^{174}Hf α decay   1961Ma05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. M. Baglin[1], E. A. Mccutchan[2], S. Basunia[1]	NDS 153, 1 (2018)	1-Oct-2018

Parent: ^{174}Hf: E=0.0; J$^{\pi}$=0$^+$; T$_{1/2}$=2.0×10^{15} y *4*; Q(α)=2494.5 *23*; %α decay=100.0
^{174}Hf-%α decay: %α(^{174}Hf)=100. ^{174}Hf is β stable.
Other: 1959Ri34.
1961Ma05: 10.14% enriched ^{174}Hf source; measured Eα and parent T$_{1/2}$.
T$_{1/2}$(^{174}Hf)=2.0×10^{15} y *4*, measured by 1961Ma05, is recommended by 1990Ho28. Other T$_{1/2}$: 4.3×10^{15} y (1959Ri34).

^{170}Yb Levels

E(level)	J$^{\pi}$
0.0	0$^+$

α radiations

Eα	E(level)	HF[†]	Comments
2500 *30*	0.0	1.0	Eα: measured α energy from 1961Ma05. Q(α)(^{174}Hf)=2494.5 *23*, recommended by 2012Wa38, implies Eα=2437.2 *23*, however.

[†] r$_0$(^{170}Yb)=1.55 *6* (1998Ak04), assuming Hf(2500α)=1.0, Q(α)=2559 *31* (from measured Eα=2500 *30*) and measured T$_{1/2}$=2.0×10^{15} y *4* (1961Ma05); this value is consistent with r$_0$ systematics. However, if Q(α)=2494.5 *23* (2017Wa10) is assumed, r$_0$=1.661 *11*, inconsistent with r$_0$ systematics, unless T$_{1/2}$ is increased to approximately four times the measured value.