^{181}**Au** ε **decay** **1992Sa03**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 106, 367 (2005)	31-Aug-2005

Parent: ^{181}Au: E=0.0; J$^{\pi}$=(3/2^{-}); T$_{1/2}$=13.7 s *14*; Q(ε)=6503 *25*; %ε+%β^{+} decay=97.3 *5*

1992Sa03: ^{181}Au produced by 200 MeV p and 270 MeV ^{3}He bombardment of Pt-B alloy target and from decay of parent activities. ISOCELE mass separator, mini-orange β spectrometer with Si(Li) detector; γ, $\gamma\gamma$(t), ce. Supersedes 1984Bo32.

The decay scheme was constructed by the authors on the basis of coincidence and multipolarity information and energy sums, and it accommodates 92% of the observed photon intensity. A few more levels and placements were proposed by 1991Fi01 on a similar basis, as indicated. In the absence of knowledge concerning the plausible g.s. to g.s. ε+β^{+} branch, and in view of the significant unplaced γ intensity, the decay scheme has not been normalized. A g.s. branch would have log *ft*<5.9 if I(ε+β^{+})>6%, and log *ft*<5.1 if I(ε+β^{+})>42%. The strongest excited state branch (to the 2102 level) would have log *ft*<5.9 or <5.1, respectively, if the g.s. branch were <88% or <25%.

^{181}Pt Levels

For possible band assignments, see Adopted Levels.

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$	Comments
0.0[#]	1/2^{-}		
79.40[#] *6*	3/2^{-}		
93.93[#] *7*	5/2^{-}		
116.66 *9*	(7/2)$^{-}$	>300 ns	T$_{1/2}$: based on absence of coin between γ's feeding this level and the γ deexciting it.
166.64 *8*	(5/2)$^{-}$		
235.52 *10*	(9/2)$^{-}$		
256.36 *11*	(7/2)$^{-}$[&]		
276.02 *11*	(9/2)$^{+}$	0.16 μs *14*	T$_{1/2}$: 20 ns to 300 ns, based on delayed coin.
278.11[#] *9*	7/2^{-}[&]		
287.16 *9*	(7/2)$^{+}$		
300.87[#] *11*	9/2^{-}[&]		
380.09 *17*	(9/2^{-})		
525.03 *13*	(7/2)$^{-}$[&]		
572.9?[@] *4*	11/2^{-}		
597.64 *12*	(5/2)$^{-}$		
650.55 *24*	(5/2)$^{+}$		
658.72 *10*	(5/2,7/2)$^{-}$		
661.70?[@] *10*	(1/2,3/2,5/2^{-})		
708.68 *23*	(1/2,3/2,5/2)$^{-}$		
729.53 *16*	1/2^{-},3/2^{-}		
750.39 *12*	(1/2^{-})		
760.56 *20*	(7/2^{-},9/2^{-},11/2^{-})		
764.9 *4*			
783.76 *15*	(5/2^{-})		
821.86 *24*	(5/2^{+},7/2,9/2^{-})		
835.36 *16*	(5/2)$^{-}$		
850.40 *16*	(5/2,7/2,9/2)$^{-}$		
855.09 *19*	(1/2,3/2,5/2)$^{-}$		
869.1 *4*			
881.05 *23*	5/2^{-},7/2^{-}		
886.49 *17*	(7/2)$^{+}$		
904.31 *23*	(5/2^{-},7/2^{-})		
917.54 *24*			

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^{181}Au ε decay 1992Sa03 (continued)

^{181}Pt Levels (continued)

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
920.16 *20*	(5/2$^+$,7/2,9/2$^-$)	1256.1 *4*	(5/2,7/2,9/2)$^-$	2053.21 *21*	(3/2$^-$,5/2$^-$)
921.83 *20*	(5/2$^-$,7/2,9/2$^-$)	1281.75 *21*		2082.72 *14*	(3/2$^-$,5/2$^-$)
943.47 *12*	(3/2,5/2,7/2)$^+$	1309.49 *19*	(1/2)$^-$	2085.12 *9*	(5/2)$^-$
965.67 *13*	+	1326.36 *19*	(3/2$^-$,5/2$^-$)	2095.07 *10*	(5/2$^-$)
966.71 *25*		1371.7 *4*	(≤7/2)	2101.83 *10*	(1/2,3/2,5/2)$^-$
1006.2 *4*		1400.68 *18*	(1/2,3/2,5/2$^-$)	2122.52 *13*	(≤7/2)$^-$
1007.80?@ *10*	(1/2$^-$,3/2$^-$)	1417.80 *23*	(1/2,3/2,5/2$^-$)	2126.65 *13*	(1/2,3/2,5/2)$^-$
1050.44 *15*	(5/2$^+$,7/2)	1456.39 *23*	(1/2$^-$,3/2,5/2$^-$)	2137.40 *10*	(1/2$^-$,3/2,5/2$^-$)
1087.33 *23*		1474.37 *22*	(1/2,3/2,5/2$^-$)	2153.5 *4*	(5/2$^-$,7/2$^-$)
1217.22?@ *22*		2015.41 *10*	(1/2$^-$,3/2,5/2$^-$)	2240.94?@ *18*	(≤7/2)

† From least-squares fit to Eγ's, omitting doubtfully or multiply placed transitions.
‡ From Adopted Levels.
\# Band(A): 1/2[521] band.
@ Introduced by 1991Fi01.
& No significant ε+β^+ feeding to this level is expected from the (3/2$^-$) parent; the intensity imbalance at this level is presumed to result from incompleteness of the decay scheme.

ε,β^+ radiations

E(decay)	E(level)	Comments
(4.26×10^3† *3*)	2240.94?	av Eβ=1483 *242*; εK=0.52 *9*; εL=0.089 *16*; εM+=0.028 *5*
(4.35×10^3† *3*)	2153.5	av Eβ=1523 *242*; εK=0.51 *9*; εL=0.086 *16*; εM+=0.027 *5*
(4.37×10^3 *3*)	2137.40	av Eβ=1530 *242*; εK=0.50 *9*; εL=0.086 *16*; εM+=0.027 *5* %(ε+β^+)≈2.9 *10*, log *ft*≈5.6 if Iγ normalization ≈0.017 and no ε to g.s.
(4.38×10^3 *3*)	2126.65	av Eβ=1535 *242*; εK=0.50 *9*; εL=0.086 *16*; εM+=0.027 *5* %(ε+β^+)≈3.1 *14*, log *ft*≈5.6 if Iγ normalization ≈0.017 and no ε to g.s.
(4.38×10^3 *3*)	2122.52	av Eβ=1537 *242*; εK=0.50 *9*; εL=0.086 *16*; εM+=0.027 *5* %(ε+β^+)≈1.9 *7*, log *ft*≈5.8 if Iγ normalization ≈0.017 and no ε to g.s.
(4.40×10^3 *3*)	2101.83	av Eβ=1546 *242*; εK=0.50 *9*; εL=0.085 *16*; εM+=0.027 *5* %(ε+β^+)≈12 *4*, log *ft*≈5.0 if Iγ normalization ≈0.017 and no ε to g.s.
(4.41×10^3 *3*)	2095.07	av Eβ=1549 *242*; εK=0.50 *9*; εL=0.085 *16*; εM+=0.027 *5* %(ε+β^+)≈5.3 *16*, log *ft*≈5.3 if Iγ normalization ≈0.017 and no ε to g.s.
(4.42×10^3 *3*)	2085.12	av Eβ=1554 *242*; εK=0.50 *9*; εL=0.084 *16*; εM+=0.027 *5* %(ε+β^+)≈11 *4*, log *ft*≈5.0 if Iγ normalization ≈0.017 and no ε to g.s.
(4.42×10^3 *3*)	2082.72	av Eβ=1555 *242*; εK=0.49 *9*; εL=0.084 *16*; εM+=0.027 *5* %(ε+β^+)≈3.8 *22*, log *ft*≈5.5 if Iγ normalization ≈0.017 and no ε to g.s.
(4.45×10^3 *3*)	2053.21	av Eβ=1569 *242*; εK=0.49 *9*; εL=0.084 *16*; εM+=0.027 *5* %(ε+β^+)≈1.5 *5*, log *ft*≈5.9 if Iγ normalization ≈0.017 and no ε to g.s.
(4.49×10^3 *3*)	2015.41	av Eβ=1586 *243*; εK=0.48 *9*; εL=0.082 *16*; εM+=0.026 *5* %(ε+β^+)≈2.2 *9*, log *ft*≈5.7 if Iγ normalization ≈0.017 and no ε to g.s.
(5.18×10^3† *3*)	1326.36	av Eβ=1901 *245*; εK=0.38 *8*; εL=0.064 *14*; εM+=0.020 *5* %(ε+β^+)≈0.8 *3*, log *ft*≈6.4 if Iγ normalization ≈0.017 and no ε to g.s.
(5.25×10^3† *3*)	1256.1	av Eβ=1933 *245*; εK=0.37 *8*; εL=0.063 *14*; εM+=0.020 *5* %(ε+β^+)≈0.8 *3*, log *ft*≈6.4 if Iγ normalization ≈0.017 and no ε to g.s.
(5.42×10^3† *3*)	1087.33	av Eβ=2011 *246*; εK=0.35 *8*; εL=0.059 *13*; εM+=0.019 *4* %(ε+β^+)≈0.8 *3*, log *ft*≈6.5 if Iγ normalization ≈0.017 and no ε to g.s.
(5.50×10^3† *3*)	1007.80?	av Eβ=2048 *246*; εK=0.34 *8*; εL=0.057 *13*; εM+=0.018 *4*

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^{181}Au ε decay 1992Sa03 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Comments
(5.62×10^{3}† *3*)	881.05	av Eβ=2106 *246*; εK=0.32 *7*; εL=0.055 *12*; εM+=0.017 *4*
(5.65×10^{3}† *3*)	855.09	av Eβ=2118 *246*; εK=0.32 *7*; εL=0.054 *12*; εM+=0.017 *4*
(5.67×10^{3}† *3*)	835.36	av Eβ=2127 *246*; εK=0.32 *7*; εL=0.054 *12*; εM+=0.017 *4* %($\varepsilon+\beta^+$)≈1.4 *6*, log *ft*≈6.3 if Iγ normalization ≈0.017 and no ε to g.s.
(5.75×10^{3}† *3*)	750.39	av Eβ=2167 *247*; εK=0.31 *7*; εL=0.052 *12*; εM+=0.016 *4*
(5.84×10^{3}† *3*)	658.72	av Eβ=2209 *247*; εK=0.30 *7*; εL=0.050 *11*; εM+=0.016 *4*
(5.91×10^{3}† *3*)	597.64	av Eβ=2238 *247*; εK=0.29 *7*; εL=0.049 *11*; εM+=0.016 *4*
(6.34×10^{3}† *3*)	166.64	av Eβ=2438 *248*; εK=0.25 *6*; εL=0.042 *10*; εM+=0.013 *3*
(6503† *25*)	0.0	av Eβ=2515.58; εK=0.2330; εL=0.03936; εM+=0.01247

† Existence of this branch is questionable.

$\gamma(^{181}Pt)$

Iγ normalization: ≈0.017 if Σ(I(γ+ce) to g.s.)=100 (i.e., if no $\varepsilon+\beta^+$ branch to g.s.); however, if $J^\pi(^{181}Au)=3/2^-$, a branch to the $1/2^-$ ^{181}Pt g.s. is likely. Consequently, the decay scheme has not been normalized.

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[c]	$I_{(\gamma+ce)}$	Comments
(11.1)		287.16	$(7/2)^+$	276.02	$(9/2)^+$	[M1]	192	2.5×10^2 *15*	α(M)=145 E_γ: transition not observed; Eγ from level energy difference. $I_{(\gamma+ce)}$: authors′ estimate, based on intensity balance at 276 level, assuming no ε feeding to that level (none is expected since ΔJ=(3)) and α(159γ)≈1 (for anomalous E1 transition).
(14.5)		93.93	$5/2^-$	79.40	$3/2^-$	[M1]	195	1.77×10^3 *20*	α(L)≈109; α(M)=65 E_γ: transition not observed; Eγ from level energy difference. $I_{(\gamma+ce)}$: ≤1980 from intensity balance at 79 level; ≥1560 from intensity balance at 94 level if 23γ and 73γ are pure M1.
19.7 *3*	15 *5*	276.02	$(9/2)^+$	256.36	$(7/2)^-$	E1	6.7 *2*		α(L)=5.1 *2*; α(M)=1.24 *5* Mult.: α(exp)<25 (cf. α(E1)=6.7, α(M1)=148) from intensity balance at 256 level.
22.8 *1*	23 *8*	116.66	$(7/2)^-$	93.93	$5/2^-$	(M1)[b]	95.1		α(L)=73.1 *9*; α(M)=16.9 *2*
30.6 *3*	1.7 *3*	287.16	$(7/2)^+$	256.36	$(7/2)^-$	[E1]	2.05 *4*		α(L)=1.57 *4*; α(M)=0.371 *10*
40.5 *1*	67 *10*	276.02	$(9/2)^+$	235.52	$(9/2)^-$	E1	0.955 *5*		α(L)=0.731 *5*; α(M)=0.172 *1* Mult.: α(exp)<4 (cf. α(E1)=0.95, α(M1)=17.4) from intensity balance at 236 level.
50.0 *1*	92 *14*	166.64	$(5/2)^-$	116.66	$(7/2)^-$	(M1)[b]	9.33		α(L)=7.16 *5*; α(M)=1.646 *10*; α(N+..)=0.521 *3*
72.6 *1*	≈50	166.64	$(5/2)^-$	93.93	$5/2^-$	(M1)[b]	3.12		α(L)=2.39; α(M)=0.554 *3*; α(N+..)=0.173
79.4 *1*	≈250	79.40	$3/2^-$	0.0	$1/2^-$	[M1,E2]	13.4 *1*		α(K)=0.673; α(L)=9.4; α(M)=2.44; α(N+..)=0.738
87.3 *1*	28 *4*	166.64	$(5/2)^-$	79.40	$3/2^-$	[M1,E2]	9.5 *8*		α(K)=5 *4*; α(L)=3.7 *24*; α(M)=0.9 *7*; α(N+..)=0.29 *19*
89.9 *1*	44 *7*	256.36	$(7/2)^-$	166.64	$(5/2)^-$	[M1,E2]	8.6 *9*		α(K)=4 *4*; α(L)=3.3 *20*; α(M)=0.8 *6*; α(N+..)=0.25 *16*
94.0 *1*	220 *33*	93.93	$5/2^-$	0.0	$1/2^-$	E2	6.44		α(K)=0.760; α(L)=4.25; α(M)=1.10; α(N+..)=0.336 Mult.: α(M)exp=1.1 *2*, α(N)exp=0.2 *1*.
118.9 *1*	68 *10*	235.52	$(9/2)^-$	116.66	$(7/2)^-$	E2(+M1)	3.3 *9*		α(K)=2.0 *15*; α(L)=1.0 *5*; α(M)=0.25 *12*; α(N+..)=0.08 *4* Mult.: α(L12)exp=1.15 *15*; value exceeds both M1 theory (0.57) and E2 theory (0.83), but authors assign M1+E2. Based on the ce spectrum in fig 4a, the stated precision appears optimistic; the evaluator suspects a typographic error, and adopts E2(+M1).
120.6 *1*	130 *20*	287.16	$(7/2)^+$	166.64	$(5/2)^-$	E1	0.256		α(K)=0.207; α(L)=0.0372; α(M)=0.0086; α(N+..)=0.00262 Mult.: α(L)exp<0.33.
123.8 *3*	12.0 *18*	380.09	$(9/2^-)$	256.36	$(7/2)^-$	[M1,E2]	2.9 *9*		α(K)=1.8 *13*; α(L)=0.8 *4*; α(M)=0.21 *10*; α(N+..)=0.07 *3*
139.9[f] *3*	≈6	256.36	$(7/2)^-$	116.66	$(7/2)^-$	[M1,E2]	2.0 *7*		α(K)=1.3 *9*; α(L)=0.52 *17*; α(M)=0.13 *5*; α(N+..)=0.040 *14*
144.6 *3*	≈5	380.09	$(9/2^-)$	235.52	$(9/2)^-$	[M1,E2]	1.8 *7*		α(K)=1.2 *8*; α(L)=0.46 *13*; α(M)=0.11 *4*; α(N+..)=0.035 *12*
159.4 *1*	140 *21*	276.02	$(9/2)^+$	116.66	$(7/2)^-$	(E1)	0.125		α(K)=0.102; α(L)=0.0176; α(M)=0.00406; α(N+..)=0.00124

γ(^{181}Pt) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α[c]	Comments
									Mult.: α(L)exp≈0.04; designated by authors as abnormal E1, possibly analogous to a 161γ in ^{183}Pt connecting 9/2[624] and 7/2[514] levels.
162.6 3	6.4 10	256.36	(7/2)$^-$	93.93	5/2$^-$	[M1,E2]		1.2 5	α(K)=0.9 6; α(L)=0.29 6; α(M)=0.072 18; α(N+..)=0.022 6
170.5 1	100 15	287.16	(7/2)$^+$	116.66	(7/2)$^-$	E1		0.106	α(K)=0.086; α(L)=0.0148; α(M)=0.00340; α(N+..)=0.00104 Mult.: α(K)exp<0.11.
184.3 1	37 6	278.11	7/2$^-$	93.93	5/2$^-$	M1(+E2)	≤1.3	0.98 23	α(K)=0.75 25; α(L)=0.177 13; α(M)=0.042 5; α(N+..)=0.0132 13 Mult.: α(L)exp=0.13 6.
198.6 1	260[#] 39	278.11	7/2$^-$	79.40	3/2$^-$	E2		0.372	α(K)=0.174; α(L)=0.149; α(M)=0.0378; α(N+..)=0.0115 Mult.: α(K)exp=0.16 4. α(L)exp=0.16 3, but includes ^{181}Ir impurity.
206.9 1	65 10	300.87	9/2$^-$	93.93	5/2$^-$	E2		0.324	α(K)=0.157; α(L)=0.125; α(M)=0.0318; α(N+..)=0.0097 Mult.: α(K)exp=0.17 4, α(M)exp=0.022 10.
213.6[f] 3	≈7	380.09	(9/2$^-$)	166.64	(5/2)$^-$	[E2]		0.291	α(K)=0.145; α(L)=0.110; α(M)=0.0278; α(N+..)=0.0085
263.4 3	13.0 20	380.09	(9/2$^-$)	116.66	(7/2)$^-$	[M1,E2]		0.30 16	α(K)=0.23 15; α(L)=0.054 7; α(M)=0.0129 11; α(N+..)=0.0040 4
268.8[f] 3	9.0 14	525.03	(7/2)$^-$	256.36	(7/2)$^-$	M1		0.427	α(K)=0.352; α(L)=0.0575; α(M)=0.0132; α(N+..)=0.00414 Mult.: α(K)exp=0.6 3, α(L)exp=0.08 4.
289.4 3	≈10[#]	525.03	(7/2)$^-$	235.52	(9/2)$^-$				
294.8[a,f] 3	≤10	572.9?	11/2$^-$	278.11	7/2$^-$	(E2)		0.105	α(K)=0.0643; α(L)=0.0306; α(M)=0.00764; α(N+..)=0.00234 Placement and multipolarity from adopted gammas.
320.0[f] 3	2.4 4	917.54		597.64	(5/2)$^-$				
338.3 3	8.6 13	1281.75		943.47	(3/2,5/2,7/2)$^+$				
[x]353.9 3	2.1 3								
358.4 1	35 5	525.03	(7/2)$^-$	166.64	(5/2)$^-$	M1(+E2)	<1.2	0.16 4	α(K)=0.13 4; α(L)=0.023 4; α(M)=0.0053 7; α(N+..)=0.00166 22 Mult.: α(K)exp=0.13 4.
363.5 3	9.2 14	650.55	(5/2)$^+$	287.16	(7/2)$^+$	M1		0.188	α(K)=0.155; α(L)=0.0253; α(M)=0.00580; α(N+..)=0.00181 Mult.: α(K)exp=0.16 8.
380.2 3	9.7 15	760.56	(7/2$^-$,9/2$^-$,11/2$^-$)	380.09	(9/2$^-$)	M1		0.167	α(K)=0.138; α(L)=0.0224; α(M)=0.00514; α(N+..)=0.00161 Mult.: α(K)exp=0.15 8.
400.0 3	6.6 10	1050.44	(5/2$^+$,7/2)	650.55	(5/2)$^+$				

$^{181}_{78}$Pt$_{103}$-5

$\gamma(^{181}Pt)$ (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult.	δ	α[c]	Comments
402.6 *1*	≈30[#]	658.72	(5/2,7/2)$^-$	256.36	(7/2)$^-$	M1(+E2)		0.09 *5*	α(K)=0.07 *5*; α(L)=0.015 *5*; α(M)=0.0034 *10*; α(N+..)=0.0011 *4* Mult.: α(L)exp=0.024 *7* (contains ^{181}Ir impurity); 1992Sa03 assign M1 to both components.
408.2[f] *1*	24 *4*	525.03	(7/2)$^-$	116.66	(7/2)$^-$				
423.2 *1*	21 *3*	658.72	(5/2,7/2)$^-$	235.52	(9/2)$^-$				
431.0 *1*	100 *15*	597.64	(5/2)$^-$	166.64	(5/2)$^-$	M1+E2	0.8 *+6−4*	0.09 *3*	α(K)=0.070 *20*; α(L)=0.013 *3*; α(M)=0.0030 *6*; α(N+..)=0.00093 *15* Mult.: α(K)exp=0.07 *2*.
[x]439.7 *3*	≈10					M1(+E2)		0.07 *4*	α(K)=0.06 *4*; α(L)=0.011 *4*; α(M)=0.0027 *9*; α(N+..)=0.0008 *3* Mult.: α(K)exp≈0.07.
452.1 *3*	5.3 *8*	1417.80	(1/2,3/2,5/2$^-$)	965.67	$^+$				
455.6 *3*	2.8 *4*	835.36	(5/2)$^-$	380.09	(9/2$^-$)				
460.0 *3*	4.5 *7*	1281.75		821.86	(5/2$^+$,7/2,9/2$^-$)				
480.9[@] *1*	≈120	597.64	(5/2)$^-$	116.66	(7/2)$^-$				
482.7 *3*	5.1 *8*	783.76	(5/2$^-$)	300.87	9/2$^-$				
486.8 *3*	1.9 *3*	764.9		278.11	7/2$^-$				
491.9 *1*	≈22[#]	658.72	(5/2,7/2)$^-$	166.64	(5/2)$^-$				
504.0 *3*	≈6	760.56	(7/2$^-$,9/2$^-$,11/2$^-$)	256.36	(7/2)$^-$				
505 *1*	≈8	783.76	(5/2$^-$)	278.11	7/2$^-$				
[x]522.9 *3*	4.3 *6*								
[x]524.1[&] *3*	≈25[#]								
525.5 *3*	≈10	760.56	(7/2$^-$,9/2$^-$,11/2$^-$)	235.52	(9/2)$^-$				
531 *1*		1474.37	(1/2,3/2,5/2$^-$)	943.47	(3/2,5/2,7/2)$^+$				I_γ: weak.
534.6[d] *3*	≈50[d#]	821.86	(5/2$^+$,7/2,9/2$^-$)	287.16	(7/2)$^+$				
534.6[df] *3*	≈50[d#]	835.36	(5/2)$^-$	300.87	9/2$^-$				
541.9 *3*	37 *6*	658.72	(5/2,7/2)$^-$	116.66	(7/2)$^-$	(E2)		0.0206	α(K)=0.0154; α(L)=0.00391 Mult.: α(K)exp≈0.02.
543 *1*	<10	1326.36	(3/2$^-$,5/2$^-$)	783.76	(5/2$^-$)				
545.9 *3*	28 *4*	821.86	(5/2$^+$,7/2,9/2$^-$)	276.02	(9/2)$^+$				
549.6 *3*	11.0 *17*	850.40	(5/2,7/2,9/2)$^-$	300.87	9/2$^-$	E2		0.0199	α(K)=0.0149; α(L)=0.00376 Mult.: α(K)exp≈0.02.
555.5[af] *3*	15.0 *23*	1217.22?		661.70?	(1/2,3/2,5/2$^-$)				
557.2 *3*	15.0 *23*	835.36	(5/2)$^-$	278.11	7/2$^-$				
563.0[f] *3*	4.5 *7*	729.53	1/2$^-$,3/2$^-$	166.64	(5/2)$^-$				
567.3[f] *3*	4.3 *6*	869.1		300.87	9/2$^-$				
572.6 *3*	6.3 *9*	850.40	(5/2,7/2,9/2)$^-$	278.11	7/2$^-$				
578.7[f] *3*	10.0 *15*	835.36	(5/2)$^-$	256.36	(7/2)$^-$				
579.9 *3*	7.3 *11*	881.05	5/2$^-$,7/2$^-$	300.87	9/2$^-$				

γ(^{181}Pt) (continued)

Eγ[†]	Iγ[‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult.	δ	α[c]	Comments
[x]583 1	<10					E0+M1+E2		≥0.26	Mult.,α: from α(K)exp≥0.20.
591.0 3	≈15[#]	869.1		278.11	7/2⁻				
595.9[f] 3	13.0 20	1417.80	(1/2,3/2,5/2⁻)	821.86	(5/2⁺,7/2,9/2⁻)				
597.0 3	≈10	1326.36	(3/2⁻,5/2⁻)	729.53	1/2⁻,3/2⁻				
599.2 3	19 3	886.49	(7/2)⁺	287.16	(7/2)⁺				
603.3[e] 3	24[e] 4	881.05	5/2⁻,7/2⁻	278.11	7/2⁻	M1(+E2)		0.033 17	α(K)=0.027 15; α(L)=0.0047 19 Mult.: α(K)exp=0.030 10 for doublet dominated by this transition.
603.3[e] 3	5.0[e] 8	904.31	(5/2⁻,7/2⁻)	300.87	9/2⁻				
[x]609.0 3	5.1 8								
610.4 3	48 7	886.49	(7/2)⁺	276.02	(9/2)⁺	M1(+E2)	≤1.1	0.039 9	α(K)=0.032 8; α(L)=0.0054 10 Mult.: α(K)exp=0.034 9.
614.7 3	36 5	708.68	(1/2,3/2,5/2)⁻	93.93	5/2⁻	E2		0.0154	α(K)=0.0118; α(L)=0.00273 Additional information 2. Mult.: α(K)exp≈0.011.
[x]617.4 3	10.0 15								
621.0 3	≈8[#]	921.83	(5/2⁻,7/2,9/2⁻)	300.87	9/2⁻				
624.9[f] 3	9.0 14	881.05	5/2⁻,7/2⁻	256.36	(7/2)⁻				
625.7 3	11.0 17	904.31	(5/2⁻,7/2⁻)	278.11	7/2⁻				
627.5 3	16.0 24	2101.83	(1/2,3/2,5/2)⁻	1474.37	(1/2,3/2,5/2⁻)				
629.2[@] 1	79 12	708.68	(1/2,3/2,5/2)⁻	79.40	3/2⁻	(M1+E2)		0.030 15	α(K)=0.024 13; α(L)=0.0042 17 Additional information 3. Mult.: α(K)exp=0.028 10 for doublet.
633.2 3	14 2	920.16	(5/2⁺,7/2,9/2⁻)	287.16	(7/2)⁺				
635.4 3	21 3	729.53	1/2⁻,3/2⁻	93.93	5/2⁻				
642.2 3	≈6.4	1371.7	(≤7/2)	729.53	1/2⁻,3/2⁻				
643.6 3	27 4	921.83	(5/2⁻,7/2,9/2⁻)	278.11	7/2⁻				
644.4 3	26 4	920.16	(5/2⁺,7/2,9/2⁻)	276.02	(9/2)⁺				
645.5 3	33 5	2101.83	(1/2,3/2,5/2)⁻	1456.39	(1/2⁻,3/2,5/2⁻)				
650.0[@] 1	110 17	729.53	1/2⁻,3/2⁻	79.40	3/2⁻	(M1+E2)		0.027 14	α(K)=0.022 12; α(L)=0.0039 16 Additional information 4. Mult.: α(K)exp=0.020 6 for doublet.
656.3 1	70 11	943.47	(3/2,5/2,7/2)⁺	287.16	(7/2)⁺	E2(+M1)	≥3.2	0.0145 12	α(K)=0.0113 11; α(L)=0.00241 14 Mult.: α(K)exp=0.009 3.
[x]658.4 3	≈30								
661.7[af] 1	160 24	661.70?	(1/2,3/2,5/2⁻)	0.0	1/2⁻				Additional information 1. Mult.: α(K)exp≤0.024 6.
[x]666.1 3	35 5								
668.5 3	23 3	835.36	(5/2)⁻	166.64	(5/2)⁻	E0+M1+E2		0.14 5	α: estimated from α(K)exp. Mult.: α(K)exp=0.11 4; greatly exceeds α(K)(M1)=0.032.

γ(^{181}Pt) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[c]	Comments
671.0[d] 1	190[d] 29	750.39	(1/2⁻)	79.40	3/2⁻			Additional information 5. Mult.: α(K)exp=0.023 10 for doubly-placed γ.
671.0[d] 1	190[d] 29	764.9		93.93	5/2⁻			Additional information 6. Mult.: α(K)exp=0.023 10 for doubly-placed γ.
678.5 1	58 9	965.67	+	287.16	(7/2)⁺	M1,E2	0.025 13	α(K)=0.020 11; α(L)=0.0035 14 Mult.: α(K)exp=0.020 9.
x679.9 3	5.5 8							
684.0 3	25 4	2101.83	(1/2,3/2,5/2)⁻	1417.80	(1/2,3/2,5/2⁻)			
x685.0 3	18 3							
688.7[e] 3	≈40[e]	855.09	(1/2,3/2,5/2)⁻	166.64	(5/2)⁻			α(K)exp=0.024 10 for doublet.
688.7[e] 3	≈20[e]	966.71		278.11	7/2⁻			Mult.: α(K)exp=0.024 10 for doublet.
700.9 3	18 3	2101.83	(1/2,3/2,5/2)⁻	1400.68	(1/2,3/2,5/2⁻)			
704.4 3	20 3	783.76	(5/2⁻)	79.40	3/2⁻			
x709.0 3	8.4 13					E0+M1+E2	>0.17	Mult.,α: from α(K)exp>0.13.
709.8[af] 3	29 4	1371.7	(≤7/2)	661.70?	(1/2,3/2,5/2⁻)			
x724.3 3	36 5							
728.7[e] 3	≈12[e]	1006.2		278.11	7/2⁻			
728.7[e] 3	≈12[e]	1326.36	(3/2⁻,5/2⁻)	597.64	(5/2)⁻			
729.6 3	49 7	729.53	1/2⁻,3/2⁻	0.0	1/2⁻	M1	0.0305	α(K)=0.0252; α(L)=0.00400 Mult.: α(K)exp>0.030.
741.4 3	20 3	835.36	(5/2)⁻	93.93	5/2⁻			
749.8 3	20 5	1006.2		256.36	(7/2)⁻			
751.0 3	45 7	917.54		166.64	(5/2)⁻			
756.4 3	29 4	850.40	(5/2,7/2,9/2)⁻	93.93	5/2⁻			
763.3 3	10.0 15	1050.44	(5/2⁺,7/2)	287.16	(7/2)⁺			
764.5[&f] 3	7.0 11	881.05	5/2⁻,7/2⁻	116.66	(7/2)⁻			
774.6 3	35 5	1050.44	(5/2⁺,7/2)	276.02	(9/2)⁺			
775.5[e] 3	40[e] 6	855.09	(1/2,3/2,5/2)⁻	79.40	3/2⁻			
775.5[e] 3	30[e] 5	2101.83	(1/2,3/2,5/2)⁻	1326.36	(3/2⁻,5/2⁻)			
x782.6[&] 3	41 6							
783.7 3	48 7	783.76	(5/2⁻)	0.0	1/2⁻			
x785 1								I_γ: weak.
787.4 3	15.0 23	881.05	5/2⁻,7/2⁻	93.93	5/2⁻	M1	0.0251	α(K)=0.0207; α(L)=0.00329 Mult.: α(K)exp=0.031 10.
x789.2 3	34 5					M1(+E0)		Mult.: α(K)exp=0.055 10.
792.2 3	39 6	2101.83	(1/2,3/2,5/2)⁻	1309.49	(1/2)⁻	M1,E2	0.017 8	α(K)=0.014 7; α(L)=0.0023 10 Mult.: α(K)exp=0.018 9.
x794.9 3	11.0 17							
x801.5 3	10.0 15							
x808.7 3	19 3							
809.4 3	11.0 17	1087.33		278.11	7/2⁻			
820.2 3	14.0 21	2101.83	(1/2,3/2,5/2)⁻	1281.75				

γ(^{181}Pt) (continued)

Eγ[†]	Iγ[‡]	Ei(level)	J^π_i	E_f	J^π_f	Mult.	δ	α[c]	Comments
825.4 *3*	12.0 *18*	904.31	(5/2⁻,7/2⁻)	79.40	3/2⁻				
[x]843.8[&] *3*	21 *3*								
[x]845 *1*									Iγ: weak.
[x]854.6 *3*	≈11								
858.4[&f] *3*	5.4 *8*	1456.39	(1/2⁻,3/2,5/2⁻)	597.64	(5/2)⁻				
[x]868.4						M1		0.0196	α(K)=0.0162; α(L)=0.00255 α(K)exp=0.022 *7* Eγ: Reported in the conversion electron data table only.
[x]875.3 *3*	6.7 *10*								
884.7[af] *3*	≈11	2101.83	(1/2,3/2,5/2)⁻	1217.22?					
[x]903.5						M1		0.0177	α(K)=0.0146; α(L)=0.00231 α(K)exp>0.024 Mult.: may include an E0 component. Eγ: Reported in the conversion electron data table only.
920.5 *3*	36 *5*	1087.33		166.64	(5/2)⁻				
[x]926.8 *3*	15.0 *23*								
[x]928.5 *3*	19 *3*								
[x]962.7 *3*	35 *5*								
970.8[&f] *3*	8.1 *12*	1087.33		116.66	(7/2)⁻				
999.7 *3*	33 *5*	1256.1	(5/2,7/2,9/2)⁻	256.36	(7/2)⁻	M1(+E2)	<3.5	0.010 *4*	α(K)=0.008 *4*; α(L)=0.0013 *5* Mult.: α(K)exp=0.009 *4*.
1007.8[@af] *1*	65 *10*	1007.80?	(1/2⁻,3/2⁻)	0.0	1/2⁻	(M1)		0.0134	α(K)=0.0111; α(L)=0.00174 Mult.: α(K)exp=0.015 *3* for doublet.
[x]1013.1 *3*	6.1 *9*								
1015.5[af] *3*	9.3 *14*	2101.83	(1/2,3/2,5/2)⁻	1087.33					
[x]1022.4 *3*	23 *3*								
1032.4 *3*	8.6 *13*	2082.72	(3/2⁻,5/2⁻)	1050.44	(5/2⁺,7/2)				
1034.8 *3*	28 *4*	2085.12	(5/2)⁻	1050.44	(5/2⁺,7/2)				
1044.7 *3*	3.8 *6*	2095.07	(5/2⁻)	1050.44	(5/2⁺,7/2)				
1048.6 *3*	16.0 *24*	1326.36	(3/2⁻,5/2⁻)	278.11	7/2⁻				
1050.8[af] *3*	9.4 *14*	1217.22?		166.64	(5/2)⁻				
1070.1[f] *3*	9.4 *14*	1326.36	(3/2⁻,5/2⁻)	256.36	(7/2)⁻				
1086.6 *3*	20 *3*	2053.21	(3/2⁻,5/2⁻)	966.71					
1089.2[f] *3*	17 *3*	1256.1	(5/2,7/2,9/2)⁻	166.64	(5/2)⁻				
[x]1094.0 *3*	19 *3*								
[x]1102.1						E0(+M1+E2)			α(K)exp>0.13 Eγ: Observed only in ce spectrum.
[x]1112.6 *3*	13.0 *20*								
1117 *1*	≈19	2082.72	(3/2⁻,5/2⁻)	965.67	+				Iγ: for multiplet; undivided intensity given.
1119 *1*	≈19	2085.12	(5/2)⁻	965.67	+				Iγ: for multiplet; undivided intensity given.

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γ(^{181}Pt) (continued)

E_γ [†]	I_γ [‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult.	α [c]	Comments
1121[af] *1*	≈19[#]	1217.22?		93.93	5/2⁻			I_γ: for multiplet; undivided intensity given.
[x]1126.8 *3*	≈22							
1129.4 *3*	≈13	2095.07	(5/2⁻)	965.67	+			
1158.5 *3*	≈28[#]	2101.83	(1/2,3/2,5/2)⁻	943.47	(3/2,5/2,7/2)⁺	E1	0.00163	α=0.00163; α(K)=0.00137; α(L)=0.00020 Mult.: α(K)exp≈0.0013.
1160.8 *3*	11.0 *17*	2082.72	(3/2⁻,5/2⁻)	921.83	(5/2⁻,7/2,9/2⁻)			
1163.0 *3*	7.8 *12*	2082.72	(3/2⁻,5/2⁻)	920.16	(5/2⁺,7/2,9/2⁻)			
[x]1181.1 *3*	3.5 *5*							
1183.6[af] *3*	13.0 *20*	2101.83	(1/2,3/2,5/2)⁻	917.54				
1198.6 *3*	40 *6*	2085.12	(5/2)⁻	886.49	(7/2)⁺			
[x]1205.4 *3*	6.5 *10*							
1208.4 *3*	12.0 *18*	2095.07	(5/2⁻)	886.49	(7/2)⁺			
1215.5 *3*	47 *7*	1309.49	(1/2)⁻	93.93	5/2⁻	E2(+M1)	0.00378	α=0.00378; α(K)=0.00309; α(L)=0.00052 Mult.: α(K)exp≈0.0037; from this, δ(D,Q)≈2.3.
1230.0 *3*	24 *4*	1309.49	(1/2)⁻	79.40	3/2⁻			
1232.7[f] *3*	14.0 *21*	1326.36	(3/2⁻,5/2⁻)	93.93	5/2⁻			
1234.7 *3*	10.0 *15*	2085.12	(5/2)⁻	850.40	(5/2,7/2,9/2)⁻			
1245.0 *3*	13.0 *20*	2095.07	(5/2⁻)	850.40	(5/2,7/2,9/2)⁻			
1246.8 *3*	30 *5*	2101.83	(1/2,3/2,5/2)⁻	855.09	(1/2,3/2,5/2)⁻	E0+M1+E2		Mult.: α(K)exp>0.027 *9*.
[x]1252.5[&] *3*	23 *3*							
1259.4[f] *3*	5.6 *8*	2095.07	(5/2⁻)	835.36	(5/2)⁻			
1263 *1*		2085.12	(5/2)⁻	821.86	(5/2⁺,7/2,9/2⁻)			I_γ: weak.
1266.5 *3*	7.0 *11*	2101.83	(1/2,3/2,5/2)⁻	835.36	(5/2)⁻			
[x]1271.2 *3*	9.6 *14*							
1273 *1*		2095.07	(5/2⁻)	821.86	(5/2⁺,7/2,9/2⁻)			I_γ: weak.
1288.1[f] *3*	9.5 *14*	2053.21	(3/2⁻,5/2⁻)	764.9				
1297.2[a&f] *3*	7.7 *12*	2240.94?	(≤7/2)	943.47	(3/2,5/2,7/2)⁺			
1309.6[f] *3*	<10[#]	1309.49	(1/2)⁻	0.0	1/2⁻	E0+M1	>0.10	E_γ: from ce data; doublet of 1309.2γ and 1309.6γ. The 1309.2γ is largely attributable to an E1 transition in ^{181}Ir which has little impact on ce energy and intensity. Mult.,α: α(K)exp>0.078.
1311.1 *3*	≈7[#]	2095.07	(5/2⁻)	783.76	(5/2⁻)			
1318.0 *3*	35 *5*	2101.83	(1/2,3/2,5/2)⁻	783.76	(5/2⁻)			
1321.1 *3*	11.0 *17*	1400.68	(1/2,3/2,5/2⁻)	79.40	3/2⁻			
1323.5[af] *3*	18 *3*	2240.94?	(≤7/2)	917.54				
1325.8 *3*	22 *3*	1326.36	(3/2⁻,5/2⁻)	0.0	1/2⁻			
1332.2 *3*	10.0 *15*	2082.72	(3/2⁻,5/2⁻)	750.39	(1/2⁻)			
[x]1334.8 *3*	6.2 *9*							
1352.8 *3*	16.0 *24*	2082.72	(3/2⁻,5/2⁻)	729.53	1/2⁻,3/2⁻			

γ(^{181}Pt) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult.	δ	α[c]	Comments
1356.8[f] 3	8.7 13	2015.41	(1/2⁻,3/2,5/2⁻)	658.72	(5/2,7/2)⁻				
1362.5 3	41 6	1456.39	(1/2⁻,3/2,5/2⁻)	93.93	5/2⁻				
1368.6[f] 3	9.7 15	2153.5	(5/2⁻,7/2⁻)	783.76	(5/2⁻)				
1372.1[d] 3	47[d] 7	2101.83	(1/2,3/2,5/2)⁻	729.53	1/2⁻,3/2⁻	(M1,E2)		0.0046 16	α=0.0046 16; α(K)=0.0038 14; α(L)=0.00060 20 Mult.: α(K)exp=0.004 2 for doublet.
1372.1[df] 3	47[d] 7	2137.40	(1/2⁻,3/2,5/2⁻)	764.9					
1387.3 3	10.0 15	2137.40	(1/2⁻,3/2,5/2⁻)	750.39	(1/2⁻)				
1393.1 3	43 6	2101.83	(1/2,3/2,5/2)⁻	708.68	(1/2,3/2,5/2)⁻	M1		0.00597	α=0.00597; α(K)=0.00494; α(L)=0.00077 Mult.: α(K)exp=0.0083 20.
1400.6 3	19 3	1400.68	(1/2,3/2,5/2⁻)	0.0	1/2⁻				
1417.7[df] 3	22[d] 3	1417.80	(1/2,3/2,5/2⁻)	0.0	1/2⁻				
1417.7[d] 3	22[d] 3	2126.65	(1/2,3/2,5/2)⁻	708.68	(1/2,3/2,5/2)⁻				
1422.5[af] 3	6.7 10	2085.12	(5/2)⁻	661.70?	(1/2,3/2,5/2⁻)				
[x]1424.6 3	12.0 18								
1426.6 3	20 3	2085.12	(5/2)⁻	658.72	(5/2,7/2)⁻	M1(+E2)	≤1.6	0.0046 11	α=0.0046 11; α(K)=0.0038 9; α(L)=0.00060 13 Mult.: α(K)exp=0.006 3.
1432.9[af] 3	6.7 10	2095.07	(5/2⁻)	661.70?	(1/2,3/2,5/2⁻)				
1436.4 3	22 3	2095.07	(5/2⁻)	658.72	(5/2,7/2)⁻				
1439.5[af] 3	21 3	2101.83	(1/2,3/2,5/2)⁻	661.70?	(1/2,3/2,5/2⁻)				
1455.7[@] 3	17.0 26	1456.39	(1/2⁻,3/2,5/2⁻)	0.0	1/2⁻				
1474.4 3	15.0 23	1474.37	(1/2,3/2,5/2⁻)	0.0	1/2⁻				
1484.9 3	23 3	2082.72	(3/2⁻,5/2⁻)	597.64	(5/2)⁻				
1504.4 3	19 3	2101.83	(1/2,3/2,5/2)⁻	597.64	(5/2)⁻				
1511.5[af] 3	9.8 15	2240.94?	(≤7/2)	729.53	1/2⁻,3/2⁻				
1579.3[af] 3	9.1 14	2240.94?	(≤7/2)	661.70?	(1/2,3/2,5/2⁻)				
1705.1[f] 3	5.2 8	2085.12	(5/2)⁻	380.09	(9/2⁻)				
1775.0 3	18 3	2053.21	(3/2⁻,5/2⁻)	278.11	7/2⁻				
[x]1779.8 3	23 3								
1784 1	≈4	2085.12	(5/2)⁻	300.87	9/2⁻				
1794.3 3	16.0 24	2095.07	(5/2⁻)	300.87	9/2⁻				
1798.1 1	98 15	2085.12	(5/2)⁻	287.16	(7/2)⁺	E1			Mult.: α(K)exp=0.0006 2.
1804.8 3	24 4	2082.72	(3/2⁻,5/2⁻)	278.11	7/2⁻				
1807 1	≈30	2085.12	(5/2)⁻	278.11	7/2⁻				
1807.8 1	≈100	2095.07	(5/2⁻)	287.16	(7/2)⁺	(E1)			Mult.: α(K)exp=0.0007 2 for doublet.
1816.9 3	24 4	2095.07	(5/2⁻)	278.11	7/2⁻				
1852.6 3	7.9 12	2153.5	(5/2⁻,7/2⁻)	300.87	9/2⁻				
1860.2[f] 3	22 3	2095.07	(5/2⁻)	235.52	(9/2)⁻				
1875.1[&f] 3	12.0 18	2153.5	(5/2⁻,7/2⁻)	278.11	7/2⁻				
1886.2[f] 3	12.0 18	2053.21	(3/2⁻,5/2⁻)	166.64	(5/2)⁻				

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γ(^{181}Pt) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α[c]	Comments
1920.9[f] 3	10.0 15	2015.41	(1/2⁻,3/2,5/2⁻)	93.93	5/2⁻				
1928.5[f] 3	14.0 21	2095.07	(5/2⁻)	166.64	(5/2)⁻				
1935.9[d] 1	69[d] 9	2015.41	(1/2⁻,3/2,5/2⁻)	79.40	3/2⁻				
1935.9[df]	62[d] 9	2101.83	(1/2,3/2,5/2)⁻	166.64	(5/2)⁻				This placement of Eγ=1935.9 1 is shown as uncertain in the level diagram, but definite in γ-table. The placement is supported by possible 1936γ-50γ coin; however, Eγ=1935.19 16 is expected.
[x]1941.9 3	10.0 15								
[x]1950.8 3	9.6 14								
1960.0 1	110 17	2126.65	(1/2,3/2,5/2)⁻	166.64	(5/2)⁻	E2		0.00156	α=0.00156; α(K)=0.00130; α(L)=0.00021 Mult.: α(K)exp=0.0010 3.
1965.9[f] 1	210 32	2082.72	(3/2⁻,5/2⁻)	116.66	(7/2)⁻				
1968.4[f] 1	120 18	2085.12	(5/2)⁻	116.66	(7/2)⁻				
1970.6 1	86 13	2137.40	(1/2⁻,3/2,5/2⁻)	166.64	(5/2)⁻				
1973.8 3	32 5	2053.21	(3/2⁻,5/2⁻)	79.40	3/2⁻				
[x]1982.5[&] 1	76 11								
1991.1 1	140 21	2085.12	(5/2)⁻	93.93	5/2⁻				
2001.2 1	83 12	2095.07	(5/2⁻)	93.93	5/2⁻				
2005.6 1	180 27	2085.12	(5/2)⁻	79.40	3/2⁻	E2		0.00149	α=0.00149; α(K)=0.00125; α(L)=0.00020 Mult.: α(K)exp=0.0010 4.
2015.4 1	86 13	2015.41	(1/2⁻,3/2,5/2⁻)	0.0	1/2⁻				
2022.4 1	250 38	2101.83	(1/2,3/2,5/2)⁻	79.40	3/2⁻	E2(+M1)	≥1.9		Additional information 7. Mult.: α(K)exp=0.0011 3.
2028.3[f] 3	23 3	2122.52	(≤7/2)⁻	93.93	5/2⁻				
2032.6[f] 3	25 4	2126.65	(1/2,3/2,5/2)⁻	93.93	5/2⁻				
2036.0[f] 3	49 7	2153.5	(5/2⁻,7/2⁻)	116.66	(7/2)⁻				
2043.1 1	100 15	2122.52	(≤7/2)⁻	79.40	3/2⁻	E2,M1			Mult.: α(K)exp=0.0014 6.
2052.6[f] 3	21 3	2053.21	(3/2⁻,5/2⁻)	0.0	1/2⁻				
2058.1 1	52 8	2137.40	(1/2⁻,3/2,5/2⁻)	79.40	3/2⁻				
[x]2072.7 3	33 5								
2073.5[f] 3	23 3	2153.5	(5/2⁻,7/2⁻)	79.40	3/2⁻				
2101.8[f] 1	56 8	2101.83	(1/2,3/2,5/2)⁻	0.0	1/2⁻				
[x]2117.7 1	117 18								
2126.5[f] 1	110 17	2126.65	(1/2,3/2,5/2)⁻	0.0	1/2⁻	E2(+M1)	≥0.4		Additional information 8. Mult.: α(K)exp=0.0012 5.
2136.7[f] 3	12.0 18	2137.40	(1/2⁻,3/2,5/2⁻)	0.0	1/2⁻				
[x]2140.2[&] 3	6.2 9								

γ(^{181}Pt) (continued)

† $\Delta E_\gamma \approx 0.1$ keV if Eγ<500 and Iγ>20 or if Eγ>500 and Iγ>50; $\Delta E_\gamma \leq 0.3$ keV otherwise. Note that 1992Sa03 observed an additional 94 transitions which they did not list because those transitions were so weak (they constitute 3.7% of the total observed Iγ).

‡ Uncertainty≈15%.

From coincidence data; ^{181}Pt ε decay contaminant present in singles γ spectrum.

@ Doublet.

& Assignment of transition to ^{181}Au decay is not certain.

[a] Placed by 1991Fi01; for this reason, placement is indicated here as tentative.

[b] Intensity balance at the 117 level (to which no ε branch is expected) precludes mult(23γ)=E1 which, in turn, rules out mult(50γ)=E1. The upper limit on I(γ+ce)(15γ) rules out any significant E2 component for the 23γ, and this implies mult(50γ) is also M1 with no significant E2 component; similarly, mult(73γ) cannot be pure E2. The evaluator, therefore, assigns (M1) to 23γ, 50γ and 73γ.

[c] 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.

[d] Multiply placed with undivided intensity.

[e] Multiply placed with intensity suitably divided.

[f] Placement of transition in the level scheme is uncertain.

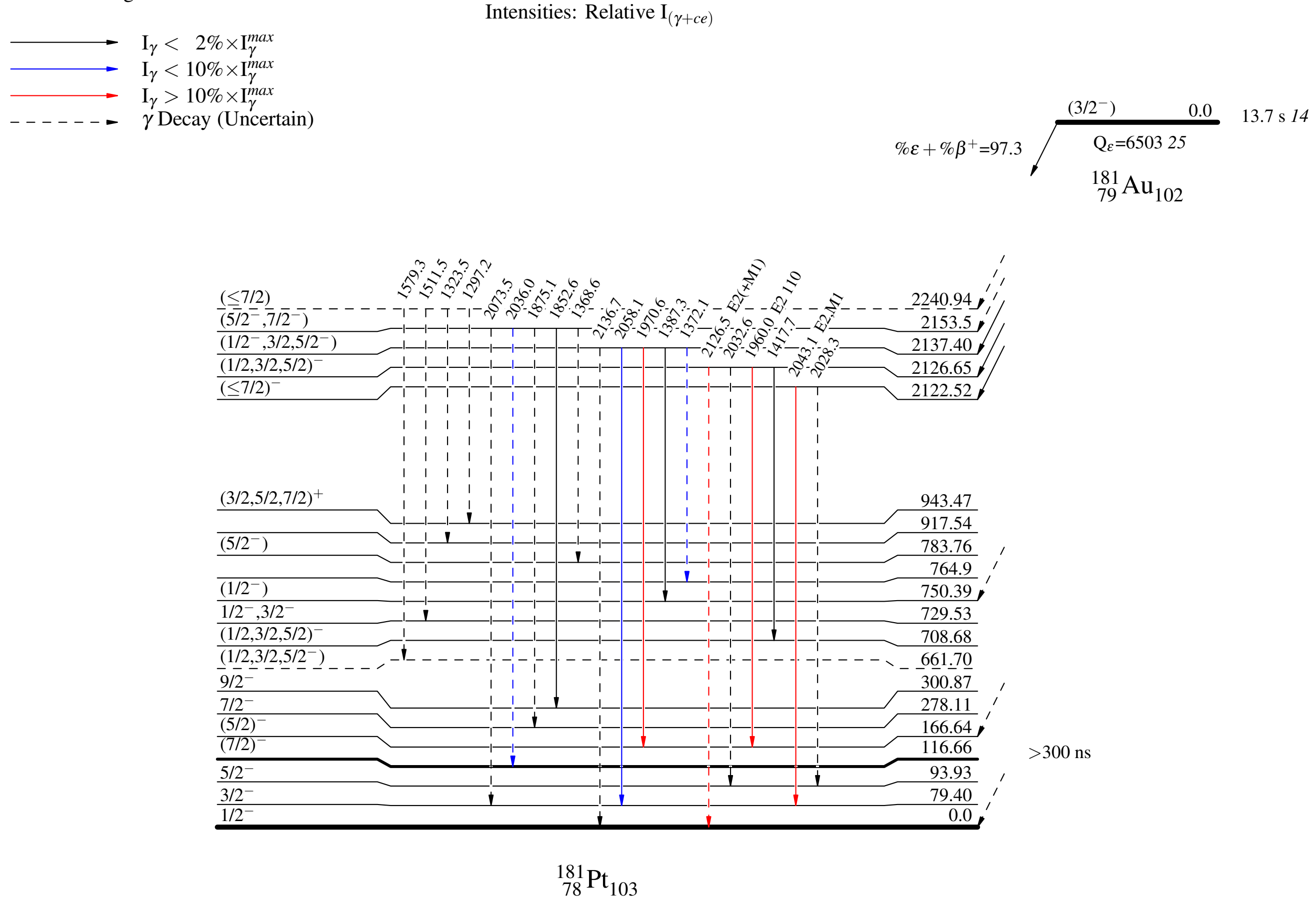
[x] γ ray not placed in level scheme.

^{181}Au ε decay 1992Sa03

Decay Scheme

Intensities: Relative $I_{(\gamma+ce)}$

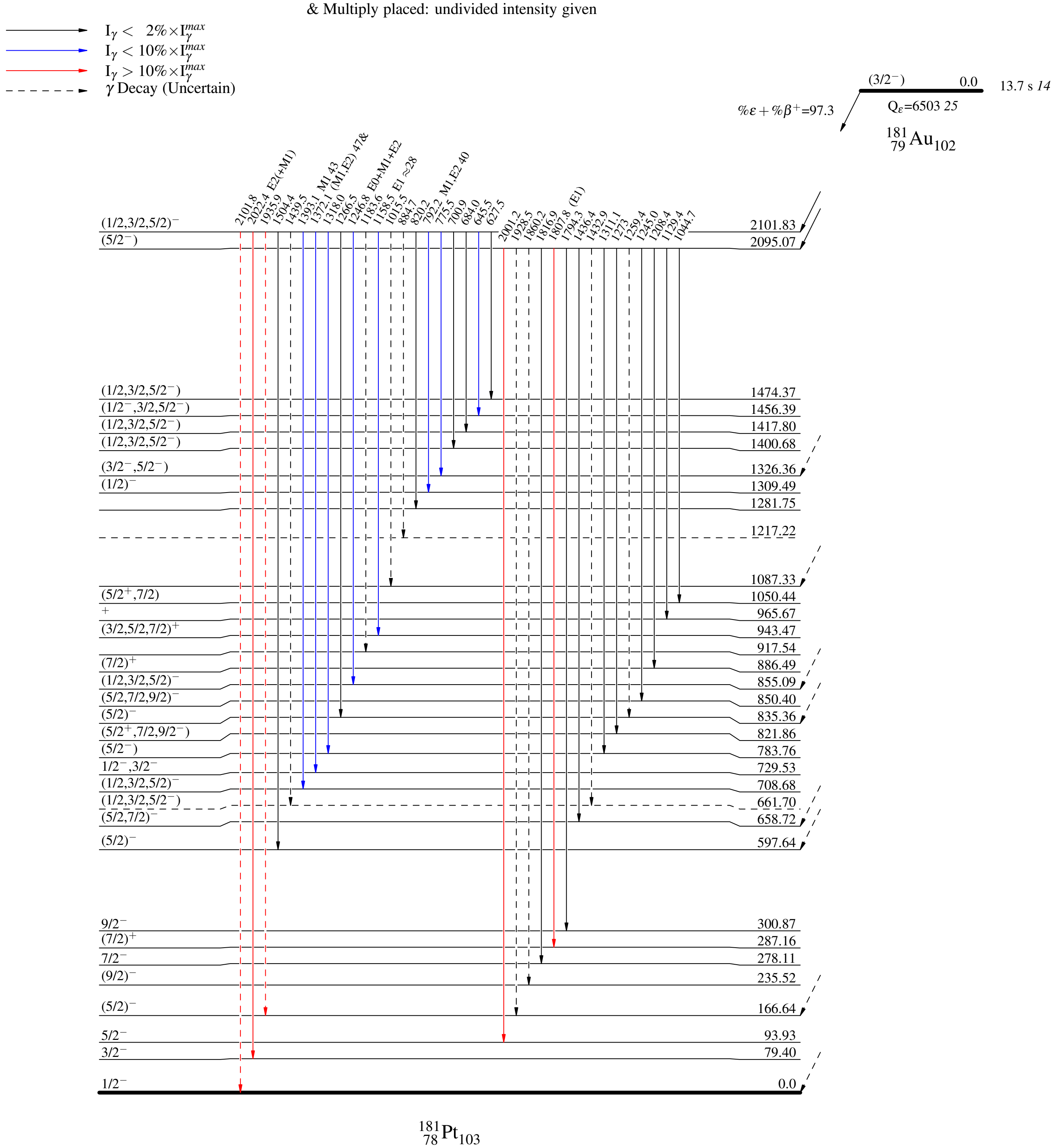
Legend



^{181}Au ε decay 1992Sa03

Decay Scheme (continued)

Intensities: Relative $I_{(\gamma+ce)}$
& Multiply placed: undivided intensity given

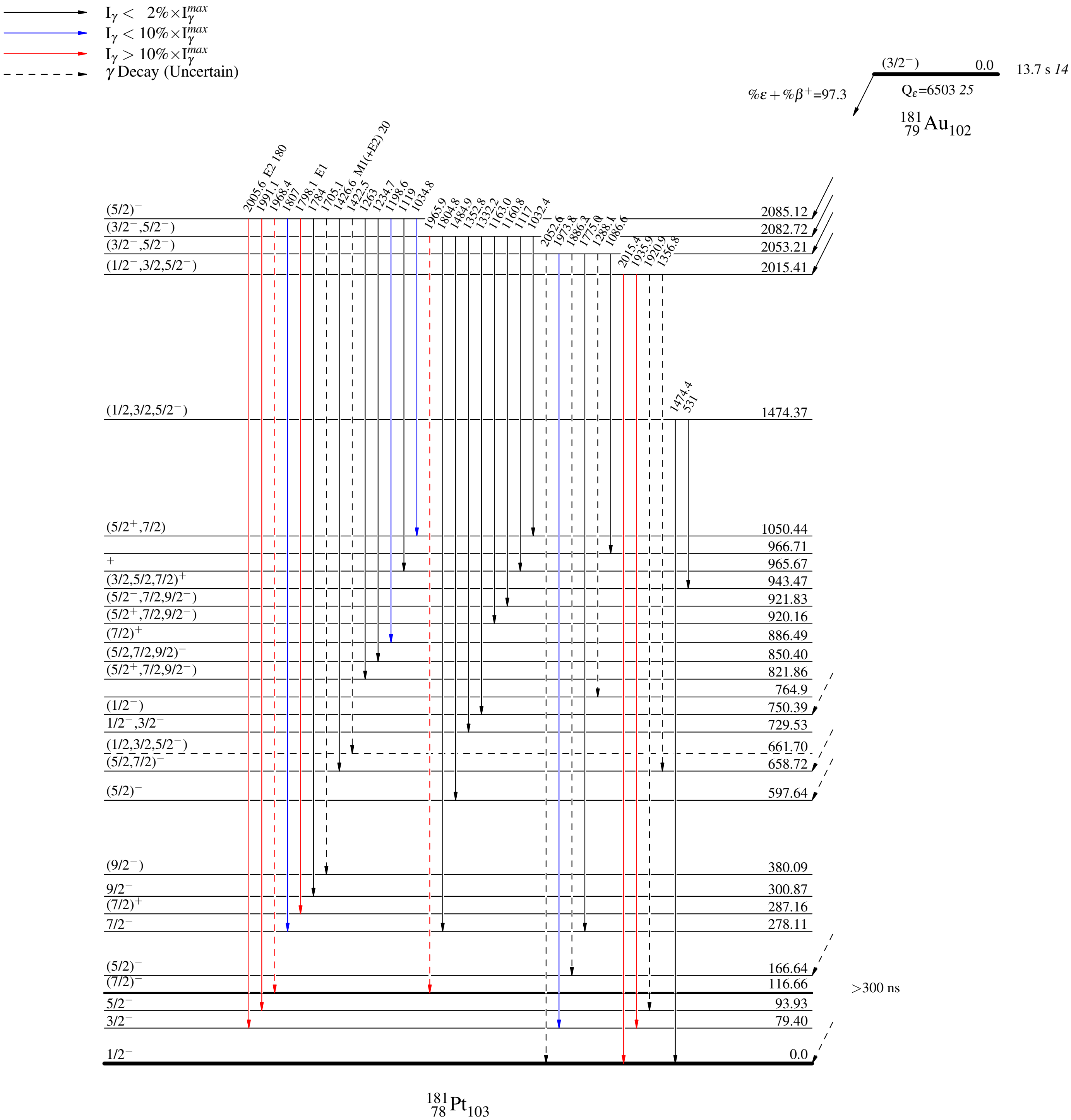


^{181}Au ε decay **1992Sa03**

Decay Scheme (continued)

Legend

Intensities: Relative $I_{(\gamma+ce)}$
& Multiply placed: undivided intensity given

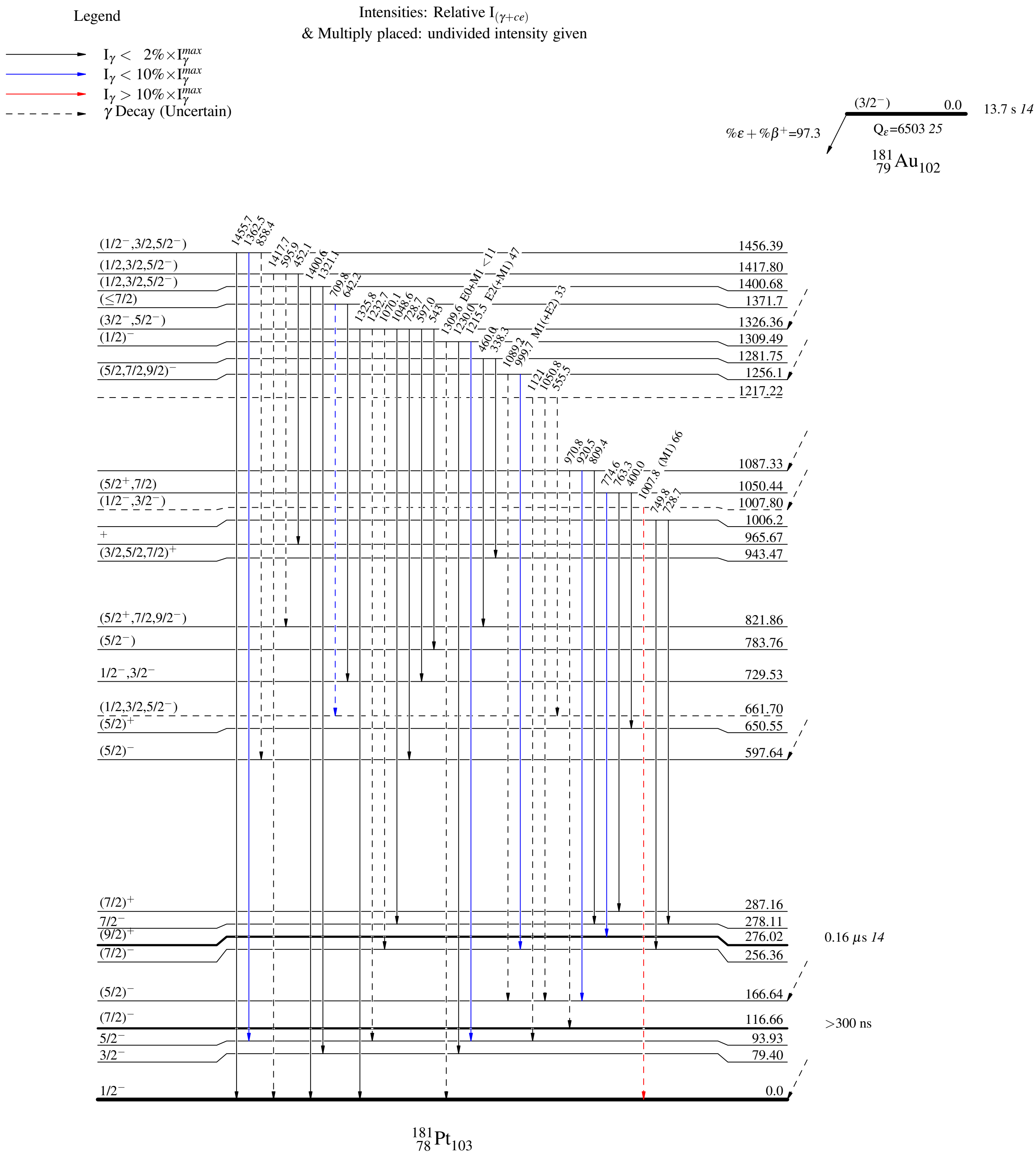


^{181}Au ε decay 1992Sa03

Decay Scheme (continued)

Intensities: Relative $I_{(\gamma+ce)}$

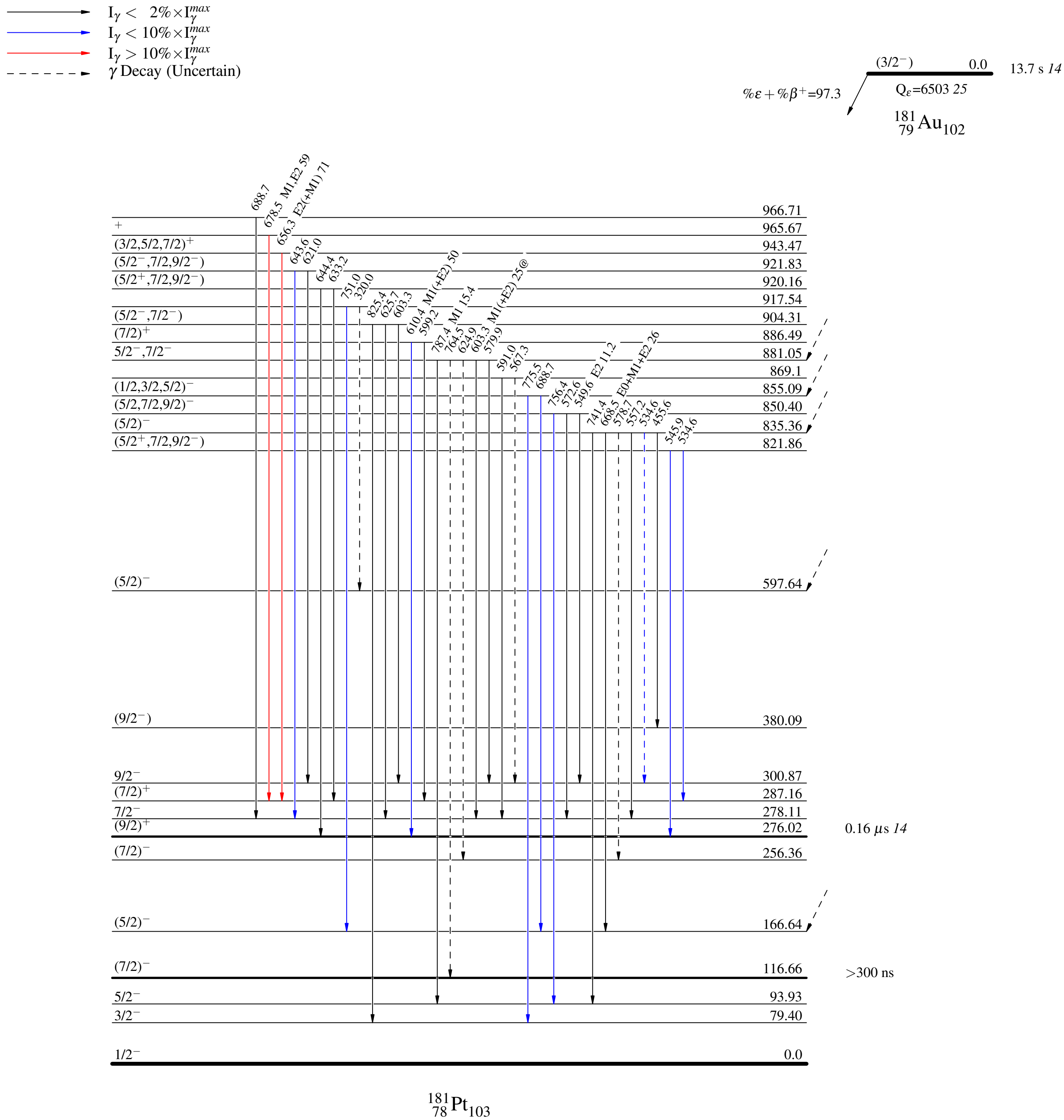
& Multiply placed: undivided intensity given



^{181}Au ε decay 1992Sa03

Decay Scheme (continued)

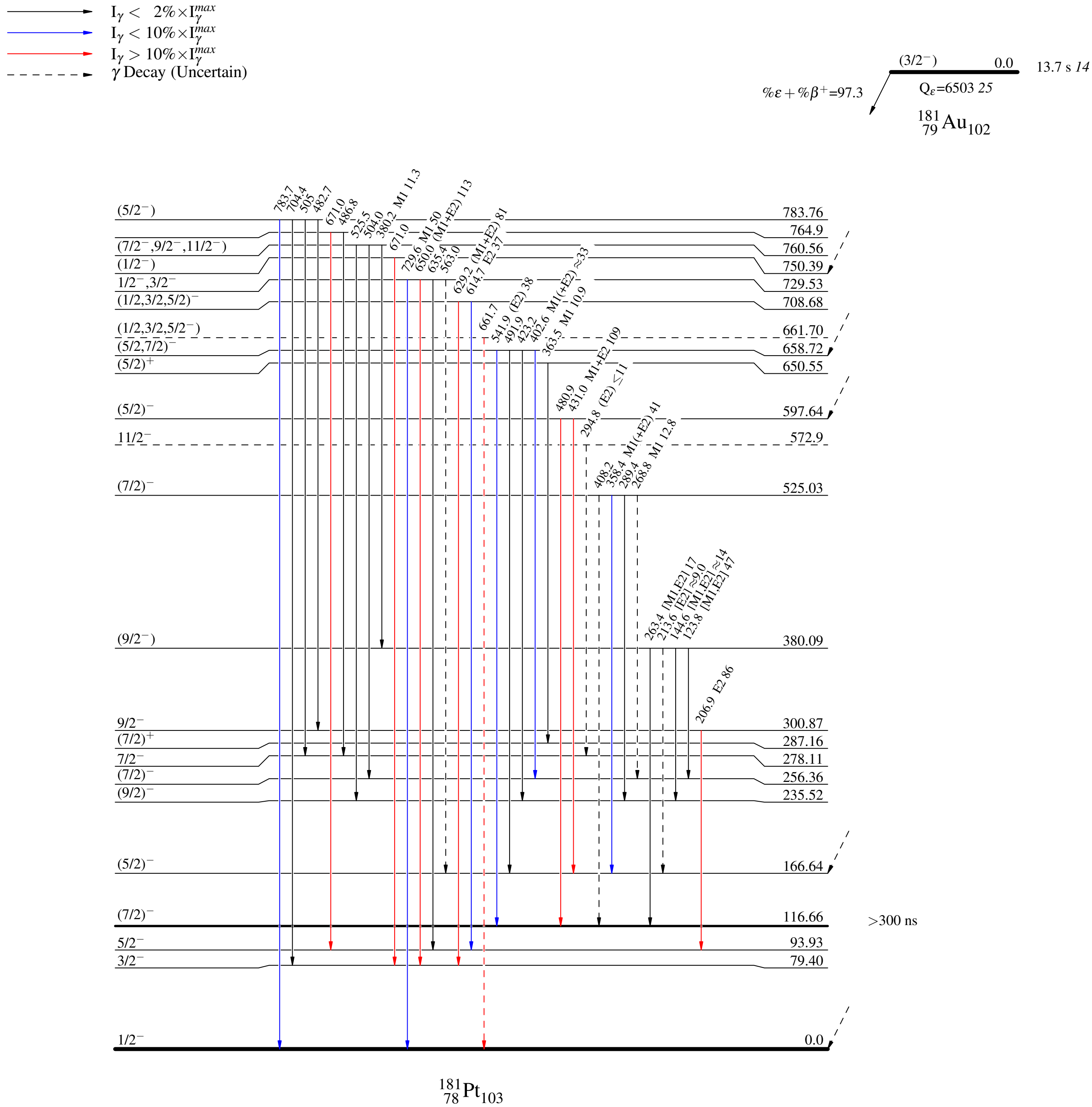
Intensities: Relative $I_{(\gamma+ce)}$
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



^{181}Au ε decay 1992Sa03

Decay Scheme (continued)

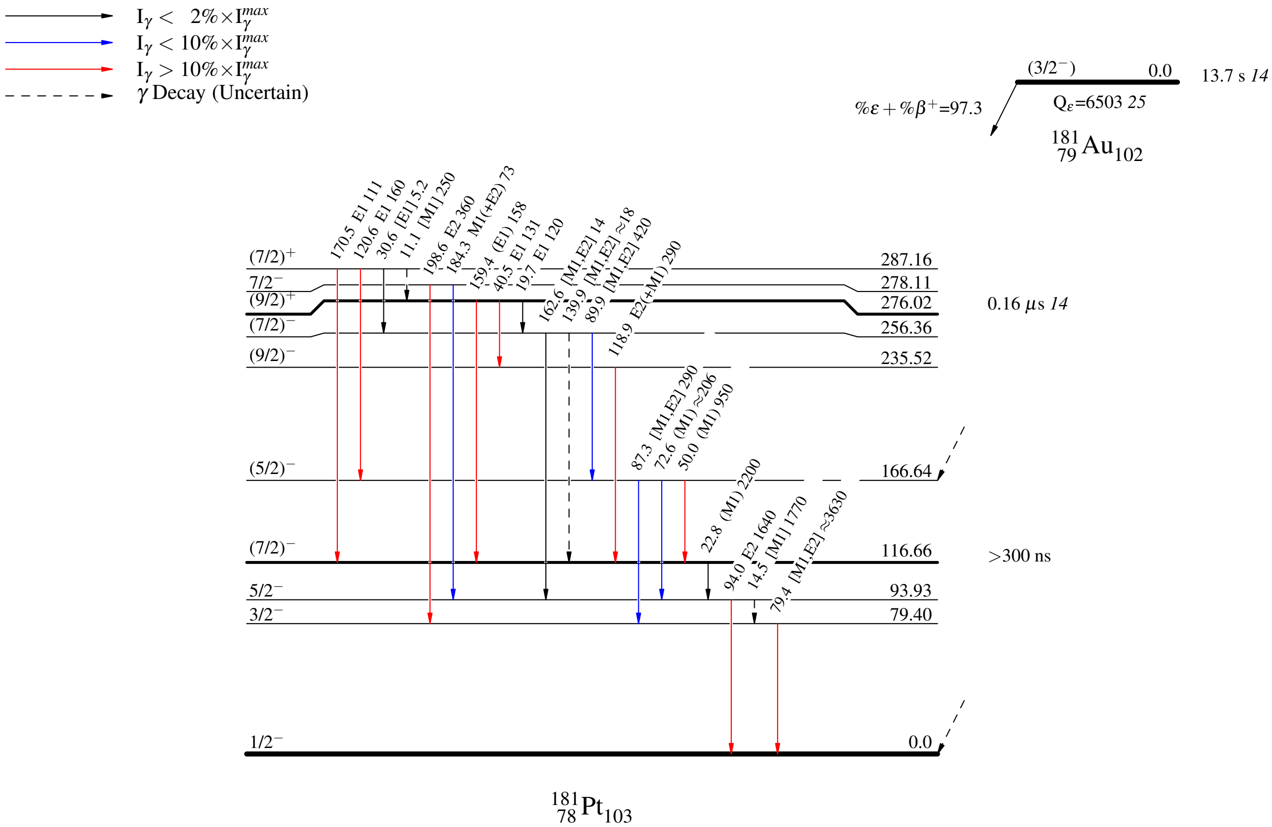
Intensities: Relative $I_{(\gamma+ce)}$
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



^{181}Au ε decay 1992Sa03

Decay Scheme (continued)

Intensities: Relative $I_{(\gamma+ce)}$
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



^{181}Au ε decay 1992Sa03