Adopted Levels

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 108,2173 (2007)	1-Oct-2006

Q(β^-)=−1.02×10^4 *syst*; S(n)=1.02×10^4 *syst*; S(p)=2.3×10^3 *syst*; Q(α)=3.6×10^3 *syst* 2012Wa38
Note: Current evaluation has used the following Q record −10210 SY10230 SY2240 SY3490 syst 2003Au03.
ΔQ(β^-)=720,ΔS(n)=570,ΔS(p)=450,ΔQ(α)=450 (syst,2003Au03).

^{137}Gd Levels

E(level)	J$^\pi$	T$_{1/2}$	Comments
0.0	(7/2)	2.2 s *2*	%ε+%β^+=100; %εp=? Produced in ^{50}Cr(^{92}Mo,αn), E=480 MeV (1983Ni05); ^{106}Cd(^{36}Ar,Na), E=220 MeV, activity identification was based on measurements of β^+-delayed protons in coincidence with well-known γ rays from the first $J^\pi=2^+$ and $J^\pi=4^+$ excited states to the g.s. in ^{136}Sm. Measured proton energy spectrum, deduced average proton energy E(p)(av)=3.9 MeV (1999Xu05). Other: 2005Xu04. T$_{1/2}$: From 1999Xu05, 2005Xu04. It agrees with theoretical T$_{1/2}$=2.0 s (1997Mo25). Other value: T$_{1/2}$=7 s *3* (1983Ni05), may have been affected by contamination from a long-lived proton emitter, as suggested in 1999Xu05. Delayed protons were observed with E(p)=2.2-6.6 MeV and E(p)(av)=3.8 MeV (1983Ni05).