^{162}Hf α decay

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 141, 1 (2017)	1-Feb-2017

Parent: ^{162}Hf: E=0.0; $J^\pi=0^+$; $T_{1/2}$=39.4 s *9*; Q(α)=4416 *5*; %α decay=0.008 *1*
$T_{1/2}$,%α(^{162}Hf): from Adopted Levels, Gammas dataset (2007Re16).
Q_α(^{162}Hf): from 2012Wa38.

^{158}Yb Levels

E(level)	J^π
0.0	0^+
358.2 *1*	(2^+)

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
3958[#] *5*	358.2	0.23 *23*		
4308 *6*	0.0	99.77 *23*	1.000	Eα: weighted average of 4308 *10* (1982Sc15), 4311 *10* (1983To01) and 4305 *9* (1992Ha10); 4307 *5* when calculated based on Q_α(^{162}Hf)=4416 *5* (2012Wa38). Iα: only one α group was observed. An upper limit of 0.46% of α decay is calculated for an unobserved 3958-keV α to the 2^+ state at 358.2 keV in ^{158}Yb by requiring its HF(3959α)>1. I_α(4308α)=99.77 *23* per 100 α decays is recommended here.

[†] r_0(^{158}Yb)=1.583 *8* is calculated from HF(4307α)=1.0.
[‡] For absolute intensity per 100 decays, multiply by 8×10^{-5} *1*.
[#] Existence of this branch is questionable.

γ(^{158}Yb)

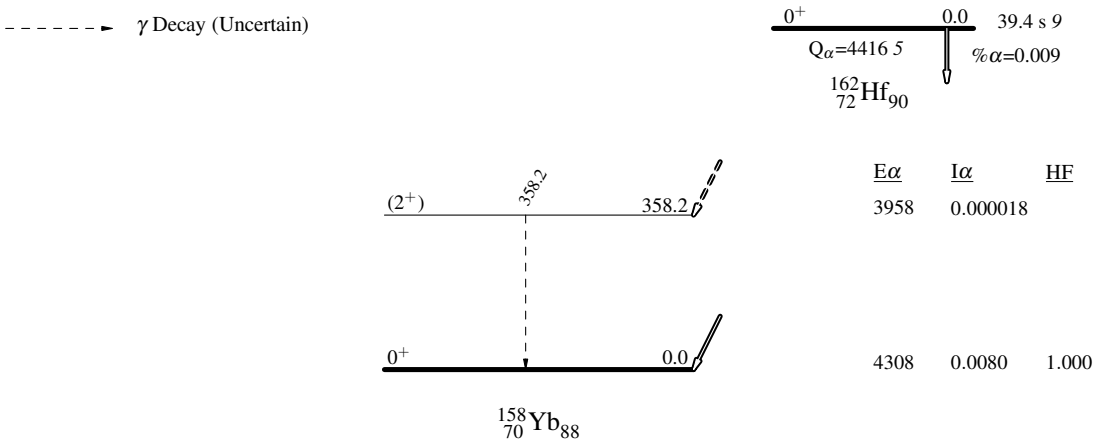
E$_\gamma$	E$_i$(level)	J^π_i	E$_f$	J^π_f
(358.2 *1*)	358.2	(2^+)	0.0	0^+

^{162}Hf α decay

Legend

- - - - - - ► γ Decay (Uncertain)

Decay Scheme



Eα	Iα	HF
3958	0.000018	
4308	0.0080	1.000