^{187}Au ε decay 1983Gn01,1992Ro15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 110, 999 (2009)	1-Nov-2008

Parent: ^{187}Au: E=0.0; J$^{\pi}$=1/2$^{(+)}$; $T_{1/2}$=8.3 min *2*; Q(ε)=3710 *40*; %ε+%β^+ decay=100.0

Other: 1979Be51, 1986RoZI, 1986AbZZ, 1975Ho03, 1970Du09.

1983Gn01: Mass separated ^{187}Au was produced from ^{181}Ta(^{12}C,6n) and ^{178}Hf(^{14}N,5n) reactions; Detectors: large volume Ge(Li), HPGe, Si(Li); Measured: Eγ, Iγ, $\gamma\gamma$ t, x-γ-t, e-x-t.

1992Ro15,1986RoZI: ^{187}Au produced from Pt(p,xn)Au, E=200 MeV, reactions, ^{187}Au mass separated online and collected on myler/aluminum tape; Detector: 4 n-type HPGe; Measured: Eγ, deduced angular correlation coefficients, δ, assigned level spin. 1986RoZI also studied ^{187}Pt from the ^{176}Yb(^{16}O,5nγ) reaction, E=93 MeV.

1979Be51: On-line mass separation of ^{187}Au, produced through Pb(P,3pxn) spallation reaction and ^{187}Hg decay, E=157 MeV; Detector: Ge(Li), HPGe, Si(Li), Magnetic spectrometer; Measured: Eγ, Iγ, ce, γ-x coin, ce-γ coin, γ-Ce(t), ce-ce-t.

1986AbZZ: ^{187}Au ε Decay; Measured Eγ, Iγ, ce.

1975Ho03, 1970Du09: Measured total absorption spectrum of ^{187}Au ε decay.

^{187}Pt Levels

E(level)†	J$^{\pi}$‡	$T_{1/2}$@	Comments
0.0	3/2$^-$		
9.27 *8*	3/2$^-$	≤1 ns	J$^{\pi}$: From the analysis of experimental and theoretical A2 values for the 914.7γ-235.7γ and 235.7γ-181.1γ cascades. J$^{\pi}$=1/2$^-$ was ruled out from the cascade analysis (1992Ro15).
25.53 *11*	(5/2$^-$)	0.7 ns *1*	
51.23 *11*	(1/2,3/2)$^-$	0.30 ns *8*	
57.11 *14*	7/2$^-$	18 ns *2*	
74.57 *10*	3/2$^-$	0.50 ns *6*	J$^{\pi}$: From the cascade analysis of 706.1γ-609.4γ, 706.1γ-374.4γ, and 374.4γ-185.8γ including the experimental and theoretical A2 values. The cascade analysis of 1189.4γ-213.6γ also leads to the same assignment (1992Ro15).
174.32 *24*	(11/2$^+$)		
190.43 *11*	3/2$^-$#		J$^{\pi}$: 115.9γ to 3/2$^-$ state. J$^{\pi}$=5/2$^-$ was ruled out from the analysis of 590.6γ-181.1γ correlation, constraining the range of measured mixing ratio and the experimental and theoretical A_2 values (1992Ro15).
203.4 *3*	(13/2$^+$)		
242.36 *21*	(9/2$^+$)	≤0.5 ns	
260.49 *12*	3/2$^-$	148 ps *7*	J$^{\pi}$: From the cascade analysis of 706.1γ-609.4γ, 706.1γ-374.4γ, and 374.4γ-185.8γ including the experimental and theoretical A2 values (1992Ro15). $T_{1/2}$: From 2004Om01 (148 ps 6_{syst} 3_{stat}): delayed $\gamma\gamma$ coincidence − average of 142 ps *3* (direct deconvolution) and 154 ps *4* (reconvolution). Other: 163 ps *6* (1996Om01).
288.33 *13*	5/2$^-$#		J$^{\pi}$: From the cascade analysis of 1189.4γ-213.6γ including the experimental and theoretical A2 values (1992Ro15).
426.34 *11*	(3/2$^-$)#		J$^{\pi}$: The 369.2γ and 375.1γ with α(K)exp values of 0.04 *2* and 0.04 *3*, respectively, from this level have dominant E2 contribution. The 369.2γ feeds 7/2$^-$ state and 375.1γ feeds (1/2,3/2)$^-$ state. Assuming a 914.6γ E1 feeding from the 1341-keV level J$^{\pi}$=1/2$^+$ to this level, J$^{\pi}$=3/2$^-$ is assigned. 1983Gn01 assigned J$^{\pi}$=5/2$^-$ for this state.
426.53 *24*	(9/2$^+$)		
474.42 *16*			
480.65 *15*	(1/2$^-$,3/2$^-$)		
507.92 *13*	1/2$^-$		J$^{\pi}$: 247.4γ M1+E2 to 3/2$^-$ state. A possible 3/2$^-$ assignment is ruled out from the analysis of 833.0γ-247.4γ and 247.4γ-185.8γ cascade correlations including the experimental and theoretical A2 values (1992Ro15).
510.42 *18*			
525.06 *16*	(3/2$^-$)		J$^{\pi}$: 467.9γ E2 to 7/2$^-$ state, 473.8γ M1+E2 to (1/2,3/2)$^-$ state.
572.79 *16*	(1/2$^-$,3/2$^-$)		
588.05 *22*	7/2$^+$		

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^{187}Au ε decay 1983Gn01,1992Ro15 (continued)

^{187}Pt Levels (continued)

E(level)†	Jπ‡	Comments
599.11 *14*	(5/2⁻)	
620.77 *14*	(1/2⁻,3/2⁻)	
632.88 *16*	(5/2⁺,7/2⁺)	Jπ: 390.5γ E2 to (9/2⁺), 206.3γ M1+E2 to (9/2⁺). Assignment in 1983Gn01 is 5/2⁺.
635.02 *13*	3/2⁻#	Jπ: 609.5γ M1+E2 to (5/2⁻), 706γ E1 from 1/2⁺ state.
688.68 *18*		
781.28 *13*	3/2⁻#	Jπ: 590.9γ M1+E2 to 3/2⁻ state, 559.8γ (E1) from 1/2⁺ state.
845.0 *3*		
883.17 *23*	5/2⁺	Jπ: 294.9γ M1+E2 to 7/2⁺ state, 456.7γ E2 to (9/2⁺) state.
968.7 *3*		
1101.65 *25*		
1114.9 *3*		
1179.1 *5*		
1304.09 *25*		
1328.29 *18*	1/2⁺,3/2⁺	Jπ: also 5/2⁺; 1319γ E1 to 3/2⁻ state.
1335.0 *5*		
1341.07 *12*	1/2⁺	Jπ: Cascade analysis of the 706.1γ-609.4γ, 706.1γ-374.4γ, and 374.4γ-185.8γ including the experimental and theoretical A2 values supports the Jπ=1/2⁺ assignment (1992Ro15).
1364.90 *22*		
1388.07 *24*		
1398.8 *5*		
1433.76 *15*	3/2⁺	Jπ: 1408γ E1 to (5/2⁻).
1478.02 *15*	3/2⁺	Jπ: From a cascade analysis of the 1189.4γ-213.6γ including the experimental and theoretical A2 values (1992Ro15).
1570.7 *4*		
1598.0 *3*		
1777.86 *23*		E(level): From 1986RoZI.
1886.0 *3*		
1891.3 *4*		
1970.4 *3*		
2016.77 *14*	(3/2⁺,5/2⁺)	Jπ: and 3/2⁻,7/2⁻ in 1986RoZI.
2027.98 *16*		
2038.62 *15*		
2082.06 *16*		
2094.65 *16*		
2157.9 *5*		
2170.46 *22*		
2570.9 *3*		

† From a least-squares adjustment to the γ-ray energies.
‡ From Adopted Levels, except otherwise noted.
\# From γγ(θ) (1992Ro15) and deduced γ-ray multipolarities.
@ From ce-Ce(t) and ce-γ(t) (1979Be51), except otherwise noted.

ε,β^+ radiations

E(decay)	E(level)	Iβ⁺ #	Iε#	Log *ft*‡	I(ε+β⁺)#	Comments
(1.14×10³ *4*)	2570.9		0.39 *5*	6.59	0.39 *5*	εK=0.8023 *8*; εL=0.1495 *6*; εM+=0.04812 *21*
(1.54×10³ *4*)	2170.46	0.0010 *4*	0.95 *6*	6.48	0.95 *6*	av Eβ=253 *18*; εK=0.8067 *2*; εL=0.1457 *4*; εM+=0.04664 *12*
(1.55×10³ *4*)	2157.9	0.00022 *9*	0.19 *4*	7.19	0.19 *4*	av Eβ=259 *18*; εK=0.8067 *2*; εL=0.1456 *4*; εM+=0.04661 *12*

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^{187}Au ε decay 1983Gn01,1992Ro15 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ+ #	Iε#	Log ft‡	I(ε+β+)#	Comments
(1.62×10³ 4)	2094.65	0.0061 *18*	3.39 *12*	5.97	3.40 *12*	av Eβ=287 *18*; εK=0.8067 *1*; εL=0.1451 *4*; εM+=0.04642 *12*
(1.63×10³ 4)	2082.06	0.0067 *19*	3.43 *13*	5.97	3.44 *13*	av Eβ=292 *18*; εK=0.8067 *2*; εL=0.1450 *4*; εM+=0.04639 *12*
(1.67×10³ 4)	2038.62	0.010 *3*	4.01 *13*	5.93	4.02 *13*	av Eβ=312 *18*; εK=0.8066 *3*; εL=0.1446 *4*; εM+=0.04626 *12*
(1.68×10³ 4)	2027.98	0.0058 *15*	2.13 *9*	6.21	2.14 *9*	av Eβ=316 *18*; εK=0.8065 *3*; εL=0.1445 *4*; εM+=0.04623 *12*
(1.69×10³ 4)	2016.77	0.020 *5*	6.73 *17*	5.72	6.75 *17*	av Eβ=321 *18*; εK=0.8064 *3*; εL=0.1444 *4*; εM+=0.04620 *12*
(1.74×10³ 4)	1970.4	0.0023 *6*	0.61 *6*	6.79	0.61 *6*	av Eβ=342 *18*; εK=0.8061 *4*; εL=0.1441 *4*; εM+=0.04606 *12*
(1.82×10³ 4)	1891.3	0.0028 *6*	0.50 *4*	6.91	0.50 *4*	av Eβ=377 *18*; εK=0.8052 *7*; εL=0.1434 *4*; εM+=0.04583 *13*
(1.82×10³ 4)	1886.0	0.0026 *6*	0.46 *5*	6.95	0.46 *5*	av Eβ=379 *18*; εK=0.8051 *7*; εL=0.1434 *4*; εM+=0.04582 *13*
(1.93×10³ 4)	1777.86	0.0043	0.48	7.0	0.48	av Eβ=426 *18*; εK=0.8031 *10*; εL=0.1424 *4*; εM+=0.04548 *13*
(2.11×10³ 4)	1598.0	0.010 *1*	0.59 *4*	6.97	0.60 *4*	av Eβ=505 *18*; εK=0.7976 *17*; εL=0.1406 *5*; εM+=0.04486 *16*
(2.14×10³ 4)	1570.7	0.0078 *12*	0.41 *4*	7.14	0.42 *4*	av Eβ=517 *18*; εK=0.7965 *18*; εL=0.1403 *5*; εM+=0.04475 *16*
(2.23×10³ 4)	1478.02	0.116 *14*	4.67 *16*	6.12	4.79 *16*	av Eβ=558 *18*; εK=0.7923 *21*; εL=0.1392 *5*; εM+=0.04438 *17*
(2.28×10³ 4)	1433.76	0.19 *2*	6.8 *3*	5.98	7.0 *3*	av Eβ=577 *18*; εK=0.7900 *23*; εL=0.1386 *6*; εM+=0.04420 *18*
(2.31×10³ 4)	1398.8	0.013 *2*	0.42 *5*	7.21	0.43 *5*	av Eβ=593 *18*; εK=0.7881 *24*; εL=0.1382 *6*; εM+=0.04404 *19*
(2.32×10³ 4)	1388.07	0.024 *3*	0.75 *6*	6.96	0.77 *6*	av Eβ=597 *18*; εK=0.7874 *25*; εL=0.1380 *6*; εM+=0.04399 *19*
(2.35×10³ 4)	1364.90	0.031 *4*	0.92 *8*	6.88	0.95 *8*	av Eβ=607 *18*; εK=0.786 *3*; εL=0.1377 *6*; εM+=0.04389 *19*
(2.37×10³ 4)	1341.07	0.84 *9*	23.8 *6*	5.47	24.6 *6*	av Eβ=618 *18*; εK=0.785 *3*; εL=0.1374 *6*; εM+=0.04378 *20*
(2.38×10³ 4)	1335.0	0.0073 *13*	0.20 *3*	7.54	0.21 *3*	av Eβ=620 *18*; εK=0.784 *3*; εL=0.1373 *6*; εM+=0.04375 *20*
(2.38×10³ 4)	1328.29	0.104 *11*	2.84 *14*	6.40	2.94 *14*	av Eβ=623 *18*; εK=0.784 *3*; εL=0.1372 *6*; εM+=0.04372 *20*
(2.41×10³ 4)	1304.09	0.025 *3*	0.64 *5*	7.06	0.66 *5*	av Eβ=634 *18*; εK=0.782 *3*; εL=0.1368 *6*; εM+=0.04360 *20*
(2.60×10³ 4)	1114.9	0.021 *3*	0.35 *5*	7.39	0.37 *5*	av Eβ=717 *18*; εK=0.768 *4*; εL=0.1338 *8*; εM+=0.04260 *24*
(2.61×10³ 4)	1101.65	0.011 *5*	0.19 *8*	7.66	0.20 *8*	av Eβ=723 *18*; εK=0.767 *4*; εL=0.1335 *8*; εM+=0.04252 *24*
(2.74×10³ 4)	968.7	0.053 *6*	0.68 *6*	7.15	0.73 *6*	av Eβ=782 *18*; εK=0.754 *4*; εL=0.1311 *8*; εM+=0.0417 *3*
(2.83×10³ 4)	883.17	0.061 *8*	0.66 *7*	7.19	0.72 *8*	av Eβ=819 *18*; εK=0.745 *5*; εL=0.1293 *9*; εM+=0.0412 *3*
(2.93×10³ 4)	781.28	0.15 *3*	1.4 *3*	6.91	1.5 *3*	av Eβ=864 *18*; εK=0.734 *5*; εL=0.1271 *9*; εM+=0.0404 *3*
(3.02×10³ 4)	688.68	0.058 *11*	0.46 *8*	7.40	0.52 *9*	av Eβ=905 *18*; εK=0.723 *5*; εL=0.1250 *10*; εM+=0.0398 *3*
(3.07×10³ 4)	635.02	0.20 *3*	1.45 *18*	6.92	1.65 *21*	av Eβ=929 *18*; εK=0.716 *6*; εL=0.1238 *10*; εM+=0.0394 *4*
(3.09×10³ 4)	620.77	0.30 *3*	2.16 *18*	6.75	2.46 *21*	av Eβ=936 *18*; εK=0.714 *6*; εL=0.1234 *10*;

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^{187}Au ε decay 1983Gn01,1992Ro15 (continued)

ϵ,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ [#]	Iε[#]	Log ft[‡]	I(ε+β^+)[#]	Comments
						εM+=0.0392 4
(3.11×10^3 4)	599.11	0.063 7	1.41 11	8.49^{1u}	1.47 12	av Eβ=938 17; εK=0.7729 21; εL=0.1396 6; εM+=0.04471 18
(3.14×10^3 4)	572.79	0.177 17	1.17 10	7.03	1.35 11	av Eβ=957 18; εK=0.708 6; εL=0.1222 10; εM+=0.0389 4
(3.18×10^3 4)	525.06	0.13 2	0.79 9	7.21	0.92 10	av Eβ=978 18; εK=0.701 6; εL=0.1211 11; εM+=0.0385 4
(3.20×10^3 4)	510.42	0.057 10	0.34 6	7.58	0.40 7	av Eβ=985 18; εK=0.699 6; εL=0.1207 11; εM+=0.0384 4
(3.20×10^3 4)	507.92	0.24 4	1.5 3	6.95	1.7 3	av Eβ=986 18; εK=0.699 6; εL=0.1206 11; εM+=0.0384 4
(3.23×10^3 4)	480.65	0.239 22	1.39 11	6.98	1.63 13	av Eβ=998 18; εK=0.695 6; εL=0.1199 11; εM+=0.0381 4
(3.24×10^3 4)	474.42	0.154 17	0.89 9	7.18	1.04 10	av Eβ=1001 18; εK=0.694 6; εL=0.1198 11; εM+=0.0381 4
(3.28×10^3 4)	426.34	1.1 1	5.9 8	6.37	7.0 9	av Eβ=1022 18; εK=0.688 6; εL=0.1185 11; εM+=0.0377 4
(3.42×10^3 4)	288.33	0.09 3	1.2 4	8.73^{1u}	1.3 4	av Eβ=1071 17; εK=0.754 3; εL=0.1351 7; εM+=0.04321 21
(3.45×10^3 4)	260.49	0.37 13	1.6 6	6.97	2.0 7	av Eβ=1096 18; εK=0.663 7; εL=0.1141 11; εM+=0.0362 4
(3.52×10^3 4)	190.43	0.80 18	3.2 7	6.69	4.0 9	av Eβ=1127 18; εK=0.652 7; εL=0.1121 12; εM+=0.0356 4
(3.66×10^3 4)	51.23	0.2 5	0.6 15	7.4	0.8 20	av Eβ=1190 18; εK=0.630 7; εL=0.1081 12; εM+=0.0344 4
(3.70×10^3 [@] 4)	9.27	<1	<4	>6.7	<5[†]	av Eβ=1209 18; εK=0.623 7; εL=0.1069 12; εM+=0.0340 4
(3.71×10^3 [@] 4)	0.0	<1	<4	>6.7	<5[†]	av Eβ=1213 18; εK=0.622 7; εL=0.1067 12; εM+=0.0339 4

† 1983Gn01 estimate that 5% of the decay goes to the g.s.+9.3 keV levels based on observed x-ray intensities (unreported).

‡ Approximate beta strength function derived from the total absorption spectrum measurement of ^{187}Au ε decay by 1975Ho03 and 1970Du09 indicates level population upto≈3.2 MeV and≈3.9 MeV, respectively. So the calculated log ft values should be considered as a lower limit.

\# Absolute intensity per 100 decays.

@ Existence of this branch is questionable.

γ(^{187}Pt)

Iγ normalization: from sum Ti(g.s.+9.3 keV)=95. 1983Gn01 estimate 5% β feeding to the g.s.+9.3 keV levels. Low energy γ-ray intensities are not well known and calculated I(γ+ce) values (hence Iγ) are used for normalization. For 49γ, Iγ=6.5 *7* was used for intensity balance. $\varepsilon+\beta^+$ feeding to the 190, 260, and 599 keV levels were readjusted to 4.0, 2.0, and 1.47 from 3.3, 2.2, and 0.65, respectively, to make $\varepsilon+\beta^+$ feeding≈100.

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[e]	$I_{(\gamma+ce)}$[d]	Comments
9.3 *1*		9.27	3/2⁻	0.0	3/2⁻	M1		304 *11*	331[@] *27*	ce(M)/(γ+ce)=0.770 *19*; ce(N+)/(γ+ce)=0.227 *10* ce(N)/(γ+ce)=0.191 *9*; ce(O)/(γ+ce)=0.0342 *17*; ce(P)/(γ+ce)=0.00230 *12* Mult.: The half-life is only consistent with M1 (RUL).
25.6 *5*		25.53	(5/2⁻)	0.0	3/2⁻	M1+E2	≈0.5	≈6.8×10^2	375[@] *21*	ce(L)/(γ+ce)≈0.75; ce(M)/(γ+ce)≈0.191; ce(N+)/(γ+ce)≈0.054 ce(N)/(γ+ce)≈0.046; ce(O)/(γ+ce)≈0.0072; ce(P)/(γ+ce)≈4.6×10^{-5} Mult.: ce(M1)=135.
25.7 *5*		51.23	(1/2,3/2)⁻	25.53	(5/2⁻)	[E2]		3.1×10^3 *4*	≈3	ce(L)/(γ+ce)=0.75 *6*; ce(M)/(γ+ce)=0.19 *3*; ce(N+)/(γ+ce)=0.054 *8* ce(N)/(γ+ce)=0.047 *7*; ce(O)/(γ+ce)=0.0072 *11*; ce(P)/(γ+ce)=5.7×10^{-6} *9*
29.0 *5*		203.4	(13/2⁺)	174.32	(11/2⁺)	[M1]		44.7 *25*	≈9	ce(L)/(γ+ce)=0.75 *3*; ce(M)/(γ+ce)=0.174 *12*; ce(N+)/(γ+ce)=0.051 *4* ce(N)/(γ+ce)=0.043 *4*; ce(O)/(γ+ce)=0.0077 *6*; ce(P)/(γ+ce)=0.00052 *4* E_γ: uncertainty not reported. 0.5 keV assumed by the evaluator.
31.6 *4*		57.11	7/2⁻	25.53	(5/2⁻)	M1		34.7 *15*	95[@] *15*	ce(L)/(γ+ce)=0.748 *21*; ce(M)/(γ+ce)=0.173 *9*; ce(N+)/(γ+ce)=0.051 *3* ce(N)/(γ+ce)=0.0428 *24*; ce(O)/(γ+ce)=0.0077 *5*; ce(P)/(γ+ce)=0.00052 *3* Mult.: L1:L2:M1=146:13:44.
39.1 *4*		242.36	(9/2⁺)	203.4	(13/2⁺)	[E2]		386 *21*	≈7[‡@]	ce(L)/(γ+ce)=0.75 *3*; ce(M)/(γ+ce)=0.193 *14*; ce(N+)/(γ+ce)=0.054 *4* ce(N)/(γ+ce)=0.047 *4*; ce(O)/(γ+ce)=0.0072 *6*; ce(P)/(γ+ce)=6.0×10^{-6} *5*
49.0 *4*	5.0[‡] *7*	74.57	3/2⁻	25.53	(5/2⁻)	M1+E2	0.25 *6*	16 *4*		α(L)=13 *3*; α(M)=3.0 *7*; α(N+..)=0.88 *19* α(N)=0.75 *17*; α(O)=0.13 *3*; α(P)=0.00482 *19* Mult.: α(L1)exp=6.4 (1979Be51); L1:L2:L3=3.5:2.9:2.6 (1986AbZZ).
51.2 *4*	12.0[‡] *20*	51.23	(1/2,3/2)⁻	0.0	3/2⁻	M1+E2	0.10 *1*	9.3 *4*		α(L)=7.1 *3*; α(M)=1.67 *7*; α(N+..)=0.490 *18*

From ENSDF

γ(^{187}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[e]	$I_{(\gamma+ce)}$[d]	Comments
										α(N)=0.412 *15*; α(O)=0.073 *3*; α(P)=0.00442 *12* Mult.: L1:L2:L3:M1=211:34:16:43.
65.3 *4*		74.57	3/2$^-$	9.27	3/2$^-$	M1+E2	0.18 *2*	4.96 *23*	78[#] *26*	ce(L)/(γ+ce)=0.637 *20*; ce(M)/(γ+ce)=0.151 *9*; ce(N+)/(γ+ce)=0.044 *3* ce(N)/(γ+ce)=0.0372 *23*; ce(O)/(γ+ce)=0.0065 *4*; ce(P)/(γ+ce)=0.000356 *17* Mult.: L1:L2:L3:M1=125:32:18:30.
68.1 *4*		242.36	(9/2$^+$)	174.32	(11/2$^+$)	M1+E2	0.45 *8*	7.4 *12*	≈11[‡@]	ce(L)/(γ+ce)=0.67 *7*; ce(M)/(γ+ce)=0.17 *4*; ce(N+)/(γ+ce)=0.047 *10* ce(N)/(γ+ce)=0.040 *9*; ce(O)/(γ+ce)=0.0067 *14*; ce(P)/(γ+ce)=0.00020 *3* Mult.: L1:L2:M1:M2:M3=30:15:11:8:5 from 1986AbZZ.
74.5 *4*	4.8 *9*	74.57	3/2$^-$	0.0	3/2$^-$	M1+E2	0.11 *5*	2.95 *20*	19[#] *6*	ce(L)/(γ+ce)=0.574 *25*; ce(M)/(γ+ce)=0.134 *11*; ce(N+)/(γ+ce)=0.039 *4* ce(N)/(γ+ce)=0.033 *3*; ce(O)/(γ+ce)=0.0059 *5*; ce(P)/(γ+ce)=0.000372 *21* Mult.: L1:L2:L3=27:≈3:≈1.3. $I_{(\gamma+ce)}$: uncertainty not reported, 10% assumed by the evaluator.
^{x}84.7 *4*	1.9 *3*									
97.7 *4*	1.5 *3*	288.33	5/2$^-$	190.43	3/2$^-$	M1+E2	1.0 +*11*−*5*	6.3 *6*		α(K)=3.3 *17*; α(L)=2.2 *8*; α(M)=0.57 *22*; α(N+..)=0.16 *6* α(N)=0.14 *6*; α(O)=0.022 *8*; α(P)=0.00038 *19* Mult.: α(K)exp≈3.3, α(L1)exp=0.42.
115.9 *4*	3.7 *2*	190.43	3/2$^-$	74.57	3/2$^-$	M1+E2[c]	+0.405[c] *15*	4.13 *8*		α(K)=3.17 *6*; α(L)=0.736 *17*; α(M)=0.176 *4*; α(N+..)=0.0513 *12* α(N)=0.0434 *10*; α(O)=0.00747 *17*; α(P)=0.000364 *7* Mult.: α(K)exp≈2.6. δ: Other: 0.5 *2*.
117.2 *4*	1.0 *3*	174.32	(11/2$^+$)	57.11	7/2$^-$	M2+E3	0.47 *19*	35.2 *22*		α(K)=18 *3*; α(L)=13 *4*; α(M)=3.3 *10*; α(N+..)=1.0 *3* α(N)=0.82 *24*; α(O)=0.14 *4*; α(P)=0.0041 *5* Mult.: α(K)exp=20.7. Other: α(K)exp=18 *4* from I(117γ) and I(delayed K x rays), assuming that all delayed platinum K x rays were due to conversion of the 117.3γ (^{186}Os(α,3nγ)−1976Pi03). I_γ: from 1979Be51. This value agrees better with the intensity balance through the 174 level. Other value: 1.4 *1* (1983Gn01).
133.2 *5*	2.2 *5*	190.43	3/2$^-$	57.11	7/2$^-$	[E2]		1.56 *4*		α(K)=0.443 *8*; α(L)=0.842 *19*; α(M)=0.217 *5*; α(N+..)=0.0613 *14* α(N)=0.0530 *12*; α(O)=0.00831 *19*; α(P)=4.32×10^{-5} *8*

$^{187}_{78}$Pt$_{109}$-6

γ(^{187}Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J_i^π	E_f	J_f^π	Mult.&	δb	αe	Comments
									α(L)=0.842 *19*; α(M)=0.217 *5*; α(N+..)=0.0613 *14* α(N)=0.0530 *12*; α(O)=0.00831 *19*; α(P)=4.32×10^{-5} *8*
138.1 *5*	2.6 *6*	426.34	(3/2$^-$)	288.33	5/2$^-$	[M1]		2.65 *5*	α(K)=2.18 *4*; α(L)=0.361 *7*; α(M)=0.0835 *15*; α(N+..)=0.0246 *5* α(N)=0.0207 *4*; α(O)=0.00371 *7*; α(P)=0.000250 *5*
140.3 *5*	1.1 *2*	620.77	(1/2$^-$,3/2$^-$)	480.65	(1/2$^-$,3/2$^-$)	[M1]		2.53 *5*	α(K)=2.09 *4*; α(L)=0.345 *6*; α(M)=0.0798 *14*; α(N+..)=0.0235 *4* α(N)=0.0197 *4*; α(O)=0.00355 *7*; α(P)=0.000239 *5*
161.4 *4*	1.9 *1*	588.05	7/2$^+$	426.53	(9/2$^+$)	E2(+M1)	>4	0.79 *3*	α(K)=0.32 *4*; α(L)=0.355 *8*; α(M)=0.0909 *20*; α(N+..)=0.0257 *6* α(N)=0.0222 *5*; α(O)=0.00351 *7*; α(P)=3.1×10^{-5} *4* Mult.: α(K)exp=0.92, α(L1)exp≈0.23.
164.9 *3*	4.0 *4*	190.43	3/2$^-$	25.53	(5/2$^-$)	M1+E2c	−0.245c *25*	1.55 *3*	α(K)=1.261 *23*; α(L)=0.224 *4*; α(M)=0.0523 *9*; α(N+..)=0.0154 *3* α(N)=0.01292 *22*; α(O)=0.00230 *4*; α(P)=0.000144 *3* Mult.: α(K)exp=1.3, α(L1)exp=0.3, α(L2)exp=0.07, α(L3)exp=0.08. The α(K)exp is consistent with M1, but α(L1)exp, α(L2)exp, and α(L3)exp are significantly too large.
165.8 *5*	1.0 *3*	426.34	(3/2$^-$)	260.49	3/2$^-$	[M1,E2]		1.1 *5*	α(K)=0.8 *6*; α(L)=0.27 *6*; α(M)=0.066 *17*; α(N+..)=0.019 *5* α(N)=0.016 *4*; α(O)=0.0027 *5*; α(P)=9.E−5 *7*
172.7 *4*	1.6 *1*	599.11	(5/2$^-$)	426.34	(3/2$^-$)	M1+E2	0.6 *3*	1.19 *15*	α(K)=0.92 *17*; α(L)=0.211 *15*; α(M)=0.051 *5*; α(N+..)=0.0147 *12* α(N)=0.0125 *11*; α(O)=0.00215 *13*; α(P)=0.000104 *20* Mult.: α(K)exp=1, α(L1)exp<0.9, α(L2)exp≈0.1.
x179.0 *4*	1.5 *2*								
181.2 *3*	17.1 *12*	190.43	3/2$^-$	9.27	3/2$^-$	M1+E2c	+4.8c *+23−12*	0.536 *24*	α(K)=0.250 *25*; α(L)=0.215 *4*; α(M)=0.0548 *10*; α(N+..)=0.0156 *3* α(N)=0.01340 *25*; α(O)=0.00213 *4*; α(P)=2.5×10^{-5} *3* Mult.: α(K)exp=0.17, α(L1)exp=0.028, α(L2)exp=0.11, α(L3)exp=0.08.
184.2 *4*	1.3 *4*	426.53	(9/2$^+$)	242.36	(9/2$^+$)	[M1,E2]		0.8 *4*	α(K)=0.6 *4*; α(L)=0.181 *22*; α(M)=0.044 *8*; α(N+..)=0.0128 *19* α(N)=0.0109 *18*; α(O)=0.00182 *19*; α(P)=7.E−5 *5*
185.1 *4*	11.0‡ *10*	242.36	(9/2$^+$)	57.11	7/2$^-$	E1		0.0852 *13*	α(K)=0.0698 *11*; α(L)=0.01182 *18*; α(M)=0.00273 *5*; α(N+..)=0.000788 *12* α(N)=0.000667 *10*; α(O)=0.0001150 *18*;

$\gamma(^{187}Pt)$ (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[e]	Comments
									α(P)=6.02×10^{-6} *9* Mult.: α(K)exp≈0.15 is consistent with E1 or E2. E1 is consistent with the level scheme.
186.0 *4*	24.9[‡] *15*	260.49	3/2$^-$	74.57	3/2$^-$	M1+E2[c]	−0.8[c] *+7−4*	0.9 *3*	α(K)=0.7 *3*; α(L)=0.170 *15*; α(M)=0.041 *6*; α(N+..)=0.0119 *14* α(N)=0.0101 *13*; α(O)=0.00172 *13*; α(P)=7.E−5 *4* δ: Other: 1.2 *+4−3*. Mult.: α(K)exp=0.51.
190.4 *3*	18.8 *11*	190.43	3/2$^-$	0.0	3/2$^-$	M1+E2[c]	>−17[c]	0.426 *7*	α(K)=0.193 *3*; α(L)=0.176 *3*; α(M)=0.0449 *7*; α(N+..)=0.01272 *20* α(N)=0.01096 *17*; α(O)=0.00174 *3*; α(P)=1.84×10^{-5} *3* δ: −35 *+18−∞*. Mult.: α(K)exp=0.20, α(L1)exp=0.03, α(L2)exp=0.09.
194.4 *4*	1.0 *2*	620.77	(1/2$^-$,3/2$^-$)	426.34	(3/2$^-$)	(M1+E2)	<1.5	0.80 *22*	α(K)=0.61 *23*; α(L)=0.145 *9*; α(M)=0.035 *4*; α(N+..)=0.0101 *9* α(N)=0.0086 *8*; α(O)=0.00147 *7*; α(P)=7.E−5 *3* Mult.: α(K)exp≈0.7.
^{x}204.5 *4*	3.6 *3*								α(K)exp≤0.23.
206.3 *4*	1.9 *2*	632.88	(5/2$^+$,7/2$^+$)	426.53	(9/2$^+$)	M1+E2	1.3 *5*	0.52 *13*	α(K)=0.36 *13*; α(L)=0.122 *3*; α(M)=0.0300 *13*; α(N+..)=0.0086 *3* α(N)=0.0074 *3*; α(O)=0.001225 *23*; α(P)=3.9×10^{-5} *16* Mult.: α(K)exp=0.37.
208.7 *4*	1.7[‡] *2*	635.02	3/2$^-$	426.34	(3/2$^-$)	M1(+E2)	<0.9	0.71 *12*	α(K)=0.56 *12*; α(L)=0.1139 *24*; α(M)=0.0270 *11*; α(N+..)=0.00788 *25* α(N)=0.00665 *25*; α(O)=0.001162 *19*; α(P)=6.4×10^{-5} *15* Mult.: α(K)exp=0.62.
209.3 *3*	6.4[‡] *5*	260.49	3/2$^-$	51.23	(1/2,3/2)$^-$	M1+E2[c]	−3.2[c] *3*	0.354 *11*	α(K)=0.198 *10*; α(L)=0.1174 *18*; α(M)=0.0297 *5*; α(N+..)=0.00845 *13* α(N)=0.00726 *12*; α(O)=0.001170 *18*; α(P)=2.01×10^{-5} *12* δ: +59 *+∞−30* or −16 *+8−∞* if J(51.2)=1/2; δ=−3.2 *3* if J(51.2)=3/2 (1992Ro15). From α(K)exp=0.17 assuming 5% uncertainty yields δ=5.2 *11*. Mult.: α(K)exp=0.17.
213.6 *3*	9.3 *6*	288.33	5/2$^-$	74.57	3/2$^-$	M1+E2[c]	−5.2[c] *3*	0.305	α(K)=0.162 *4*; α(L)=0.1083 *17*; α(M)=0.0275 *5*; α(N+..)=0.00782 *12* α(N)=0.00672 *11*; α(O)=0.001078 *17*; α(P)=1.60×10^{-5} *4* Mult.: α(K)exp=0.12 (1979Be51); α(K)exp=0.10 *5* (1983Gn01).
223.0 *4*	1.1 *1*	426.53	(9/2$^+$)	203.4	(13/2$^+$)	[E2]		0.249	α(K)=0.1290 *19*; α(L)=0.0908 *15*; α(M)=0.0231 *4*; α(N+..)=0.00656 *11*

$^{187}_{78}Pt_{109}$-8

γ(^{187}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[e]	Comments
									α(N)=0.00564 *9*; α(O)=0.000903 *15*; α(P)=1.249×10^{-5} *19*
231.5 *4*	1.0 *1*	1114.9		883.17	5/2$^+$				
234.9 *4*	1.5[‡] *2*	260.49	3/2$^-$	25.53	(5/2$^-$)	[M1]		0.597	α(K)=0.492 *8*; α(L)=0.0808 *12*; α(M)=0.0187 *3*; α(N+..)=0.00550 *9* α(N)=0.00462 *7*; α(O)=0.000831 *13*; α(P)=5.61×10^{-5} *9*
235.8 *4*	6.9 *6*	426.34	(3/2$^-$)	190.43	3/2$^-$	M1+E2[c]	+0.30[c] *+6−5*	0.559 *15*	α(K)=0.456 *14*; α(L)=0.0793 *12*; α(M)=0.0184 *3*; α(N+..)=0.00543 *8* α(N)=0.00456 *7*; α(O)=0.000814 *13*; α(P)=5.18×10^{-5} *17* Mult.: α(K)exp=0.35 (1979Be51); α(K)exp=0.29 *8* (1983Gn01).
236.6 *4*	3.0[‡] *4*	525.06	(3/2$^-$)	288.33	5/2$^-$				α(K)=0.1111 *17*; α(L)=0.0714 *12*; α(M)=0.0181 *3*; α(N+..)=0.00515 *8* α(N)=0.00443 *7*; α(O)=0.000711 *11*; α(P)=1.083×10^{-5} *16* Mult.: α(K)exp≈0.05; α(K)exp value supports E1.
237.1 *4*	10.4[‡] *10*	288.33	5/2$^-$	51.23	(1/2,3/2)$^-$	(E2)		0.204	α(K)=0.1105 *17*; α(L)=0.0708 *11*; α(M)=0.0179 *3*; α(N+..)=0.00510 *8* α(N)=0.00439 *7*; α(O)=0.000705 *11*; α(P)=1.078×10^{-5} *16* Mult.: α(K)exp≈0.05 (1979Be51); α(K)exp=0.08 *3* (1983Gn01). δ: pure E2 if J(51.2)=1/2, −9.5 +4.5-73.1 if J(51.2)=3/2 (1992Ro15).
247.4 *3*	17.9[‡] *14*	507.92	1/2$^-$	260.49	3/2$^-$	M1+E2[c]	+0.29[c] *1*	0.491 *8*	α(K)=0.401 *6*; α(L)=0.0691 *10*; α(M)=0.01607 *24*; α(N+..)=0.00473 *7* α(N)=0.00397 *6*; α(O)=0.000710 *11*; α(P)=4.56×10^{-5} *7* Mult.: α(K)exp=0.30, α(L1)exp=0.05, α(L3)exp<0.01.
250.2 *4*	1.2 *3*	883.17	5/2$^+$	632.88	(5/2$^+$,7/2$^+$)	[M1,E2]		0.34 *17*	α(K)=0.26 *16*; α(L)=0.062 *6*; α(M)=0.0150 *7*; α(N+..)=0.0044 *3* α(N)=0.00370 *18*; α(O)=0.00063 *7*; α(P)=2.8×10^{-5} *19*
251.3 *4*	14.0[‡] *14*	260.49	3/2$^-$	9.27	3/2$^-$	M1+E2[c]	−13[c] *+4−11*	0.172 *4*	α(K)=0.0972 *25*; α(L)=0.0561 *9*; α(M)=0.01418 *22*; α(N+..)=0.00404 *7* α(N)=0.00347 *6*; α(O)=0.000560 *9*; α(P)=9.6×10^{-6} *3* Mult.,δ: α(K)exp=0.12 (1979Be51) assuming 5% uncertainty yields δ=3.4 *3*.
252.2 *4*	6.8[‡] *7*	426.53	(9/2$^+$)	174.32	(11/2$^+$)	[M1]		0.491	α(K)=0.405 *6*; α(L)=0.0663 *10*; α(M)=0.01531 *23*; α(N+..)=0.00452 *7* α(N)=0.00379 *6*; α(O)=0.000682 *10*; α(P)=4.61×10^{-5} *7*
256.5 *4*	1.0 *4*	1101.65		845.0					
260.6 *3*	5.6 *4*	260.49	3/2$^-$	0.0	3/2$^-$	E0+M1+E2		≈3.9	Mult.: α(K)exp=3.4.

γ(^{187}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [&]	δ [b]	α [e]	$I_{(\gamma+ce)}$ [d]	Comments
										δ: %E0≈74 (1979Be51); X(E0/E2)=0.3 *+12−0.1* with δ=−0.6 *+4−5* for M1+E2 (1992Ro15); penetration parameter λ≈−80 with δ=−0.41 *16* or λ≈213 with δ=−0.96 *17* (1992Ro15). α: ≈3.9 – Estimated by the evaluator using δ=−0.6 *+4−5* and the Ω(E0) values for K,L1,L2 shells (obtained using Bricc).
262.7 *4*	2.5 *2*	288.33	5/2⁻	25.53	(5/2⁻)	E0+M1+E2		≈6.3		Mult.: α(K)exp=5.4 (1979Be51); α(K)exp=5.7 *14* (1983Gn01). δ: %E0≈83 (1979Be51); X(E0/E2)>0.17 with δ^2<5 (1992Ro15); penetration parameter λ<−80 or>160 (1992Ro15). α: ≈6.3 – Estimated by the evaluator using δ≈2.2 and the Ω(E0) values for K,L1,L2 shells (obtained using Bricc).
270.8 *5*	0.9 *2*	781.28	3/2⁻	510.42		[M1,E2]		0.27 *14*		α(K)=0.21 *13*; α(L)=0.048 *7*; α(M)=0.0116 *11*; α(N+..)=0.0034 *4* α(N)=0.0028 *3*; α(O)=0.00049 *8*; α(P)=2.3×10^{-5} *15*
278.8 *4*	2.0 *2*	288.33	5/2⁻	9.27	3/2⁻	[M1]		0.373		α(K)=0.308 *5*; α(L)=0.0503 *8*; α(M)=0.01161 *17*; α(N+..)=0.00343 *5* α(N)=0.00287 *5*; α(O)=0.000517 *8*; α(P)=3.50×10^{-5} *5*
[x]280.6 *4*	1.0 *2*									
284.5 *4*	2.0 *2*	572.79	(1/2⁻,3/2⁻)	288.33	5/2⁻	[M1,E2]		0.23 *12*		α(K)=0.18 *11*; α(L)=0.041 *7*; α(M)=0.0098 *12*; α(N+..)=0.0029 *4* α(N)=0.0024 *3*; α(O)=0.00042 *8*; α(P)=2.0×10^{-5} *13*
288.2 *4*	1.9 *2*	288.33	5/2⁻	0.0	3/2⁻	M1+E2		0.23 *12*		α(K)=0.17 *11*; α(L)=0.039 *7*; α(M)=0.0094 *12*; α(N+..)=0.0027 *4* α(N)=0.0023 *3*; α(O)=0.00040 *8*; α(P)=1.9×10^{-5} *13* Mult.: α(K)exp≈0.2.
294.9 *3*	4.5 *3*	883.17	5/2⁺	588.05	7/2⁺	M1+E2		0.21 *11*		α(K)=0.16 *10*; α(L)=0.037 *7*; α(M)=0.0088 *12*; α(N+..)=0.0025 *4* α(N)=0.0022 *3*; α(O)=0.00037 *8*; α(P)=1.8×10^{-5} *12* Mult.: α(K)exp=0.2.
306.8 *5*	0.9 *2*	781.28	3/2⁻	474.42		[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* α(N)=0.0019 *3*; α(O)=0.00033 *7*; α(P)=1.6×10^{-5} *11*
312.1 *4*	3.8 *3*	572.79	(1/2⁻,3/2⁻)	260.49	3/2⁻	[M1]		0.274		α(K)=0.226 *4*; α(L)=0.0369 *6*; α(M)=0.00852 *13*; α(N+..)=0.00251 *4* α(N)=0.00211 *3*; α(O)=0.000379 *6*; α(P)=2.57×10^{-5} *4*
317.5 *3*	2.9 *3*	507.92	1/2⁻	190.43	3/2⁻	[M1,E2]		0.17 *9*		α(K)=0.13 *9*; α(L)=0.029 *7*; α(M)=0.0069 *12*; α(N+..)=0.0020 *4* α(N)=0.0017 *3*; α(O)=0.00030 *7*; α(P)=1.5×10^{-5} *10*
334.1 *4*	0.8 *3*	1179.1		845.0						
345.8 *3*	4.1 *3*	588.05	7/2⁺	242.36	(9/2⁺)	M1+E2	1.5 *3*	0.109 *15*		α(K)=0.083 *14*; α(L)=0.0202 *12*; α(M)=0.00487 *25*; α(N+..)=0.00141 *8*

γ(^{187}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[e]	Comments
									α(N)=0.00120 *6*; α(O)=0.000205 *13*; α(P)=9.0×10^{-6} *16* Mult.: α(K)exp=0.08 (1986RoZI); α(K)exp≈0.2 (1979Be51).
351.7 *3*	11.7 *6*	426.34	(3/2$^-$)	74.57	3/2$^-$	M1+E2[c]	+0.22[c] *4*	0.192 *4*	α(K)=0.158 *3*; α(L)=0.0262 *5*; α(M)=0.00605 *10*; α(N+..)=0.00178 *3* α(N)=0.001496 *24*; α(O)=0.000269 *5*; α(P)=1.79×10^{-5} *4* Mult.: α(K)exp=0.13.
354.9 *4*	4.2 *4*	781.28	3/2$^-$	426.34	(3/2$^-$)	[M1,E2]		0.13 *7*	α(K)=0.10 *6*; α(L)=0.021 *6*; α(M)=0.0049 *11*; α(N+..)=0.0014 *4* α(N)=0.0012 *3*; α(O)=0.00021 *6*; α(P)=1.1×10^{-5} *7*
^{x}356.1 *4*	1.1 *1*								
369.2 *3*	10.2 *7*	426.34	(3/2$^-$)	57.11	7/2$^-$	E2		0.0544	α(K)=0.0368 *6*; α(L)=0.01333 *19*; α(M)=0.00330 *5*; α(N+..)=0.000947 *14* α(N)=0.000810 *12*; α(O)=0.0001338 *20*; α(P)=3.79×10^{-6} *6* Mult.: α(K)exp=0.04 (1979Be51); α(K)exp=0.04 *2* (1983Gn01).
374.5 *4*	5.3[‡] *5*	635.02	3/2$^-$	260.49	3/2$^-$	M1+E2[c]	+0.52[c] *10*	0.143 *8*	α(K)=0.117 *7*; α(L)=0.0204 *7*; α(M)=0.00475 *15*; α(N+..)=0.00140 *5* α(N)=0.00117 *4*; α(O)=0.000209 *8*; α(P)=1.31×10^{-5} *8* Mult.: α(K)exp<0.07.
375.1 *4*	6.6 *7*	426.34	(3/2$^-$)	51.23	(1/2,3/2)$^-$	(M1+E2)	≈4.6	≈0.0572	α(K)≈0.0400; α(L)≈0.01306; α(M)≈0.00321; α(N+..)≈0.000924 α(N)≈0.000789; α(O)≈0.0001313; α(P)≈4.20×10^{-6} Mult.: α(K)exp=0.04 *3* (1983Gn01).
^{x}379.9 *4*	1.1 *2*								
382.4 *5*	0.9 *2*	572.79	(1/2$^-$,3/2$^-$)	190.43	3/2$^-$	[M1]		0.1587	α(K)=0.1311 *19*; α(L)=0.0213 *3*; α(M)=0.00490 *7*; α(N+..)=0.001446 *21* α(N)=0.001213 *18*; α(O)=0.000218 *4*; α(P)=1.481×10^{-5} *22*
390.5 *3*	21.9 *15*	632.88	(5/2$^+$,7/2$^+$)	242.36	(9/2$^+$)	E2		0.0467	α(K)=0.0322 *5*; α(L)=0.01099 *16*; α(M)=0.00271 *4*; α(N+..)=0.000779 *11* α(N)=0.000665 *10*; α(O)=0.0001104 *16*; α(P)=3.34×10^{-6} *5* Mult.: α(K)exp=0.032.
^{x}398.9 *4*	1.1 *2*								
400.8 *4*	9.7 *11*	426.34	(3/2$^-$)	25.53	(5/2$^-$)	M1+E2[c]	−0.37[c] *7*	0.128 *5*	α(K)=0.105 *4*; α(L)=0.0177 *5*; α(M)=0.00410 *10*; α(N+..)=0.00121 *3* α(N)=0.001013 *24*; α(O)=0.000181 *5*; α(P)=1.19×10^{-5} *5* δ: or −7 +2−6 (1992Ro15); Other: 1.1 *4* from α(K)exp=0.07 *2*. Mult.: α(K)exp=0.07 *2* (1983Gn01); α(K)exp=0.07 (1979Be51).

$^{187}_{78}$Pt$_{109}$-11

γ(^{187}Pt) (continued)

$E_γ$ [†]	$I_γ$ [†d]	E_i(level)	$J^π_i$	E_f	$J^π_f$	Mult. [&]	δ [b]	α [e]	Comments
405.9 *4*	3.8 *3*	480.65	(1/2⁻,3/2⁻)	74.57	3/2⁻	M1		0.1353	α(K)=0.1118 *16*; α(L)=0.0181 *3*; α(M)=0.00417 *6*; α(N+..)=0.001232 *18* α(N)=0.001033 *15*; α(O)=0.000186 *3*; α(P)=1.262×10^{-5} *18* Mult.: α(K)exp=0.12 (1986RoZI).
408.7 *4*	1.8 *2*	599.11	(5/2⁻)	190.43	3/2⁻	[M1]		0.1329	α(K)=0.1098 *16*; α(L)=0.0178 *3*; α(M)=0.00410 *6*; α(N+..)=0.001209 *18* α(N)=0.001014 *15*; α(O)=0.000183 *3*; α(P)=1.239×10^{-5} *18*
413.7 *3*	6.2 *5*	588.05	7/2⁺	174.32	(11/2⁺)	(E2)		0.0400	α(K)=0.0281 *4*; α(L)=0.00905 *13*; α(M)=0.00222 *4*; α(N+..)=0.000640 *9* α(N)=0.000546 *8*; α(O)=9.10×10^{-5} *13*; α(P)=2.93×10^{-6} *5* Mult.: α(K)exp=0.06 (1986RoZI) implies M1+E2 (δ=1.2 *3*), decay scheme requires E2.
416.9 *4*	2.0 *2*	426.34	(3/2⁻)	9.27	3/2⁻	(M1+E2)	≈0.2	≈0.1227	α(K)≈0.1012; α(L)≈0.01654; α(M)≈0.00382; α(N+..)≈0.001126 α(N)≈0.000945; α(O)≈0.0001698; α(P)≈1.140×10^{-5} Mult.: α(K)exp=0.10.
417.2 *4*	4.7[‡] *5*	474.42		57.11	7/2⁻				
423.2 *4*	3.2 *3*	474.42		51.23	(1/2,3/2)⁻				
426.4 *3*	27.0 *14*	426.34	(3/2⁻)	0.0	3/2⁻	M1+E2[c]	+0.23[c] *3*	0.1146 *20*	α(K)=0.0945 *17*; α(L)=0.01547 *24*; α(M)=0.00357 *6*; α(N+..)=0.001054 *17* α(N)=0.000884 *14*; α(O)=0.0001589 *25*; α(P)=1.064×10^{-5} *19* Mult.: α(K)exp=0.11 (1979Be51); α(K)exp=0.09 *3* (1983Gn01).
429.4 *3*	9.0 *7*	480.65	(1/2⁻,3/2⁻)	51.23	(1/2,3/2)⁻	M1(+E2)	<0.8	0.101 *16*	α(K)=0.083 *14*; α(L)=0.0141 *15*; α(M)=0.0033 *4*; α(N+..)=0.00096 *10* α(N)=0.00081 *8*; α(O)=0.000144 *16*; α(P)=9.3×10^{-6} *16* Mult.: α(K)exp=0.09.
433.5 *4*	2.6 *4*	507.92	1/2⁻	74.57	3/2⁻	[M1]		0.1136	α(K)=0.0939 *14*; α(L)=0.01517 *22*; α(M)=0.00350 *5*; α(N+..)=0.001032 *15* α(N)=0.000866 *13*; α(O)=0.0001559 *23*; α(P)=1.058×10^{-5} *15*
435.8 *4*	1.0 *2*	510.42		74.57	3/2⁻				
444.7 *4*	0.9 *2*	635.02	3/2⁻	190.43	3/2⁻	[M1,E2]		0.07 *4*	α(K)=0.06 *4*; α(L)=0.011 *4*; α(M)=0.0025 *8*; α(N+..)=0.00073 *23* α(N)=0.00062 *19*; α(O)=0.00011 *4*; α(P)=6.E−6 *4*
448.7 *4*	4.3 *3*	474.42		25.53	(5/2⁻)				
450.5 *4*	2.2 *3*	525.06	(3/2⁻)	74.57	3/2⁻	[M1]		0.1026	α(K)=0.0848 *12*; α(L)=0.01369 *20*; α(M)=0.00316 *5*; α(N+..)=0.000931 *14* α(N)=0.000781 *11*; α(O)=0.0001406 *20*; α(P)=9.55×10^{-6} *14*
450.7 *5*	1.0 *3*	507.92	1/2⁻	57.11	7/2⁻				
453.4 *4*	1.9 *2*	510.42		57.11	7/2⁻				
456.5 *4*	4.0[‡] *5*	507.92	1/2⁻	51.23	(1/2,3/2)⁻	M1		0.0991	α(K)=0.0819 *12*; α(L)=0.01322 *19*; α(M)=0.00305 *5*;

$^{187}_{78}$Pt$_{109}$-12

γ(^{187}Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[&]	δ[b]	α[e]	Comments
									α(N+..)=0.000899 13 α(N)=0.000754 11; α(O)=0.0001357 20; α(P)=9.22×10^{-6} 13 Mult.: α(K)exp=0.09 for doublet (1979Be51).
456.7 4	3.3[‡] 4	883.17	5/2$^+$	426.53	(9/2$^+$)	E2		0.0310	α(K)=0.0224 4; α(L)=0.00656 10; α(M)=0.001602 23; α(N+..)=0.000462 7 α(N)=0.000393 6; α(O)=6.60×10^{-5} 10; α(P)=2.35×10^{-6} 4 Mult.: From α(K)exp=0.02 1 (1983Gn01), Other: α(K)exp=0.09 for doublet (1979Be51).
465.3 4	1.0 3	474.42		9.27	3/2$^-$				
467.9 4	3.5[‡] 4	525.06	(3/2$^-$)	57.11	7/2$^-$	E2		0.0292	α(K)=0.0212 3; α(L)=0.00607 9; α(M)=0.001481 22; α(N+..)=0.000427 6 α(N)=0.000364 6; α(O)=6.12×10^{-5} 9; α(P)=2.22×10^{-6} 4 Mult.: α(K)exp≈0.023 (1979Be51).
468.8 4	4.5[‡d] 5	1101.65		632.88	(5/2$^+$,7/2$^+$)				
471.4 3	9.8 7	480.65	(1/2$^-$,3/2$^-$)	9.27	3/2$^-$	M1		0.0910	α(K)=0.0753 11; α(L)=0.01213 18; α(M)=0.00280 4; α(N+..)=0.000825 12 α(N)=0.000692 10; α(O)=0.0001246 18; α(P)=8.47×10^{-6} 12 Mult.: α(K)exp=0.08.
473.8 4	2.3[‡] 3	525.06	(3/2$^-$)	51.23	(1/2,3/2)$^-$	M1+E2	1.0 +4−3	0.059 11	α(K)=0.047 10; α(L)=0.0089 11; α(M)=0.00209 23; α(N+..)=0.00061 7 α(N)=0.00052 6; α(O)=9.1×10^{-5} 11; α(P)=5.3×10^{-6} 11 Mult.: α(K)exp=0.05.
474.3 4	3.2[‡] 4	474.42		0.0	3/2$^-$				
480.4 5	1.1 2	480.65	(1/2$^-$,3/2$^-$)	0.0	3/2$^-$	[M1,E2]		0.06 3	α(K)=0.05 3; α(L)=0.009 3; α(M)=0.0020 7; α(N+..)=0.00059 20 α(N)=0.00050 17; α(O)=9.E−5 4; α(P)=5.E−6 3
482.3 4	2.0[‡] 4	1114.9		632.88	(5/2$^+$,7/2$^+$)				
482.4 4	3.5[‡] 5	507.92	1/2$^-$	25.53	(5/2$^-$)	[E2]		0.0270	α(K)=0.0198 3; α(L)=0.00552 8; α(M)=0.001343 20; α(N+..)=0.000388 6 α(N)=0.000330 5; α(O)=5.56×10^{-5} 8; α(P)=2.08×10^{-6} 3
484.8 3	6.0 4	510.42		25.53	(5/2$^-$)				Mult.: α(K)exp=0.06.
492.9 4	2.2 5	781.28	3/2$^-$	288.33	5/2$^-$	[M1,E2]		0.05 3	α(K)=0.043 24; α(L)=0.008 3; α(M)=0.0019 7; α(N+..)=0.00055 19 α(N)=0.00046 16; α(O)=8.E−5 3; α(P)=5.E−6 3
498.2 4	1.5 3	688.68		190.43	3/2$^-$	[a]			
498.3 4	0.9 4	572.79	(1/2$^-$,3/2$^-$)	74.57	3/2$^-$	(M1+E2)[a]		>0.67	Mult.: α(K)exp>0.58 (1979Be51); α(K)exp=0.8 3 (1983Gn01); α(K)exp=1.7 for doublet (1986RoZI). 1979Be51 and 1983Gn01 expected E0 component (%E0≈60 (1979Be51)) for the 498γ due to high α(K)exp value. Either of the E0 component or abnormal

γ(^{187}Pt) (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [&]	δ [b]	α [e]	$I_{(\gamma+ce)}$ [d]	Comments
										M1 conversion in the mass region for this element is possible, however 1992Ro15 states it is difficult to determine unambiguously. Without a specific J^π assignment for this level, (M1+E2) is assigned by the evaluator. α: Estimated by the evaluator from α(K)exp>0.58.
498.6 *4*	0.9 *4*	507.92	1/2⁻	9.27	3/2⁻	(M1+E2) [a]		>1.1		E_γ: 498.8 keV in 1979Be51 and 1992Ro15. Mult.: α(K)exp>0.95 (1979Be51). E0+M1+E2 proposed by 1979Be51 and 1983Gn01, %E0≈60 (1979Be51). 1992Ro15 ruled out E0 component from the spin assignments and attributed the large α(K)exp to an anomaly in the M1 conversion. Other: α(K)exp=1.7 for doublet (1986RoZI). α: Estimated by the evaluator from α(K)exp>0.95.
500.1 *5*	2.9 *3*	525.06	(3/2⁻)	25.53	(5/2⁻)					
507.8 *4*	1.8 *3*	507.92	1/2⁻	0.0	3/2⁻					
515.8 *4*	4.5 *3*	525.06	(3/2⁻)	9.27	3/2⁻					
^{x}519.6 *4*	1.5 *3*									
521.6 *4*	3.3 *3*	572.79	(1/2⁻,3/2⁻)	51.23	(1/2,3/2)⁻					
524.5 *4*	2.4 *3*	599.11	(5/2⁻)	74.57	3/2⁻					
526.9 *4*	1.1 *2*	1114.9		588.05	7/2⁺					
^{x}530.3 *4*	1.4 *3*									
542.1 *3*	6.2 *4*	599.11	(5/2⁻)	57.11	7/2⁻	(M1+E2)	<0.8	0.055 *9*		α(K)=0.045 *8*; α(L)=0.0075 *9*; α(M)=0.00174 *20*; α(N+..)=0.00051 *6* α(N)=0.00043 *5*; α(O)=7.7×10⁻⁵ *10*; α(P)=5.0×10⁻⁶ *9* Mult.: α(K)exp=0.05 (1979Be51); α(K)exp=0.03 (1986RoZI).
546.3 *3*	10.5 *6*	620.77	(1/2⁻,3/2⁻)	74.57	3/2⁻	M1+E2	>0.7	0.034 *14*		α(K)=0.027 *13*; α(L)=0.0053 *15*; α(M)=0.0012 *4*; α(N+..)=0.00036 *10* α(N)=0.00031 *9*; α(O)=5.4×10⁻⁵ *16*; α(P)=3.0×10⁻⁶ *14* Mult.: α(K)exp=0.03 (1979Be51); α(K)exp=0.04 (1986RoZI).
547.6 *5*	1.6 *2*	599.11	(5/2⁻)	51.23	(1/2,3/2)⁻					
^{x}552.4 *3*	1.6 *3*									
559.8 *4*	21.0 *21*	1341.07	1/2⁺	781.28	3/2⁻	(E1)		0.00652 *10*		α=0.00652 *10*; α(K)=0.00544 *8*; α(L)=0.000832 *12*; α(M)=0.000190 *3*; α(N+..)=5.57×10⁻⁵ *8* α(N)=4.68×10⁻⁵ *7*; α(O)=8.31×10⁻⁶ *12*; α(P)=5.22×10⁻⁷ *8* Mult.: α(K)exp≈0.015, includes contamination from 560.5 transition.

$^{187}_{78}Pt_{109}$-14

$\gamma(^{187}Pt)$ (continued)

E_γ [†]	I_γ [†d]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[&]	δ[b]	α[e]	Comments
560.5 *4*	8.5 *9*	635.02	3/2⁻	74.57	3/2⁻				
563.5 *4*	6.0 *4*	572.79	(1/2⁻,3/2⁻)	9.27	3/2⁻				
578.0 *4*	3.5 *3*	635.02	3/2⁻	57.11	7/2⁻				
583.5 *5*	1.4 *4*	635.02	3/2⁻	51.23	(1/2,3/2)⁻	M1+E2	1.6 *4*	0.027 *5*	α(K)=0.021 *4*; α(L)=0.0042 *5*; α(M)=0.00099 *11*; α(N+..)=0.00029 *4* α(N)=0.00024 *3*; α(O)=4.3×10^{-5} *5*; α(P)=2.3×10^{-6} *5* Mult.: α(K)exp=0.2 (1986RoZI).
590.9 *3*	7.1 *5*	781.28	3/2⁻	190.43	3/2⁻	M1+E2[c]	+56[c] *+40−16*	0.01668	α(K)=0.01272 *18*; α(L)=0.00302 *5*; α(M)=0.000726 *11*; α(N+..)=0.000211 *3* α(N)=0.000179 *3*; α(O)=3.05×10^{-5} *5*; α(P)=1.346×10^{-6} *19* Mult.: α(K)exp=0.022 (1979Be51); α(K)exp=0.03 (19986RoZI). δ: α(K)exp=0.022 gives $\delta\approx$1.5.
595.3 *4*	4.3 *3*	620.77	(1/2⁻,3/2⁻)	25.53	(5/2⁻)	M1+E2	1.3 *+6−4*	0.029 *6*	α(K)=0.023 *6*; α(L)=0.0043 *7*; α(M)=0.00101 *15*; α(N+..)=0.00029 *5* α(N)=0.00025 *4*; α(O)=4.4×10^{-5} *7*; α(P)=2.5×10^{-6} *6* Mult.: α(K)exp=0.024.
599.1 *3*	2.0 *2*	599.11	(5/2⁻)	0.0	3/2⁻				
602.5 *3*	2.2 *2*	845.0		242.36	(9/2⁺)				
609.5 *3*	4.4 *5*	635.02	3/2⁻	25.53	(5/2⁻)	M1+E2[c]	−0.66[c] *+19−23*	0.037 *5*	α(K)=0.030 *4*; α(L)=0.0051 *5*; α(M)=0.00119 *11*; α(N+..)=0.00035 *4* α(N)=0.00029 *3*; α(O)=5.2×10^{-5} *5*; α(P)=3.4×10^{-6} *5* Mult.: α(K)exp=0.036 (1979Be51); α(K)exp=0.017 (1986RoZI). δ: or −2.6 *+8−18* (1992Ro15). $\delta\approx$0.3 from α(K)exp=0.036.
611.3 *4*	2.0 *3*	620.77	(1/2⁻,3/2⁻)	9.27	3/2⁻				
614.1 *4*	4.0 *3*	688.68		74.57	3/2⁻				
620.8 *3*	25.6 *15*	620.77	(1/2⁻,3/2⁻)	0.0	3/2⁻	M1+E2	<1.5	0.034 *11*	α(K)=0.028 *9*; α(L)=0.0047 *12*; α(M)=0.00110 *25*; α(N+..)=0.00032 *8* α(N)=0.00027 *7*; α(O)=4.9×10^{-5} *12*; α(P)=3.1×10^{-6} *10* δ: +0.24 *3* if J(620)=3/2, 0 ±1.5 if J(620)=1/2 (1992Ro15). Mult.: α(K)exp=0.030 (1979Be51); α(K)exp=0.032 (1986RoZI).
625.8 *4*	1.3 *4*	635.02	3/2⁻	9.27	3/2⁻				
635.0 *3*	15.2 *9*	635.02	3/2⁻	0.0	3/2⁻	M1+E2[c]	+0.51[c] *6*	0.0361 *12*	α(K)=0.0297 *11*; α(L)=0.00490 *14*; α(M)=0.00113 *3*; α(N+..)=0.000333 *10* α(N)=0.000280 *8*; α(O)=5.02×10^{-5} *15*; α(P)=3.31×10^{-6} *12* Mult.: α(K)exp=0.028 (1979Be51); α(K)exp=0.036 (1986RoZI).

$^{187}_{78}Pt_{109}$-15

γ(^{187}Pt) (continued)

E_γ†	I_γ†d	E_i(level)	J^π_i	E_f	J^π_f	Mult.&	δb	αe	Comments
x640.0 5	1.5 3								
x642.8 5	2.1 4								
663.2 4	2.4 4	688.68		25.53	(5/2−)				
683.3 4	3.6 4	1304.09		620.77	(1/2−,3/2−)				
688.6 4	1.4 4	688.68		0.0	3/2−				
697.1 4	2.0 4	1478.02	3/2+	781.28	3/2−				
706.0 3	22.0‡ 15	1341.07	1/2+	635.02	3/2−	E1		0.00409 6	α=0.00409 6; α(K)=0.00342 5; α(L)=0.000514 8; α(M)=0.0001173 17; α(N+..)=3.44×10^{-5} 5 α(N)=2.89×10^{-5} 4; α(O)=5.15×10^{-6} 8; α(P)=3.32×10^{-7} 5 Mult.: α(K)exp=0.0034 (1979Be51); α(K)exp=0.0034 (1986RoZI).
706.7 4	8.0‡ 12	781.28	3/2−	74.57	3/2−				
708.0 4	2.0 4	1341.07	1/2+	632.88	(5/2+,7/2+)				
720.4 3	18.1 13	1341.07	1/2+	620.77	(1/2−,3/2−)	E1		0.00393 6	α=0.00393 6; α(K)=0.00329 5; α(L)=0.000493 7; α(M)=0.0001126 16; α(N+..)=3.30×10^{-5} 5 α(N)=2.77×10^{-5} 4; α(O)=4.94×10^{-6} 7; α(P)=3.19×10^{-7} 5 Mult.: α(K)exp<0.006 (1979Be51); α(K)exp<0.003 (1986RoZI).
724.3 4	1.4 2	781.28	3/2−	57.11	7/2−				
730.3 4	8.5 7	781.28	3/2−	51.23	(1/2,3/2)−	M1+E2c	<3.5c	0.020 9	α(K)=0.017 8; α(L)=0.0029 10; α(M)=0.00066 23; α(N+..)=0.00019 7 α(N)=0.00016 6; α(O)=2.9×10^{-5} 11; α(P)=1.8×10^{-6} 9 δ: +1.8 +3−2 or −0.01 6 if J(51.2)=1/2; +2.3 +12−6 or +0.78 +25−19 if J(51.2)=3/2 (1992Ro15). δ≈0.4 from α(K)exp=0.02. Mult.: α(K)exp=0.02 (1979Be51); α(K)exp=0.019 (1986RoZI).
x752.9 4	2.2 3								
768.2 4	2.1 4	1341.07	1/2+	572.79	(1/2−,3/2−)				
772.0 4	2.5 4	781.28	3/2−	9.27	3/2−				
781.3 4	2.6 3	781.28	3/2−	0.0	3/2−				
798.9 4	2.5 3	1433.76	3/2+	635.02	3/2−				
801.0 4	1.0 3	1433.76	3/2+	632.88	(5/2+,7/2+)				
830.6 4	1.0 3	1341.07	1/2+	510.42					
833.4 3	19.9 12	1341.07	1/2+	507.92	1/2−	E1		0.00297 5	α=0.00297 5; α(K)=0.00249 4; α(L)=0.000370 6; α(M)=8.44×10^{-5} 12; α(N+..)=2.47×10^{-5} 4 α(N)=2.08×10^{-5} 3; α(O)=3.71×10^{-6} 6; α(P)=2.43×10^{-7} 4 Mult.: α(K)exp=0.0025 (1986RoZI); Others: α(K)exp<0.003 (1983Gn01), α(K)exp=0.008 (1979Be51).
843.0 4	2.1 3	1478.02	3/2+	635.02	3/2−				
845.4 4	1.2 3	1478.02	3/2+	632.88	(5/2+,7/2+)				
x856.2 3	1.4 2								
861.0 4	2.0 4	1433.76	3/2+	572.79	(1/2−,3/2−)				
x872.8 4	1.3 2								α(K)exp=0.019 (1986RoZI).
890.4 4	1.0 2	1478.02	3/2+	588.05	7/2+				
x897.3 4	1.3 2								

From ENSDF

γ(^{187}Pt) (continued)

Eγ†	Iγ†d	Ei(level)	$J^π_i$	E_f	$J^π_f$	Mult.&	α e	Comments
901.8 4	1.2 3	1328.29	1/2+,3/2+	426.34	(3/2−)			
908.7 4	2.3 3	1335.0		426.34	(3/2−)			
913.6 4	1.5 3	1388.07		474.42				
914.6 3	43.2 17	1341.07	1/2+	426.34	(3/2−)	E1	0.00250 4	α=0.00250 4; α(K)=0.00210 3; α(L)=0.000309 5; α(M)=7.05×10^{-5} 10; α(N+..)=2.07×10^{-5} 3 α(N)=1.737×10^{-5} 25; α(O)=3.11×10^{-6} 5; α(P)=2.05×10^{-7} 3 Mult.: α(K)exp=0.0025 (1986RoZI); Other: α(K)exp<0.005 (1979Be51).
924.4 4	4.8 5	1398.8		474.42				Mult.: α(K)exp=0.02.
926.3 4	1.5 3	2027.98		1101.65				
937.8 3	4.7 4	1570.7		632.88	(5/2+,7/2+)			
959.2 4	1.5 3	1433.76	3/2+	474.42				
959.5 4	5.0 5	968.7		9.27	3/2−			
x963.5 4	1.5 3							
968.7 4	3.1 3	968.7		0.0	3/2−			
992.8 5	1.8 4	2094.65		1101.65				
997.4 4	1.0 3	1478.02	3/2+	480.65	(1/2−,3/2−)			
x1002.9 3	1.2 2							
1007.5 4	2.0 2	1433.76	3/2+	426.34	(3/2−)			
x1015.2 4	1.5 2							
x1056.2 4	1.5 2							
x1065.6 5	1.6 3							
1067.8 5	1.6 2	1328.29	1/2+,3/2+	260.49	3/2−			
1080.4 4	4.3 4	1341.07	1/2+	260.49	3/2−			
x1085.6 4	1.2 3							
x1113.9 5	2.7 3							
x1124.6 4	2.5 3							
1151.0 5	1.0 3	1341.07	1/2+	190.43	3/2−			
x1160.8 3	1.6 2							
x1168.8 4	1.1 2							
1171.6 3	5.5 3	1598.0		426.34	(3/2−)			
x1178.8 3	1.8 2							
1189.4 3	13.2 7	1478.02	3/2+	288.33	5/2−	E1		Mult.: α(K)exp=0.0019 (1986RoZI).
x1205.4 4	1.7 3							
1211.3 4	1.5 2	2094.65		883.17	5/2+			
x1217.8 3	2.6 3							
1229.2 4	1.3 2	1304.09		74.57	3/2−			
x1243.0 3	1.4 2							
1253.2 4	2.4 2	1304.09		51.23	(1/2,3/2)−			
x1263.2 4	1.6 3							
1266.5 3	34.4 21	1341.07	1/2+	74.57	3/2−	E1	0.001433 20	α=0.001433 20; α(K)=0.001171 17; α(L)=0.0001699 24; α(M)=3.86×10^{-5} 6; α(N+..)=5.35×10^{-5}

From ENSDF

$\gamma(^{187}$Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J_i^π	E_f	J_f^π	Mult. &	α e	Comments
								α(N)=9.52×10^{-6} *14*; α(O)=1.709×10^{-6} *24*; α(P)=1.156×10^{-7} *17*; α(IPF)=4.21×10^{-5} *6* Mult.: α(K)exp=0.001 (1979Be51); α(K)exp=0.001 (1986RoZI).
1277.2 *4*	2.7 *3*	1328.29	1/2$^+$,3/2$^+$	51.23	(1/2,3/2)$^-$			
1289.7 *4*	1.9 *3*	1341.07	1/2$^+$	51.23	(1/2,3/2)$^-$			
1290.6 *5*	1.5 *3*	1364.90		74.57	3/2$^-$			
1313.9 *4*	3.3 *5*	1364.90		51.23	(1/2,3/2)$^-$			
1319.0 *3*	25.7 *13*	1328.29	1/2$^+$,3/2$^+$	9.27	3/2$^-$	E1	0.001361 *19*	α=0.001361 *19*; α(K)=0.001091 *16*; α(L)=0.0001581 *23*; α(M)=3.59×10^{-5} *5*; α(N+..)=7.61×10^{-5} α(N)=8.86×10^{-6} *13*; α(O)=1.590×10^{-6} *23*; α(P)=1.078×10^{-7} *16*; α(IPF)=6.56×10^{-5} *10* Mult.: α(K)exp<0.0014.
1328.0 *4*	1.5 *5*	2016.77	(3/2$^+$,5/2$^+$)	688.68				
1328.3 *4*	1.5 *5*	1328.29	1/2$^+$,3/2$^+$	0.0	3/2$^-$			
1331.9 *3*	100 *5*	1341.07	1/2$^+$	9.27	3/2$^-$	E1	0.001346 *19*	α=0.001346 *19*; α(K)=0.001073 *15*; α(L)=0.0001554 *22*; α(M)=3.53×10^{-5} *5*; α(N+..)=8.26×10^{-5} α(N)=8.71×10^{-6} *13*; α(O)=1.563×10^{-6} *22*; α(P)=1.061×10^{-7} *15*; α(IPF)=7.22×10^{-5} *11* Mult.: α(K)exp=0.001 (1979Be51); α(K)exp=0.001 (1986RoZI).
1339.3 *4*	2.0 *3*	2027.98		688.68				
1341.0 *4*	2.0 *4*	1341.07	1/2$^+$	0.0	3/2$^-$			
^{x}1345.5 *3*	3.4 *5*							
1355.4 *4*	4.1 *6*	1364.90		9.27	3/2$^-$			
1359.0 *4*	10.2 *6*	1433.76	3/2$^+$	74.57	3/2$^-$			
1364.7 *4*	1.7 *2*	1364.90		0.0	3/2$^-$			
1379.2 *4*	5.2 *5*	1388.07		9.27	3/2$^-$			
1383.6 *4*	4.8 *4*	2016.77	(3/2$^+$,5/2$^+$)	632.88	(5/2$^+$,7/2$^+$)			
1387.7 *4*	1.8 *3*	1388.07		0.0	3/2$^-$			
1403.3 *5*	2.3 *4*	1478.02	3/2$^+$	74.57	3/2$^-$			
1408.1 *4*	43.7 *31*	1433.76	3/2$^+$	25.53	(5/2$^-$)	E1	0.001275 *18*	α=0.001275 *18*; α(K)=0.000976 *14*; α(L)=0.0001409 *20*; α(M)=3.20×10^{-5} *5*; α(N+..)=0.000126 α(N)=7.89×10^{-6} *11*; α(O)=1.418×10^{-6} *20*; α(P)=9.65×10^{-8} *14*; α(IPF)=0.0001172 *17* Mult.: α(K)exp=0.001.
1417.6 *4*	6.2 *6*	2016.77	(3/2$^+$,5/2$^+$)	599.11	(5/2$^-$)			
1424.5 *5*	3.0 *3*	1433.76	3/2$^+$	9.27	3/2$^-$			
1426.6 *4*	7.1 *6*	1478.02	3/2$^+$	51.23	(1/2,3/2)$^-$			
^{x}1429.7 *4*	2.2 *3*							
1433.8 *3*	11.7 *7*	1433.76	3/2$^+$	0.0	3/2$^-$			
1439.4 *4*	1.3 *2*	2038.62		599.11	(5/2$^-$)			
1449.0 *4*	1.5 *3*	2082.06		632.88	(5/2$^+$,7/2$^+$)			
1452.3 *4*	20.5 *12*	1478.02	3/2$^+$	25.53	(5/2$^-$)			
1461.8 *5*	2.0 *5*	2094.65		632.88	(5/2$^+$,7/2$^+$)			
1477.9 *4*	2.8 *3*	1478.02	3/2$^+$	0.0	3/2$^-$			

γ(^{187}Pt) (continued)

E_γ †	I_γ †d	E_i(level)	J^π_i	E_f	J^π_f	Comments
1483.0 4	1.5 3	2082.06		599.11	(5/2$^-$)	
1491.9 4	5.5 5	2016.77	(3/2$^+$,5/2$^+$)	525.06	(3/2$^-$)	
1502.9 4	3.1 3	2027.98		525.06	(3/2$^-$)	
1509.0 4	1.9 3	2016.77	(3/2$^+$,5/2$^+$)	507.92	1/2$^-$	
1519.6 4	1.9 3	2027.98		507.92	1/2$^-$	
1535.8 4	1.7 2	2016.77	(3/2$^+$,5/2$^+$)	480.65	(1/2$^-$,3/2$^-$)	
1547.1 5	1.2 3	2027.98		480.65	(1/2$^-$,3/2$^-$)	
1573.9 4	1.8 3	2082.06		507.92	1/2$^-$	
1584.2 4	2.3 3	2094.65		510.42		
1586.4 5	1.4 3	2094.65		507.92	1/2$^-$	
1598.1 5	1.2 3	1598.0		0.0	3/2$^-$	
1601.8 4	2.4 3	2027.98		426.34	(3/2$^-$)	
1612.3 4	2.4 3	2038.62		426.34	(3/2$^-$)	
^{x}1643.6 5	2.2 3					
^{x}1666.8 4	2.2 3					
1726.8 3	2.6	1777.86		51.23	(1/2,3/2)$^-$	E_γ,I_γ: From 1986RoZI. Iγ normalized to Iγ=100 (1341γ).
^{x}1727.2 4	2.7 4					
1728.2 4	3.7 4	2016.77	(3/2$^+$,5/2$^+$)	288.33	5/2$^-$	
1750.2 4	2.1 2	2038.62		288.33	5/2$^-$	
1756.4 4	10.3 6	2016.77	(3/2$^+$,5/2$^+$)	260.49	3/2$^-$	
1767.6 5	5.3 4	2027.98		260.49	3/2$^-$	
1768.4 3	2.7	1777.86		9.27	3/2$^-$	E_γ,I_γ: From 1986RoZI. Iγ normalized to Iγ=100 (1341γ).
1778.2 4	6.1 4	2038.62		260.49	3/2$^-$	
1806.2 4	6.4 4	2094.65		288.33	5/2$^-$	
1821.8 4	2.5 3	2082.06		260.49	3/2$^-$	
1826.1 4	3.0 3	2016.77	(3/2$^+$,5/2$^+$)	190.43	3/2$^-$	
1834.6 4	2.1 4	1886.0		51.23	(1/2,3/2)$^-$	
1837.8 5	2.3 4	2027.98		190.43	3/2$^-$	
^{x}1844.1 3	4.0 8					
1848.0 4	3.6 4	2038.62		190.43	3/2$^-$	
1876.8 4	3.0 4	1886.0		9.27	3/2$^-$	
1882.2 5	2.0 3	1891.3		9.27	3/2$^-$	
1891.2 4	3.5 3	1891.3		0.0	3/2$^-$	
1904.3 4	3.5 4	2094.65		190.43	3/2$^-$	
1910.1 3	7.2 5	2170.46		260.49	3/2$^-$	
1961.1 4	4.8 5	1970.4		9.27	3/2$^-$	
1964.3 3	13.0 8	2038.62		74.57	3/2$^-$	
1970.4 4	2.0 3	1970.4		0.0	3/2$^-$	
1987.3 3	14.8 9	2038.62		51.23	(1/2,3/2)$^-$	
1991.4 4	16.9 10	2016.77	(3/2$^+$,5/2$^+$)	25.53	(5/2$^-$)	
2002.5 4	2.1 2	2027.98		25.53	(5/2$^-$)	
2007.8 4	8.3 5	2016.77	(3/2$^+$,5/2$^+$)	9.27	3/2$^-$	
2017.0 4	11.2 7	2016.77	(3/2$^+$,5/2$^+$)	0.0	3/2$^-$	

$\gamma(^{187}$Pt) (continued)

E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π	E_γ[†]	I_γ[†d]	E_i(level)	J_i^π	E_f	J_f^π
2020.2 *4*	3.2 *3*	2094.65		74.57	3/2$^-$	2069.2 *4*	4.3 *3*	2094.65		25.53	(5/2$^-$)	2106.7 *4*	2.1 *4*	2157.9		51.23	(1/2,3/2)$^-$
2028.1 *4*	2.0 *3*	2027.98		0.0	3/2$^-$	2073.0 *5*	1.3 *2*	2082.06		9.27	3/2$^-$	2161.0 *4*	1.0 *3*	2170.46		9.27	3/2$^-$
2030.7 *3*	14.2 *9*	2082.06		51.23	(1/2,3/2)$^-$	2082.2 *5*	1.5 *3*	2082.06		0.0	3/2$^-$	2519.6 *4*	1.1 *2*	2570.9		51.23	(1/2,3/2)$^-$
2038.5 *5*	1.4 *2*	2038.62		0.0	3/2$^-$	2085.7 *4*	11.4 *7*	2094.65		9.27	3/2$^-$	2561.3 *5*	0.7 *2*	2570.9		9.27	3/2$^-$
2056.6 *4*	13.9 *8*	2082.06		25.53	(5/2$^-$)	2095.8 *4*	2.4 *3*	2170.46		74.57	3/2$^-$	2571.2 *5*	2.5 *4*	2570.9		0.0	3/2$^-$

[†] From 1983Gn01.

[‡] From analysis of coincidence data.

[#] From ce intensities renormalized to γ data of 1983Gn01.

[@] From intensity balance.

[&] From α(K)exp data of 1979Be51, except otherwise noted. The evaluator has assigned a 20% uncertainty to the ce intensities (50% uncertainty for approximate values) for determining mixing ratios. For multipolarity assignment, 1983Gn01 relies on the ce values of 1979Be51 (high resolution). The 1983Gn01 ce data are in good agreement with 1979Be51. Only a couple of α(K)exp values are listed along with 1979Be51 α(K)exp values here to show the agreement. α(K)exp data are from 1979Be51, except noted.

[a] Transitions at 498.2 and 498.8 keV were observed with E0 admixture (1979Be51). Three gammas at 498.2, 498.3, and 498.6 keV were identified by 1983Gn01. The two higher-energy transitions were assumed by 1983Gn01 to contain the E0 admixture although there is no apparent reason to exclude the 498.2 transition.

[b] Deduced by the evaluator from 1979Be51 and 1983Gn01 α(K)exp data, except otherwise noted.

[c] Deduced from $\gamma\gamma(\theta)$ correlation coefficient A2 and A4 (1992Ro15). Sign was changed by the evaluator to follow the phase convention of Krane and Steffen (1970Kr03).

[d] For absolute intensity per 100 decays, multiply by ≈0.09.

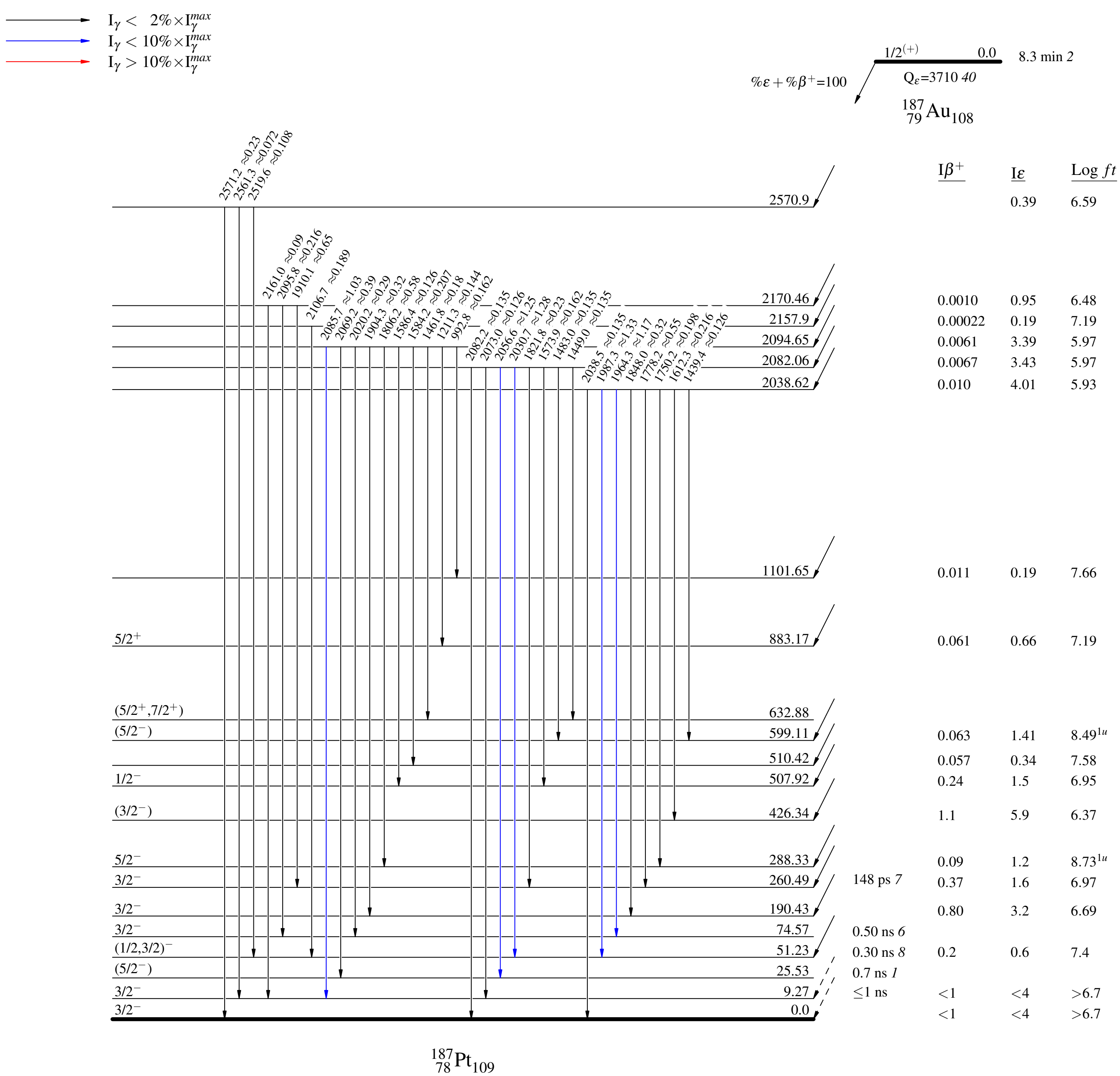
[e] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

[x] γ ray not placed in level scheme.

^{187}Au ε decay 1983Gn01,1992Ro15

Decay Scheme

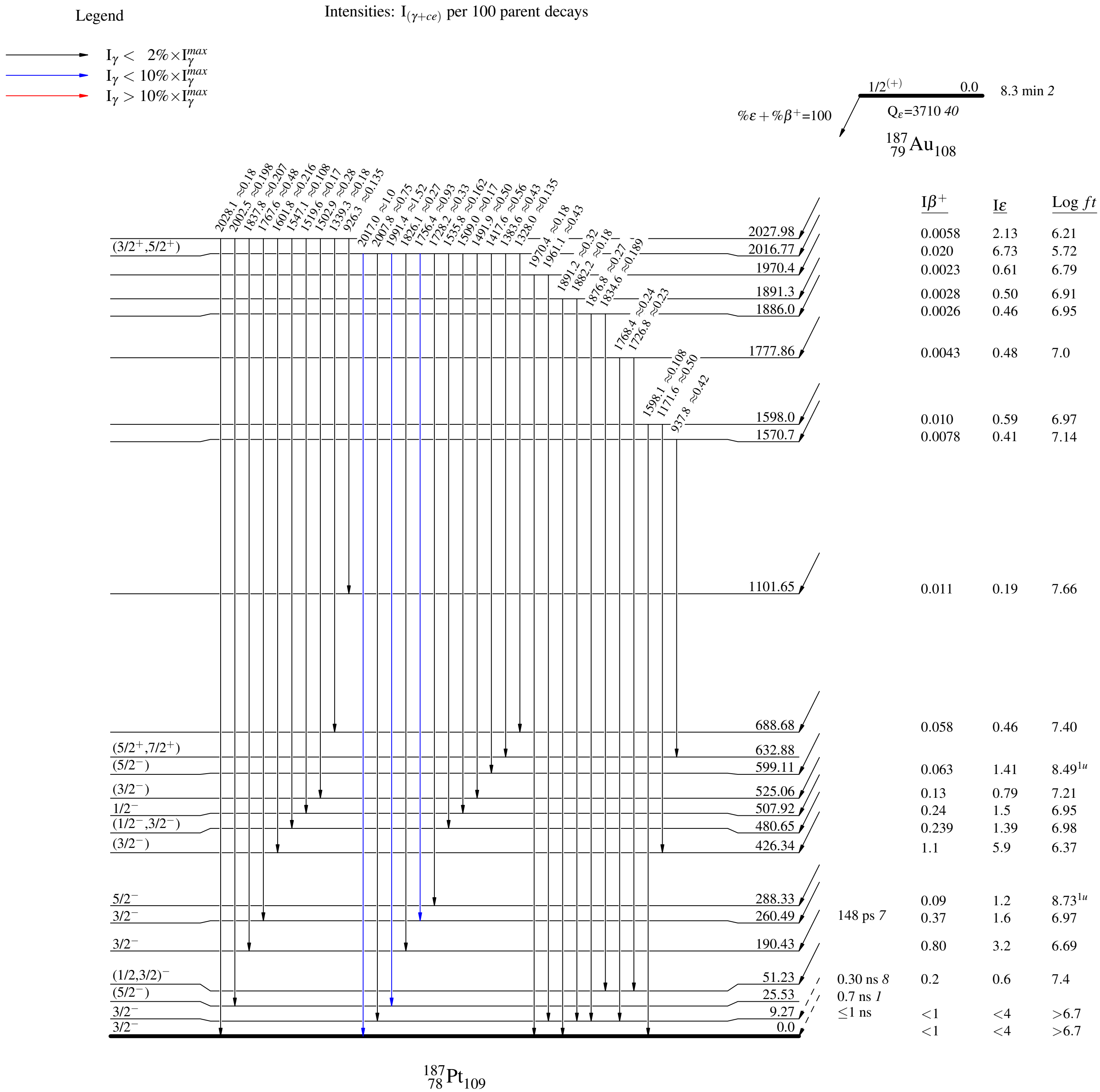
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{187}Au ε decay 1983Gn01,1992Ro15

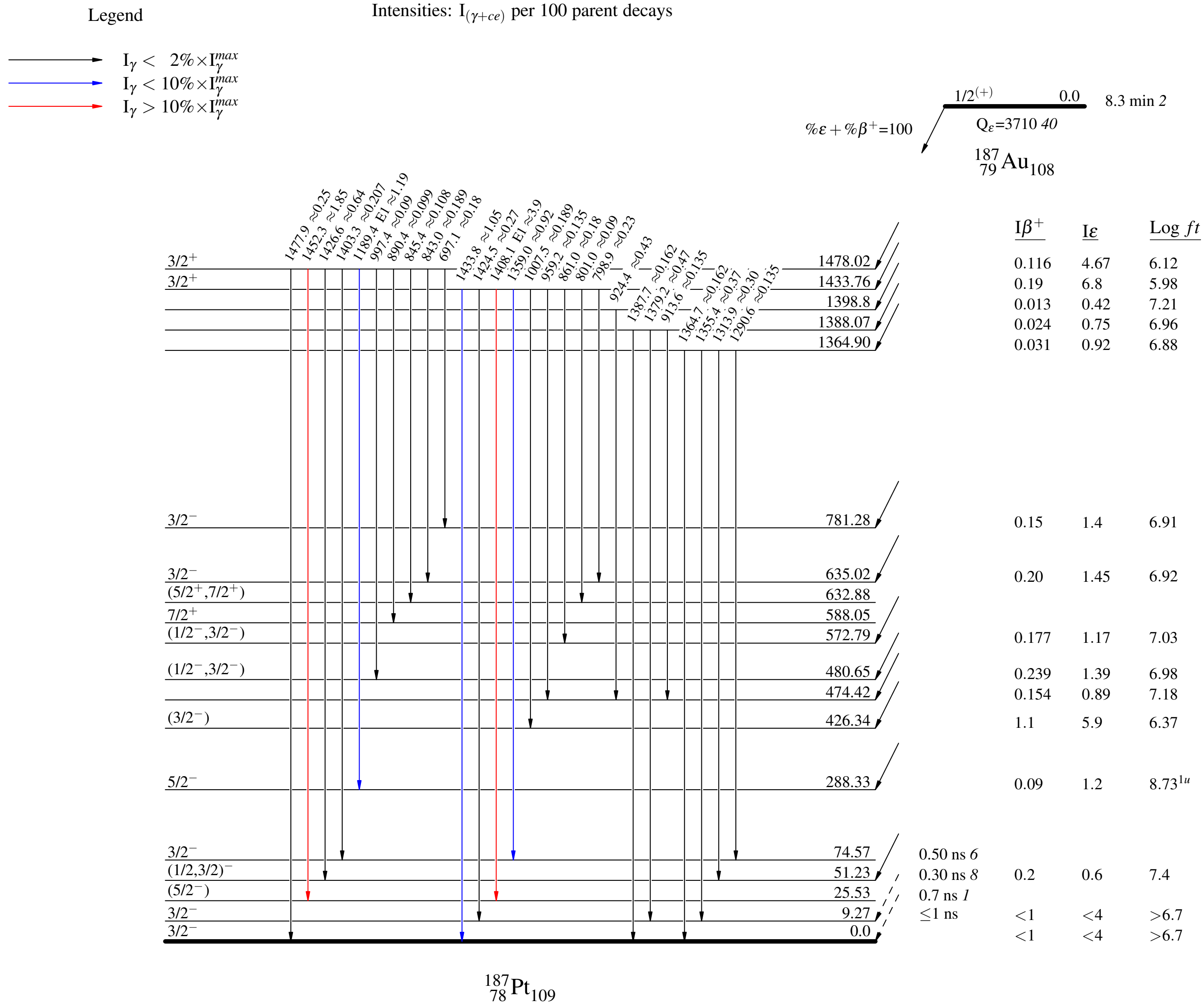
Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{187}Au ε decay 1983Gn01,1992Ro15

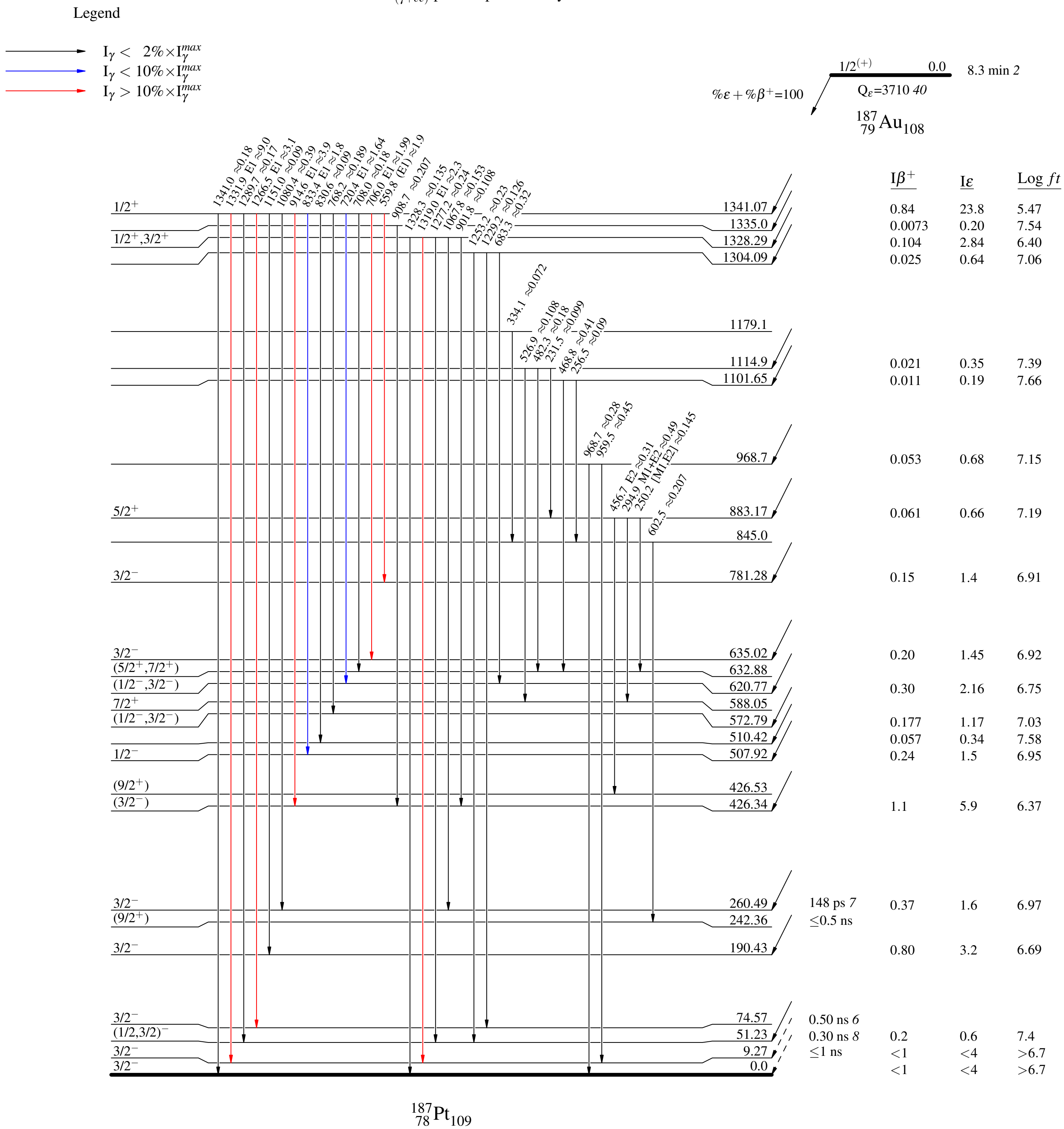
Decay Scheme (continued)



^{187}Au ε decay 1983Gn01,1992Ro15

Decay Scheme (continued)

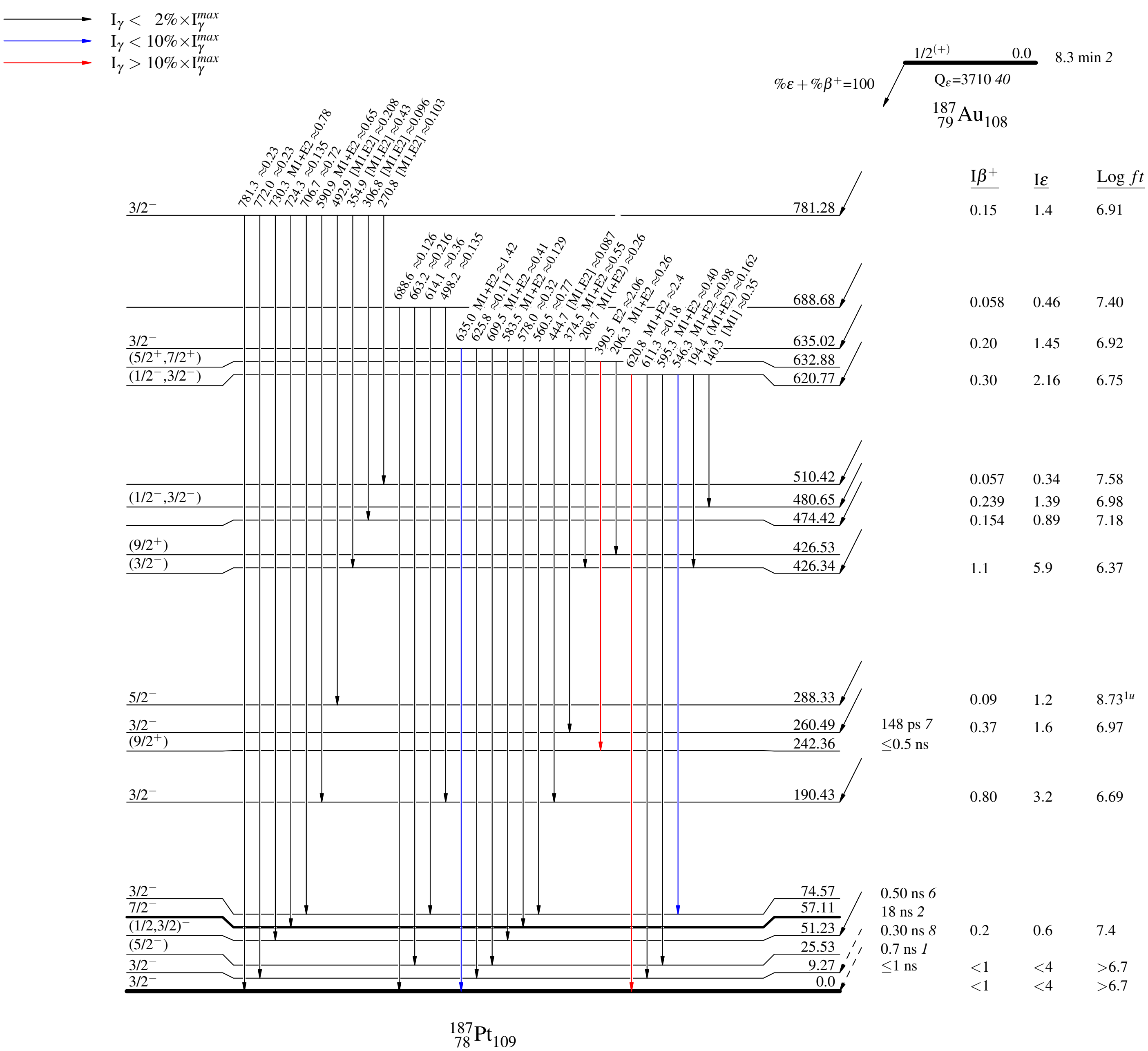
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{187}Au ε decay 1983Gn01,1992Ro15

Decay Scheme (continued)

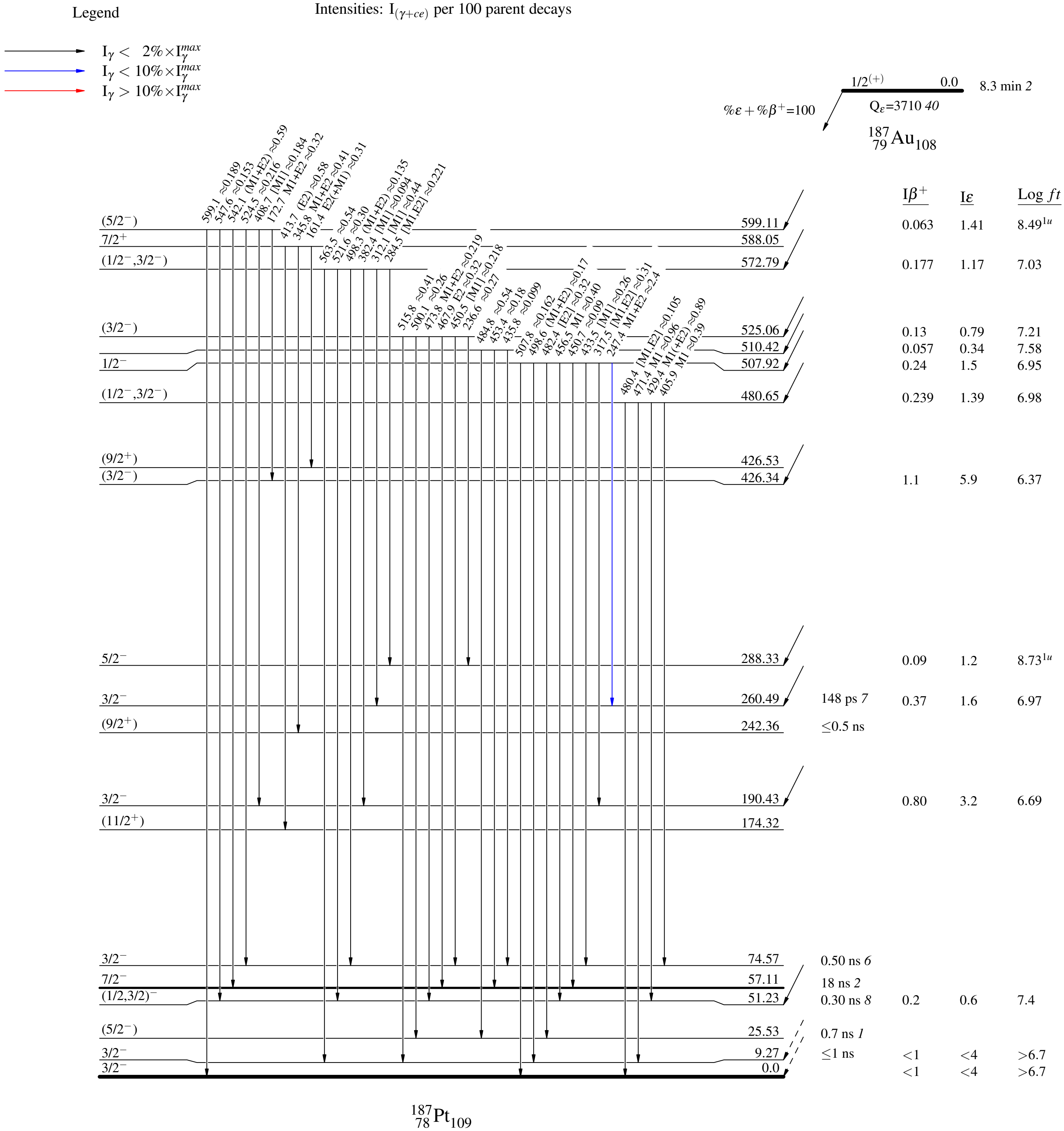
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{187}Au ε decay 1983Gn01,1992Ro15

Decay Scheme (continued)

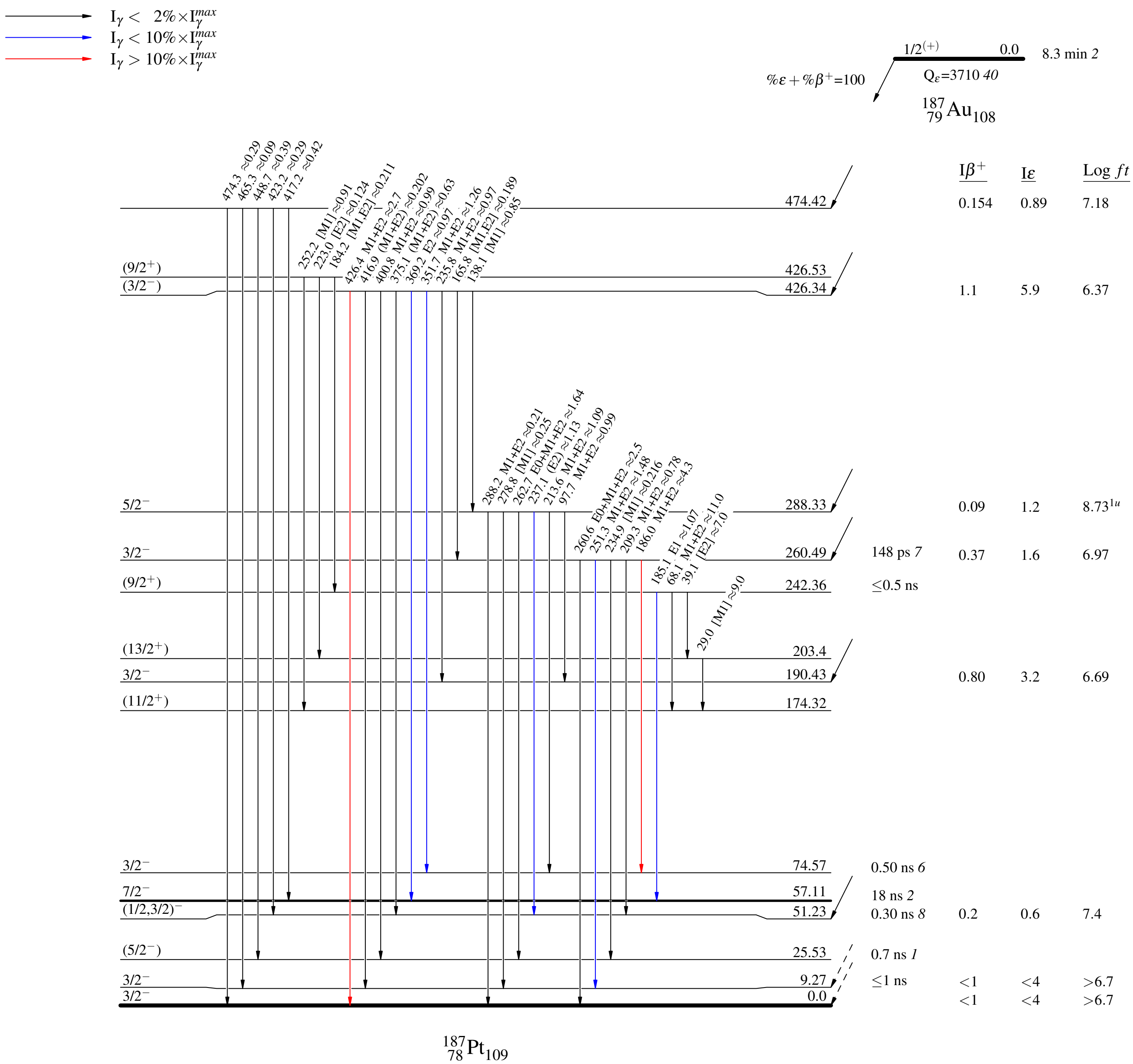
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{187}Au ε decay 1983Gn01,1992Ro15

Decay Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{187}Au ε decay 1983Gn01,1992Ro15

Decay Scheme (continued)