^{133}In β^-n decay (165 ms) 1996Ho16,2002Di12

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	28-Feb-2018

Parent: ^{133}In: E=0; J^π=(9/2$^+$); $T_{1/2}$=165 ms *3*; Q(β^-n)=11010 *SY*; %β^-n decay=85 *10*

^{133}In-J^π,$T_{1/2}$: From ^{133}In Adopted Levels in the ENSDF database. Other: 163 ms *7* (2015Lo04).

^{133}In-Q(β^-n): 11010 *200* (syst,2017Wa10).

^{133}In-%β^-n decay: %β^-n=85 *10* (1996Ho16). Other: measured %β^-n≈62 (2010MaZS, preliminary value) at ISOLDE-CERN facility.

1996Ho16, 2000Ho32: measured $T_{1/2}$ by timing β-delayed neutrons, neutron spectrum. Deduced %β^-n.

2002Di12: measured $T_{1/2}$ by timing delayed neutrons.

Note that a possible isomer of ^{133}In was proposed by 1996Ho16 at an energy of 340 keV *30* with a half-life of 180 ms *15*, and J^π=(1/2$^-$) (from systematics). This isomer could also decay by delayed neutrons, but no information is available as yet about its decay characteristics.

^{132}Sn Levels

E(level)	J^π
0	0$^+$

Delayed Neutrons (^{132}Sn)

E(n)	E(^{132}Sn)	E(^{133}Sn)	Comments
1260	0	3700	The most intense neutron peak in the spectrum (1996Ho16). It is interpreted as transition from

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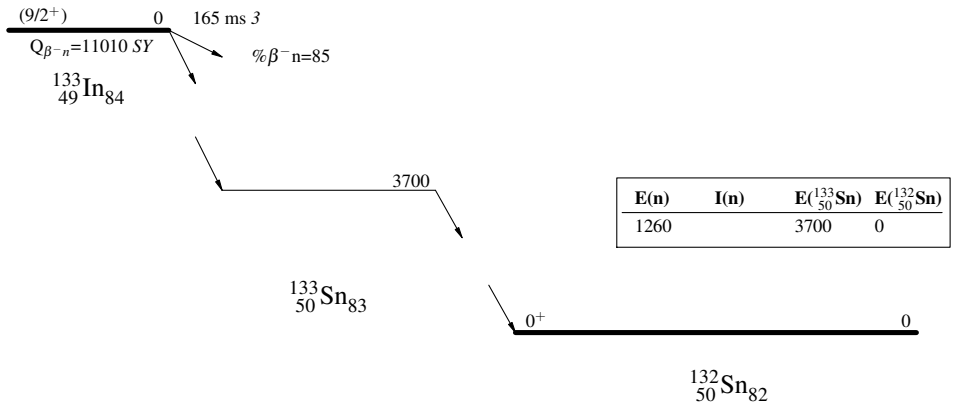
Decay Scheme



E(n)	I(n)	E($^{133}_{50}$Sn)	E($^{132}_{50}$Sn)
1260		3700	0