

^{192}Ir β^- decay (1.45 min) 1959Sc41,1961Sc07

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

Parent: ^{192}Ir : E=56.720 5; $J^\pi=1^-$; $T_{1/2}=1.45$ min 5; $Q(\beta^-)=1454.5$ 23; $\% \beta^-$ decay=0.0175

The decay scheme and data are from 1959Sc41, 1961Sc07, except where noted. Sources from $^{191}\text{Ir}(n,\gamma)$; measured $E\beta$, $I\beta$, $E\gamma$ (scin), $\gamma\gamma$ coin, $\beta\gamma$ coin.

Others: 1960He08, 1961He07.

 ^{192}Pt Levels

E(level) [†]	J^π [‡]	$T_{1/2}$ [‡]
0.0	0 ⁺	stable
316.50645 16	2 ⁺	43.7 ps 9
612.46318 18	2 ⁺	26.5 ps 15

[†] From least-squares fit to $E\gamma$.

[‡] Adopted values.

 β^- radiations

E(decay)	E(level)	$I\beta^-$ ^{†‡}	Log <i>ft</i>	Comments
898	612.46318	0.0025	8.4	av $E\beta=292.24$ 87
1185	316.50645	0.008	8.3	av $E\beta=407.10$ 92
1511	0.0	0.007	8.8	av $E\beta=535.25$ 95

[†] Measured values (1959Sc41); uncertainty unstated by authors. Total $I\beta=0.0175\%$.

[‡] Absolute intensity per 100 decays.

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

$I(\gamma+ce)$ normalization: From Σ ($I(\gamma+ce)$ to g.s.)=60.0 per 100 b- decays based on measured $I\beta$ from 1959Sc41.

E_γ [‡]	E_i (level)	J_i^π	E_f	J_f^π	Mult. [‡]	δ [‡]	α [†]	$I_{(\gamma+ce)}$ ^{#@}	Comments
295.95650 15	612.46318	2 ⁺	316.50645	2 ⁺	M1+E2	+10.0 4	0.1047	20.9	ce(K)/($\gamma+ce$)=0.0590 8; ce(L)/($\gamma+ce$)=0.0271 4; ce(M)/($\gamma+ce$)=0.00678 10; ce(N+)/($\gamma+ce$)=0.00194 3 ce(N)/($\gamma+ce$)=0.001660 24; ce(O)/($\gamma+ce$)=0.000271 4; ce(P)/($\gamma+ce$)=5.96×10 ⁻⁶ 9
316.50618 17	316.50645	2 ⁺	0.0	0 ⁺	E2		0.0841	100	ce(K)/($\gamma+ce$)=0.0493 7; ce(L)/($\gamma+ce$)=0.0214 3; ce(M)/($\gamma+ce$)=0.00534 8; ce(N+)/($\gamma+ce$)=0.001527 22 ce(N)/($\gamma+ce$)=0.001308 19; ce(O)/($\gamma+ce$)=0.000214 3; ce(P)/($\gamma+ce$)=5.00×10 ⁻⁶ 7
612.4621 3	612.46318	2 ⁺	0.0	0 ⁺	E2		0.01536	3.73	ce(K)/($\gamma+ce$)=0.01161 16;

Continued on next page (footnotes at end of table)

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

<u>E_γ</u> [‡]	<u>$E_i(\text{level})$</u>	<u>Comments</u>
ce(L)/(γ +ce)=0.00269 4; ce(M)/(γ +ce)=0.000645 9; ce(N+)/(γ +ce)=0.000187 3 ce(N)/(γ +ce)=0.0001587 23; ce(O)/(γ +ce)= 2.72×10^{-5} 4; ce(P)/(γ +ce)= 1.229×10^{-6} 18		

[†] [Additional information 1.](#)

[‡] From Adopted Gammas.

Arbitrary units. Deduced from measured I_β and adopted transition branchings from 316.5 and 612.5 levels.

@ Absolute intensity per 100 decays.

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Decay Scheme

