Adopted Levels

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, A. Rodionov and G. Shulyak	NDS 136, 163 (2016)	14-Jul-2016

Q(β^-)=−6916 *9*; S(n)=10189 *10*; S(p)=285 *9*; Q(α)=2.9×10^3 *7* 2012Wa38
Q(εp)=7.77×10^3 *10* (2012Wa38).
Produced and identified by 1982Gu07; irradiation of ^{90}Zr and ^{91}Zr targets with 233 and 250 MeV ^{58}Ni beams.
The ε decay of ^{146}Ho has been studied in 1981NoZY and 1982Gu07.
The precursor ^{146}Ho was identified by coincidence between β-delayed protons and X-rays or γ rays. Coincidences of γ rays (Dy) and the delayed protons (E(p)=2.4-6.3 MeV, $T_{1/2}$=3.1 s *4*) were measured by 1986Wi15 (see also 1986ToZV,1988NiZX,1988ToZW); 640 keV and 906 keV γ's, coincident with the delayed protons (E(p)=2.2-6.5 MeV, $T_{1/2}$=2.8 s *5*), were measured in 2010Ma37, 2011MaZL.

^{146}Ho Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0+x	(6$^-$)	3.32 s *22*	%ε+%β^+<100; %εp=? E(level): shell-model analysis shows that this state may be not g.s. but an isomeric state. J^π: Spin assignment of ^{146}Ho state is ambiguous: *i*) J^π=(6$^-$) ($\pi h_{11/2}\nu d^{-1}_{3/2}$) multiplet member was assumed by 2010Ma37 on the basis of relative proton branching ratio (equal to 0.9) to the 13/2$^-$ and 15/2$^-$ levels in ^{145}Tb and that the β-delayed protons de-excite the states populated by allowed GT-transitions of the precursor (see also 1988WiZN); *ii*) J^π=(9$^+$,10$^+$,11$^+$) (but J=7$^-$ can not be excluded) from strong ε decay to J^π=10$^+$ isomer in ^{146}Dy (1982Gu07). The evaluators suggest the first version. $T_{1/2}$: weighted average of 3.1 s *5* (1986Wi15), 3.5 s *3* (1981NoZY), 3.9 s *8* (1982Gu07), 2.8 s *5* (2010Ma37).