^{156}Ho IT decay (7.6 min) 2003KaZP,1999KaZV

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. W. Reich	NDS 113, 2537 (2012)	1-Mar-2012

Parent: ^{156}Ho: E=52.37+x; $J^{\pi}=9^+$; $T_{1/2}$=7.6 min *3*; %IT decay=25.0

^{156}Ho-1999KaZV estimate that x≈350 keV.

^{156}Ho-%IT decay: From $\%\varepsilon+\%\beta^+$=75 (1999KaZV). Thus, %IT=25.

Additional information 1.

2003KaZP: Source produced in p-induced spallation of W, followed by on-line separation. Probably an experimental set-up similar to that of 1999KaZV. Report $T_{1/2}$ as well as properties of γ's emitted from the daughter nuclide, ^{156}Dy.

1999KaZV: Source produced in p-induced spallation of W. Isotope-separated sources. Measured Eγ, Iγ, $\gamma\gamma$, ce, $T_{1/2}$.

1976IwZZ: Source produced in the ^{160}Dy(p,5n) reaction, E(p)=52 MeV. Source material contained both the isomer and the ^{156}Ho g.s. γ's studied using a 40 cm^3 GeLI detector. For the isomer, report $T_{1/2}$ and two γ's deexciting the 2787 level.

2002KaZO: Report $T_{1/2}$ for this isomer.

Properties of this isomer are deduced primarily from the $\varepsilon+\beta^+$ decay data. The existence of an IT-decay branch is inferred from the fact that γ's from the decay of the g.s. are observed (1999KaZV). However, it is not known just which ^{156}Ho levels are populated in the IT decay.

^{156}Ho Levels

E(level)	J^{π}[†]	$T_{1/2}$	Comments
0	4^-	56 min *1*	No features of the IT decay branch are presently known. However, since such a branch exists, it is expected that the g.s. is in fact populated in the decay of the 7.6-min isomer. $T_{1/2}$: From the adopted values.
52.37+x	9^+	7.6 min *3*	%IT=25; $\%\varepsilon+\%\beta^+$=75 From an allowed-unhindered (*au*) β^+ transition to the 2787, 8^+ level in ^{156}Dy, conf=π7/2[523]+ν11/2[505]. E(level): From consideration of the expected log *ft* values for the *au* β transitions in this region, 1999KaZV estimate E(level)≈350 keV. $T_{1/2}$: Weighted average of: 7.25 min *35* 2003KaZP; and 7.8 min *3* 2002KaZO. Others: 7.4 min (1976IwZZ);≈6 min (1999KaZV).

[†] From the adopted values.