^{167}Ta ε decay   1982Li17,1987Es08

	Type	Author	History Citation	Literature Cutoff Date
	Full Evaluation	Coral M. Baglin	NDS 90, 431 (2000)	5-Jul-2000

Parent: ^{167}Ta: E=0.0; J$^\pi$=(3/2$^+$); T$_{1/2}$=80 s 4; Q(ε)=5010 SY; %ε+%β^+ decay=100.0

Others: 1969Ar22, 1989Br19 (same data as 1987Es08), 1992HeZV.

The decay scheme cannot be constructed. 1982Li17 report nothing more than the energies of the most intense γ rays.

1987Es08: sources from ^{151}Eu(^{22}Ne,6n), chemical separation, aerosol transport; measured Eγ, γ(t). See also 1989Br19.

1982Li17: sources from Lu(^{3}He,xn) (E(^{3}He)=280 MeV, Lu metal and Lu fluoride targets; fluorination of products followed by
    mass separation); measured Eγ, Iγ (Si(Li), coaxial Ge(Li)).

^{167}Hf Levels

E(level)	J$^{\pi}$[†]	T$_{1/2}$[†]
0.0	(5/2)$^-$	2.05 min 5
92.3?	(7/2$^-$)	

[†] From Adopted Levels.

γ(^{167}Hf)

E$_\gamma$[†]	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Comments
[x]81.6					
92.3[‡]	92.3?	(7/2$^-$)	0.0	(5/2)$^-$	Eγ: consistent with that for known transition deexciting first excited state of ^{167}Hf; tentatively placed by evaluator.
[x]111.6					
[x]113.7					Also reported in 1987Es08 (and 1989Br19).
[x]118.6					
[x]139.5 4					From 1987Es04. Eγ=139.5 in 1982Li17.
[x]214.2					
[x]278.0					Other Eγ: 277.7 in 1987Es08 (and 1989Br19), 280.0 in 1992HeZV.
[x]296.3					

[†] From 1982Li17, except as noted; authors do not state uncertainty.
[‡] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

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Legend

Decay Scheme

- - - - - - ▶ γ Decay (Uncertain)

(3/2$^+$)   0.0   80 s *4*

%ε + %β^+=100   Q$_\varepsilon$=5010 *SY*

$^{167}_{73}$Ta$_{94}$

(7/2$^-$) - - - - 92.3 - - - - - 92.3

(5/2)$^-$ 0.0   2.05 min *5*

$^{167}_{72}$Hf$_{95}$

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