^{105}Rh IT decay (42.8 s) 1998Kr08,1979Bo26

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, J. Timar and Z. Elekes	NDS 161, 1 (2019)	1-Apr-2019

Parent: ^{105}Rh: E=129.782 *4*; $J^{\pi}=1/2^{-}$; $T_{1/2}$=42.8 s *3*; %IT decay=100.0

1998Kr08: Facility: Mainz Institute fur Kernchemie TRIGA reactor; Source: chemically separated from 2.0 mg ^{235}U irradiated with $7x10^{11}$ n.cm^{-2}.s^{-1}; Detectors: one well-type NaI, one GeI; Measured: γ, γ(t), Eγ, Iγ; Deduced: $T_{1/2}$.

1979Bo26: Facility: ILL Reactor; Source: after irradiation of ^{238}U and ^{234}U targets with $5.5x10^{14}$ n.cm^{-2}.s^{-1}; Detectors: GAMS 1, GAMS 2/3; Measured: Eγ; Experiments repeated at lower n-flux FRJ2 reactor facility KFA-Julich.

^{105}Rh Levels

E(level)†	J^{π}‡	$T_{1/2}$	Comments
0.0	$7/2^{+}$		
129.782 *4*	$1/2^{-}$	42.8 s *3*	$T_{1/2}$: weighted average of 43.0 s *3* in 1998Kr08 and 42.4 s *5* in 1992KaZM.

† From Eγ.
‡ From the Adopted Levels.

γ(^{105}Rh)

E$_\gamma$‡	I$_\gamma$#	E$_i$(level)	J_i^{π}	E$_f$	J_f^{π}	Mult.‡	α†	I$_{(\gamma+ce)}$#	Comments
129.782 *4*	20.24 *28*	129.782	$1/2^{-}$	0.0	$7/2^{+}$	E3	3.94	100	ce(K)/(γ+ce)=0.515 *6*; ce(L)/(γ+ce)=0.231 *4*; ce(M)/(γ+ce)=0.0452 *8*; ce(N+)/(γ+ce)=0.00687 *13* ce(N)/(γ+ce)=0.00680 *13*; ce(O)/(γ+ce)=7.23×10^{-5} *13* Mult.: α(K)exp=2.58 *26*, α(L)exp=1.10 *11*, α(M)exp=0.250 *25* in 1967Sc01; Other: 1960Ri03. I: from I(γ+ce) and α.

† Additional information 1.
‡ From the adopted gammas.
# Absolute intensity per 100 decays.

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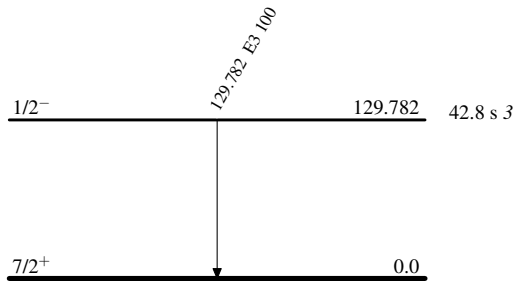
Decay Scheme

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

%IT=100.0



$^{105}_{45}Rh_{60}$