<div align="center">

^{133}**Sm** ε **decay (2.89 s)**   **2006Xu07,2001Xu04**

History

</div>

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov and A. Rodionov, F. G. Kondev	NDS 112, 855 (2011)	31-Oct-2010

Parent: ^{133}Sm: E=0.0; J^{π}=(5/2$^+$); T$_{1/2}$=2.89 s 16; Q(ε)=8139; %ε+%β^+ decay=100.0

2006Xu07, 2001Xu04: ^{133}Sm(ε+β^+) [from ^{96}Ru(^{40}Ca,n2p) E=180 MeV]; measured γ, x-rays, delayed proton spectra, pγ, $\gamma\gamma$, xγ, xp coin.; ^{133}Pm; deduced levels, J^{π}. Cyclotron, tape transport system, enriched target, Si(Li), HPGe detectors, calculations using statistical model and Woods-Saxon-Strutinsky method.

<div align="center">

^{133}Pm Levels

</div>

E(level)[†]	J^{π}[‡]
0.0	(3/2$^+$)
84.5 5	(5/2$^+$)
205.6 7	
214.5 7	(7/2$^+$)

[†] From a least-squares fit to Eγ.
[‡] From 'Adopted Levels'.

<div align="center">

γ(^{133}Pm)

</div>

E$_\gamma$[†]	I$_\gamma$[†]	E$_i$(level)	J^{π}_i	E$_f$	J^{π}_f	Comments
84.5 5	72 9	84.5	(5/2$^+$)	0.0	(3/2$^+$)	E$_\gamma$: 84.6 3 γ seen by 1996Ga17.
121.1 5	6.9 13	205.6		84.5	(5/2$^+$)	
130.0 5	8.6 14	214.5	(7/2$^+$)	84.5	(5/2$^+$)	E$_\gamma$: 129.8 3 γ seen by 1996Ga17.

[†] From 2006Xu07 and 2001Xu04. ΔEγ=0.5 keV, as reported by the authors.

^{133}Sm ε decay (2.89 s)   2006Xu07,2001Xu04

Decay Scheme

Intensities: Relative I$_\gamma$

Legend

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

(5/2$^+$)   0.0   2.89 s 16

%ε + %β^+=100.0   Q$_\varepsilon$=8139

$^{133}_{62}$Sm$_{71}$

(7/2$^+$)   214.5
                                   205.6

130.0 8.6
121.1 6.9

84.5 72

(5/2$^+$)   84.5

(3/2$^+$)   0.0

$^{133}_{61}$Pm$_{72}$