

$^{177}\text{Hf}(\gamma, \gamma')\text{:Mossbauer}$ [1972Da35,1963Wi07](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 159, 1 (2019)	30-Aug-2019

Additional information 1.

Other: [1961Ha24](#). ^{177}Hf Levels

E(level) [†]	J ^π [†]	T _{1/2} [†]	Comments
0.0	7/2 ⁻	stable	
112.9498 4	9/2 ⁻	0.541 ns 14	T _{1/2} : Other: 0.43 ns 4 (1963Wi07).
249.6744 5	11/2 ⁻	106 ps 21	T _{1/2} : from $\Gamma_{\gamma 0}(249.7\gamma)=2.8\times 10^{-6}$ eV 5 (1972Da35) and using $\Gamma_{\gamma 0}/\Gamma=0.613$ 4, deduced using the adopted branching ratio at the 11/2 ⁻ level.

[†] From Adopted Levels, unless otherwise specified. $\gamma(^{177}\text{Hf})$

E _i (level)	J ^π _i	E _γ [†]	I _γ [†]	E _f	J ^π _f	Mult. [†]	δ [†]	α [‡]
112.9498	9/2 ⁻	112.9498 4	100	0.0	7/2 ⁻	M1+E2	-4.77 19	
249.6744	11/2 ⁻	136.7245 5	23.27 19	112.9498	9/2 ⁻	M1+E2	-3.31 15	1.130 17
		249.6742 6	100.0 5	0.0	7/2 ⁻	E2		0.1395 20

[†] From adopted gammas.[‡] 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.

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Level Scheme

Intensities: Relative photon branching from each level

