*10* from (HI,xnγ), but α(L)exp and α(K)exp In ε decay imply M1+E2, δ=3 +*7*−*1* and are considered adequate to establish $\Delta\pi$=No for 115γ.
195.90	(9/2)⁺	46.1 *2*	0.75 *12*	149.91	(9/2)⁻	[E1]		0.659 *13*	B(E1)(W.u.)<1.5×10⁻⁶
		161.2 *1*	100 *15*	34.74	7/2⁻	E1		0.1208	B(E1)(W.u.)<1.6×10⁻⁷ α: anomalous E1 transition. α(E1)=0.1208 from theory but α(K)exp=0.69 *10* from ε decay.
243.58	(11/2)⁺	48.0 *2*	100	195.90	(9/2)⁺	M1(+E2)	0.27 *8*	19 *6*	
289.74	(11/2)⁻	140 *1*	36 *6*	149.91	(9/2)⁻	(M1+E2)		1.9 *7*	other Iγ: 17.3 *17* from (HI,xnγ). Mult.: D+Q from $\gamma(\theta)$ In (HI,xnγ) for intraband G.
		255.0 *1*	100 *15*	34.74	7/2⁻	(E2)		0.1620	Mult.: Q intraband γ from (HI,xnγ).
298.87	7/2⁻	202.6 *1*	13.0 *20*	96.15	5/2⁻	[M1+E2]		0.6 *3*	
		214.1 *1*	100 *15*	84.73	3/2⁻	E2		0.286	
314.23	9/2⁻	218.1 *1*	100	96.15	5/2⁻	E2		0.268	
316.9	(13/2⁺)	73#		243.58	(11/2)⁺				
		121#		195.90	(9/2)⁺	[E2]		2.27	
347.72	(5/2)⁻	251.4 *1*	25 *4*	96.15	5/2⁻	[M1+E2]		0.33 *17*	
		262.8 *1*	19 *3*	84.73	3/2⁻	[M1+E2]		0.29 *15*	
		313.1 *1*	100 *15*	34.74	7/2⁻	M1+E2	0.5 *3*	0.23 *4*	
373.23	(7/2)⁻	223 *1*	≈3.8	149.91	(9/2)⁻	[M1+E2]		0.47 *22*	
		277.0 *1*	26 *4*	96.15	5/2⁻	[M1+E2]	0.25 *13*	0.365 *18*	
		338.5 *1*	100 *16*	34.74	7/2⁻	E2+M1	1.2 *3*	0.131 *22*	
375.44	(7/2)⁺	179.5 *1*	100	195.90	(9/2)⁺	M1		1.264	
449.4	(13/2)⁻	160.0#	5.5# *11*	289.74	(11/2)⁻	(E2+M1)‡	−2.5 *2*	0.921 *24*	
		299.2#	100# *4*	149.91	(9/2)⁻	(E2)‡		0.0992	
471.66	(7/2)⁻	98.5 *2*	5.5 *8*	373.23	(7/2)⁻	[M1+E2]		6.1 *9*	
		123.9 *1*	100 *15*	347.72	(5/2)⁻	M1(+E2)	<0.65	3.38 *24*	
		321.5 *2*	75 *11*	149.91	(9/2)⁻				
		375.6 *2*	15 *3*	96.15	5/2⁻				
		437.1 *2*	69 *10*	34.74	7/2⁻	E2+M1	1.2 *6*	0.066 *25*	
477.7	(15/2⁺)	160.0#	100# *9*	316.9	(13/2⁺)	(E2+M1)‡	−1.7 *5*	1.03 *15*	
		234.5#	70# *3*	243.58	(11/2)⁺	(E2)‡		0.212	

$^{183}_{78}Pt_{105}$-5

Adopted Levels, Gammas (continued)

γ(^{183}Pt) (continued)

E$_i$(level)	J$^\pi_i$	E$_\gamma$	I$_\gamma$	E$_f$	J$^\pi_f$	Mult.	δ	α[†]
531.60	(9/2)$^+$	155.9 2	29 4	375.44	(7/2)$^+$	[M1+E2]		1.4 5
		288.1 1	100 16	243.58	(11/2)$^+$	[M1+E2]		0.23 12
		335.8 2	32 5	195.90	(9/2)$^+$			
535.91	(9/2$^-$)	162.6 1	100 15	373.23	(7/2)$^-$			
		221 1	≈9.2	314.23	9/2$^-$			
		246.2 2	10.8 17	289.74	(11/2)$^-$			
		386.3 2	6.3 9	149.91	(9/2)$^-$			
556.61	3/2$^-$	471.8 2	16.9 26	84.73	3/2$^-$	M1		0.0908
		556.7[&] 2	≈100[&]	0.0	1/2$^-$	M1+E2	1.3 4	0.034 8
568.79	(1/2)$^-$	484.1 1	100	84.73	3/2$^-$	M1+E2	0.8 3	0.062 11
590.1	(17/2$^+$)	112.2[#]	2.7[#] 5	477.7	(15/2$^+$)	(M1+E2)[‡]	−0.6 +30−4	4.3 11
		273.5[#]	100[#] 5	316.9	(13/2$^+$)	(E2)[‡]		0.1302
611.47		297.1[a] 2	15.7 23	314.23	9/2$^-$			
		312.6 2	100 15	298.87	7/2$^-$			
613.16	(3/2,5/2)$^-$	517.0 2	100 15	96.15	5/2$^-$	M1+E2	0.4 +3−4	0.065 10
		613.2[a] 2	89 14	0.0	1/2$^-$	(E2)		0.01532
617.67	(5/2)$^-$	269.8 2	27 4	347.72	(5/2)$^-$	[M1+E2]		0.27 14
		302.8[a] 2	1.71 25	314.23	9/2$^-$			
		533.1[&] 2	≈39[&]	84.73	3/2$^-$	E2(+M1)		0.044 23
		582.8[&a] 2	≈100[&]	34.74	7/2$^-$	E2+M1	2 1	0.024 11
627.2	13/2$^-$	313.0[#]	100	314.23	9/2$^-$			
629.2	(15/2)$^-$	179.6[#]		449.4	(13/2)$^-$			
		339.4[#]	100[#] 5	289.74	(11/2)$^-$	(E2)[‡]		0.0688
636.37	(7/2$^+$,9/2,11/2$^-$)	164.7 2	100 14	471.66	(7/2)$^-$			
		392.8 2	40 6	243.58	(11/2)$^+$			
		601.7[a] 2	63 9	34.74	7/2$^-$			
650.23	(3/2)$^-$	553.7 2	24 4	96.15	5/2$^-$			
		565.6 1	100 18	84.73	3/2$^-$	E2+M1	1.3 +4−3	0.033 5
678.45	(3/2,5/2)$^-$	379.5 2	≈18	298.87	7/2$^-$			
		593.8 2	100 15	84.73	3/2$^-$	E2		0.01648
		678.6[a] 2	15.0 25	0.0	1/2$^-$			
692.99	(3/2,5/2)$^-$	394.0 2	9.2 13	298.87	7/2$^-$			
		596.9 2	100 17	96.15	5/2$^-$	E2+M1	3 +2−1	0.020 4
		608.3 2	32 5	84.73	3/2$^-$			
		693.3[a] 2	8.7 13	0.0	1/2$^-$			
702.44	(7/2)$^-$	329.3 2	≈12.8	373.23	(7/2)$^-$			
		354.4 2	10.0 14	347.72	(5/2)$^-$			
		606.5 2	100 14	96.15	5/2$^-$	E2+M1	1.5 +5−3	0.025 4
730.92	(≥5/2)$^+$	355.4 2	38 6	375.44	(7/2)$^+$			
		535.1 2	100 15	195.90	(9/2)$^+$	E2		0.0210
762.22	(5/2)$^-$	388.5[a] 2	24 3	373.23	(7/2)$^-$			

From ENSDF

$^{183}_{78}Pt_{105}$-6

Adopted Levels, Gammas (continued)

$\gamma(^{183}Pt)$ (continued)

E_i(level)	J^π_i	E_γ	I_γ	E_f	J^π_f	Mult.	δ	α[†]	Comments
762.22	(5/2)$^-$	463.1 *2*	47 *7*	298.87	7/2$^-$	M1+E2	0.9 *3*	0.066 *12*	
		612.5 *2*	57 *9*	149.91	(9/2)$^-$	(E2)		0.01536	
		666.1 *2*	24 *3*	96.15	5/2$^-$				
		677.5 *2*	89 *13*	84.73	3/2$^-$				
		727.5[a] *2*	100 *15*	34.74	7/2$^-$	M1(+E2)	<2	0.022 *8*	
801.90	(3/2,5/2,7/2)$^-$	428.8 *2*	54 *9*	373.23	(7/2)$^-$				
		705.8 *2*	100 *15*	96.15	5/2$^-$				
		717.0 *2*	69 *10*	84.73	3/2$^-$	E2		0.01085	
819.90	(7/2,9/2)$^-$	505.7 *2*	26 *4*	314.23	9/2$^-$	M1+E2	0.7 *3*	0.059 *10*	
		521.0 *2*	100 *15*	298.87	7/2$^-$	M1+E2	0.9 *3*	0.049 *9*	
824.90	(5/2,7/2,9/2)$^-$	477.1 *2*	31 *4*	347.72	(5/2)$^-$				
		526.1 *2*	100 *15*	298.87	7/2$^-$	M1+E2	≈0.4	≈0.0618	
825.3	(17/2)$^-$	196[#]		629.2	(15/2)$^-$				
		376[#]		449.4	(13/2)$^-$				E_γ: for doubly-placed G.
834.2	(19/2$^+$)	244.2[#]	13.2[#] *22*	590.1	(17/2$^+$)	(E2+M1)[‡]	−1.1 *+3−5*	0.34 *6*	
		356.4[#]	100[#] *5*	477.7	(15/2$^+$)	(E2)[‡]		0.0599	
835.31	(3/2,5/2)$^-$	536.2 *2*	24 *3*	298.87	7/2$^-$				
		739.4 *2*	100 *15*	96.15	5/2$^-$	M1+E2	0.7 *+5−4*	0.022 *5*	
		835.6[a] *2*	18.0 *27*	0.0	1/2$^-$				
847.33	(7/2,9/2,11/2)$^-$	533.1[&] *2*	100[&]	314.23	9/2$^-$	M1+E2		0.044 *23*	
879.74	(7/2$^-$,9/2$^-$)	581.1 *2*	100 *16*	298.87	7/2$^-$				
		729.6 *2*	67 *10*	149.91	(9/2)$^-$	(E2+M1)		0.020 *10*	
		845.1[a] *2*	46 *7*	34.74	7/2$^-$	E2(+M1)	>2	0.0089 *13*	
919.02	(3/2,5/2,7/2)$^-$	571.3 *2*	63 *9*	347.72	(5/2)$^-$	E2+M1	1.5 *+6−3*	0.029 *5*	
		884.5[a] *2*	100 *15*	34.74	7/2$^-$	E2(+M1)	>2	0.0081 *11*	
930.64	$^-$	362.0 *2*	23 *3*	568.79	(1/2)$^-$				
		582.8[&] *2*	≈100[&]	347.72	(5/2)$^-$				
931.88	(7/2,9/2)$^-$	556.7[&] *2*	≈100[&]	375.44	(7/2)$^+$	[E1]		0.00660	
		617.4 *2*	58 *9*	314.23	9/2$^-$	M1+E2	0.8 *+4−3*	0.033 *6*	
		897.6[a] *2*	11.0 *17*	34.74	7/2$^-$				
963.80	(7/2,9/2,11/2)$^-$	649.9 *2*	100 *16*	314.23	9/2$^-$	M1(+E2)	<1	0.033 *7*	
		664.6 *2*	38 *5*	298.87	7/2$^-$				
966.2	(21/2$^+$)	132.1[#]	5.0[#] *5*	834.2	(19/2$^+$)	(M1+E2)[‡]		2.3 *7*	
		376[#]	100[#] *5*	590.1	(17/2$^+$)	(E2)[‡]		0.0517	I_γ: for doublet.
978.62	(7/2)$^-$	631 *1*	≈24	347.72	(5/2)$^-$				
		828.7 *2*	100 *15*	149.91	(9/2)$^-$	M1+E2	1.0 *+8−4*	0.015 *4*	
		944.0[a] *2*	83 *12*	34.74	7/2$^-$	M1		0.01515	
989.94	($^+$)	614.5 *2*	100	375.44	(7/2)$^+$	(E2)		0.01525	
998.72	(≥7/2)	467.3 *2*	38 *6*	531.60	(9/2)$^+$				
		623.1 *2*	100 *15*	375.44	(7/2)$^+$				

From ENSDF

$^{183}_{78}Pt_{105}$-7

$^{183}_{78}Pt_{105}$-8

γ(^{183}Pt) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	δ	α[†]
998.72	(≥7/2)	754.5[a] *2*	68 *9*	243.58	(11/2)$^+$			
1011.9	17/2$^-$	384.7[#]	100[#]	627.2	13/2$^-$	(E2)[‡]		0.0486
1024.53	(5/2,7/2,9/2)$^-$	651.3 *2*	100 *15*	373.23	(7/2)$^-$	M1(+E2)	<1	0.033 *7*
		990.1[a] *2*	38 *5*	34.74	7/2$^-$			
1035.11	(7/2,9/2)$^-$	736.1 *2*	100 *14*	298.87	7/2$^-$	M1+E2	0.7 *+5−4*	0.023 *5*
		745.5 *2*	28 *4*	289.74	(11/2)$^-$			
		1000.6[a] *3*	91 *14*	34.74	7/2$^-$			
1038.2	(19/2)$^-$	214[#a]		825.3	(17/2)$^-$			
		409.0[##]	100[##] *7*	629.2	(15/2)$^-$	(E2)[‡]		0.0412
1058.03		684.8 *2*	100	373.23	(7/2)$^-$			
1071.54	(5/2,7/2)$^-$	696.1 *2*	100 *15*	375.44	(7/2)$^+$			
		1036.8 *3*	100 *15*	34.74	7/2$^-$	E2(+M1)	>2	0.0058 *7*
1126.47		595.1 *2*	66 *9*	531.60	(9/2)$^+$			
		753.0 *2*	72 *9*	373.23	(7/2)$^-$			
		1091.8[a] *3*	100 *16*	34.74	7/2$^-$			
1263.0	(21/2$^-$)	437.7[#]	100	825.3	(17/2)$^-$			
1280.1	(23/2$^+$)	314[#]		966.2	(21/2$^+$)			
		445.9[#]	100[#] *6*	834.2	(19/2$^+$)	(E2)[‡]		0.0330
1421.3	(25/2$^+$)	141.2[#]	2.4[#] *7*	1280.1	(23/2$^+$)	(M1+E2)[‡]		1.9 *7*
		454.8[#]	100[#] *4*	966.2	(21/2$^+$)	(E2)[‡]		0.0313
1444.0	21/2$^-$	432.1[#]	100[#]	1011.9	17/2$^-$	(E2)[‡]		0.0357
1501.3	(23/2$^-$)	239[#a]		1263.0	(21/2$^-$)			
		463.2[#]	100[#] *6*	1038.2	(19/2)$^-$	(E2)[‡]		0.0299
1748.4	(25/2$^-$)	485.4[#]	100[#]	1263.0	(21/2$^-$)	(E2)[‡]		0.0266
1790.9	(27/2$^+$)	369.5[#]	100[#] *36*	1421.3	(25/2$^+$)	(E2+M1)[‡]	−1.4 *+5−10*	0.09 *3*
		511[#]		1280.1	(23/2$^+$)			
1810.8		1511.9 *3*	100	298.87	7/2$^-$			
1814.5	(3/2,5/2,7/2)$^-$	1466.8 *3*	100	347.72	(5/2)$^-$	M1(+E2)	<1.6	0.0042 *9*
1844.4	−	1496.7 *3*	100	347.72	(5/2)$^-$	E2(+M1)	>1	0.0032 *6*
1847.8		1697.9 *3*	100 *14*	149.91	(9/2)$^-$			
		1812.8[a] *3*	36 *6*	34.74	7/2$^-$			
1884.3	(3/2,5/2,7/2)$^+$	1536.6 *3*	100	347.72	(5/2)$^-$	E1		1.20×10^{-3}
1892.4	(≤7/2)	1807.7 *3*	100	84.73	3/2$^-$			
1900.6	25/2$^-$	456.6[#]	100[#]	1444.0	21/2$^-$	(E2)[‡]		0.0310
1907.6	(5/2,7/2)$^-$	1532.2 *3*	100	375.44	(7/2)$^+$	E1		
1913.03	(5/2$^-$,7/2$^-$)	1763.3 *3*	36 *5*	149.91	(9/2)$^-$			
		1828.1 *3*	47 *7*	84.73	3/2$^-$			
		1878.0[a] *3*	100 *15*	34.74	7/2$^-$			
1914.74	(3/2,5/2)$^-$	1358.2 *3*	72 *12*	556.61	3/2$^-$	M1		0.00610

From ENSDF

$^{183}_{78}Pt_{105}$-8

Adopted Levels, Gammas (continued)

γ(^{183}Pt) (continued)

E_i(level)	J^π_i	E_γ	I_γ	E_f	J^π_f	Mult.	δ	α[†]
1914.74	(3/2,5/2)⁻	1615.8 *3*	22 *3*	298.87	7/2⁻			
		1830.0 *3*	100 *16*	84.73	3/2⁻			
1936.3	(29/2⁺)	147[#a]		1790.9	(27/2⁺)			
		515.0[#]	100[#] *7*	1421.3	(25/2⁺)	(E2)[‡]		0.0230
1938.66	(7/2)⁻	1406.9 *3*	83 *13*	531.60	(9/2)⁺	E1		1.28×10^{-3}
		1639.9 *3*	27 *4*	298.87	7/2⁻			
		1742.6 *3*	100 *15*	195.90	(9/2)⁺	E1		1.16×10^{-3}
		1842.7 *3*	80 *12*	96.15	5/2⁻			
		1903.9[a] *3*	37 *5*	34.74	7/2⁻			
1940.67	(3/2,5/2)⁻	1010.1 *3*	27 *4*	930.64	⁻	E2+M1	1.1 *+13−5*	0.0087 *23*
		1371.9 *3*	24 *4*	568.79	(1/2)⁻			
		1384.0 *3*	60 *9*	556.61	3/2⁻	E2(+M1)	>0.6	0.0040 *11*
		1592.9 *3*	100 *16*	347.72	(5/2)⁻	E2		0.00235
		1940.1[a] *3*	12.4 *20*	0.0	1/2⁻			
1948.65	(5/2⁻,7/2)	1634.3 *3*	48 *7*	314.23	9/2⁻			
		1852.6 *3*	100 *15*	96.15	5/2⁻			
		1914.2[a] *3*	16.9 *25*	34.74	7/2⁻			
1956.75	(7/2)⁻	1425.0 *3*	58 *8*	531.60	(9/2)⁺	E1		1.26×10^{-3}
		1484.9 *3*	25 *4*	471.66	(7/2)⁻	E2(+M1)	>1	0.0032 *6*
		1608.8 *3*	15.8 *23*	347.72	(5/2)⁻			
		1642.5 *3*	29 *4*	314.23	9/2⁻			
		1658.3 *3*	23 *4*	298.87	7/2⁻	E2		0.00222
		1666.7 *3*	3.7 *6*	289.74	(11/2)⁻			
		1760.9 *3*	100 *15*	195.90	(9/2)⁺	E1		1.16×10^{-3}
		1861.0 *3*	23 *4*	96.15	5/2⁻			
		1921.7[a] *3*	12.9 *19*	34.74	7/2⁻			
1968.7	(3/2,5/2,7/2)⁻	1872.5 *3*	100 *15*	96.15	5/2⁻	E2(+M1)	>1	0.0022 *3*
		1934.0[a] *3*	23 *3*	34.74	7/2⁻			
1970.72	(7/2)⁻	899.6[a] *2*	28 *4*	1071.54	(5/2,7/2)⁻			
		1438.8 *3*	72 *11*	531.60	(9/2)⁺			
		1595.5 *3*	29 *4*	375.44	(7/2)⁺			
		1656.7 *3*	100 *15*	314.23	9/2⁻	E2		0.00222
		1820.6 *3*	43 *7*	149.91	(9/2)⁻			
		1874.6 *3*	83 *13*	96.15	5/2⁻			
1980.1		1681.2 *3*	100 *16*	298.87	7/2⁻			
		1945.2[a] *3*	38 *7*	34.74	7/2⁻			
2005.5	(27/2⁻)	259[#a]		1748.4	(25/2⁻)			
		504.2[#]	100[#] *4*	1501.3	(23/2⁻)	(E2)[‡]		0.0243
2268.5	(29/2⁻)	520.1[#]	100[#]	1748.4	(25/2⁻)	(E2)[‡]		0.0225
2340.8	(31/2⁺)	404.1[#]	28[#] *3*	1936.3	(29/2⁺)	(M1+E2)[‡]		0.09 *5*
		550[#]	100[#] *13*	1790.9	(27/2⁺)	(E2)[‡]		0.0197

γ(^{183}Pt) (continued)

E_i(level)	J^π_i	E_γ	I_γ	E_f	J^π_f	Mult.	α[†]	Comments
2373.7	29/2⁻	473.1[#]	100[#]	1900.6	25/2⁻	(E2)[‡]	0.0284	
2503.0	(33/2⁺)	164[#a]		2340.8	(31/2⁺)			
		567[@#]	100[@#] 6	1936.3	(29/2⁺)	(E2)[‡]	0.0183	
2541.8	(31/2⁻)	275[#a]		2268.5	(29/2⁻)			
		536.3[#]	100[#] 3	2005.5	(27/2⁻)	(E2)[‡]	0.0209	
2818.5	(33/2⁻)	550[#]	100[#]	2268.5	(29/2⁻)	(E2)[‡]	0.0197	
2872.1	33/2⁻	498.4[#]	100[#]	2373.7	29/2⁻	(E2)[‡]	0.0250	
2919.1	(35/2⁺)	416[#]		2503.0	(33/2⁺)			
		578		2340.8	(31/2⁺)			E_γ: from (HI,xnγ) for doublet.
3108.8	(35/2⁻)	290[#a]		2818.5	(33/2⁻)			
		567[@#]	100[@#] 6	2541.8	(31/2⁻)	(E2)[‡]	0.0183	
3122.7	(37/2⁺)	205[#a]		2919.1	(35/2⁺)			
		620.0[#]	100[#] 13	2503.0	(33/2⁺)	(E2)[‡]	0.01494	
3396.5	(37/2⁻)	578[#]	100	2818.5	(33/2⁻)			E_γ: for doublet.
3423	37/2⁻	551[#]	100[#]	2872.1	33/2⁻	(E2)[‡]	0.0196	
3543.4	(39/2⁺)	421[#]		3122.7	(37/2⁺)			
		624[#]		2919.1	(35/2⁺)			
3698	(39/2⁻)	589[#]	100	3108.8	(35/2⁻)			
3793.7	(41/2⁺)	671[#]	100	3122.7	(37/2⁺)			
4019	(41/2⁻)	622[#]	100	3396.5	(37/2⁻)			
4025	41/2⁻	602[#]	100	3423	37/2⁻			
4290	(43/2⁻)	592[#]	100	3698	(39/2⁻)			
4507.7	(45/2⁺)	714[#]	100	3793.7	(41/2⁺)			
4950	(47/2⁻)	660[#]	100	4290	(43/2⁻)			
5256.7?	(49/2⁺)	749[#a]	100	4507.7	(45/2⁺)			

† Additional information 1.
‡ From $\gamma(\theta)$ In (HI,xnγ), assigning $\Delta\pi$=(No) if transition is intraband.
# From (HI,xnγ).
@ Multiply placed with undivided intensity.
& Multiply placed with intensity suitably divided.
a Placement of transition in the level scheme is uncertain.

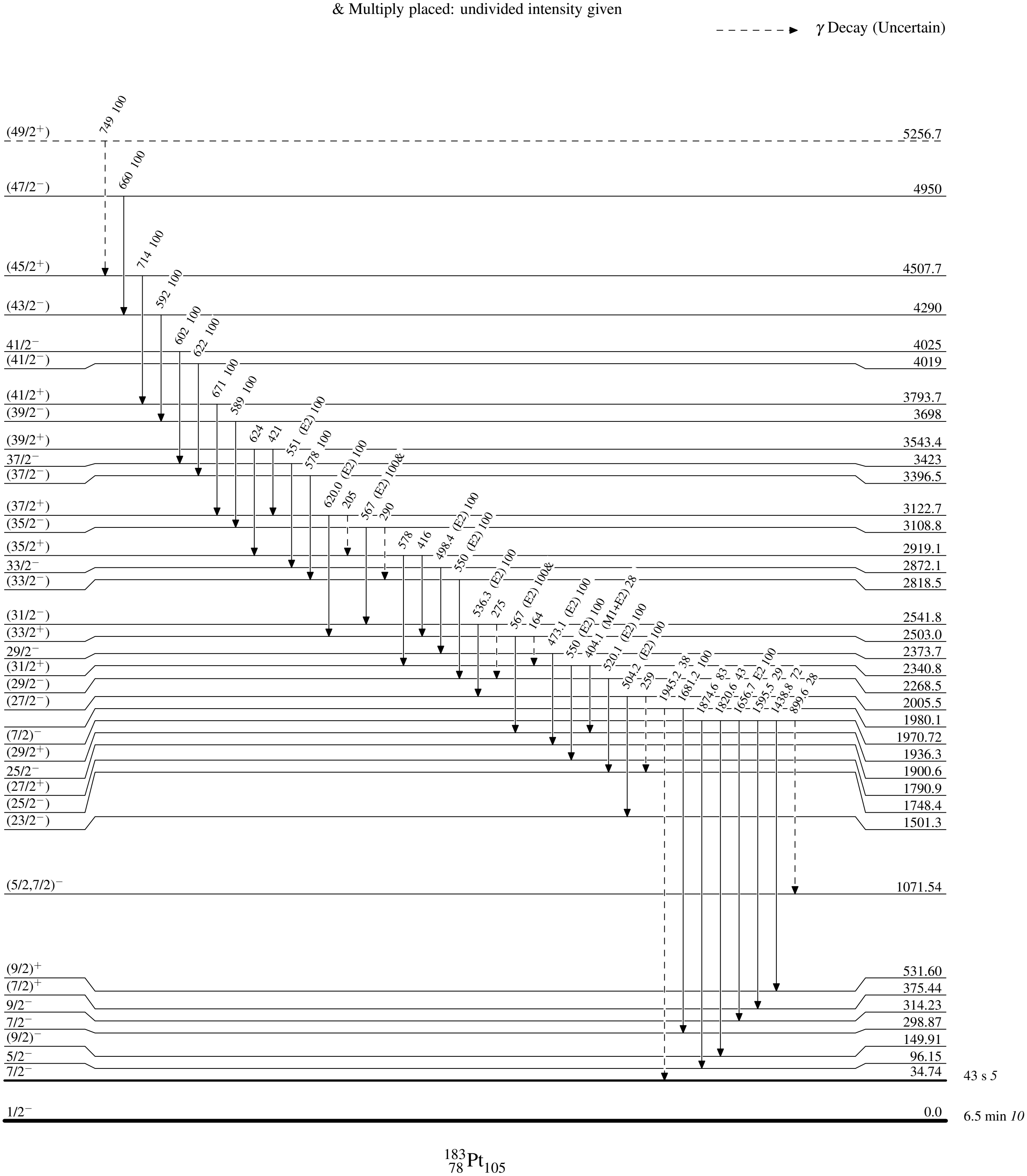
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

& Multiply placed: undivided intensity given

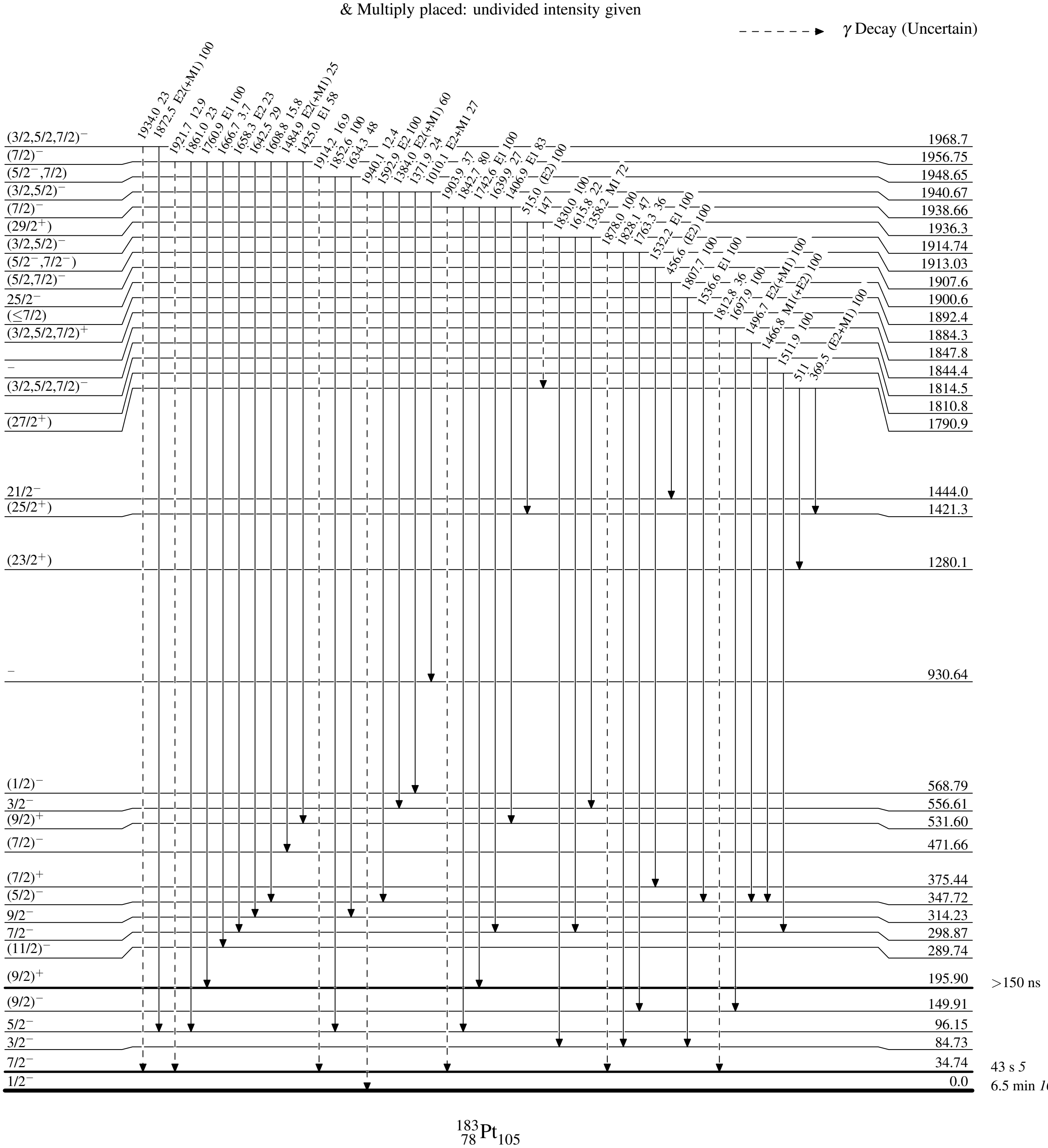


Adopted Levels, Gammas

Legend

Level Scheme (continued)

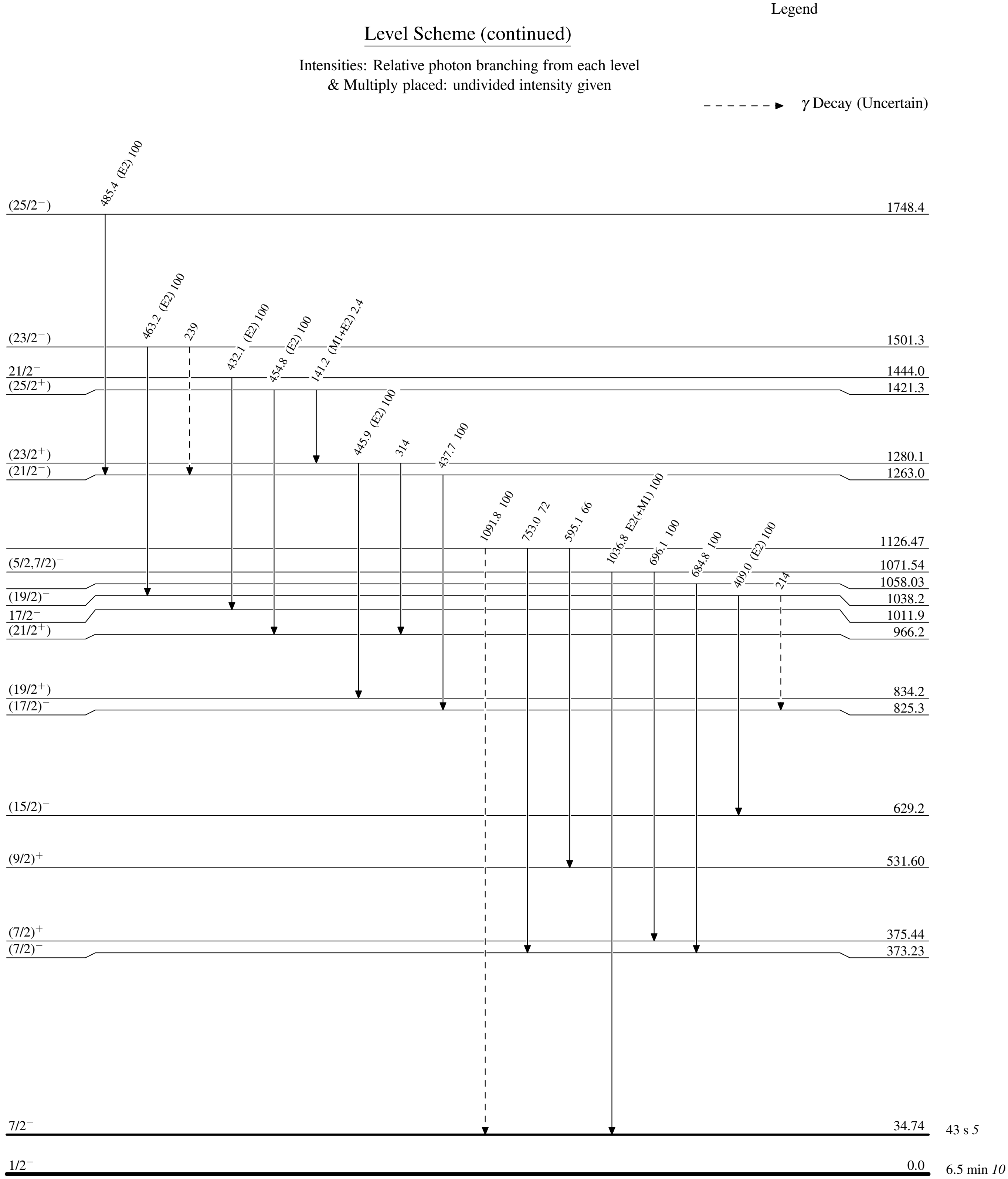
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



Adopted Levels, Gammas

Level Scheme (continued)

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



$^{183}_{78}Pt_{105}$

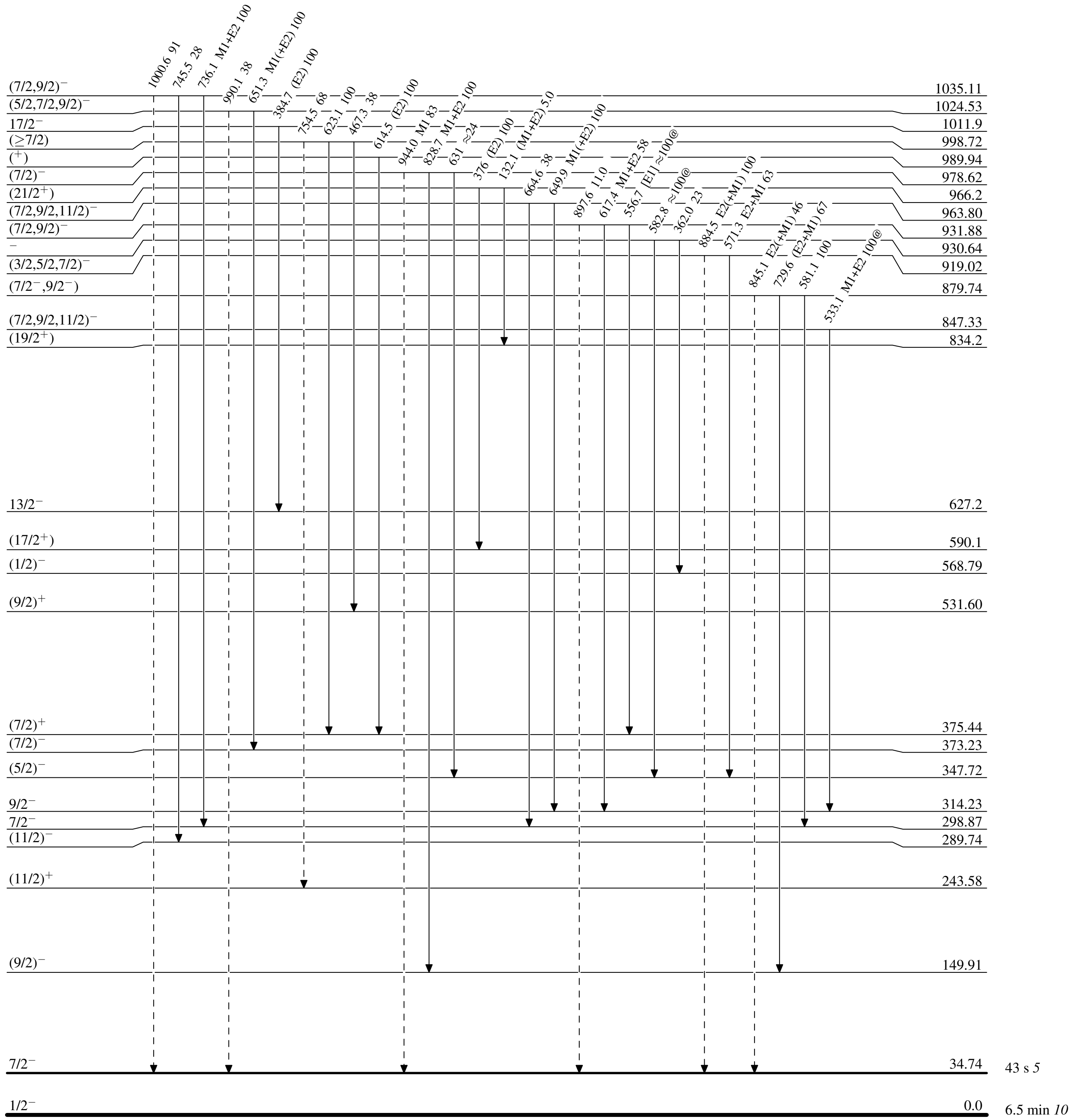
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

γ Decay (Uncertain)



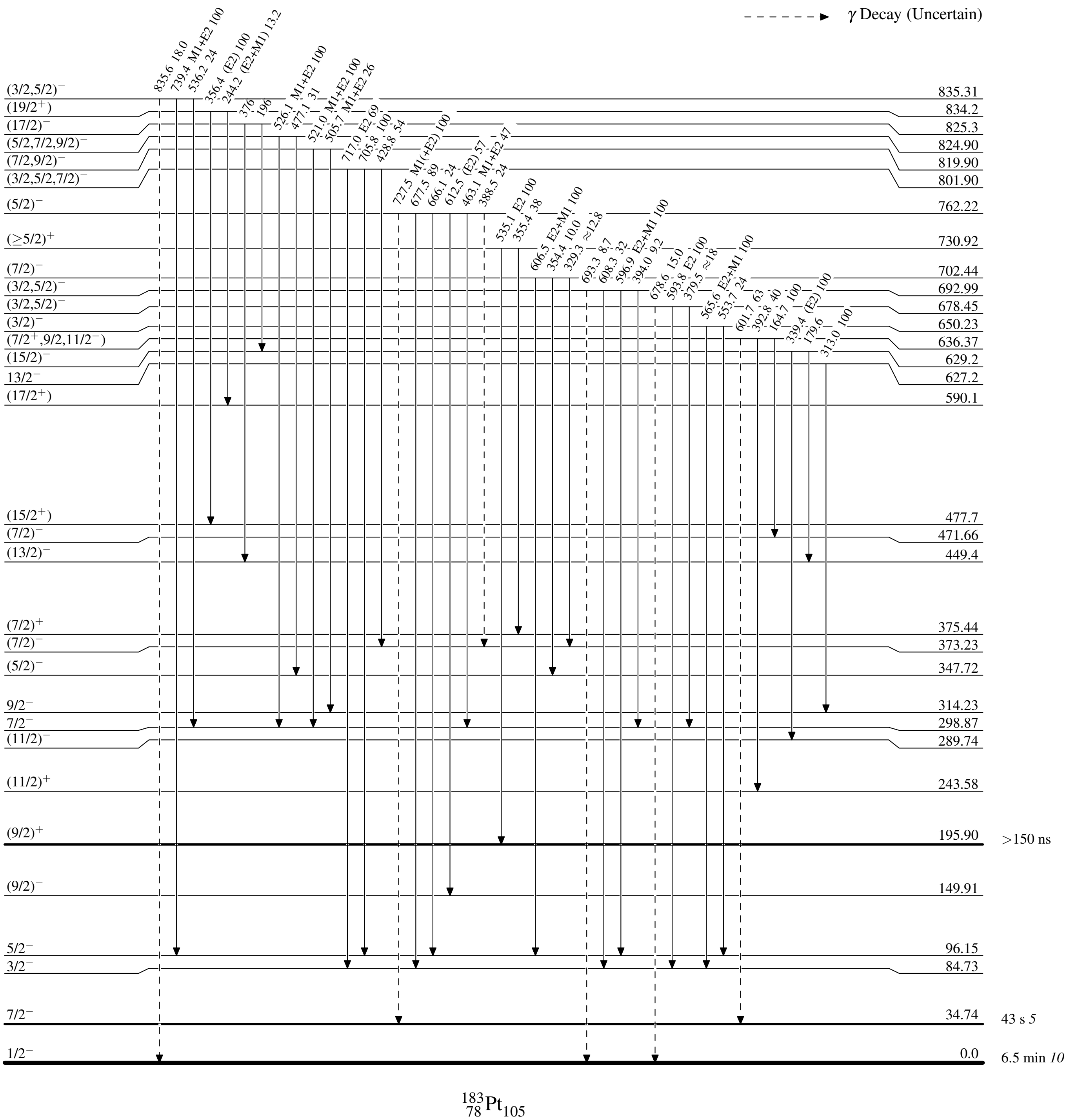
$^{183}_{78}Pt_{105}$

Adopted Levels, Gammas

Level Scheme (continued)

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

Legend



$^{183}_{78}Pt_{105}$

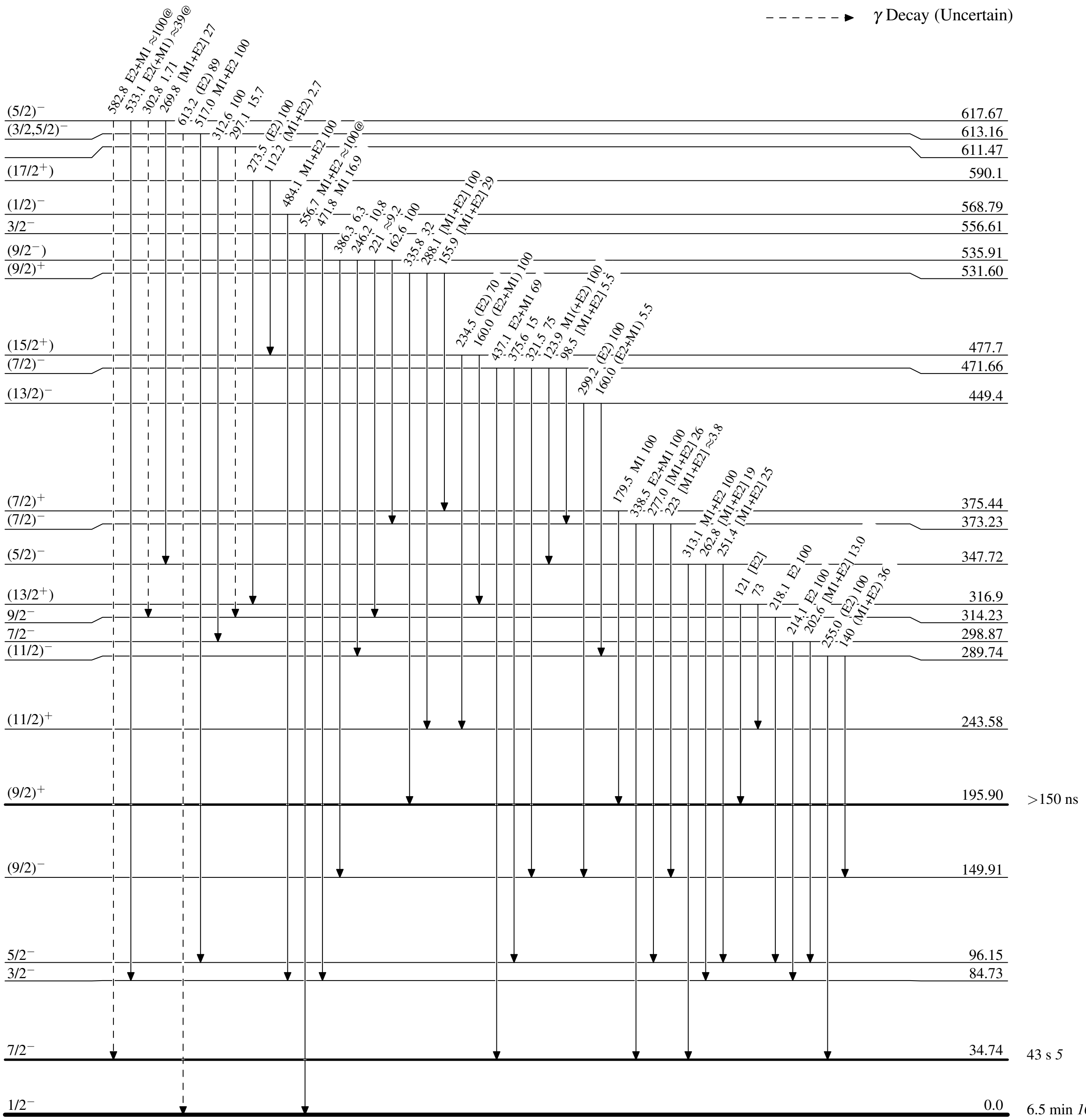
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

γ Decay (Uncertain)

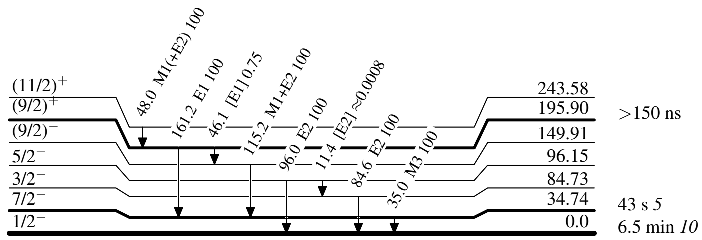


$^{183}_{78}Pt_{105}$

Adopted Levels, Gammas

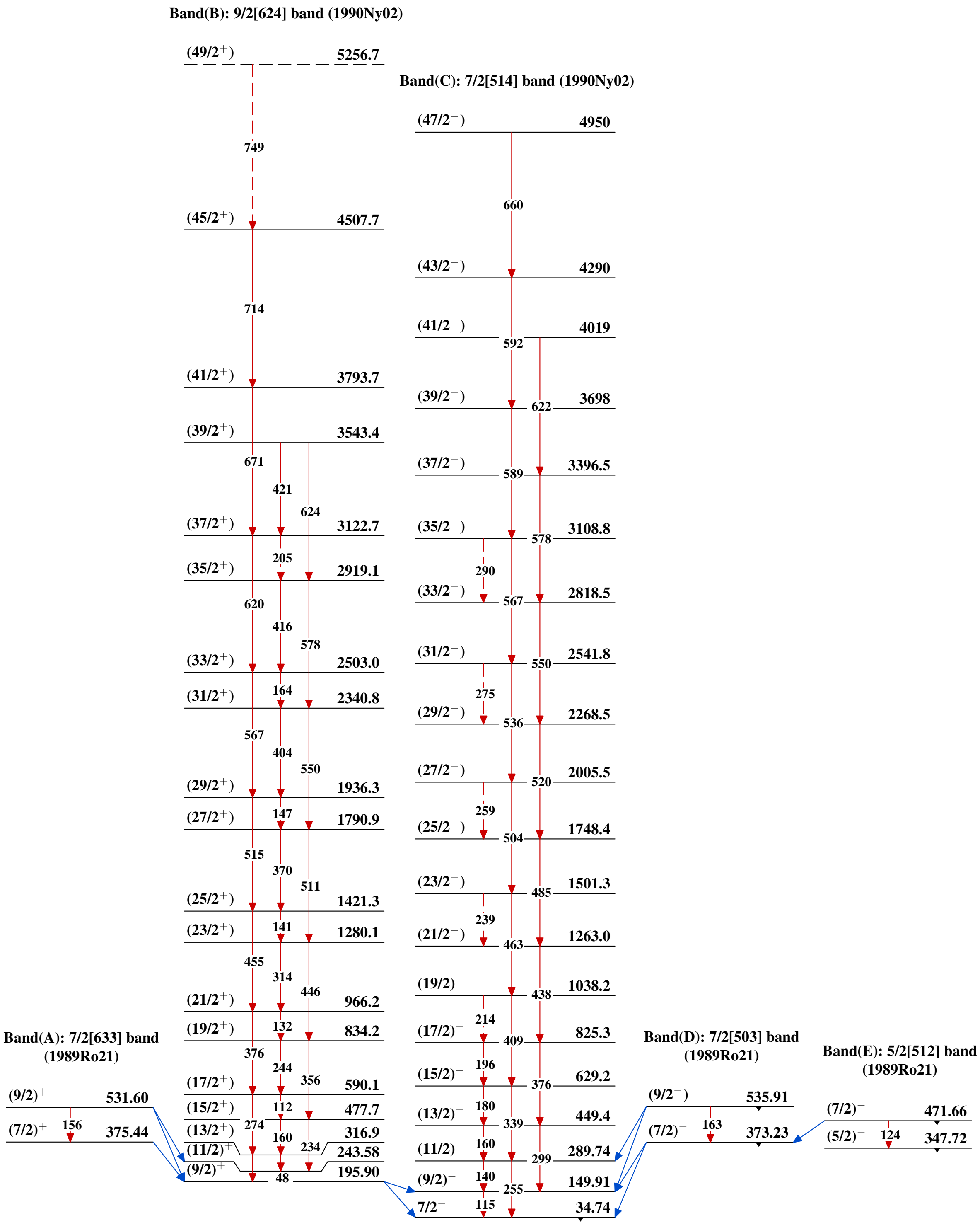
Level Scheme (continued)

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



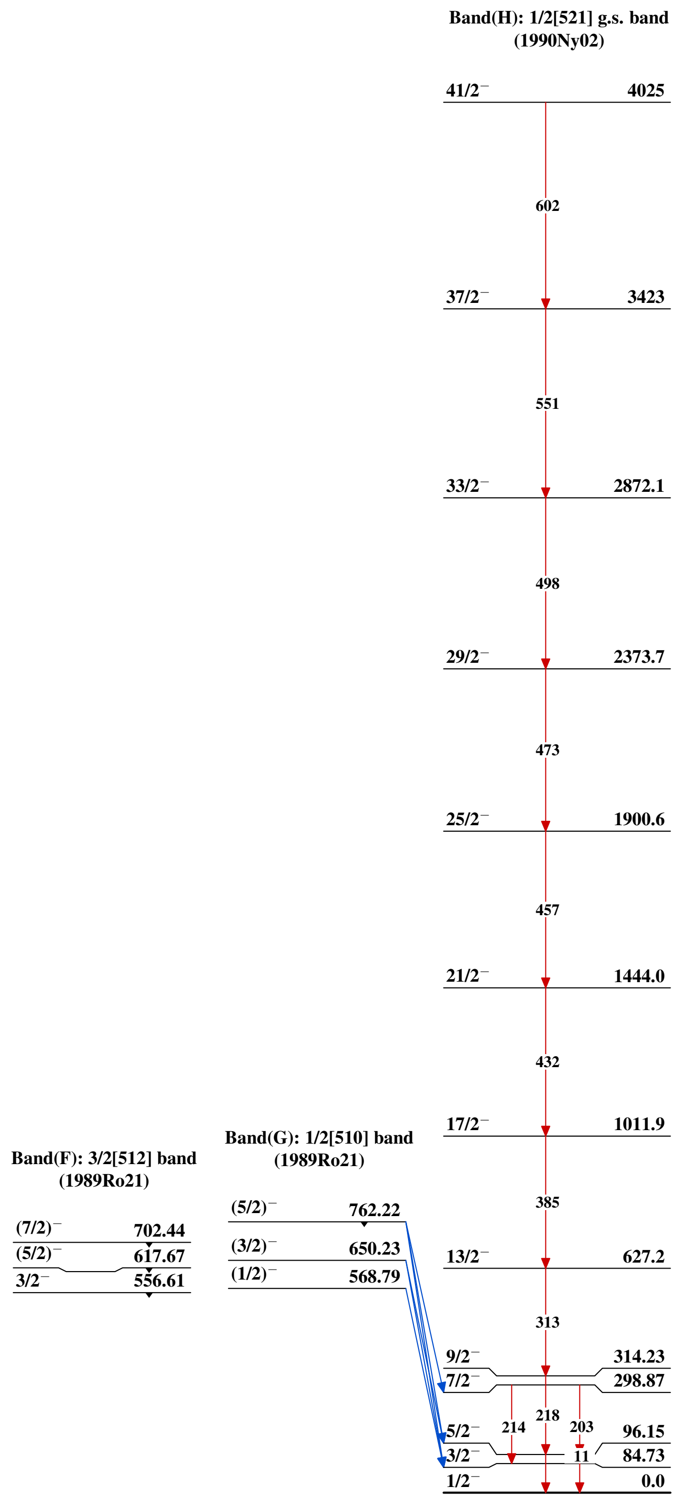
$^{183}_{78}Pt_{105}$

Adopted Levels, Gammas



$^{183}_{78}Pt_{105}$

Adopted Levels, Gammas (continued)



$^{183}_{78}Pt_{105}$