

$^{89}\text{Se} \beta^-$  decay (0.43 s) [1982Re08](#)

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Balraj Singh	ENSDF	30-Nov-2021

Parent:  $^{89}\text{Se}$ :  $E=0$ ;  $J^\pi=(5/2^+)$ ;  $T_{1/2}=0.43$  s 5;  $Q(\beta^-)=9282$  5;  $\% \beta^-$  decay=100.0

$^{89}\text{Se}-T_{1/2}$ : From Adopted Levels of  $^{89}\text{Se}$ .

$^{89}\text{Se}-Q(\beta^-)$ : From [2021Wa16](#).

[1982Re08](#): measurement of  $E_\gamma$ ,  $I_\gamma$ ,  $T_{1/2}$  of chemically-separated Se isotopes from fission products.

Others:

[1974KrZG](#): measured half-life of decay of  $^{89}\text{Se}$ .

[1971To13](#): measured half-life and  $\% \beta^- n$  for the decay of  $^{89}\text{Se}$ ; and fission yield of  $^{89}\text{Se}$  from uranium isotopes.

 $^{89}\text{Br}$  Levels

E(level)	$J^\pi$ <sup>†</sup>	Comments
0	(5/2 <sup>-</sup> )	
130.0? 19	(3/2 <sup>-</sup> )	Level proposed by evaluator based on $^{235}\text{U}(n,F\gamma)$ study ( <a href="#">2021Ny02</a> ).

<sup>†</sup> From the Adopted Levels.

 $\gamma(^{89}\text{Br})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Comments
130.0 <sup>†</sup> 19	130.0?	(3/2 <sup>-</sup> )	0	(5/2 <sup>-</sup> )	$E_\gamma$ : tentative assignment to $^{89}\text{Br}$ decay with $T_{1/2}=0.56$ s 8 ( <a href="#">1982Re08</a> ). It may deexcite a level at 130 in $^{89}\text{Br}$ since no other $\gamma$ more intense than the 130 $\gamma$ was observed ( <a href="#">1982Re08</a> ) in $^{89}\text{Se} \beta^-$ decay within a time interval of 2 s, and the shape of the $^{89}\text{Br} \beta$ spectrum ( <a href="#">1981Ho17</a> ) does not indicate any isomer in $^{89}\text{Br}$ with $T_{1/2}>2$ s.

<sup>†</sup> Placement of transition in the level scheme is uncertain.

$^{89}\text{Se} \beta^-$  decay (0.43 s) 1982Re08Decay Scheme

## Legend

