^{187}Pt ε decay 1992GuZX,1992Gu14,1973Se13

History

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

Parent: ^{187}Pt: E=0.0; J$^{\pi}$=3/2^{-}; $T_{1/2}$=2.35 h *3*; Q(ε)=3000 *30*; %ε+%β^{+} decay=100.0

Others: 1970Du09,1969Ha03, 1965Qa01, 1962Gr27, and 1961Kr02.

1992GuZX,1992Gu14: ^{187}Pt was obtained as daughter product of ^{187}Au, the latter was produced by ^{181}Ta(^{12}C,6n)^{187}Au reaction; Measured: Eγ, Iγ, deduced δ, J$^{\pi}$, level scheme, γ-γ-t and γ-e-t coincidences, γ and electron multiscaled singles events were collected. Also angular distribution of the γ-rays from the decay of ^{187}Pt, in a 128 T magnetic field, is studied semi-on-line, ^{187}Pt was obtained from the decay of ^{187}Hg [produced from ^{176}Hf(^{16}O,5n)^{187}Hg reaction, E=125−MeV]; detectors at 7 angles, 3° to 45°, relative to applied field direction.

1973Se13: ^{187}Pt produced from decay of ^{187}Hg; Detector:Ge(Li), Si(Li), electron spectrograph; Measured: Eγ, Iγ, ce, $\gamma\gamma$ coin, electron-electron coincidence, deduced levels scheme, J$^{\pi}$.

^{187}Ir Levels

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$[#]	Comments
0.0[@]	3/2^{+}		
106.480[&] *24*	1/2^{+}	11.5 ns *3*	
110.075[@] *22*	5/2^{+}	120 ps *15*	
186.16[b] *4*	9/2^{-}		
189.59[&] *3*	3/2^{+}	22 ps *10*	
201.61[a] *4*	5/2^{-}	0.84 ns *8*	
285.08[@] *4*	7/2^{+}		
311.66[&] *3*	5/2^{+}	<30 ps	
388.73[a] *4*	1/2^{-}	<65 ps	
433.75[c] *6*	11/2^{-}	152 ns *12*	$T_{1/2}$: Other: 140 ns *30* (1969Ha03).
442.87 *10*	(9/2^{+})		
471.22[&] *5*	7/2^{+}		
486.28[a] *4*	3/2^{-}		
486.39 *4*	7/2^{-}		
731.19 *5*	5/2^{-}		
738.46 *7*	(7/2^{-})		
816.04 *4*	(3/2^{-},5/2^{-})		
819.06 *4*	3/2^{+}		
896.30 *5*	(1/2^{-},3/2^{-})		
985.36 *9*			
995.06 *13*	(11/2^{-})		
1001.62 *10*	(3/2^{+},5/2^{+})		
1022.58 *6*	(5/2^{-})		
1173.01 *9*			
1214.92 *11*			
1218.87 *11*	(5/2^{-})		
1255.80 *12*	1/2^{+},3/2^{+},5/2^{+}		E(level): not reported in 1992Gu14.
1418.70 *11*			
1798.86 *18*			
2277.20 *7*			
2291.25 *5*			
2305.88 *7*			
2361.02 *8*			
2372.87 *11*			
2380.78 *7*			
2399.25 *11*			
2404.41 *6*			

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^{187}Pt ε decay 1992GuZX,1992Gu14,1973Se13 (continued)

^{187}Ir Levels (continued)

E(level)[†]
2413.45 *13*
2416.48 *8*

[†] From a least-squares adjustment to the γ-ray energies without considering the 186.25γ and 551.64γ from the 388-keV and 738-keV levels, respectively (σ>3).
[‡] From Adopted Levels.
[#] From $\gamma\gamma$(t), ce-Ce(t) (1973Se13).
[@] 3/2$^+$[402].
[&] 1/2$^+$[400].
[a] 1/2$^-$[541].
[b] K=9/2?
[c] 11/2$^-$[505]?

ε,β^+ radiations

E(decay)	E(level)	Iβ^+ [†‡]	Iε[‡]	Log *ft*	I($\varepsilon+\beta^+$)[‡]	Comments
(1.74×10^3 *3*)	1255.80	0.016 *4*	3.8 *7*	7.19 *9*	3.8 *7*	av Eβ=343 *14*; εK=0.8080 *4*; εL=0.14265 *25*; εM+=0.04525 *9*
(1.78×10^3 *3*)	1218.87	0.006 *6*	1.2 *12*	7.7 *5*	1.2 *12*	av Eβ=359 *14*; εK=0.8075 *5*; εL=0.1423 *3*; εM+=0.04514 *9*
(1.98×10^3 *3*)	1022.58	0.0036 *11*	0.31 *9*	8.39 *13*	0.31 *9*	av Eβ=446 *14*; εK=0.8034 *10*; εL=0.1406 *3*; εM+=0.04453 *11*
(2.00×10^3 *3*)	1001.62	0.022 *5*	1.8 *3*	7.64 *8*	1.8 *3*	av Eβ=455 *14*; εK=0.8027 *10*; εL=0.1404 *3*; εM+=0.04446 *11*
(2.10×10^3 *3*)	896.30	0.066 *10*	3.6 *4*	7.37 *5*	3.7 *4*	av Eβ=501 *14*; εK=0.7989 *13*; εL=0.1392 *4*; εM+=0.04408 *12*
(2.18×10^3 *3*)	819.06	0.30 *4*	12.9 *13*	6.86 *5*	13.2 *13*	av Eβ=535 *14*; εK=0.7955 *15*; εL=0.1383 *4*; εM+=0.04378 *13*
(2.18×10^3 *3*)	816.04	0.068 *9*	2.9 *3*	7.50 *5*	3.0 *3*	av Eβ=536 *14*; εK=0.7953 *16*; εL=0.1383 *4*; εM+=0.04376 *13*
(2.26×10^3 *3*)	738.46	0.036 *4*	1.3 *1*	7.90 *4*	1.3 *1*	av Eβ=570 *14*; εK=0.7912 *18*; εL=0.1373 *4*; εM+=0.04343 *14*
(2.27×10^3 *3*)	731.19	0.071 *13*	2.4 *4*	7.62 *7*	2.5 *4*	av Eβ=573 *14*; εK=0.7908 *18*; εL=0.1372 *5*; εM+=0.04340 *14*
(2.51×10^3 *3*)	486.28					
(2.53×10^3 *3*)	471.22	0.029 *5*	2.0 *3*	9.17^{1u} *7*	2.0 *3*	av Eβ=693 *13*; εK=0.7947 *7*; εL=0.1447 *3*; εM+=0.04613 *11*
(2.56×10^3[#] *3*)	442.87					
(2.61×10^3 *3*)	388.73	0.10 *2*	1.6 *3*	7.92 *8*	1.7 *3*	av Eβ=724 *14*; εK=0.765 *3*; εL=0.1317 *6*; εM+=0.04162 *19*
(2.69×10^3 *3*)	311.66	1.02 *12*	13.4 *14*	7.03 *5*	14.4 *15*	av Eβ=758 *14*; εK=0.758 *3*; εL=0.1303 *6*; εM+=0.04115 *20*
(2.71×10^3 *3*)	285.08	0.12 *2*	5.3 *6*	8.87^{1u} *6*	5.4 *6*	av Eβ=771 *13*; εK=0.7897 *10*; εL=0.1427 *4*; εM+=0.04544 *12*
(2.81×10^3 *3*)	189.59	0.89 *11*	9.3 *11*	7.22 *6*	10.2 *12*	av Eβ=812 *14*; εK=0.744 *4*; εL=0.1277 *7*; εM+=0.04034 *21*
(2.81×10^3[#] *3*)	186.16	0.54 *9*	5.6 *9*	7.45 *8*	6.1 *10*	av Eβ=813 *14*; εK=0.744 *4*; εL=0.1277 *7*; εM+=0.04031 *21* I($\varepsilon+\beta^+$): from the decay scheme, an apparent 4%

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^{187}Pt ε decay 1992GuZX,1992Gu14,1973Se13 (continued)

ϵ,$β^+$ radiations (continued)

E(decay)	E(level)	I$β^+$ †‡	Iε‡	Log *ft*	I(ε+$β^+$)‡	Comments
						branch is observed feeding this level. This branch is inconsistent with the forbiddenness of the transition and indicative of incorrect transition intensities deexciting it. See comments on 79-keV γ.
(2.89×10^3 *3*)	110.075	1.56 *19*	14.1 *16*	7.07 *6*	15.7 *18*	av Eβ=847 *14*; εK=0.735 *4*; εL=0.1260 *7*; εM+=0.03978 *22*
(2.89×10^3 *3*)	106.480	1.16 *14*	10.4 *12*	7.20 *5*	11.6 *13*	av Eβ=849 *14*; εK=0.735 *4*; εL=0.1259 *7*; εM+=0.03975 *22*

† From the 511.7-keV intensity, an upper limit of 1% can be placed on the positron intensity.
‡ Absolute intensity per 100 decays.
# Existence of this branch is questionable.

γ(^{187}Ir)

Iγ normalization: from Ti(g.s.)=100. Other: 0.07, from I(Kβ_1 x ray+Kβ_2 x ray)=312 and I(K x ray)/I(Kβ_1 x ray+Kβ_2 x ray)=4.65 (1978LeZA), I(K x ray)=1451. From the decay scheme the K x-ray contribution from internal conversion is I(K x ray)α=645 so I(K x ray)ε=806. Correcting for fluorescence yield (ω(K)=0.962) (1978LeZA) and εK/ε=0.57, the electron capture intensity I(ε)=1470 and yields Iγ normalization=0.07. Positron decay intensity can be estimated from the 511.7γ intensity as I(β^+)<10. The ε/β^+ ratio is consistent with little positron decay to levels below 1 MeV.

E_γ[†]	I_γ[&k]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[f]	δ[g]	α[l]	Comments
76.09 *3*	0.67[d] *7*	186.16	9/2$^-$	110.075	5/2$^+$	M2+E3	0.22[h] *2*	79 *4*	Mult.: L1:L2:L3:M1:M2:M3:N12:N3:N45:0= 19.4 *20*:8.2 *10*:10.4 *10*:5.4 *7*:2.6 *3*:3.0 *4*:1.7 *5*:1.3 *5*:0.4 *2*:0.6 *2* (1973Se13). I$_\gamma$: 1975An08 suggest from delayed coincidence data that this intensity is too low. However, in view of the too large apparent β feeding to this level, this result has been ignored.
79.39 *6*	1.5 *4*	189.59	3/2$^+$	110.075	5/2$^+$	[M1+E2]		12.0 *3*	α(K)=5 *5*; α(L)=5 *4*; α(M)=1.3 *10*; α(N+..)=0.4 *3* α(N)=0.31 *23*; α(O)=0.05 *4*; α(P)=0.0007 *6* α(L1)exp=2.2 *1* (1973Se13). I$_\gamma$: photon was not observed. Iγ=1.5 *4* from ce(L1) and α(L1)=1.52, if M1.
83.08 *5*	22.1 *3*	189.59	3/2$^+$	106.480	1/2$^+$	M1+E2	+0.15[i] *3*	10.39	α(K)=8.39 *14*; α(L)=1.54 *6*; α(M)=0.360 *15*; α(N+..)=0.105 *4* α(N)=0.088 *4*; α(O)=0.0154 *6*; α(P)=0.001052 *18* A_2=+0.025 *12*, A_4=0 (assumed). Mult.: α(L1)exp=0.87 *17* (1973Se13).
91.50 *5*	8.6 *1*	201.61	5/2$^-$	110.075	5/2$^+$	E1		0.500	α(K)=0.402 *6*; α(L)=0.0755 *11*; α(M)=0.01748 *25*; α(N+..)=0.00494 *7* α(N)=0.00421 *6*; α(O)=0.000693 *10*; α(P)=3.41$\times10^{-5}$ *5* A_2=−0.19 *3*, A_4=0 (assumed). Mult.: α(L1)exp<0.06 (1973Se13).
97.56 *6*	3.6 *1*	486.28	3/2$^-$	388.73	1/2$^-$	M1+E2	+1.2[i] *6*	5.7 *5*	α(K)=2.7 *15*; α(L)=2.3 *8*; α(M)=0.58 *21*; α(N+..)=0.16 *6* α(N)=0.14 *5*; α(O)=0.022 *8*; α(P)=0.00033 *19* A_2=−0.11 *6*, A_4=0 (assumed). Mult.: α(K)exp=2.3 *10* (1973Se13).
106.44 *3*	100.0 *16*	106.480	1/2$^+$	0.0	3/2$^+$	E2		3.58	α(K)=0.693 *10*; α(L)=2.17 *3*; α(M)=0.559 *8*; α(N+..)=0.1558 *22* α(N)=0.1351 *19*; α(O)=0.0206 *3*; α(P)=7.83$\times10^{-5}$ *11* A_2=+0.006 *4*, A_4=−0.006 *5*. Mult.: α(K)exp=0.5 *2* (1973Se13); α(K)exp=0.708 *17* (1992GuZX).
110.06 *3*	74.9 *11*	110.075	5/2$^+$	0.0	3/2$^+$	M1+E2	−0.67[i] *8*	4.18 *10*	α(K)=2.85 *17*; α(L)=1.01 *7*; α(M)=0.248 *18*; α(N+..)=0.071 *5* α(N)=0.060 *5*; α(O)=0.0098 *6*; α(P)=0.000351 *22* A_2=+0.110 *5*, A_4=−0.006 *6*. Mult.: α(K)exp=2.8 *7* (1973Se13); α(K)exp=2.70 *4* (1992GuZX).
122.00 *4*	31.1 *3*	311.66	5/2$^+$	189.59	3/2$^+$	M1+E2	<0.2[i]	3.44 *6*	α(K)=2.81 *6*; α(L)=0.482 *15*; α(M)=0.112 *4*; α(N+..)=0.0326 *11* α(N)=0.0274 *10*; α(O)=0.00482 *14*; α(P)=0.000348 *8* Mult.: α(K)exp=3.3 *7* (1973Se13); α(K)exp=2.73 *3* (1992GuZX).
159.52 *6*	4.5[a] *7*	471.22	7/2$^+$	311.66	5/2$^+$	M1		1.618	α(K)=1.335 *19*; α(L)=0.218 *3*; α(M)=0.0502 *7*; α(N+..)=0.01470 *21*

γ(^{187}Ir) (continued)

E_γ[†]	I_γ[&k]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[f]	δ[g]	α[l]	Comments
									α(N)=0.01235 *18*; α(O)=0.00219 *3*; α(P)=0.0001648 *24* Mult.: α(K)exp=1.0 *4* (1973Se13).
[x]162.57 *11*	1.6 *1*								ce(K)=2.0 *5*, ce(L1)=0.7 *3* (1973Se13).
[x]166.29 *8*	0.9[a] *2*					M1		1.439	α(K)=1.188 *17*; α(L)=0.194 *3*; α(M)=0.0447 *7*; α(N+..)=0.01307 *19* α(N)=0.01098 *16*; α(O)=0.00194 *3*; α(P)=0.0001465 *21* Mult.: α(K)exp=2 *1* (1973Se13).
174.99 *4*	6.8 *1*	285.08	7/2$^+$	110.075	5/2$^+$	M1		1.247	α(K)=1.029 *15*; α(L)=0.1679 *24*; α(M)=0.0387 *6*; α(N+..)=0.01132 *16* α(N)=0.00950 *14*; α(O)=0.001683 *24*; α(P)=0.0001269 *18* A_2=+0.201 *23*, A_4=+0.003 *35*. Mult.: α(K)exp=1.6 *6* (1973Se13).
186.2 *1*	15.6 *9*	186.16	9/2$^-$	0.0	3/2$^+$	E3		4.02	α(K)=0.573 *8*; α(L)=2.57 *4*; α(M)=0.687 *10*; α(N+..)=0.193 *3* α(N)=0.1675 *24*; α(O)=0.0257 *4*; α(P)=0.0001260 *18* I_γ: 42 *5* (1973Se13). Mult.: α(K)exp=0.55 *14* (mixed with 177γ K line) (1973Se13); α(K)exp=1.25 *7* (1992GuZX).
186.25 *7*	33.9 *10*	388.73	1/2$^-$	201.61	5/2$^-$	E2		0.441	α(K)=0.204 *3*; α(L)=0.179 *3*; α(M)=0.0455 *7*; α(N+..)=0.01275 *18* α(N)=0.01102 *16*; α(O)=0.001713 *25*; α(P)=2.04×10^{-5} *3* I_γ: 17 *5* (1973Se13). Mult.: α(K)exp=0.17 *4* (1973Se13).
189.61 *5*	10.0 *3*	189.59	3/2$^+$	0.0	3/2$^+$	M1+E2	−0.6[i] *3*	0.84 *11*	α(K)=0.66 *12*; α(L)=0.142 *7*; α(M)=0.0338 *22*; α(N+..)=0.0098 *6* α(N)=0.0083 *5*; α(O)=0.00141 *5*; α(P)=8.0×10^{-5} *15* Mult.: α(K)exp=0.65 *20* (1973Se13) and 0.781 *24* (1992GuZX).
199.11[m] *7*	2.8 *1*	388.73	1/2$^-$	189.59	3/2$^+$	E1		0.0690	α(K)=0.0568 *8*; α(L)=0.00941 *14*; α(M)=0.00216 *3*; α(N+..)=0.000620 *9* α(N)=0.000526 *8*; α(O)=8.94×10^{-5} *13*; α(P)=5.36×10^{-6} *8* I_γ: 8.5 *10* (1973Se13). A_2=+0.08 *5*, A_4=+0.05 *6*. Mult.: α(K)exp<0.06 (1973Se13).
[x]200.8[#] *2*	[b]					(M1)		0.849	α(K)=0.701 *10*; α(L)=0.1140 *17*; α(M)=0.0263 *4*; α(N+..)=0.00768 *11* α(N)=0.00645 *10*; α(O)=0.001143 *17*; α(P)=8.62×10^{-5} *13* Mult.: ce(K)=0.9 *3* (1973Se13).
201.49 *10*	≈6[b]	311.66	5/2$^+$	110.075	5/2$^+$	M1		0.840	α(K)=0.694 *10*; α(L)=0.1129 *16*; α(M)=0.0260 *4*; α(N+..)=0.00761 *11* α(N)=0.00639 *9*; α(O)=0.001132 *16*; α(P)=8.54×10^{-5} *12* I_γ: 67.2 *11* for doublet (201.73γ + 201.38γ) (1992GuZX), intensity was divided by the evaluator based on intensity adjustment at 201 and 311 keV levels. Mult.: ce(K)=5.9 *10* (1973Se13).
201.68 *9*	≈61[b]	201.61	5/2$^-$	0.0	3/2$^+$	E1		0.0668	α(K)=0.0550 *8*; α(L)=0.00910 *13*; α(M)=0.00209 *3*; α(N+..)=0.000600 *9* α(N)=0.000508 *8*; α(O)=8.65×10^{-5} *13*; α(P)=5.20×10^{-6} *8* I_γ: 67.2 *11* for doublet (201.73γ + 201.38γ) (1992GuZX), intensity

From ENSDF

$^{187}_{77}$Ir$_{110}$-5

γ(^{187}Ir) (continued)

E_γ [†]	I_γ [&k]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [f]	α [l]	Comments
								was divided by the evaluator based on intensity adjustment at 201 and 311 keV levels. The 201γ Branching from the 201 keV level of the adopted gammas indicates I$\gamma\approx$27. Mult.: α(K)exp=0.07 (1973Se13).
205.18 *6*	8.6 *1*	311.66	5/2$^+$	106.480	1/2$^+$	E2	0.317	α(K)=0.1591 *23*; α(L)=0.1189 *17*; α(M)=0.0301 *5*; α(N+..)=0.00846 *12* α(N)=0.00730 *11*; α(O)=0.001141 *16*; α(P)=1.612$\times10^{-5}$ *23* A_2=−0.112 *23*, A_4=+0.01 *3*. Mult.: α(K)exp=0.16 *6* (1973Se13); α(K)exp=0.149 *3* (1992GuZX).
244.79 *9*	2[c] *1*	731.19	5/2$^-$	486.39	7/2$^-$	M1	0.490	α(K)=0.405 *6*; α(L)=0.0657 *10*; α(M)=0.01511 *22*; α(N+..)=0.00442 *7* α(N)=0.00371 *6*; α(O)=0.000658 *10*; α(P)=4.97$\times10^{-5}$ *7* A_2=+0.123 *13*, A_4=−0.020 *20* (doublet). Mult.: α(K)exp=0.442 *8* – for doublet (1992GuZX); ce(K)=4.7 *10*, ce(L)=1.1 *3* (includes 245.01 ce(L)) (1973Se13). I_γ: 11.3 *2* for doublet (244.79γ+245.01γ) (1992GuZX), intensity was divided by the evaluator from intensity balance at the 486.28- and 486.39-keV levels.
245.01 *9*	9[c] *1*	731.19	5/2$^-$	486.28	3/2$^-$	M1	0.489	α(K)=0.404 *6*; α(L)=0.0655 *10*; α(M)=0.01507 *22*; α(N+..)=0.00441 *7* α(N)=0.00371 *6*; α(O)=0.000656 *10*; α(P)=4.96$\times10^{-5}$ *7* I_γ: 11.3 *2* for doublet (244.79γ+245.01γ) (1992GuZX), intensity was divided by the evaluator from intensity balance at the 486.28- and 486.39-keV levels. A_2=+0.123 *13*, A_4=−0.020 *20* (doublet). Mult.: α(K)exp=0.442 *8* – doublet (1992GuZX); ce(K)=3.4 *1* (1973Se13).
247.61 *6*	32.8 *12*	433.75	11/2$^-$	186.16	9/2$^-$	M1	0.475	α(K)=0.392 *6*; α(L)=0.0636 *9*; α(M)=0.01464 *21*; α(N+..)=0.00428 *6* α(N)=0.00360 *5*; α(O)=0.000638 *9*; α(P)=4.82$\times10^{-5}$ *7* I_γ: 42 *4* (1973Se13). A_2=+0.090 *6*, A_4=−0.003 *8*. Mult.: α(K)exp=0.45 *9* (1973Se13); α(K)exp=0.468 *18* (1992GuZX).
256.60[@] *11*	1.2[@] *1*	995.06	(11/2$^-$)	738.46	(7/2$^-$)			
[x]268.73[@] *11*	0.5[@] *1*							
282.06 *6*	18.8 *4*	388.73	1/2$^-$	106.480	1/2$^+$	E1	0.0293	α(K)=0.0242 *4*; α(L)=0.00388 *6*; α(M)=0.000890 *13*; α(N+..)=0.000256 *4* α(N)=0.000217 *3*; α(O)=3.73$\times10^{-5}$ *6*; α(P)=2.39$\times10^{-6}$ *4* I_γ: 27 *4* (1973Se13). A_2=−0.023 *11*, A_4=+0.05 *6*. Mult.: α(K)exp<0.03 (1973Se13); α(K)exp=0.0422 *15* (1992GuZX).
284.51[@] *10*	≈4[@e]	486.39	7/2$^-$	201.61	5/2$^-$			
284.73 *7*	≈4[e]	486.28	3/2$^-$	201.61	5/2$^-$	(M1)	0.324	α(K)=0.268 *4*; α(L)=0.0433 *6*; α(M)=0.00995 *14*; α(N+..)=0.00291 *4* α(N)=0.00245 *4*; α(O)=0.000434 *6*; α(P)=3.28$\times10^{-5}$ *5* A_2=+0.043 *9*, A_4=−0.018 *10* (doublet). Mult.: α(K)exp=0.27 *5* includes unresolved E2 component; α(L)exp=0.05 *1* (1973Se13).
285.07 *10*	≈48[e]	285.08	7/2$^+$	0.0	3/2$^+$	E2	0.1105	α(K)=0.0684 *10*; α(L)=0.0319 *5*; α(M)=0.00797 *12*; α(N+..)=0.00225 *4*

$^{187}_{77}Ir_{110}$-6

γ(^{187}Ir) (continued)

E_γ[†]	I_γ[&k]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[f]	δ[g]	α[l]	Comments
									α(N)=0.00194 *3*; α(O)=0.000309 *5*; α(P)=7.29×10^{-6} *11* A_2=+0.043 *9*, A_4=−0.018 *10* (doublet). Mult.: from adopted gammas.
300.23 *7*	12.51 *10*	486.39	7/2$^-$	186.16	9/2$^-$	M1(+E2)	0.11 *1*	0.278	α(K)=0.230 *4*; α(L)=0.0373 *6*; α(M)=0.00858 *12*; α(N+..)=0.00251 *4* α(N)=0.00211 *3*; α(O)=0.000374 *6*; α(P)=2.81×10^{-5} *4* Mult.: α(K)exp=0.230 *4* (1992GuZX); α(K)exp=0.30 *7* (1973Se13). E_γ: Placement from 1992GuZX.
304.72 *6*	44.2 *5*	738.46	(7/2$^-$)	433.75	11/2$^-$	E2		0.0905	α(K)=0.0577 *8*; α(L)=0.0248 *4*; α(M)=0.00618 *9*; α(N+..)=0.001749 *25* α(N)=0.001502 *21*; α(O)=0.000240 *4*; α(P)=6.22×10^{-6} *9* A_2=−0.035 *5*, A_4=+0.002 *7*. Mult.: α(K)exp=0.057 *16* (1973Se13); α(K)exp=0.0579 *8* (1992GuZX).
311.72 *7*	19.2 *2*	311.66	5/2$^+$	0.0	3/2$^+$	M1+E2	−0.23[i] *+11−15*	0.245 *14*	α(K)=0.202 *12*; α(L)=0.0332 *10*; α(M)=0.00766 *20*; α(N+..)=0.00224 *6* α(N)=0.00188 *5*; α(O)=0.000332 *10*; α(P)=2.46×10^{-5} *16* A_2=+0.160 *9*, A_4=+0.035 *15*. Mult.: α(K)exp=0.24 *7* (1973Se13); α(K)exp=0.199 *4* (1992GuZX). δ: or −1.7 *+4−5* (1992Gu14).
329.73 *8*	6.4 *1*	816.04	(3/2$^-$,5/2$^-$)	486.28	3/2$^-$	M1+E2	0.66 *1*	0.173 *3*	α(K)=0.1398 *22*; α(L)=0.0258 *4*; α(M)=0.00604 *9*; α(N+..)=0.001754 *25* α(N)=0.001481 *21*; α(O)=0.000257 *4*; α(P)=1.69×10^{-5} *3* A_2=−0.054 *22*, A_4=+0.01 *3*. Mult.: α(K)exp=0.1396 *24* (1992GuZX); α(K)exp=0.15 (1973Se13).
332.79 *9*	2.9 *6*	442.87	(9/2$^+$)	110.075	5/2$^+$	E2		0.0700	α(K)=0.0463 *7*; α(L)=0.0180 *3*; α(M)=0.00445 *7*; α(N+..)=0.001262 *18* α(N)=0.001082 *16*; α(O)=0.0001743 *25*; α(P)=5.05×10^{-6} *7* A_2=−0.19 *5*, A_4=+0.06 *6*. Mult.: α(K)exp=0.057 *3* (1992GuZX).
342.48[@] *10*	1.3[@] *1*	731.19	5/2$^-$	388.73	1/2$^-$	E2		0.0645	α(K)=0.0432 *6*; α(L)=0.01621 *23*; α(M)=0.00401 *6*; α(N+..)=0.001137 *16* α(N)=0.000975 *14*; α(O)=0.0001573 *22*; α(P)=4.72×10^{-6} *7* Mult.: α(K)exp=0.047 *6* (1992GuZX).

γ(^{187}Ir) (continued)

E_γ[†]	I_γ[&k]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[f]	δ[g]	α[l]	Comments
361.20 *7*	7.9 *1*	471.22	7/2$^+$	110.075	5/2$^+$	M1		0.1702	α(K)=0.1409 *20*; α(L)=0.0226 *4*; α(M)=0.00520 *8*; α(N+..)=0.001523 *22* α(N)=0.001279 *18*; α(O)=0.000227 *4*; α(P)=1.718×10^{-5} *24* A_2=+0.127 *18*, A_4=+0.02 *3*. Mult.: α(K)exp=0.29 (1973Se13); α(K)exp=0.160 *3* (1992GuZX).
376.44 *8*	3.7[a] *3*	486.39	7/2$^-$	110.075	5/2$^+$	E1+M2	0.31 *2*	0.060 *6*	α(K)=0.047 *5*; α(L)=0.0093 *9*; α(M)=0.00221 *22*; α(N+..)=0.00065 *7* α(N)=0.00054 *6*; α(O)=9.5×10^{-5} *10*; α(P)=6.7×10^{-6} *7* Mult.: α(K)exp=0.047 *5* (1992GuZX) -assignment M1 by 1973Se13 is inconsistent; α(K)exp=0.2 (1973Se13). E_γ: Placement from 1992Gu14. Placement from 819 level in 1973Se13 is inconsistent with a 3/2$^+$ to 9/2$^+$ transition.
[x]384.89 *9*	3.9[a] *2*					M1		0.1436	α(K)=0.1189 *17*; α(L)=0.0191 *3*; α(M)=0.00438 *7*; α(N+..)=0.001282 *18* α(N)=0.001077 *15*; α(O)=0.000191 *3*; α(P)=1.448×10^{-5} *21* Mult.: α(K)exp=0.16 (1973Se13); α(K)exp=0.134 *4* (1992GuZX).
388.65 *9*	7.7 *1*	388.73	1/2$^-$	0.0	3/2$^+$	E1		0.01385	α(K)=0.01152 *17*; α(L)=0.00180 *3*; α(M)=0.000411 *6*; α(N+..)=0.0001187 *17* α(N)=0.0001002 *14*; α(O)=1.737×10^{-5} *25*; α(P)=1.169×10^{-6} *17* A_2=+0.022 *19*, A_4=+0.05 *3*. Mult.: α(K)exp<0.012 (1973Se13); α(K)exp=0.0131 *18* (1992GuZX).
[x]400.77[‡] *7*	13.4 *2*					E1		0.01292	α(K)=0.01076 *15*; α(L)=0.001672 *24*; α(M)=0.000382 *6*; α(N+..)=0.0001106 *16* α(N)=9.33×10^{-5} *13*; α(O)=1.619×10^{-5} *23*; α(P)=1.094×10^{-6} *16* α(K)exp=0.0073 *8* (1992GuZX).
410.03[@] *10*	4.1[@] *1*	896.30	(1/2$^-$,3/2$^-$)	486.28	3/2$^-$				A_2=+0.02 *4*, A_4=0 (assumed). α(K)exp=0.0963 *21* (1992GuZX).
427.24[‡] *7*	14.1 *3*	816.04	(3/2$^-$,5/2$^-$)	388.73	1/2$^-$	(E2)		0.0353	α(K)=0.0254 *4*; α(L)=0.00760 *11*; α(M)=0.00185 *3*; α(N+..)=0.000529 *8* α(N)=0.000452 *7*; α(O)=7.41×10^{-5} *11*; α(P)=2.84×10^{-6} *4* I_γ: 25 *4* (1973Se13). Mult.: α(K)exp=0.0172 *6* (1992GuZX).
[x]439.59[@] *10*	1.4[@] *1*								
446.00[@] *10*	1.5[@] *1*	731.19	5/2$^-$	285.08	7/2$^+$				
480.41 *8*	12.9 *3*	1218.87	(5/2$^-$)	738.46	(7/2$^-$)	M1+E2	0.22 *2*	0.0774 *12*	α(K)=0.0640 *10*; α(L)=0.01029 *15*; α(M)=0.00237 *4*; α(N+..)=0.000692 *11* α(N)=0.000582 *9*; α(O)=0.0001030 *16*; α(P)=7.75×10^{-6} *12*

γ(^{187}Ir) (continued)

E_γ [†]	I_γ [&k]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [f]	δ [g]	α [l]	Comments
									Mult.: α(K)exp=0.0641 *13* (1992GuZX); α(K)exp=0.087 (1973Se13).
483.73[@] *10*	2.1[@] *1*	1214.92		731.19	$5/2^-$				α(K)exp=0.069 *4* – M1 (1992GuZX), A_2=−0.27 *8*, A_4=0 (assumed).
486.37 *8*	14 *1*	486.28	$3/2^-$	0.0	$3/2^+$	E1		0.00845	α(K)=0.00705 *10*; α(L)=0.001078 *16*; α(M)=0.000246 *4*; α(N+..)=7.13×10^{-5} *10* α(N)=6.01×10^{-5} *9*; α(O)=1.048×10^{-5} *15*; α(P)=7.26×10^{-7} *11* A_2=−0.035 *7*, A_4=−0.001 *17*. Mult.: α(K)exp<0.008 (1973Se13); α(K)exp=0.0084 *4* (1992GuZX).
^{x}492.0[‡#] *4*	4 *1*								
^{x}495.34[@] *10*	1.0[@] *1*					M1+E2	0.4 *4*	0.067 *13*	α(K)=0.055 *11*; α(L)=0.0090 *13*; α(M)=0.0021 *3*; α(N+..)=0.00061 *9* α(N)=0.00051 *7*; α(O)=9.0×10^{-5} *13*; α(P)=6.7×10^{-6} *14* α(K)exp=0.055 *11* (1992GuZX).
499.09[@] *11*	4.3[@] *2*	985.36		486.28	$3/2^-$				A_2=−0.12 *5*, A_4=0 (assumed). α(K)exp=0.055 *3* (1992GuZX).
504.24[@] *11*	3.1[@] *2*	816.04	$(3/2^-,5/2^-)$	311.66	$5/2^+$				A_2=−0.11 *5*, A_4=0 (assumed).
507.31[@] *10*	12[@] *1*	896.30	$(1/2^-,3/2^-)$	388.73	$1/2^-$				E_γ: 507.31γ was multiply placed from 819- and 896-keV levels in 1992Gu14. I_γ: 14.4 *3* (1992GuZX), intensity was divided by the evaluator from intensity balance at the 311- and 388-keV levels.
507.36 *9*	3 *1*	819.06	$3/2^+$	311.66	$5/2^+$	M1		0.0692	α(K)=0.0574 *8*; α(L)=0.00912 *13*; α(M)=0.00209 *3*; α(N+..)=0.000613 *9* α(N)=0.000515 *8*; α(O)=9.13×10^{-5} *13*; α(P)=6.94×10^{-6} *10* I_γ: 14.4 *3* (1992GuZX), intensity was divided by the evaluator from intensity balance at the 311- and 388-keV levels. Mult.: α(K)exp=0.06 (1973Se13); α(K)exp=0.0552 *13* for doublet (1992GuZX).
^{x}511.7[#] *3*	<16					M1,E2		0.045 *23*	α(K)=0.036 *20*; α(L)=0.0066 *23*; α(M)=0.0015 *5*; α(N+..)=0.00045 *15* α(N)=0.00038 *13*; α(O)=6.6×10^{-5} *24*; α(P)=4.3×10^{-6} *25* Mult.: α(K)exp≥0.02 (1973Se13). I_γ: may include significant contribution from positron annihilation.
^{x}523.80[@] *11*	3.3[@] *2*					M1		0.0636	α(K)=0.0528 *8*; α(L)=0.00838 *12*; α(M)=0.00192 *3*; α(N+..)=0.000563 *8* α(N)=0.000473 *7*; α(O)=8.39×10^{-5} *12*; α(P)=6.38×10^{-6} *9* Mult.: α(K)exp=0.0529 *19* (1992GuZX).
529.53 *9*	7.5 *1*	731.19	$5/2^-$	201.61	$5/2^-$	M1+E2	0.84 *1*	0.0448	α(K)=0.0365 *6*; α(L)=0.00638 *10*; α(M)=0.001483 *22*; α(N+..)=0.000432 *7*

γ(^{187}Ir) (continued)

E_γ[†]	I_γ[&k]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[f]	δ[g]	α[l]	Comments
									α(N)=0.000364 6; α(O)=6.36×10^{-5} 10; α(P)=4.37×10^{-6} 7 Mult.: α(K)exp=0.05 (1973Se13); α(K)exp=0.0366 8 (1992GuZX).
536.34 11	4.2[a] 7	1022.58	(5/2$^-$)	486.39	7/2$^-$	M1		0.0598	α(K)=0.0496 7; α(L)=0.00787 11; α(M)=0.00181 3; α(N+..)=0.000529 8 α(N)=0.000444 7; α(O)=7.88×10^{-5} 11; α(P)=6.00×10^{-6} 9 A_2=+0.002 29, A_4=−0.02 4. Mult.: α(K)exp=0.052 (1973Se13); α(K)exp=0.058 7 (1992GuZX).
551.64[@] 10	2.3[@] 1	738.46	(7/2$^-$)	186.16	9/2$^-$				δ=+1.2 +9−6, was determined by the relative method for γ-rays in competition with the pure E2 transition (1992Gu14).
x555.64[@] 10	1.6[@] 1								
579.99[@] 15	1.1[@] 1	1798.86		1218.87	(5/2$^-$)				
584.62[@] 10	3.6[@] 1	896.30	(1/2$^-$,3/2$^-$)	311.66	5/2$^+$				
x586.73[@] 10	4.2[@] 1								
x596.56[@] 11	3.0[@] 5								
x617.05[@] 10	2.2[@] 1					(E2)		0.01445	α(K)=0.01118 16; α(L)=0.00251 4; α(M)=0.000597 9; α(N+..)=0.0001719 24 α(N)=0.0001460 21; α(O)=2.46×10^{-5} 4; α(P)=1.272×10^{-6} 18 α(K)exp=0.0097 9 (1992GuZX).
x622.29 8	17.3 3					M1+E2	0.40 1	0.0370	α(K)=0.0306 5; α(L)=0.00493 8; α(M)=0.001135 17; α(N+..)=0.000332 5 α(N)=0.000279 4; α(O)=4.93×10^{-5} 8; α(P)=3.68×10^{-6} 6 Mult.: α(K)exp=0.05 (1973Se13); α(K)exp=0.0307 5 (1992GuZX).
629.44 7	34.6 5	819.06	3/2$^+$	189.59	3/2$^+$	M1+E2	+0.52[j] 3	0.0340 7	α(K)=0.0281 6; α(L)=0.00458 9; α(M)=0.001055 19; α(N+..)=0.000308 6 α(N)=0.000259 5; α(O)=4.57×10^{-5} 9; α(P)=3.37×10^{-6} 7 A_2=−0.138 7, A_4=−0.010 10. Mult.: α(K)exp=0.0295 5 (1992GuZX); α(K)exp=0.045 (1973Se13);
x640.77[@] 10	2.8[@] 1								
x659.98[@] 10	1.9[@] 1								
x661.52[@] 10	7.5[@] 1					M1+E2	0.36 3	0.0322 6	α(K)=0.0266 5; α(L)=0.00426 8; α(M)=0.000979 17; α(N+..)=0.000286 5 α(N)=0.000241 5; α(O)=4.26×10^{-5} 8; α(P)=3.20×10^{-6} 6 Mult.: α(K)exp=0.0266 7 (1992GuZX).
x675.04[@] 10	2.6[@] 1								

$^{187}_{77}Ir_{110}$-10

γ(^{187}Ir) (continued)

E_γ[†]	I_γ[&k]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[f]	δ[g]	α[l]	Comments
687.51[@] *10*	1.5[@] *1*	1418.70		731.19	5/2⁻				
694.93[@] *11*	6.3[@] *5*	896.30	(1/2⁻,3/2⁻)	201.61	5/2⁻				α(K)exp=0.032 *3* (1992GuZX).
[x]696.0[#] *7*	10 *3*					(M1)		0.0305	α(K)=0.0253 *4*; α(L)=0.00398 *6*; α(M)=0.000913 *13*; α(N+..)=0.000267 *4* α(N)=0.000224 *4*; α(O)=3.98×10^{-5} *6*; α(P)=3.04×10^{-6} *5* Mult.: α(K)exp=0.046 (1973Se13).
706.01[@] *10*	7.4[@] *2*	816.04	(3/2⁻,5/2⁻)	110.075	5/2⁺				A_2=+0.25 *6*, A_4=+0.01 *9*.
709.04 *7*	52.2 *9*	819.06	3/2⁺	110.075	5/2⁺	M1		0.0291	α(K)=0.0241 *4*; α(L)=0.00380 *6*; α(M)=0.000870 *13*; α(N+..)=0.000255 *4* α(N)=0.000214 *3*; α(O)=3.80×10^{-5} *6*; α(P)=2.90×10^{-6} *4* A_2=+0.068 *6*, A_4=−0.001 *8*. Mult.: α(K)exp=0.022 (1973Se13).
710.08[@] *16*	4.4[@] *7*	816.04	(3/2⁻,5/2⁻)	106.480	1/2⁺				
712.47 *9*	12.8 *2*	819.06	3/2⁺	106.480	1/2⁺	M1+E2	−1.06[j] *5*	0.0191 *6*	α(K)=0.0156 *5*; α(L)=0.00267 *7*; α(M)=0.000618 *14*; α(N+..)=0.000180 *5* α(N)=0.000152 *4*; α(O)=2.65×10^{-5} *7*; α(P)=1.85×10^{-6} *6* A_2=+0.360 *21*, A_4=0 (assumed). Mult.: α(K)exp=0.024 (1973Se13); α(K)exp=0.0162 *4* (1992GuZX).
[x]728.33[@] *12*	1.8[@] *1*					M1+E2	1.1 *2*	0.0178 *18*	α(K)=0.0145 *15*; α(L)=0.00248 *20*; α(M)=0.00058 *5*; α(N+..)=0.000168 *13* α(N)=0.000141 *11*; α(O)=2.47×10^{-5} *20*; α(P)=1.72×10^{-6} *19* Mult.: α(K)exp=0.0147 *19* (1992GuZX).
731.34[@] *14*	3.7[@] *3*	731.19	5/2⁻	0.0	3/2⁺				
[x]732.35[@] *11*	4.7[@] *4*								
[x]771.60[@] *12*	1.9[@] *1*								
789.95 *10*	9.5 *1*	896.30	(1/2⁻,3/2⁻)	106.480	1/2⁺	E1		0.00316 *5*	α=0.00316 *5*; α(K)=0.00265 *4*; α(L)=0.000391 *6*; α(M)=8.90×10^{-5} *13*; α(N+..)=2.59×10^{-5} *4* α(N)=2.18×10^{-5} *3*; α(O)=3.83×10^{-6} *6*; α(P)=2.80×10^{-7} *4* Mult.: From α(K)exp=0.0032 *4* (1992GuZX); A_2=+0.014 *22*, A_4=+0.02 *3*. Placement from 1992GuZX.
[x]792.16 *10*	14.4 *1*								
[x]796.20 *21*	7.0 *1*					M1+E2	0.57 *3*	0.0183 *4*	α(K)=0.0152 *3*; α(L)=0.00244 *5*; α(M)=0.000561 *11*; α(N+..)=0.000164 *3* α(N)=0.000138 *3*; α(O)=2.43×10^{-5} *5*; α(P)=1.81×10^{-6} *4* Mult.: α(K)exp=0.01 (1973Se13); α(K)exp=0.0153 *5* (1992GuZX).
816.09 *10*	5.3 *1*	816.04	(3/2⁻,5/2⁻)	0.0	3/2⁺	E1,E2		0.00296	I_γ: 12 *2* (1973Se13). A_2=+0.14 *4*, A_4=−0.05 *6*. Mult.: α(K)exp<0.008 (1973Se13).

$^{187}_{77}$Ir$_{110}$-11

γ(^{187}Ir) (continued)

E_γ[†]	I_γ[&k]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[f]	δ[g]	α[l]	Comments
819.16 *9*	35.9 *9*	819.06	$3/2^+$	0.0	$3/2^+$	M1+E2	−0.82[j] *6*	0.0152 *5*	α(K)=0.0125 *5*; α(L)=0.00205 *6*; α(M)=0.000471 *14*; α(N+..)=0.000138 *4* α(N)=0.000116 *4*; α(O)=2.04×10^{-5} *6*; α(P)=1.48×10^{-6} *5* A_2=+0.199 *8*, A_4=−0.009 *12*. Mult.: α(K)exp=0.015 (1973Se13); α(K)exp=0.0131 *4* (1992GuZX).
833.00[@] *10*	8.3[@] *1*	1022.58	$(5/2^-)$	189.59	$3/2^+$				
[x]847.00[@] *10*	3.3[@] *1*								
861.32 *11*	5.7 *3*	1173.01		311.66	$5/2^+$				E_γ,I_γ: Placement is from 1992GuZX. In 1973Se13, 861.1γ is unplaced and Iγ=11 *2*. α(K)exp=0.0063 *5* − E2(+M1) (1992GuZX).
[x]875.27[@] *10*	4.8[@] *1*					(E2)		0.00682	α(K)=0.00549 *8*; α(L)=0.001022 *15*; α(M)=0.000239 *4*; α(N+..)=6.92×10^{-5} *10* α(N)=5.85×10^{-5} *9*; α(O)=1.008×10^{-5} *15*; α(P)=6.25×10^{-7} *9* Mult.: α(K)exp=0.0047 *3* (1992GuZX).
891.8 *6*	7.5 *20*	1001.62	$(3/2^+,5/2^+)$	110.075	$5/2^+$				E_γ,I_γ: From 1973Se13.
895.13 *9*	12.2 *3*	1001.62	$(3/2^+,5/2^+)$	106.480	$1/2^+$	(E2)		0.00651	α(K)=0.00525 *8*; α(L)=0.000969 *14*; α(M)=0.000227 *4*; α(N+..)=6.56×10^{-5} *10* α(N)=5.54×10^{-5} *8*; α(O)=9.56×10^{-6} *14*; α(P)=5.98×10^{-7} *9* I_γ: 20 *3* (1973Se13). A_2=+0.02 *3*, A_4=−0.06 *3*. Mult.: α(K)exp=0.0042 *2* (1992GuZX); α(K)exp=0.003 (1973Se13).
896.22[@] *11*	3.9[@] *3*	896.30	$(1/2^-,3/2^-)$	0.0	$3/2^+$				
[x]907.84[@] *10*	2.1[@] *1*					M1+E2	1.5 *3*	0.0091 *10*	α(K)=0.0075 *8*; α(L)=0.00127 *11*; α(M)=0.000293 *25*; α(N+..)=8.5×10^{-5} *8* α(N)=7.2×10^{-5} *7*; α(O)=1.26×10^{-5} *12*; α(P)=8.8×10^{-7} *10* Mult.: α(K)exp=0.0076 *8* (1992GuZX).
[x]912.85[‡] *9*	12.9 *5*								I_γ: 20 *3* (1973Se13).
[x]977.54 *10*	11.6 *2*								
[x]978.83[@] *10*	8.0[@] *2*								
[x]983.82[@] *10*	4.2[@] *1*								
985.36[@] *12*	3.1[@] *1*	985.36		0.0	$3/2^+$				
1022.65[@] *14*	0.8[@] *1*	1022.58	$(5/2^-)$	0.0	$3/2^+$				
1118.20[@] *11*	1.6[@] *1*	2291.25		1173.01					
1145.79 *13*	1.5 *1*	1255.80	$1/2^+,3/2^+,5/2^+$	110.075	$5/2^+$				E_γ,I_γ: Placement from 1973Se13. Iγ=19 *4* (1973Se13).

γ(^{187}Ir) (continued)

E_γ[†]	I_γ[&k]	E_i(level)	J^π_i	E_f	J^π_f	Comments
1149.4 *5*	12 *4*	1255.80	1/2$^+$,3/2$^+$,5/2$^+$	106.480	1/2$^+$	E_γ,I_γ: From 1973Se13.
[x]1157.31 *10*	13 *4*					
[x]1201.30[@] *12*	1.5[@] *1*					
[x]1205.63[@] *10*	7.9[@] *1*					
[x]1208.44[@] *10*	3.8[@] *1*					
1240.44[@] *10*	3.7[@] *1*	2413.45		1173.01		
1254.65[@] *12*	2.9[@] *1*	2277.20		1022.58	(5/2$^-$)	
1255.4 *3*	27 *4*	1255.80	1/2$^+$,3/2$^+$,5/2$^+$	0.0	3/2$^+$	E_γ,I_γ: From 1973Se13.
1268.81 *10*	7.3 *1*	2291.25		1022.58	(5/2$^-$)	E_γ: Placement from 1992GuZX. ce(K)=0.036 and α(K)exp=0.0032 (1973Se13).
[x]1406.89[@] *11*	8.7[@] *8*					
[x]1470.69[@] *10*	4.8[@] *1*					
1475.19[@] *11*	9.9[@] *6*	2291.25		816.04	(3/2$^-$,5/2$^-$)	A_2=+0.020 *18*, A_4=+0.01 *3*.
1552.91[@] *10*	7.9[@] *2*	2291.25		738.46	(7/2$^-$)	A_2=+0.03 *3*, A_4=−0.01 *4*.
[x]1600.81[@] *12*	3.4[@] *3*					
1665.87[@] *10*	13.8[@] *1*	2404.41		738.46	(7/2$^-$)	A_2=+0.026 *20*, A_4=+0.042 *25*.
1805.00[@] *10*	14.2[@] *1*	2291.25		486.28	3/2$^-$	A_2=−0.007 *21*, A_4=+0.03 *3*.
[x]1815.79[@] *10*	3.2[@] *1*					
1819.43[@] *10*	3.6[@] *1*	2305.88		486.39	7/2$^-$	
1874.60[@] *10*	5.3[@] *1*	2361.02		486.39	7/2$^-$	
[x]1882.39[@] *10*	4.6[@] *1*					
1894.69[@] *10*	2.4[@] *1*	2380.78		486.28	3/2$^-$	
1902.24[@] *10*	6.0[@] *1*	2291.25		388.73	1/2$^-$	
[x]1913.41[@] *10*	6.7[@] *1*					
1917.89[@] *11*	4.5[@] *1*	2404.41		486.39	7/2$^-$	
1930.11[@] *10*	4.3[@] *1*	2416.48		486.39	7/2$^-$	
2020.69[@] *11*	3.1[@] *1*	2305.88		285.08	7/2$^+$	
[x]2062.38[@] *10*	7.0[@] *1*					
[x]2101.42[@] *11*	5.5[@] *2*					
2104.41[@] *10*	9.0[@] *1*	2305.88		201.61	5/2$^-$	A_2=−0.19 *3*.
2119.41[@] *10*	5.5[@] *1*	2404.41		285.08	7/2$^+$	A_2=−0.07 *3*, A_4=+0.06 *4*.
[x]2134.44[@] *10*	2.1[@] *1*					
[x]2138.74[@] *10*	7.2[@] *1*					
[x]2143.55[@] *10*	1.4[@] *1*					
2159.43[@] *10*	3.8[@] *1*	2361.02		201.61	5/2$^-$	
2167.04[@] *10*	14.8[@] *1*	2277.20		110.075	5/2$^+$	A_2=+0.060 *18*, A_4=−0.07 *3*.

γ(^{187}Ir) (continued)

Eγ[†]	Iγ[&k]	Ei(level)	J^{π}_i	Ef	J^{π}_f	Comments
2171.25[@] *10*	9.4[@] *1*	2372.87		201.61	5/2⁻	A2=−0.062 *25*, A4=+0.04 *3*.
2178.89[@] *11*	10.0[@] *2*	2380.78		201.61	5/2⁻	A2=−0.125 *23*, A4=+0.02 *3*.
[x]2184.60[@] *12*	2.1[@] *1*					
2197.63[@] *10*	9.4[@] *1*	2399.25		201.61	5/2⁻	A2=−0.18 *3*, A4=+0.02 *4*.
2202.86[@] *10*	5.7[@] *1*	2404.41		201.61	5/2⁻	A2=−0.13 *3*, A4=0 assumed.
2214.83[@] *10*	5.9[@] *1*	2416.48		201.61	5/2⁻	A2=−0.003 *32*, A4=0.003 *47*.
[x]2225.64[@] *10*	9.1[@] *1*					
[x]2231.13[@] *11*	1.9[@] *1*					
[x]2235.17[@] *12*	2.1[@] *1*					
[x]2266.62[@] *10*	2.4[@] *1*					
2277.24[@] *10*	16.0[@] *2*	2277.20		0.0	3/2⁺	A2=−0.035 *17*, A4=+0.027 *23*.
2291.22[@] *10*	3.7[@] *1*	2291.25		0.0	3/2⁺	A2=−0.04 *5*, A4=+0.04 *7*.
[x]2294.50[@] *10*	4.3[@] *1*					A2=−0.14 *4*, A4=+0.01 *6*.
[x]2300.97[@] *10*	1.4[@] *1*					
2380.78[@] *10*	2.8[@] *1*	2380.78		0.0	3/2⁺	

[†] Weighted average of 1992GuZX and 1973Se13, unless otherwise noted.
[‡] Transition mixed with impurity from ^{187}Ir decay (1973Se13).
[#] From 1973Se13.
[@] From 1992GuZX.
[&] From 1992GuZX, except otherwise noted.
[a] Weighted average of 1992GuZX and 1973Se13.
[b] The (200.8-201.5-201.8) γ-ray triplet (1973Se13), Iγ=81.5 *80* was unresolved in the γ-ray spectrum. From coincidence data, Iγ(201.5)=60 *15*, which is consistent only with E1 for the measured K-conversion electron intensity. The measured K-conversion electron intensity and the total 201γ intensity (correcting for the 201.5γ intensity) are consistent only with M1 multipolarity for the 201.8γ. The 200.8γ can be M1 or E2 by a similar argument (1973Se13).
[c] Iγ(244.8γ+245.1γ)=17 *2*. The K-conversion intensities for both transitions are consistent with predominantly M1 multipolarity (1973Se13). The intensity was divided by the evaluator using the ce(K) ratio (1973se13). Iγ(244.79γ+244.99γ)=11.3 *2*.
[d] Calculated from measured ce data and theoretical conversion coefficients.
[e] Iγ(285γ)=Iγ=56.6 *24* (1992GuZX) for triplet (284.51γ+284.51γ+ 285.07γ). Intensity was divided for 285γ from the 285 keV level using Branching from the (α,xnγ), while intensity of 284.5γ from the 486 keV (3/2⁻) and (7/2⁻) states was divided from an approximate intensity balance at those states and at the 201 keV level.
[f] From ce measurements of 1973Se13 and 1992GuZX, except otherwise noted. The ce data can be normalized to the same relative scale as gammas multiplying by 1.04 *8*. γ-ray angular distribution coefficients A2 and A4 are from 1992Gu14.
[g] Deduced by the evaluator from α(K)exp value of 1992GuZX, except otherwise noted.

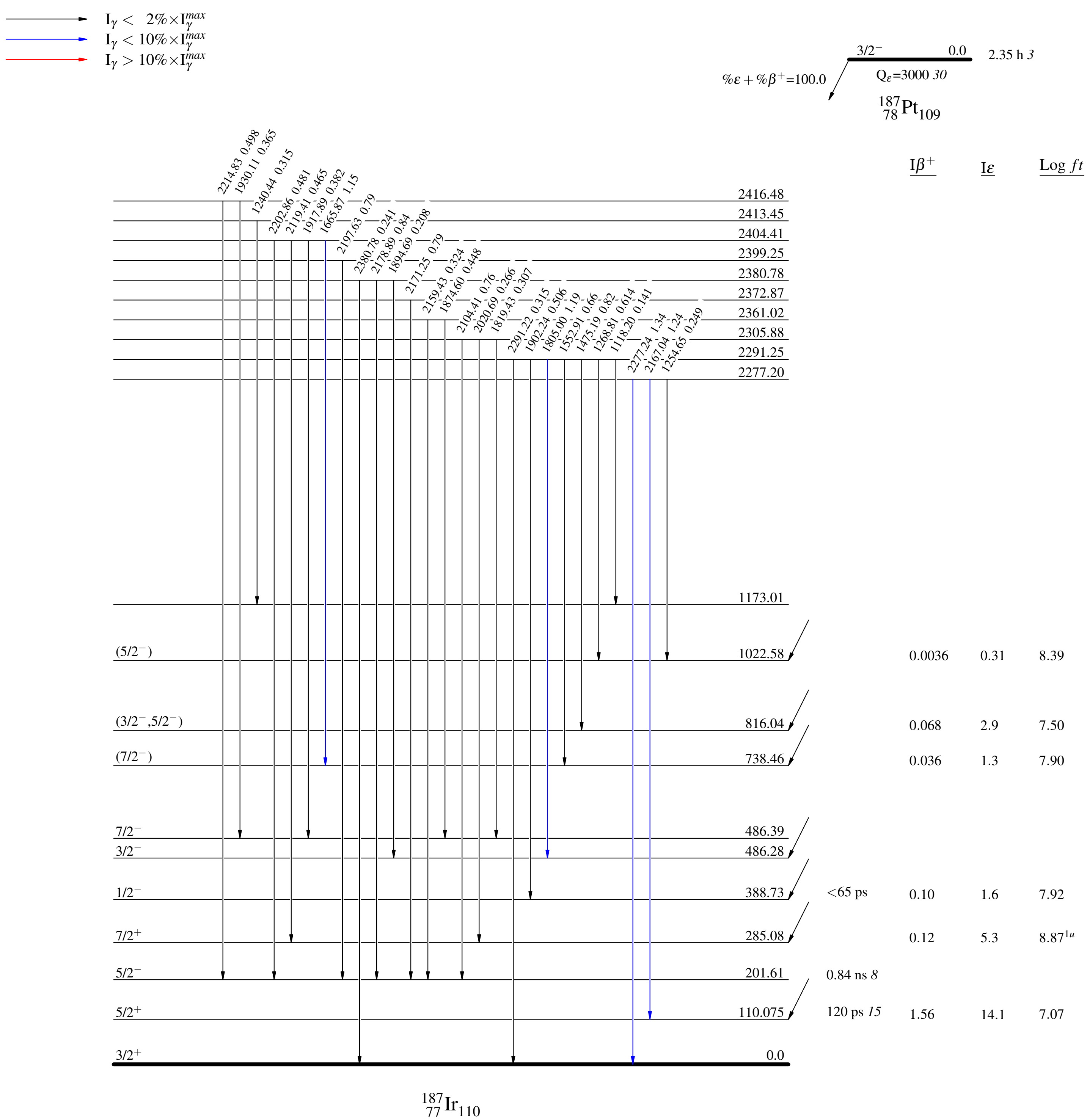
$\gamma(^{187}$Ir) (continued)

[h] Deduced by the evaluator from α(K)exp value of 1973Se13.
[i] From 1992Gu14.
[j] From 1992GuZX.
[k] For absolute intensity per 100 decays, multiply by 0.083 *3*.
[l] 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.
[m] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

^{187}Pt ε decay 1992GuZX,1992Gu14,1973Se13

Decay Scheme

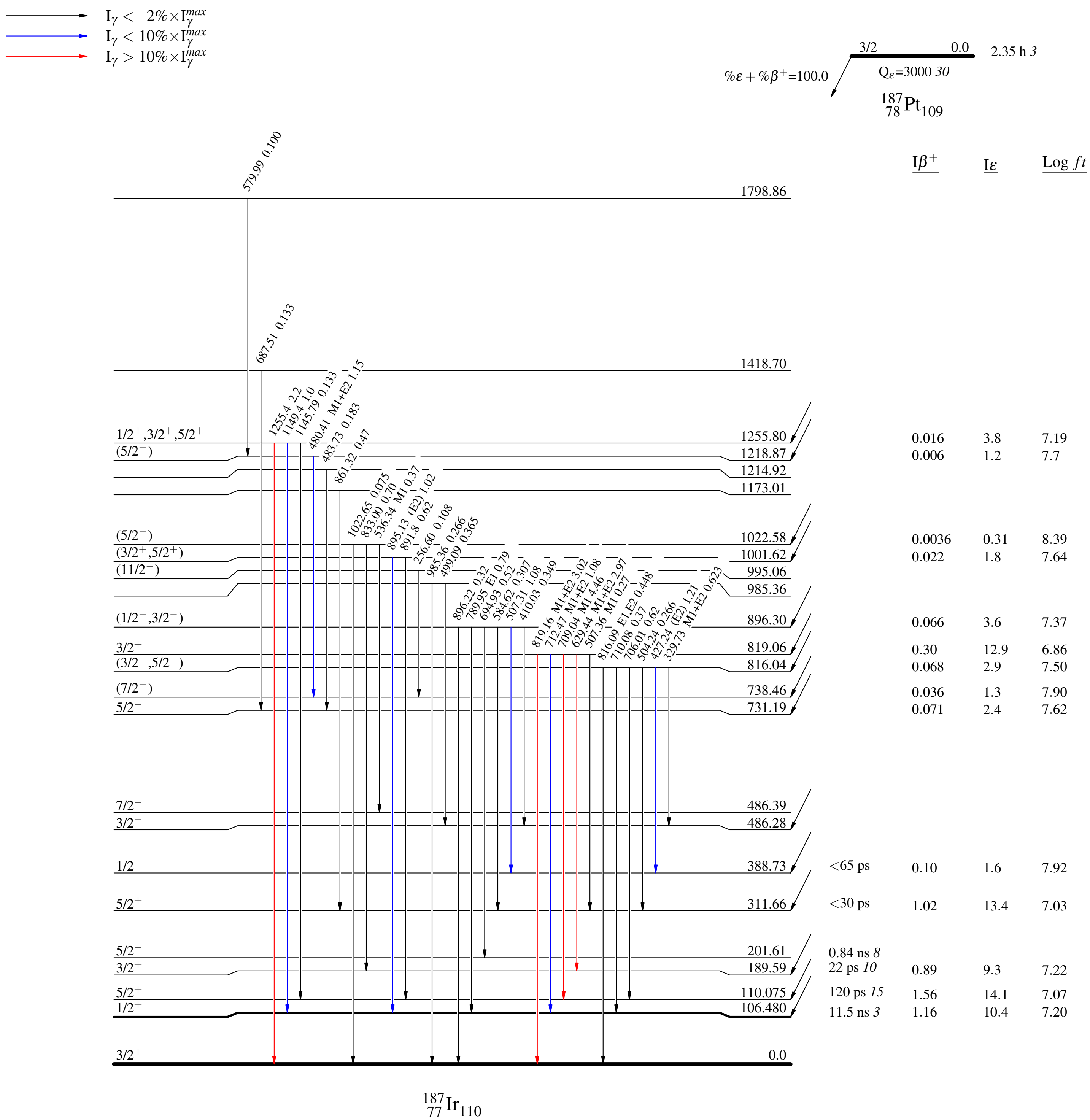
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{187}Pt ε decay 1992GuZX,1992Gu14,1973Se13

Decay Scheme (continued)

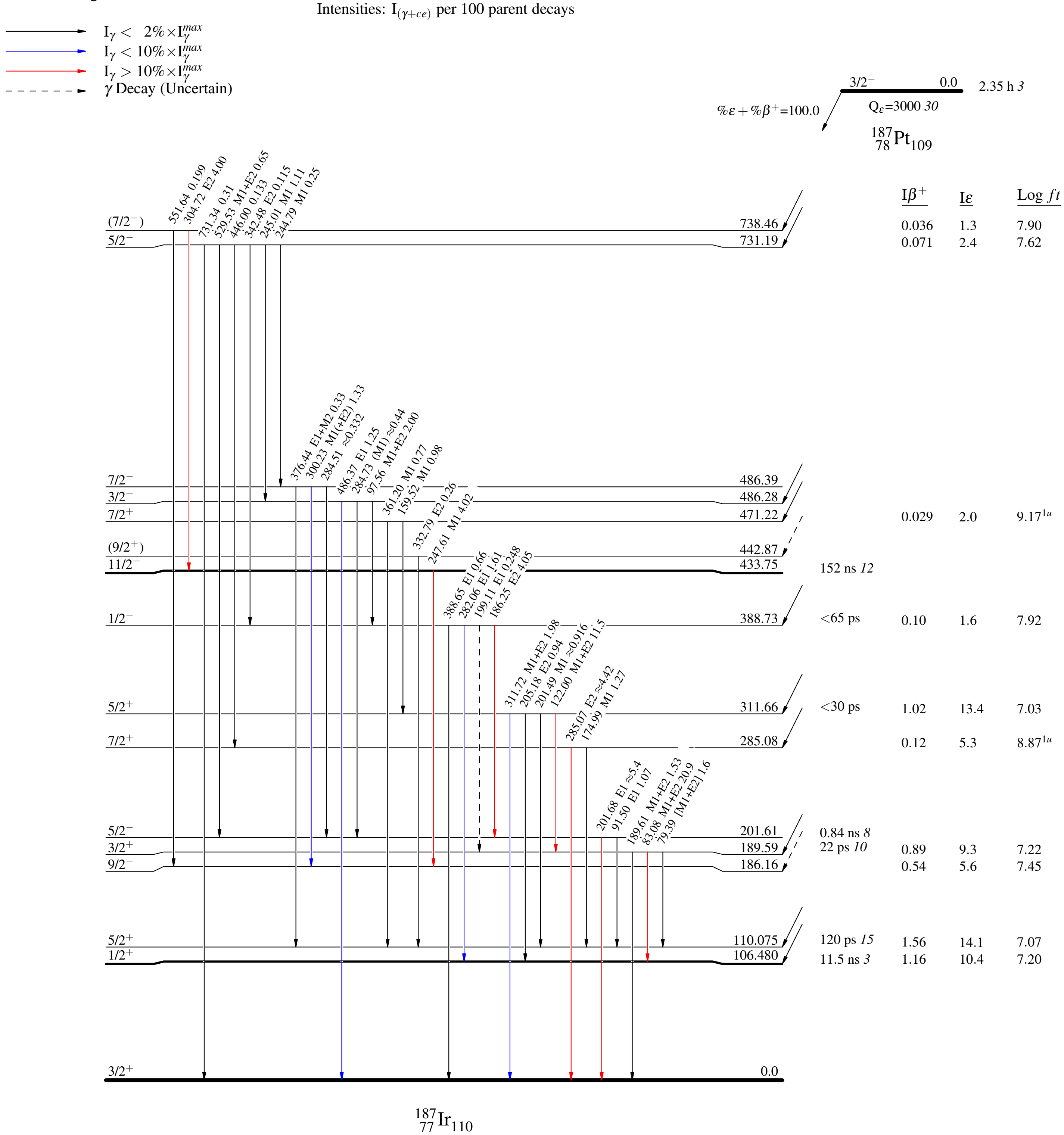
Intensities: $I_{(\gamma+ce)}$ per 100 parent decays



^{187}Pt ε decay 1992GuZX,1992Gu14,1973Se13

Decay Scheme (continued)

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



^{187}Pt ε decay 1992GuZX,1992Gu14,1973Se13

Decay Scheme (continued)

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