^{141}Ho p decay (7.4 μs) 1999Ry04,2001Se03,2008Ka16

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 154, 1 (2018)	20-Nov-2018

Parent: ^{141}Ho: E=67 *17*; J^{π}=(1/2$^+$); $T_{1/2}$=7.4 μs *3*; Q(p)=1177 *8*; %p decay=100.0

^{141}Ho-E: from difference E(p)=1235 *9* and 1169 *8* for decay of isomer and g.s. of ^{141}Ho, respectively.

^{141}Ho-$T_{1/2}$: From timing of proton spectra (2008Ka16); other values: 8 μs *3* (1999Ry04), 6.5 μs *+9−7* (2001Se03),

^{141}Ho-Q(p): from E(p)=1169 *8* (1998Da03) from proton decay of ^{141}Ho g.s.

^{141}Ho-Configuration=π([411]1/2$^+$) (1999Ry04).

^{141}Ho-%p decay: Decay modes other than p were not observed and their calculated $T_{1/2}$ are far larger than the experimental $T_{1/2}$; as a consequence we adopt %p=100.

Dataset based on unevaluated XUNDL files compiled from 2008Ka16 by F.G. Kondev (ANL) and edited by B. Singh (McMaster); for older references, see also 2002So02 (p-decay evaluation).

1999Ry04: observation of isomer, ^{92}Mo(^{54}Fe,p4n) E=315 MeV, $\sigma\approx$13 nb, recoil mass separator with PSAC/DSSD detectors at focal plane (ORNL). The proton decay of the g.s. of E(p)=1169 *8* keV previously observed by 1998Da03 (see ^{141}Ho p decay (4.1 ms)) was also observed and used for calibration of the DSSD energy spectra together with other well-known proton lines.

2001Se03: ^{92}Mo(^{54}Fe,p4n) in both direct and inverse kinematics, E(cm)=184-186 MeV, and a combination of recoil mass separator with DSSD detectors; used recoil-decay tagging method. High statistics work.

2008Ka16: see description in ^{141}Ho p Decay (4.1 ms) dataset.

^{140}Dy Levels

E(level)†	J^{π}†
0.0	0$^+$
202.20 *20*	(2$^+$)

† Adopted values.

Protons (^{140}Dy)

E(p)	E(^{140}Dy)	I(p)	Comments
1031 *14*	202.20	1.7 *5*	E(p): from the observed 204 keV *11* (2008Ka16) energy difference between the main peak at 1235
1234 *8*	0.0	98.3 *5*	E(p): weighted average of 1230 *20* (1999Ry04) and 1235 *9* (2001Se03). I(p): from 2008Ka16.