^{85}Nb ε decay (20.5 s) 1988Ku14

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=0.0; J^π=(9/2$^+$); $T_{1/2}$=20.5 s *12*; 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: %EC+%B+ decay mode assumed as 100%.
1988Ku14: ^{85}Nb produced in ^{58}Ni(^{32}Se,αp) and ^{60}Ni(^{28}Si,p2n) reactions, Ge detectors. Measured Eγ, Iγ, $\beta\gamma$ coincidences, isotopic half-life.
2005Ka39 (also 2005Ka46): measured Eγ, Iγ, ce, isotopic half-life.
Other: 1981SaZO.

^{85}Zr Levels

E(level)	J^π[†]	$T_{1/2}$[†]
0.0	(7/2$^+$)	7.86 min *4*
50.12 *4*	(9/2$^+$)	

[†] From Adopted Levels.

γ(^{85}Zr)

E$_\gamma$	E$_i$(level)	J^π_i	E$_f$	J^π_f	Mult.	δ	α[†]	Comments
50.12 *4*	50.12	(9/2$^+$)	0.0	(7/2$^+$)	M1+E2	0.24 *6*	2.1 *4*	α(K)=1.72 *24*; α(L)=0.32 *9*; α(M)=0.055 *16*; α(N)=0.0073 *19*; α(O)=0.00031 *4* α(K)exp=1.7 *2* (2005Ka39) Mult.,δ: from α(K)exp. Measured K/L=9.0 *18* (2005Ka39) gives δ(E2/M1)<0.12.

[†] 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