^{94}Pd ε decay 2005BaZO,2004BaZY,1982Ku15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 107, 2423 (2006)	1-Jan-2006

Parent: ^{94}Pd: E=0; $J^\pi=0^+$; $T_{1/2}$=9.0 s *5*; Q(ε)=6588.0 *SY*; %ε+%$β^+$ decay=100.0

1982Ku15: ^{58}Ni(^{40}Ca,X) E=4.0 MeV/A. Fusion products separated using GSI on-line mass separator, silicon ΔE-E telescopes to detect delayed p, Ge(li) detectors to measure x and γ ray activities. Measured t, relative Iγ, delayed proton branching ratio.

2005BaZO,2004BaZY: ^{58}Ni(^{40}Ca,X) E=4.8 MeV/A Fusion products separated using GSI on-line mass separator, large NaI crystal and auxiliary detectors for selecting $β^-$ and ε events and identifying $β^-$delayed protons.

Level Scheme from 2005BaZO.

^{94}Rh Levels

E(level)	J^π†	$T_{1/2}$†
0.0	(4$^+$)	70.6 s *6*
54.60 *20*	(2$^+$)	0.48 μs *4*
612.8 *3*	(1$^+$)	
1670?	(1$^+$)	
2626	(1$^+$)	
2910	(1$^+$)	

† From adopted values.

γ(^{94}Rh)

E_γ†	I_γ†	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α‡	Comments
54.6 *2*	11 *1*	54.60	(2$^+$)	0.0	(4$^+$)	E2	11.8	α(exp)=8.1 *9* α=11.8; α(K)=7.58 *23*; α(L)=3.48 *11*; α(M)=0.666 *20*; α(N+..)=0.112 *4* Mult.: from α(exp) which is derived requiring Ti(54.6)=Ti(558.2).
558.2 *2*	100 *3*	612.8	(1$^+$)	54.60	(2$^+$)			
x723.9 *2*	12.1 *13*							
x797.8 *2*	7.1 *12*							

† From 1982Ku15 (relative intensities).

‡ 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.

x γ ray not placed in level scheme.

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Decay Scheme

Intensities: Relative I_γ