^{192}Ir β^- decay (73.829 d)

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 1871 (2012)	15-Jun-2012

Parent: ^{192}Ir: E=0.0; J$^\pi$=4$^+$; $T_{1/2}$=73.829 d *11*; Q(β^-)=1454.5 *23*; %β^- decay=95.24 *4*

This decay has been evaluated independently by E. Browne (1999BeZQ, 1999BeZS).

See ^{192}Ir Adopted Levels for the evaluated half-life of ^{192}Ir.

The total average radiation energy released by ^{192}Ir β^- decay is 1389.0 keV *12* (calculated by evaluator using the computer program RADLST). This value agrees well with Q×Branching=1390.2 keV *19* and thus confirms the consistency of the decay scheme.

1988Li06: sources from ^{191}Ir(n,γ), E=thermal; measured Eγ, Iγ (Ge(Li), FWHM=2.1 keV at 1332.5 keV; HPGe, FWHM=540 eV at 122 keV), $\gamma\gamma$ coin; used absorbers to eliminate sum and pile-up peaks.

The decay scheme is from 1988Li06.

^{192}Pt Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$[‡]	Comments
0.0	0$^+$	stable	
316.50646 *15*	2$^+$	43.7 ps *9*	g=0.287 *17* (1992Bo20,1992Al21) g-factor: from IMPAC measurement assuming $T_{1/2}$=44.3 ps. Others: 0.296 *22* (1970Be08, $\gamma(\theta$,H,t)). $T_{1/2}$ data from ^{192}Ir β^- decay (73.829 d): 27 ps *4* ($\beta\gamma\gamma$(t), 1962De14), 35 ps *3* ($\gamma\gamma$(t), 1966Sc06), 34 ps *5* (γce(t), 1970Be08), 42.8 ps *15* ($\beta\gamma\gamma$(t), 1973Sm01), 33 ps *4* (ce-ce(t), 1976Bu20).
612.46320 *17*	2$^+$	26.5 ps *15*	g=+0.29 *5* (1970Be08) g-factor: from $\gamma(\theta$,H,t). $T_{1/2}$: from γce(t) (1973Sm01). Other values: 24 ps *13* (cece(t), 1965Bu06), 20.1 ps *21* (γce(t), 1970Be08), 26.0 ps *26* (cece(t), 1976Bu20).
784.5759 *3*	4$^+$	4.2 ps *2*	$T_{1/2}$ data from ^{192}Ir β^- decay (73.829 d): 11.8 ps *21* ($\beta\gamma$(t), 1966Sc06), 5 ps *4* (cece(t), 1975Aw01), 13 ps *10* (cece(t), 1976Bu20), 6.0 ps *17* (βce(t), 1978Bu02).
920.91854 *21*	3$^+$	21.3 ps *21*	$T_{1/2}$: from βce(t) (1978Bu02), assuming $T_{1/2}$(612.5 level)=26.5 ps *15*. Other values: 26 ps *4* (cece(t), 1976Bu20),<24 ps (cece(t), 1965Bu06).
1201.0452 *5*	4$^+$		
1378.03 *3*	3$^-$	41 ps *9*	
1383.99 *15*	(5)$^-$		
1406.37 *6*	3$^+$		

† From least-squares fit to Eγ.
‡ From ^{192}Pt Adopted Levels.

β^- radiations

β^- feedings are from intensity imbalance at each level (no β branch to the 0$^+$ g.s. is expected from the 4$^+$ parent).

E(decay)[†]	E(level)	Iβ^-[‡]	Log *ft*	Comments
(48.1 *23*)	1406.37	0.0059 *5*	8.83 *8*	av Eβ=12.25 *60*
(70.5 *23*)	1383.99	0.0039 *17*	9.51 *20*	av Eβ=18.13 *62*
(76.5 *23*)	1378.03	0.1026 *17*	8.20 *5*	av Eβ=19.72 *62*
240 *15*	1201.0452	5.60 *3*	8.077 *13*	av Eβ=70.01 *70* Iβ^-: direct measurement: 8% 2 (1965Jo04).
535 *2*	920.91854	41.42 *12*	8.260 *7*	av Eβ=160.32 *79* E(decay): from 1977Ra17. Other value: 536 keV *6* (1965Jo04). Iβ^-: direct measurement: 41% 4 (1965Jo04).

Continued on next page (footnotes at end of table)

^{192}Ir β^- decay (73.829 d) (continued)

β^- radiations (continued)

E(decay)†	E(level)	Iβ^-‡	Log *ft*	Comments
672 *4*	784.5759	47.98 *9*	8.531 *6*	av Eβ=208.01 *83* E(decay): other value: 666 keV *2* (1977Ra17). Iβ^-: direct measurement: 46% 4 (1965Jo04).

† From 1965Jo04, except where noted. Other Eβ, Iβ: 1947Le01, 1951Sh84, 1952Ba01, 1954Jo20, 1955Ba01, 1977Ra17.
‡ Absolute intensity per 100 decays.

γ(^{192}Pt)

Iγ normalization: from total Ti(to ^{192}Pt g.s.) + total Ti(to ^{192}Os g.s.)=100% (direct β^- and ε feedings to the respective ground states are not expected (ΔJ=4)). Systematics of log *ft* values for ΔJ=4, $\Delta\pi$=No decays suggest a lower limit of about 22.5 (1998Si17), implying %Iβ(g.s.) and %ε(g.s.) of At most 1×10^{-11} and 5×10^{-13}%, respectively.

Principal sources of γ energy and intensity data: 1966Sc20, 1969LeZU, 1973Ge05, 1975Bo07, 1975Pr03, 1983Sc12, 1984Iw03, 1985DaZX, 1985Ei01, 1986Me07, 1987Me14, 1988Li06, 1992Si25, 1994Mi22, 2000He14.

Principal sources of ce data: 1957Ke01 (same data as 1957Ke66; note that the precision of these data appears to have been underestimated), 1960Ma17, 1966Sc20, 1967Dr03, 1967Ka04, 1968Bo01, 1968Ni07, 1969Ma14, 1970Wi08, 1971HeZA, 1974Vo13, 1983Ha34.

Additional information 1.

Principal $\gamma\gamma(\theta)$, ce$\gamma(\theta)$, $\gamma\gamma\gamma(\theta)$ studies: 1969Gr19, 1969Kh04, 1969Ma14, 1970Be08, 1970Hi02, 1970Se08, 1971Do12, 1973Al27, 1974He08, 1974SiZC, 1974Vo13, 1974YaZK, 1975MiZM, 1975Pa23, 1987Me14.

Nuclear orientation: 1969Re06, 1970Hi12, 1970Si17, 1971Ho35, 1973Ho03, 1983Ri14, 1985Ri07, 1985Ri13, 1988Sc20, 1989Tr16.

$\gamma(\theta$,H,T): 1992Al21, 1992Bo20.

$\beta\gamma(\theta)$: 1967Bh09, 1969Ap01, 1970Hi02, 1970Se08, 1974Su07.

β(circularly polarized γ)(θ): 1967Bh09.

γ(linearly polarized γ)(θ): 1968Da26, 1968Ha46.

γ-ray linear polarization (oriented nuclei): 1983Ri14, 1985Ri07, 1985Ri13.

Summary of Pt x-ray intensities (I(x ray) relative to I(316)=100).

Energy	1983Sc12	1986Me07	1992Si25	Average	%I(x ray)(Exp)	%I(x ray)(Calc)	x-ray
8.3	0.415 15	0.32 4	-	0.40 3	0.331 25		Xl
13	0.085 12	0.110 10	-	1.100 12	0.911 10		L x rayγ123
9.44						3.98 6	L x ray
65.1	5.25 17	5.39 5	5.58 19	5.39 5	4.47 4	4.54 9	Kα_1 x ray
66.8	3.09 12	3.10 3	3.08 10	3.10 3	2.569 25	2.65 6	Kα_2 x ray
75.4	1.78 6	1.80 2	1.89 7	1.805 18	1.496 15		Kβ_1' x ray
77.9	0.53 4	0.497 10	0.490 18	0.497 13	0.412 11		Kβ_2' x ray
75.7						1.97 4	Kβ x ray

The experimental absolute Pt K-xray intensities agree well with the values calculated by the evaluator using the RADLST code and the nuclear and atomic data presented in this evaluation. The good agreement between these quantities constitutes a test for the self-consistency of the decay scheme.

Summary of relative intensity data for principal lines:

Reference	136.3γ y	296.0γ	308.4γ	316.5γ	416.5γ y	468.1γ
1973Ge05	0.218 10	34.64 35	35.77 36	100	0.802 15	58.0 9
1975Pr03	0.19 6	35.6 13x	37.1 8x	100	0.89 64x	59.27 20x
1983Sc12	0.278 24	34.54 36	35.99 36x	100.0 8	0.806 18	57.61 48
1984Iw03 s	0.35 6	34.69 17	35.87 19	100.0 5	0.797 11	57.76 23
1985DaZX	-	34.65 14	35.89 15	100.0 4	-	57.8 3
1985Ei01	0.209 8	34.81 66	36.34 73x	100	0.77 2	58.2 10

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1986Me07	0.307 10	34.94 18x	35.81 20	100.0 5	0.834 8	57.01 41
1987Me14		-	-	100.0 5	-	-
1988Li06	0.214 8	34.7 7	35.8 7	100	0.807 24	57.2 12
1992Si15	0.260 8	34.52 60	35.77 62	100.0 10	0.776 15	57.0 10
1994Mi22	-	34.62 16	35.84 16	100.0 4	-	57.76 24
Recommended	0.24 3e	34.65 8	35.85 8	100.0 2	0.809 25e	57.733 23

Reference	588.6γ	593.5γ	604.4γ	612.5γ y	884.5γ y	1061.5γ
1973Ge05	5.52 10	0.045 3	10.04 26	6.55 13	0.364 7	0.067 3
1975Pr03	5.46 20	0.010 3x	10.9 6x	6.7 4	0.45 3x	0.070 4
1983Sc12	5.45 5	0.058 5	9.89 7	6.41 5	0.356 8	0.064 4
1984Iw03 s	5.423 21	0.052 3	9.79 4	6.365 25	0.3435 24	0.0633 11
1985DaZX	5.48 3	-	10.00 6	6.54 4	-	-
1985Ei01	5.47 98	0.043 7z	10.39 18x	6.77 12	0.366 6	0.063 2
1986Me07	5.56 5	0.052 2	10.10 9	6.61 6	0.360 3	0.067 2
1987Me14	-	-	-	-	-	-
1988Li06	5.36 14	0.046 3	9.77 23	6.34 16	0.347 8	0.063 2
1992Si15	5.40 10	0.059 4	9.87 17	6.25 11	0.346 8	0.062 3
1994Mi22	5.468 21	-	9.95 4	6.488 28	-	-
Recommended	5.458 12	0.0507 12	9.916 23	6.45 9e	0.352 8e	0.0641 7

Reference	1089γ	1378γ
1973Ge05	0.0020 7	0.0015 7
1975Pr03	0.0030 2x	0.0020 4
1984Iw03 s	0.0010 5	0.0016 5
1985Ei01	0.0018 5	0.0010
1987Me14	0.0012 3	-
1988Li06	0.0012 5	0.0015 4
1992Si15	0.0020 6	-
Recommended	0.0040 19	0.00169 23

s Data Presumed To Supersede Those From 1980Yo06.
x Statistical Outlier Based On Chauvenet Criterion; Datum Excluded From Average.
y Data For This γ Are Discrepant (χ^2 Exceeds Critical Value), Even After Elimination Of Statistical Outlier Data.
z Iγ=0.0043 7 Reported By 1985Ei01 Is Presumed By The Evaluator To be α Misprint Of 0.043 7, Consistent With Branching In ε Decay.
e Weighted Average With Uncertainty Expanded To Encompass Most Precise Datum.

E_γ	I_γ[‡b]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	δ[@]	α[†]	Comments
136.39 *3*	0.24 *3*	920.91854	3^+	784.5759	4^+	M1+E2	+3.5 *+39−16*	1.53 *19*	α(K)=0.6 *3*; α(L)=0.73 *6*; α(M)=0.187 *16*; α(N+..)=0.053 *5* α(N)=0.046 *4*; α(O)=0.0072 *6*; α(P)=6.E−5 *3* E_γ: weighted average of 136.38 *10* (1966Sc20), 136.39 *4* (1973Ge05), 136.36 *30* (1988Li06). δ: others: 2.0 *3* (from α(K)exp=0.80 *8*), 3.7 *3* (from K/L), 1.65 *7* (from L1/L3), 1.53 *5* (from L1/L2). α(K)exp=0.74 *11* (1966Sc20); α(K)exp=0.80 *8*;

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									K/L=0.75 *3* (1960Ma17); L1:L2:L3=100:210 *10*:170 *10* (1957Ke01,1957Ke66); (L1+L2)/L3=1.7 *2* (1966Sc20).
176.98 *4*	0.0052 *12*	1378.03	3^-	1201.0452	4^+	[E1]		0.0954	α(K)=0.0781 *11*; α(L)=0.01329 *19*; α(M)=0.00307 *5*; α(N+..)=0.000886 *13* α(N)=0.000750 *11*; α(O)=0.0001291 *18*; α(P)=6.70×10^{-6} *10* E$_\gamma$: from 1969LeZU. Other: 177.01 (1988Li06, uncertainty 0.03 to 0.3). (1988Li06). I$_\gamma$: weighted average of 0.0048 *15* (1988Li06) and 0.006 *2* (1985Ei01).
[x]214.7[&] *5*									
280.27 *24*	0.010 *5*	1201.0452	4^+	920.91854	3^+	M1(+E2)	≤5.4	0.25 *12*	α(K)=0.19 *12*; α(L)=0.043 *7*; α(M)=0.0104 *11*; α(N+..)=0.0030 *4* α(N)=0.0026 *3*; α(O)=0.00044 *7*; α(P)=2.1×10^{-5} *14* E$_\gamma$: unweighted average of 280.03 *5* (1969LeZU) and 280.51 *15* (1988Li06); other: 280 *1* (1966Sc20). I$_\gamma$: based on Iγ=0.0099 *6* (1988Li06) and Iγ<0.005 (1985Ei01). Other Iγ: 0.030 *2* (1986Me07). δ: from α(K)exp. α(K)exp=0.32 *23* (1966Sc20).
295.95650[a] *15*	34.65 *8*	612.46320	2^+	316.50646	2^+	M1+E2	+10.0 *4*	0.1047	α(K)=0.0651 *10*; α(L)=0.0299 *5*; α(M)=0.00749 *11*; α(N+..)=0.00214 *3* α(N)=0.00183 *3*; α(O)=0.000299 *5*; α(P)=6.58×10^{-6} *10* Mult.: E0 admixture not found (1969Ma14,1971Do12,1973Al27). δ: other data: +7.1 *3* (γγ(θ), 1987Me14), +10 *+3−2* (γγγ(θ), 1975Pa23), +8.8 *3* (γγ(θ), 1974He08), +5.4 *2* (γce(θ), 1974Vo13), +7.4 *2* (γγ(θ), 1974YaZK), +6 *+3−1* (γ(θ,t), 1970Hi12), +5.6 *+15−11* (γce(θ), 1970Hi02), +9.1 *+17−27* (γγ(θ), 1969Gr19), +15 *+10−5* (γ(θ,t), 1969Re06). α(K)exp=0.0678 *16*; K/L=2.2 *2*, (L1+L2)/L3=3.3 *2* (1966Sc20); M1:M2:M3=215 *11*:374 *19*:217 *15*

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$\gamma(^{192}Pt)$ (continued)

E_γ	I_γ [‡b]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[@]	α[†]	Comments
									(1967Dr03); L1/L3=1.307 *15* (1971HeZA); K/L1=7.32 *13*, L1:L2:L3=1.32 *3*:1.91 *3*:1 (1974Vo13); K/L3=8.90 *5* (1969Ma14); K/M=8.9 *2* (1957Ke01,1957Ke66).
308.45507[a] *17*	35.85 *8*	920.91854	3+	612.46320	2+	M1+E2	+7.20 *3*	0.0943	α(K)=0.0603 *9*; α(L)=0.0257 *4*; α(M)=0.00642 *9*; α(N+..)=0.00184 *3* α(N)=0.001574 *22*; α(O)=0.000258 *4*; α(P)=6.15×10^{-6} *9* δ: other data: +6.9 *5* (γγ(θ), 1987Me14), +8.1 *+14−10* (γγ(θ), 1974He08), +8.0 *6* (γγ(θ), 1974YaZK), +7.1 *6* (γ(θ,t), 1970Hi12), +6.3 *+6−5* (γγ(θ), 1970Be08), +9.9 *10* (γγ(θ), 1969Gr19), +8 *2* (γγ(θ), 1969Kh04), +7.3 *2* (γ(θ,t), 1969Re06), 6.5 *+10−7* from α(K)exp In 1974Vo13. α(K)exp=0.0627 *16*, K/L=2.2 *1*, (L1+L2)/L3=3.13 *20* (1966Sc20); M1:M2:M3=100:169 *5*:87 *4* (1957Ke01,1957Ke66); L1/L3=1.396 *18* (1971HeZA); α(K)exp=0.0611 *10*, K/L1=7.25 *17*, L1:L2:L3=1.30 *5*:1.86 *6*:1 (1974Vo13).
x314.80[&] *25*									
316.50618[a] *17*	100.0	316.50646	2+	0.0	0+	E2		0.0841	α(K)=0.0535 *8*; α(L)=0.0232 *4*; α(M)=0.00579 *9*; α(N+..)=0.001655 *24* α(N)=0.001418 *20*; α(O)=0.000232 *4*; α(P)=5.42×10^{-6} *8* Mult.: from ce subshell ratios, γγ(θ). K/L=2.2 *1*, (L1+L2)/L3=3.15 *20* (1966Sc20); L/(L+M+)=1.75 *5* (1983Ha34); L1:L2:L3=1.303 *13*:1.928 *15*:1 (1967Ka04,1968Ni07); L1:L2:L3=100 *1*:149 *1*:75.8 *9* (1964He19); L:M:N+=4.2 *4*:1:0.29 (1968Bo01); M1:M2:M3=175 *9*:285 *14*:151 *7* (1967Dr03); N1/N3=1.055 *32* (1971HeZA); O/N=0.149 *8* (1957Ke01); K/L1=7.58 *12*, L1:L2:L3=1.28 *2*:1.90 *3*:1 (1974Vo13). %Iγ=82.84 *12* assuming proposed decay scheme normalization.
x319.32[&] *25*									
x415.4[&] *5*									
416.4688[a] *7*	0.809 *25*	1201.0452	4+	784.5759	4+	M1+E2	+2.9 *10*	0.049 *10*	α(K)=0.036 *9*; α(L)=0.0097 *9*; α(M)=0.00236 *20*; α(N+..)=0.00068 *6* α(N)=0.00058 *5*; α(O)=9.8×10^{-5} *10*; α(P)=3.8×10^{-6} *10* δ: from γγ(θ) (1987Me14). Other values: +11 *+5−2* (γγ(θ) and γ linear polarization (oriented nuclei), 1985Ri13), +7 *+4−3* (γγ(θ), 1974He08), +3.1 *14* (γγ(θ), 1974YaZK), −4 *−7+3* (γ(θ,t), 1970Hi12), 3.9 *+7−14* from α(K)exp. δ from (L1+L2)/L3 is consistent with pure E2. α(K)exp=0.0324 *22*, K/L=3.7 *5*, (L1+L2)/L3=4.7 *5* (1966Sc20).
468.06885[a] *26*	57.733 *23*	784.5759	4+	316.50646	2+	E2		0.0291	α(K)=0.0212 *3*; α(L)=0.00606 *9*; α(M)=0.001479 *21*; α(N+..)=0.000427 *6*

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^{192}Ir β^- decay (73.829 d) (continued)

γ(^{192}Pt) (continued)

E_γ	I_γ[‡b]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	δ[@]	α[†]	Comments
									α(N)=0.000363 *5*; α(O)=6.11×10^{-5} *9*; α(P)=2.22×10^{-6} *4* Mult.: from ce subshell ratios below, and from $\gamma\gamma(\theta)$, nuclear orientation (1969Re06). K/L=3.7 *3*, (L1+L2)/L3=5.3 *3* (1966Sc20); K/L1=7.20 *16*, L1:L2:L3=3.10 *7*:2.33 *8*:1, α(K)exp=0.0211 *8* (1974Vo13); α(M)exp=1.55×10^{-3} *9* (1967Dr03); L:M:N+=4.3 *5*:1:0.3 (1968Bo01).
485.45 *6*	0.0057 *5*	1406.37	3$^+$	920.91854	3$^+$				Placed by evaluator; transition not resolved from 484.6γ (in ^{192}Os), but known from ^{192}Au ε decay and (particle,xnγ) reactions. E_γ: from Adopted Gammas. I_γ: deduced from I(1090γ) here and I(485γ):I(1090γ)=100 *8*:24.6 *23* from Adopted Gammas.
588.5810[a] *7*	5.458 *12*	1201.0452	4$^+$	612.46320	2$^+$	E2		0.01682	α(K)=0.01282 *18*; α(L)=0.00305 *5*; α(M)=0.000734 *11*; α(N+..)=0.000213 *3* α(N)=0.000181 *3*; α(O)=3.09×10^{-5} *5*; α(P)=1.356×10^{-6} *19* Mult.: from $\gamma\gamma(\theta)$, nuclear orientation (1969Re06) and α(K)exp;<6% M3 admixture ($\gamma\gamma(\theta)$, 1974SiZC). α(K)exp=0.0135 *10* (1974Vo13), 0.014 *4*(1966Sc20); K/L=3.8 *5* (1970Wi08).
593.63 *19*	0.0507 *12*	1378.03	3$^-$	784.5759	4$^+$	E1+M2	−0.07 *2*	0.0064 *5*	α=0.0064 *5*; α(K)=0.0054 *4*; α(L)=0.00084 *7*; α(M)=0.000192 *16*; α(N+..)=5.6×10^{-5} *5* α(N)=4.7×10^{-5} *4*; α(O)=8.4×10^{-6} *7*; α(P)=5.3×10^{-7} *5* E_γ: unweighted average of 593.38 *5* (1973Ge05), 594.0 *3* (1985Ei01), 593.5 *3* (1988Li06). Mult.: from Adopted Gammas.
599.41 *15*	0.0047 *20*	1383.99	(5)$^-$	784.5759	4$^+$	E1		0.00567 *8*	α=0.00567 *8*; α(K)=0.00474 *7*; α(L)=0.000720 *10*; α(M)=0.0001646 *23*; α(N+..)=4.81×10^{-5} *7* α(N)=4.05×10^{-5} *6*; α(O)=7.19×10^{-6} *10*; α(P)=4.56×10^{-7} *7* E_γ,I_γ: from 1988Li06. Mult.: from Adopted Gammas.
604.41105[a] *25*	9.916 *23*	920.91854	3$^+$	316.50646	2$^+$	M1+E2	−1.48 *2*	0.0258	α(K)=0.0207 *4*; α(L)=0.00392 *6*; α(M)=0.000921 *14*; α(N+..)=0.000269 *4* α(N)=0.000227 *4*; α(O)=3.99×10^{-5} *6*; α(P)=2.26×10^{-6} *4* δ: other data: −1.2 *1* ($\gamma\gamma(\theta)$, 1987Me14), −1.90 *9* ($\gamma\gamma(\theta)$, 1974He08), −1.2 *1* ($\gamma\gamma(\theta)$, 1974YaZK), −2.5 *2* ($\gamma\gamma(\theta)$, 1970Be08), −3.0 *+9−12* (γce(θ), 1970Se08), −2.0 *2* ($\gamma\gamma(\theta)$, 1969Gr19), −1.5 *1* ($\gamma(\theta$,t), 1970Hi12), −3.3 *+4−7* (γce(θ), 1970Hi02), −1.5 *1* ($\gamma(\theta$,t), 1969Re06), 1.40 *8* (from α(K)exp). α(K)exp=0.0213 *6* (1966Sc20); K/L=4.7 *1* (1957Ke01,1957Ke66); K/L1=6.6 *3*, L1:L2:L3=11.5 *15*:3.4 *4*:1 (1974Vo13).

From ENSDF

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γ(^{192}Pt) (continued)

E_γ	I_γ[‡b]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	δ[@]	α[†]	Comments
612.46215[a] *26*	6.45 *9*	612.46320	2+	0.0	0+	E2		0.01536	α(K)=0.01179 *17*; α(L)=0.00273 *4*; α(M)=0.000655 *10*; α(N+..)=0.000190 *3* α(N)=0.0001612 *23*; α(O)=2.76×10^{-5} *4*; α(P)=1.247×10^{-6} *18* Mult.: from α(K)exp and from γγ(θ), nuclear orientation (1969Re06). α(K)exp=0.0123 *54* (1966Sc20); α(M)exp=5.9×10^{-4} *5* (1967Dr03).
^{x}739[&] *1*									
765.8 *3*	0.0016 *7*	1378.03	3−	612.46320	2+	E1+M2	0.20 *+10−12*	0.006 *3*	α=0.006 *3*; α(K)=0.0049 *23*; α(L)=0.0008 *5*; α(M)=0.00019 *10*; α(N+..)=5.E−5 *3* α(N)=4.6×10^{-5} *25*; α(O)=8.E−6 *5*; α(P)=5.E−7 *3* Eγ,Iγ: from 1988Li06. δ: from α(K)exp. α(K)exp=0.0049 *22* (1966Sc20).
884.5365[a] *7*	0.352 *8*	1201.0452	4+	316.50646	2+	E2		0.00700 *10*	α=0.00700 *10*; α(K)=0.00561 *8*; α(L)=0.001062 *15*; α(M)=0.000250 *4*; α(N+..)=7.29×10^{-5} *11* α(N)=6.15×10^{-5} *9*; α(O)=1.077×10^{-5} *15*; α(P)=5.93×10^{-7} *9* Mult.: <0.04% M3 admixture (γγ(θ), 1974SiZC). α(K)exp=0.00593 *21*, K/L=5.2 *4* (1966Sc20).
1061.49 *4*	0.0641 *7*	1378.03	3−	316.50646	2+	E1(+M2)	+0.04 *+5−3*	0.00194 *17*	α=0.00194 *17*; α(K)=0.00163 *14*; α(L)=0.000240 *24*; α(M)=5.5×10^{-5} *6*; α(N+..)=1.60×10^{-5} *17* α(N)=1.35×10^{-5} *14*; α(O)=2.41×10^{-6} *25*; α(P)=1.61×10^{-7} *17* Eγ: weighted average of 1062.0 *4* (1966Sc20), 1061.48 *4* (1973Ge05), 1061.6 *5* (1985Ei01), 1061.46 *30* (1988Li06). δ: other value:<0.055 (γγ(θ), 1975MiZM). α(K)exp=0.00200 *9*, K/L=6.6 *4* (1966Sc20).
1089.96 *26*	0.00140 *19*	1406.37	3+	316.50646	2+	M1+E2	1.8 *+14−6*	0.0060 *11*	α=0.0060 *11*; α(K)=0.0049 *9*; α(L)=0.00083 *13*; α(M)=0.00019 *3*; α(N+..)=5.6×10^{-5} *9* α(N)=4.7×10^{-5} *7*; α(O)=8.4×10^{-6} *13*; α(P)=5.3×10^{-7} *10* Eγ: weighted average of 1090.5 *4* (1966Sc20), 1089.9 *8* (1973Ge05), 1090.3 *5* (1985Ei01), 1089.55 *30* (1988Li06). δ: from α(K)exp. α(K)exp=0.0049 *7*, K/L=6.4 *5* (1966Sc20).
1378.50 *24*	0.00169 *23*	1378.03	3−	0.0	0+	(E3)		0.00613 *9*	α=0.00613 *9*; α(K)=0.00486 *7*; α(L)=0.000957 *14*; α(M)=0.000226 *4*; α(N+..)=7.90×10^{-5} *11* α(N)=5.59×10^{-5} *8*; α(O)=9.82×10^{-6} *14*; α(P)=5.54×10^{-7} *8*; α(IPF)=1.272×10^{-5} *18*

γ(^{192}Pt) (continued)

E_γ	E_i(level)	Comments
		E_γ: unweighted average of 1379.0 *5* (1966Sc20), 1378.0 *5* (1973Ge05), 1378.8 *10* (1985Ei01), 1378.2 *3* (1988Li06) (weighted average is 1378.35 *22*). Mult.: K/L implies E3, but α(K)exp favors E2 over E3. α(K)exp=0.0027 *4*, K/L=5.2 *4* (1966Sc20).

† Additional information 2.

‡ Data from 1994Mi22, 1992Si25, 1988Li06, 1987Me14, 1986Me07, 1985DaZX, 1985Ei01, 1984Iw03, 1983Sc12, 1975Pr03, 1973Ge05 are summarized above. The recommended values are weighted averages of these data, excluding data given As a limit, or without an uncertainty or identified As a statistical outlier based on the Chauvenet criterion, except As noted. note that many values from 1975Pr03 are statistically inconsistent (outliers).

From α(K)exp, except where noted. Conversion coefficients attributed to 1966Sc20 were calculated by the evaluator from Iγ given here and Ice from 1966Sc20; the photon and ce intensity scales were normalized assuming α(K)(E2 theory)=0.0535 for 316.5γ.

@ From $\gamma\gamma(\theta)$ and γ-ray linear polarization (oriented nuclei) (1985Ri13), except where noted.

& Seen in ce spectra only (1966Sc20); transition could alternatively be attributed to ^{192}Ir ε decay (73.829 d).

[a] From evaluation by 2000He14, based on a revised energy scale that uses the fundamental constants and wave lengths from an updated value of the Si crystal lattice spacing (1987Co39). 2000He14 fitted the revised γ-ray energies to a level scheme. Their recommended γ-ray energies are from level-energy differences corrected for recoil. see 1999He26 for discussion of improvement of ^{192}Ir calibration energies by use of a self-calibration procedure.

[b] For absolute intensity per 100 decays, multiply by 0.8286 *4*.

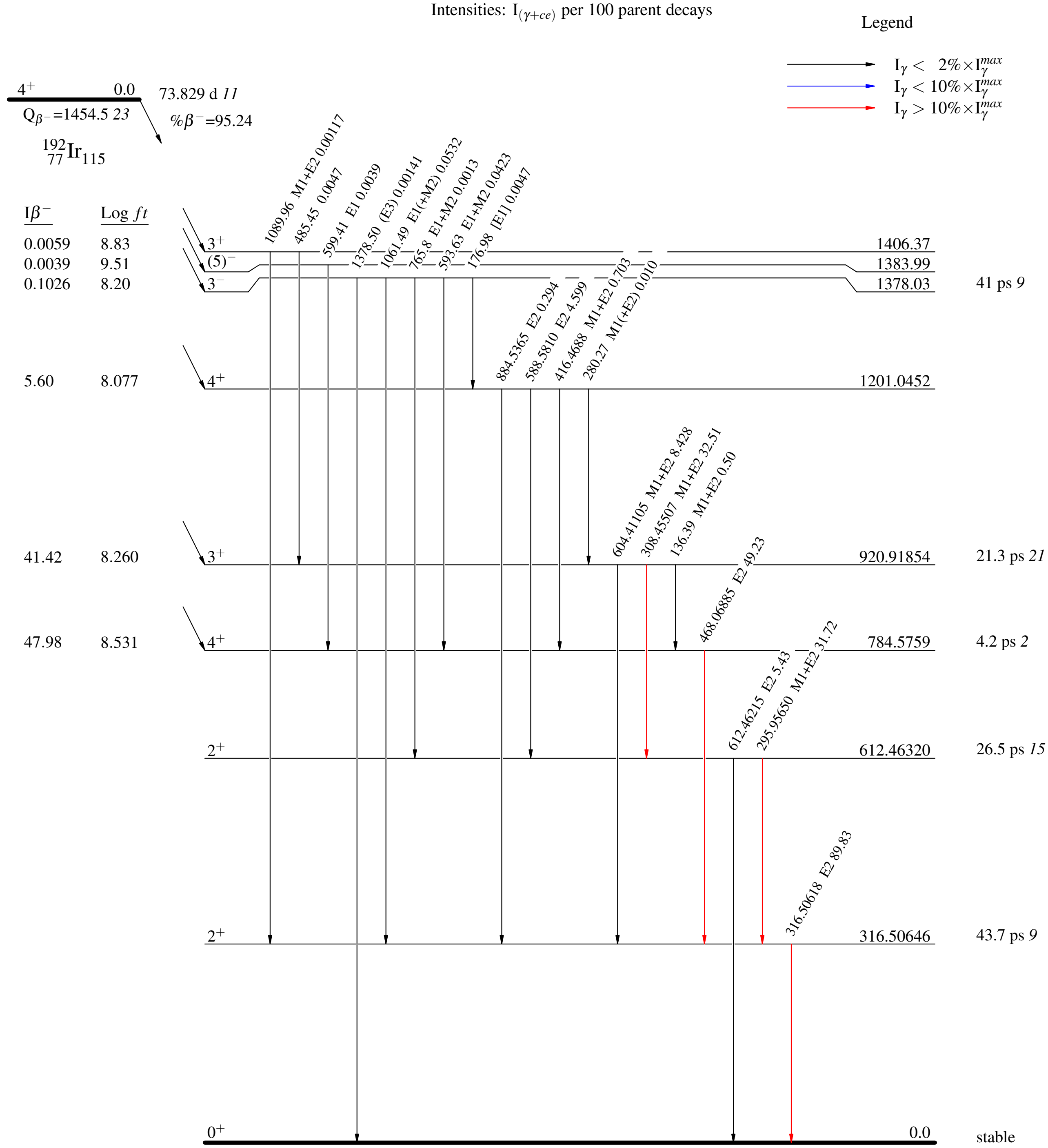
[x] γ ray not placed in level scheme.

$^{192}_{78}$Pt$_{114}$-9

^{192}Ir β^- decay (73.829 d)

Decay Scheme

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



$^{192}_{78}Pt_{114}$