

$^{87}\text{Mo}$   $\varepsilon\text{p}$  decay (13.4 s) [1997Hu07](#),[1983Ha06](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Alexandru Negret, Balraj Singh		NDS 124, 1 (2015)	30-Nov-2014

Parent:  $^{87}\text{Mo}$ :  $E=0.0$ ;  $J^\pi=(7/2^+)$ ;  $T_{1/2}=13.4$  s 4;  $Q(\varepsilon\text{p})=3795$  5;  $\% \varepsilon\text{p}$  decay=15 6

$^{87}\text{Mo}$ - $T_{1/2}$ : other: 13.6 s 11 ([1997Hu07](#)).

$^{87}\text{Mo}$ - $Q(\varepsilon\text{p})$ : from [2012Wa38](#).

$^{87}\text{Mo}$ - $\% \varepsilon\text{p}$  decay:  $\% \varepsilon\text{p}=15$  6 ([1997Hu07](#)), sum of proton branches to  $2^+$ ,  $4^+$  and  $6^+$  states. Other: 15 8 ([1983Ha06](#)).

[1997Hu07](#):  $^{58}\text{Ni}(^{32}\text{S},2\text{pn})$   $E=170$  MeV. Measured protons,  $E_\gamma$ ,  $I_\gamma$ , proton- $\gamma$  coin using surface-barrier detectors for protons and HPGe detectors for gamma rays.

[1983Ha06](#):  $^{58}\text{Ni}(^{32}\text{S},2\text{pn})$   $E=122$  MeV, surface barrier telescope, measured proton spectra and K x ray spectra of zirconium in coincidence with delayed protons.

 $^{86}\text{Zr}$  Levels

E(level)	$J^\pi$ †
0.0	$0^+$
752	$2^+$
1667	$4^+$
2671	$6^+$

† From Adopted Levels.

 $\gamma(^{86}\text{Zr})$ 

$E_\gamma$	$I_\gamma$ †	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$
752	100	752	$2^+$	0.0	$0^+$
915	25 3	1667	$4^+$	752	$2^+$
1004	10 2	2671	$6^+$	1667	$4^+$

† For absolute intensity per 100 decays, multiply by 0.15 6.

Delayed Protons ( $^{86}\text{Zr}$ )

$E(^{86}\text{Zr})$	$I(\text{p})^{\dagger\ddagger}$	Comments
752	11 6	$I(\text{p})$ : other: 15 8 ( <a href="#">1983Ha06</a> ).
1667	2 1	
2671	2 1	

† Per 100 delayed protons ([1997Hu07](#)).

‡ For absolute intensity per 100 decays, multiply by 0.15 6.

**$^{87}\text{Mo}$   $\epsilon\text{p}$  decay (13.4 s) 1997Hu07,1983Ha06**Decay SchemeIntensities: Relative  $I_\gamma$ 

Legend

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

$\% \epsilon\text{p} = 15$   $\xrightarrow{(7/2^+)} 0.0$  13.4 s 4  
 $Q = 3795.5$   
 $^{87}_{42}\text{Mo}_{45}$

