^{156}Ho IT decay (9.5 s) 1999KaZV,1995KaZS

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

Parent: ^{156}Ho: E=52.37; $J^{\pi}=1^{-}$; $T_{1/2}$=9.5 s *15*; %IT decay=100.0

Additional information 1.

State produced primarily in the decay of ^{156}Er. Numerous studies of this decay have been reported. For a description of these studies, see the ^{156}Er Decay Data set.

^{156}Ho Levels

E(level)	J^{π} †	$T_{1/2}$	Comments
0	4^{-}	56 min *1*	$T_{1/2}$: From the adopted values.
52.37	1^{-}	9.5 s *15*	%IT=?; $\%\varepsilon+\%\beta^{+}$=? Probable conf=$\pi$5/2[402]-$\nu$3/2[521], the Σ=0 coupling of two orbitals. The g.s. represents the Σ=1 coupling of these two. $T_{1/2}$: From 1995KaZS, (ce(L)(52γ),t).

† From the adopted values.

γ(^{156}Ho)

Iγ normalization: The IT-decay branching is presently unmeasured. From the intensity balance at this level, the evaluator infers that the intensity of a possible $\varepsilon+\beta^{+}$ decay branch is small. Also, if log *ft* of a possible β transition to the ^{156}Dy g.s. is assumed to be>6.0, then $\%\varepsilon+\%\beta^{+}<1$. The evaluator has assumed that %IT=100.

E_{γ}	I_{γ} †	E_i(level)	J_i^{π}	E_f	J_f^{π}	Mult.	α‡	$I_{(\gamma+ce)}$ †	Comments
52.37	0.0240	52.37	1^{-}	0	4^{-}	M3	4.17×10^{3}	100	ce(L)/(γ+ce)=0.740 *8*; ce(M)/(γ+ce)=0.205 *4*; ce(N+)/(γ+ce)=0.0541 *11* ce(N)/(γ+ce)=0.0480 *10*; ce(O)/(γ+ce)=0.00592 *12*; ce(P)/(γ+ce)=0.000135 *3* I_{γ}: Computed from α and the listed I(γ+ce) value. Mult.: From L and M subshell ratios (1975Al26,1982Vy06) in ^{156}Er ε decay.

† Absolute intensity per 100 decays.

‡ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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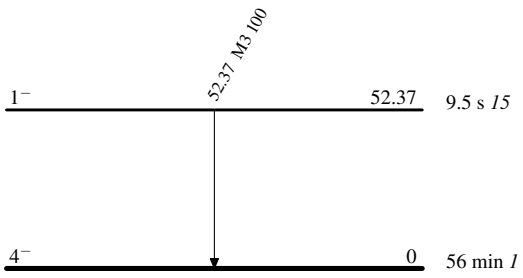
Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 decays through this branch
%IT=100.0



$^{156}_{67}Ho_{89}$