^{166}Ho IT decay (185 μs) 1965Bj03

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 109, 1103 (2008)	1-Mar-2008

Parent: ^{166}Ho: E=190.9021 *20*; $J^\pi=3^+$; $T_{1/2}$=185 μs *15*; %IT decay=100.0

^{166}Ho Levels

E(level)	J^π†	$T_{1/2}$	Comments
0.0	0^-	26.824 h *12*	$T_{1/2}$: from Adopted Levels.
54.239 *2*	2^-	3.44 ns *12*	$T_{1/2}$: from Adopted Levels.
171.072 *4*	3^-		
190.904 *4*	3^+	185 μs *15*	$T_{1/2}$: from 1965Bj03. Others: 214 μs *10* (1960Al27); 158 μs *14* (1964KaZZ); 207 μs (1965Mc03); see also 1961Kr01, 1962En04.

† From Adopted Levels.

γ(^{166}Ho)

Iγ normalization: Iγ was normalized against the conversion electron spectrum by assuming (I(K x ray)+Iγ(54.2γ))= ω(K) Σ I(ce(K)) + I(54.2γ) with ω(K)=0.93.
I(K x ray)+I(54.2γ)=24 *4*.

E_γ#	I_γ†@	E_i(level)	J_i^π	E_f	J_f^π	Mult.‡	α&	Comments
19.840 *6*	7 *3*	190.904	3^+	171.072	3^-	E1	4.79	α(L)=3.74 *6*; α(M)=0.847 *12*; α(N+..)=0.206 *3* α(N)=0.185 *3*; α(O)=0.0204 *3*; α(P)=0.000514 *8* ce(L)<<130 (1965Bj03). E_γ: from Adopted Gammas.
54.239 *2*	3.0 *5*	54.239	2^-	0.0	0^-	E2	31.3	α(L)=24.0 *4*; α(M)=5.81 *9*; α(N+..)=1.457 *21* α(N)=1.305 *19*; α(O)=0.1519 *22*; α(P)=0.0001670 *24* I_γ: calculated from the intensity of the L line using α(L)(E2 theory). ce(L)=73 *15*.
116.835 *3*	13 *5*	171.072	3^-	54.239	2^-	M1	1.673	α(K)=1.406 *20*; α(L)=0.209 *3*; α(M)=0.0460 *7*; α(N+..)=0.01233 *18* α(N)=0.01069 *15*; α(O)=0.001555 *22*; α(P)=8.71×10^{-5} *13* ce(K)=16 *3* and ce(L)=3.0 *6* (1965Bj03).
136.662 *4*	50 *10*	190.904	3^+	54.239	2^-	E1	0.1378	α(K)=0.1155 *17*; α(L)=0.01749 *25*; α(M)=0.00385 *6*; α(N+..)=0.001007 *14* α(N)=0.000880 *13*; α(O)=0.0001210 *17*; α(P)=5.50×10^{-6} *8* ce(K)=7 *2* and ce(L)=1.1 *2* (1965Bj03).

† From 1965Bj03, except As noted.
‡ From Adopted Gammas, unless otherwise noted.
# From ^{165}Ho(n,γ) measured by 1965Bj03.
@ 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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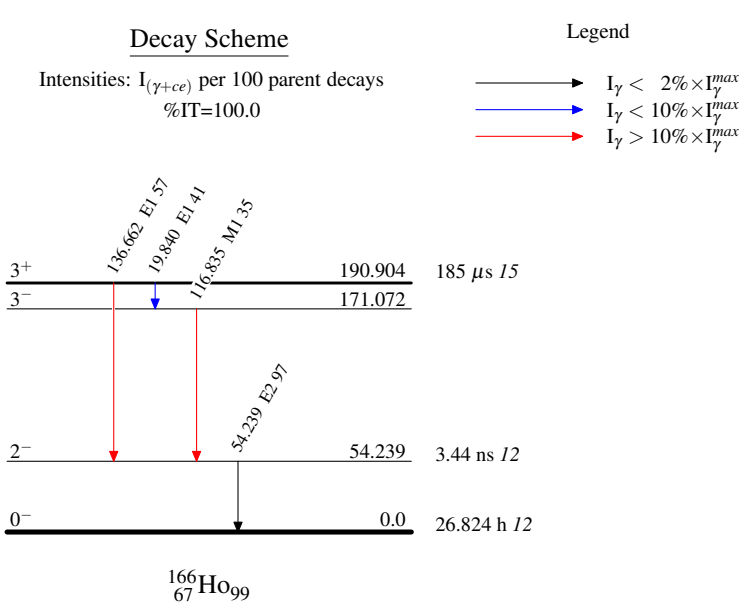
Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

%IT=100.0



$^{166}_{67}Ho_{99}$