

Adopted Levels

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Balraj Singh	ENSDF	31-Dec-2016

$Q(\beta^-) = -11570$ SY; $S(n) = 11160$ SY; $S(p) = 1750$ SY; $Q(\alpha) = 3320$ SY [2017Wa10](#)

$\Delta Q(\beta^-) = \Delta S(n) = \Delta Q(\alpha) = 570$, $\Delta S(p) = 500$ (syst, [2017Wa10](#)).

$S(2n) = 24670$ 640, $S(2p) = 1740$ 500, $Q(\epsilon p) = 9700$ 450 (syst, [2017Wa10](#)).

No new experimental structure references for ^{135}Gd since the update in December 2016.

[1996Xu07](#): ^{135}Gd produced in $^{106}\text{Cd}(^{32}\text{S}, 3n)$, $E = 171$ MeV and identified through the measurement of γ and x rays in appropriate nuclides, delayed protons, (x ray)(proton) and γ (proton) coincidences. See also [2005Xu04](#).

 ^{135}Gd Levels

<u>E(level)</u>	<u>J$^{\pi}$</u>	<u>T$_{1/2}$</u>	<u>Comments</u>
0.0	(5/2 ⁺)	1.1 s 2	$\% \epsilon + \% \beta^+ = 100$; $\% \epsilon p \approx 2$ (1996Xu07) J^{π} : from comparison of measured delayed proton spectrum and $\% \epsilon p$ to low-lying states in ^{134}Sm with calculations using statistical model (1996Xu07). 5/2 ⁺ is also suggested in theoretical calculations of 2019Mo01 . $T_{1/2}$: from timing of 163 γ (2 ⁺ to 0 ⁺ transition in ^{134}Sm) in coin with protons from ϵp decay of ^{135}Gd (1996Xu07 , 2005Xu04).