

⁸⁵Nb IT decay (3.3 s) 2005Ka39

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

Parent: ⁸⁵Nb: E=69+y; J^π=(1/2⁻,3/2⁻); T_{1/2}=3.3 s 9; %IT decay<100.0

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

⁸⁵Nb-%IT decay: 69γ is interpreted as isomeric transition, but its branching ratio is unknown.

2005Ka39 (also 2005Ka46): Isomer in ⁸⁵Nb identified in Ni(³²S,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.

⁸⁵Nb Levels

E(level)	J ^π	T _{1/2}	Comments
0	(9/2 ⁺)	20.5 s 12	J ^π ,T _{1/2} : from Adopted Levels.
0+y?			
69+y?	(1/2 ⁻ ,3/2 ⁻)	3.3 s 9	

γ(⁸⁵Nb)

E _γ	E _i (level)	J _i ^π	E _f	Mult.	Comments
69 [†]	69+y?	(1/2 ⁻ ,3/2 ⁻)	0+y?	(E2,M2)	Mult.: from α(K)exp>2.6, K/L=4.1 13 (2005Ka39), ce measurements. For E2, α(K)=3.2, K/L=4.5 4. For M2, α(K)=6.3, K/L=6.1 6. The theoretical K/L ratio tends to support E2.

[†] Placement of transition in the level scheme is uncertain.

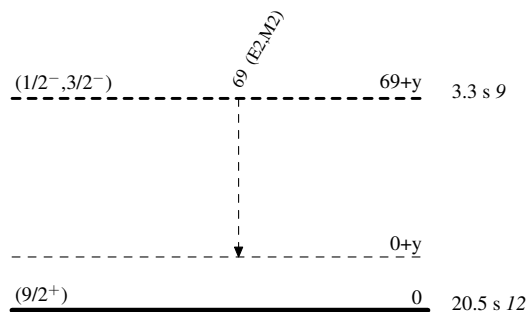
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Legend

Decay Scheme

%IT<100.0

-----► γ Decay (Uncertain)



⁸⁵Nb₄₄