^{131}Pm ε decay (6.3 s)   1999Ga41

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, I. Mitropolsky, A. Rodionov	NDS 107, 2715 (2006)	17-Jul-2022

Parent: ^{131}Pm: E=0.0; J^{π}=(11/2$^-$); $T_{1/2}$=6.3 s 8; Q(ε)=8.00×10^3 SY; %ε+%β^+ decay=100.0

^{131}Pm-Δ(Q(β^+))=200.

^{131}Pm-$T_{1/2}$: from 1999Ga41.

1999Ga41:^{131}Pm [from ^{106}Cd(^{32}S,3p4n) E=170 MeV]; measured x, γ, γx, $\gamma\gamma$, $T_{1/2}$. Transport system, HPGe detectors.

Others: 1977Bo02, 1991AlZY(also 1993Al03), 1996Ge12.

^{131}Nd Levels

E(level)†	$J^{\pi\ddagger}$	$T_{1/2}$	Comments
0.0	(5/2$^+$)	25.4 s 9	$T_{1/2}$: from Adopted Levels; $T_{1/2}$=26.6 s 17 (1999Ga41).
146.0 5	(7/2$^+$)		
331.0 7	(9/2$^+$)		
551.0 9	(11/2$^+$)		

† From least-squares fit to Eγ's, assuming 0.5 keV uncertainty.

‡ From Adopted Levels.

$\gamma(^{131}$Nd)

E$_{\gamma}$	E$_i$(level)	J^{π}_i	E$_f$	J^{π}_f
146.0 5	146.0	(7/2$^+$)	0.0	(5/2$^+$)
185.0 5	331.0	(9/2$^+$)	146.0	(7/2$^+$)
220.0 5	551.0	(11/2$^+$)	331.0	(9/2$^+$)

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Legend

Decay Scheme

●   Coincidence

(11/2$^-$)   0.0   6.3 s *8*

%ε + %β^+=100.0   Q$_\varepsilon$=8.00×10^3 *SY*

$^{131}_{61}$Pm$_{70}$

(11/2$^+$)   220.0   551.0

(9/2$^+$)   185.0   331.0

(7/2$^+$)   146.0   146.0

(5/2$^+$)   0.0   25.4 s *9*

$^{131}_{60}$Nd$_{71}$