Adopted Levels

History

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

Q(β^-)=1.341×10^4 *syst*; S(n)=3.13×10^3 *syst*; S(p)=1.45×10^4 *syst*; Q(α)=−7.7×10^3 *syst* 2012Wa38
Note: Current evaluation has used the following Q record 12917 syst 3587 syst 14499 syst −7902 syst 2009AuZZ.
Δ(Q(β^-))=299, Δ(S(n))=304, Δ(S(p))=585, Δ(Q(α))=499 (2009AuZZ).
^{133}In was produced and identified at CERN/ISOLDE-Sc facility by 1983BlZP.
1996Ho16, 2000Ho32: ^{133}In β^- [from ^{238}U(p,f), E=1 GeV]; measured Eγ, Iγ, $\gamma\gamma$-coin. ISOLDE facility.
2002Di12, 2003DiZX: ^{133}In β^-n delayed decay [from ^{238}U(n,f)]. ^{133}In ions separated using laser ion source and mass spectrometer; ^{238}U/graphite ISOLDE target; neutrons produced following reaction of 1.4 GeV protons on Ta target.

^{133}In Levels

E(level)	J$^\pi$	T$_{1/2}$	Comments
0	(9/2$^+$)	165 ms *3*	%β^-=100; %β^-n=85 *10* (1996Ho16) J$^\pi$: from systematics of odd mass In isotopes. T$_{1/2}$: from β^-n(t) in 2002Di12, 2003DiZX. Other: 180 ms *15* from $\beta^-\gamma$(t) 1996Ho16. configuration: possible $\pi(g_{9/2}^{-1})$.
330 *40*	(1/2$^-$)	180 ms *15*	%β^-=?; %β^-n=?; %IT=? E(level): existence of that state is based on the population pattern of ^{133}Sn levels in ^{133}In β^- and ^{134}In β^-n decays (1996Ho16,2000Ho32). J$^\pi$: from systematics. T$_{1/2}$: possible isomeric state, but this value was assigned to the ground state by 1996Ho16. configuration: possible $\pi(p_{1/2}^{-1})$.