^{139}**Pm IT decay (180 ms)**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	P. K. Joshi, B. Singh, S. Singh, A. K. Jain	NDS 138, 1 (2016)	15-Oct-2016

Parent: ^{139}Pm: E=188.7 *3*; J$^{\pi}$=(11/2)$^-$; T$_{1/2}$=180 ms *20*; %IT decay=100.0
^{139}Pm-%IT decay: %IT=100 \$ %ε+%β^+<0.05.
All data are from Adopted Levels, Gammas, except as noted.

^{139}Pm Levels

E(level)	J$^{\pi\dagger}$	T$_{1/2}$†	Comments
0.0	(5/2)$^+$	4.15 min *5*	%ε+%β^+=100
188.7 *3*	(11/2)$^-$	180 ms *20*	%IT=100; %ε+%β^+<0.05

† From Adopted Levels.

γ(^{139}Pm)

E$_\gamma$	I$_\gamma$†‡	E$_i$(level)	J$^{\pi}_i$	E$_f$	J$^{\pi}_f$	Mult.	$\alpha$$^{\#}$	I$_{(\gamma+ce)}$‡	Comments
188.7 *3*	40.1 *CA*	188.7	(11/2)$^-$	0.0	(5/2)$^+$	E3	1.494 *24*	100	ce(K)/(γ+ce)=0.268 *4*; ce(L)/(γ+ce)=0.256 *4*; ce(M)/(γ+ce)=0.0603 *11* ce(N)/(γ+ce)=0.01319 *25*; ce(O)/(γ+ce)=0.00168 *4*; ce(P)/(γ+ce)=1.351×10^{-5} *24* α(K)=0.668 *10*; α(L)=0.638 *11*; α(M)=0.1503 *25*; α(N)=0.0329 *6*; α(O)=0.00420 *7*

† From I(γ+ce) and α.
‡ Absolute intensity per 100 decays.
$^{\#}$ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

^{139}Pm IT decay (180 ms)

Decay Scheme

Intensities: I$_{(\gamma+ce)}$ per 100 parent decays
%IT=100.0

(11/2)$^-$ 188.7 E3 101   188.7   180 ms *20*

(5/2)$^+$ 0.0   4.15 min *5*

$^{139}_{61}$Pm$_{78}$