^{85}Nb ε decay (3.3 s):? 2005Ka39

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 116, 1 (2014)	31-Dec-2013

Parent: ^{85}Nb: E=69+y; J^π=(1/2$^-$,3/2$^-$); $T_{1/2}$=3.3 s *9*; Q(ε)=6894 *8*; %ε+%$β^+$ decay<100.0

^{85}Nb-J^π,$T_{1/2}$: From ^{85}Nb Adopted Levels.

^{85}Nb-Q(ε): From 2012Wa38.

^{85}Nb-%ε+%$β^+$ decay: 69γ is interpreted as isomeric transition, but its branching is unknown.

2005Ka39 (also 2005Ka46): Isomer in ^{85}Nb identified in Ni(^{32}S,X) reaction at 150-170 MeV. Measured γ, ce, ce(γ) coin, half-life. ISOL technique at IGISOL facility at Jyvaskyla and at ISOLDE/CERN.

^{85}Zr Levels

E(level)	J^π †	$T_{1/2}$ †
0	(7/2$^+$)	7.86 min *4*
292.2	(1/2$^-$)	10.9 s *3*

† From Adopted Levels.

γ(^{85}Zr)

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α †	Comments
292.2	292.2	(1/2$^-$)	0	(7/2$^+$)	[E3]	0.0956	α(K)= 0.0801 *12*; α(L)=0.01289 *19*; α(M)=0.00227 *4*; α(N)=0.000303 *5*; α(O)=1.424×10^{-5} *21*

† 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