

^{175}Ir ε decay [1992Sc16](#),[1992Bo21](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 102, 719 (2004)	1-Jun-2004

Parent: ^{175}Ir : $E=0.0$; $J^\pi=(5/2^-)$; $T_{1/2}=9$ s 2; $Q(\varepsilon)=6676$ 24; $\% \varepsilon + \% \beta^+$ decay=99.15 28

[1992Sc16](#): activity produced by $^{141}\text{Pr}(^{36}\text{Ar},2n)$, $E=175$ MeV. Measured E_γ , I_γ , $\gamma\gamma$ coin. Detected Os K x ray, γ rays, and 511-keV annihilation radiation. Measured $T_{1/2}$. Detectors: hyperpure germanium.

[1992Bo21](#): activity produced by ^{32}S ($E=210$ MeV) on samarium targets. Measured E_γ , I_γ , γ -x ray coin. Measured $T_{1/2}$. Detectors: hyperpure germanium.

 ^{175}Os Levels

E(level)	J^π^\dagger	$T_{1/2}$	Comments
0.0	(5/2 ⁻)	1.4 min <i>I</i>	$T_{1/2}$: From 1972Be89 .
105.4 2	(7/2 ⁺)		
504.2 3			E(level): level is not the same as 504.77 ($J^\pi=(13/2^-)$) populated in $^{150}\text{Sm}(^{29}\text{Si},4n\gamma)$.

[†] From Adopted Levels.

 ε, β^+ radiations

E(decay)	E(level)
(6172 24)	504.2

 $\gamma(^{175}\text{Os})$

E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	α^\ddagger	Comments
105.4 2	100	105.4	(7/2 ⁺)	0.0	(5/2 ⁻)	(E1)	0.343	Mult.: From $^{150}\text{Sm}(^{29}\text{Si},4n\gamma)$ (1990Fa02).
399.0 2	30 2	504.2		105.4	(7/2 ⁺)			

[†] From [1992Sc16](#).

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

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Decay Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
 —→ $I_\gamma < 10\% \times I_\gamma^{\max}$
 —→ $I_\gamma > 10\% \times I_\gamma^{\max}$

