

**Adopted Levels, Gammas**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 111,1093 (2010)	3-Mar-2009

Q( $\beta^-$ )=6341 15; S(n)=6918 8; S(p)=16389 6; Q( $\alpha$ )=-1.160 $\times 10^4$  15 [2012Wa38](#)  
 Note: Current evaluation has used the following Q record 6.5E+3 4 6.8 $\times 10^3$  4 1.62 $\times 10^4$  6 -1.16 $\times 10^4$  4 [2009AuZZ,2003Au03](#),  
[1998Am04](#): <sup>66</sup>Fe produced in a fragmentation reaction using 43-GeV <sup>86</sup>Kr projectiles on Be. Measured  $\beta^-$  decay, half-life.  
[1999Le67](#), [1999So20](#): <sup>66</sup>Fe produced in a fragmentation reaction using 52-GeV <sup>86</sup>Kr projectiles on Ni.  
[2008Ad04](#): <sup>66</sup>Fe produced in a fragmentation reaction using 10-GeV <sup>76</sup>Ge projectiles on Be.

<sup>66</sup>Fe Levels

Cross Reference (XREF) Flags

- A <sup>66</sup>Mn  $\beta^-$  decay
- B <sup>238</sup>U(<sup>64</sup>Ni,X $\gamma$ )
- C <sup>9</sup>Be(<sup>67</sup>Co,<sup>66</sup>Fe $\gamma$ )
- D <sup>9</sup>Be(<sup>68</sup>Ni,<sup>66</sup>Fe $\gamma$ )

E(level)	J <sup><math>\pi</math></sup> †	T <sub>1/2</sub>	XREF	Comments
0.0	0 <sup>+</sup>	440 ms 60	ABCD	% $\beta^-$ =100 T <sub>1/2</sub> : From <a href="#">1999Le67</a> , <a href="#">1999So20</a> , <a href="#">1998Am04</a> .
574.4 10	(2 <sup>+</sup> )		ABCD	
1407 6	(4 <sup>+</sup> )		BCD	

† From systematics of J <sup>$\pi$</sup>  in even-even nuclei.

$\gamma$ (<sup>66</sup>Fe)

E <sub>i</sub> (level)	J <sup><math>\pi</math></sup> <sub>i</sub>	E <sub><math>\gamma</math></sub>	E <sub>f</sub>	J <sup><math>\pi</math></sup> <sub>f</sub>	Comments
574.4	(2 <sup>+</sup> )	574.4 10	0.0	0 <sup>+</sup>	E <sub><math>\gamma</math></sub> : Weighted average of 574.7 keV 10 ( <a href="#">2007Lu13</a> ), 571 keV 6 ( <a href="#">2008Ad04</a> ), and 567 keV 6 ( <a href="#">2008Ad04</a> ). Other value: 573 keV ( <a href="#">1999Ha05</a> ).
1407	(4 <sup>+</sup> )	832.5 60	574.4	(2 <sup>+</sup> )	E <sub><math>\gamma</math></sub> : Weighted average of 833 keV 9 and 832 keV 9 ( <a href="#">2008Ad04</a> ). Other value: 840.5 keV ( <a href="#">1999Ha05</a> ).

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**Adopted Levels, Gammas**Level Scheme