

**Adopted Levels**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 189,1 (2023)	14-Feb-2023

Q( $\beta^-$ )=-1571.4 26; S(n)=6971 14; S(p)=3927.0 14; Q( $\alpha$ )=6454.5 14 [2021Wa16](#)  
 S(2n)=13018 5, S(2p)=9939.2 19 ([2021Wa16](#)).

<sup>245</sup>Bk Levels

Cross Reference (XREF) Flags

- A <sup>245</sup>Cf  $\epsilon$  decay
- B <sup>249</sup>Es  $\alpha$  decay

E(level)	J <sup><math>\pi</math></sup>	T <sub>1/2</sub>	XREF	Comments
0.0 <sup>†</sup>	(3/2 <sup>-</sup> )	4.96 d 3	AB	% $\alpha$ =0.12 1; % $\epsilon$ =99.88 1 ( <a href="#">1976Ah03</a> ) T <sub>1/2</sub> : From weighted average of 4.95 d 10 ( <a href="#">1951Hu39</a> ), 4.98 d 2 ( <a href="#">1956Ma32</a> ), and 4.90 d 3 ( <a href="#">1976Ah03</a> ). J <sup><math>\pi</math></sup> : Nilsson assignment for the g.s. of the 97th proton.
0.0+x <sup>‡</sup>	7/2 <sup>+</sup>		B	J <sup><math>\pi</math></sup> : Favored $\alpha$ decay from the 7/2 <sup>+</sup> g.s in <sup>249</sup> Es.
61+x <sup>‡</sup> 13	(9/2 <sup>+</sup> )		B	J <sup><math>\pi</math></sup> : From band member and hindrance factor for $\alpha$ decay from <sup>249</sup> Es.
1560 calc		2 ns 1		%SF=100 Only SF decay was observed. T <sub>1/2</sub> ( $\gamma$ )/T <sub>1/2</sub> (SF) was calculated by <a href="#">1972We09</a> as 5.6×10 <sup>-8</sup> . E(level): Calculated by <a href="#">1972We09</a> . T <sub>1/2</sub> : From <a href="#">1971Re11</a> ( <sup>243</sup> Am( <sup>4</sup> He,2n), E $\alpha$ =26 MeV), <a href="#">1972Ga42</a> ( <sup>243</sup> Am( <sup>4</sup> He,2n), E $\alpha$ =24 MeV).

<sup>†</sup> Band(A): 3/2[521] rotational band.

<sup>‡</sup> Band(B): 7/2[633] rotational band.

**Adopted Levels****Band(B): 7/2[633]  
rotational band**(9/2<sup>+</sup>)      61+x**Band(A): 3/2[521]  
rotational band**(3/2<sup>-</sup>)      0.0      7/2<sup>+</sup>      0.0+x $^{245}_{97}\text{Bk}_{148}$ 

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