^{94}Kr β^- decay 1989Lh03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	A. Negret, A. A. Sonzogni	ENSDF	31-Mar-2011

Parent: ^{94}Kr: E=0.0; $J^\pi=0^+$; $T_{1/2}$=212 ms *5*; Q(β^-)=7214 *13*; %β^- decay=100.0

The decay scheme is as given by 1989Lh03, which is incomplete. The gamma intensities are relative, absolute intensities could not be obtained due to lack of experimental information. The authors mention possibility of an additional level at 320.8 or 325.2.

Measured γ, $\gamma\gamma$, $\gamma\gamma$(t) intrinsic Ge detectors.

1982Al01: Eβ(av)=2.06 MeV.

^{94}Rb Levels

E(level)[†]	J^π[‡]	$T_{1/2}$[‡]
0.0	3(−)	2.702 s *5*
4.54 *11*		
190.87 *11*		2.5 ns *8*
223.82 *10*		
292.72 *11*		
359.01 *10*	(1,2,3)	
394.7 *3*	(1,2,3)	
866.4? *8*		
988.34 *13*	(1+)	

[†] From least-squares fit to Eγ.

[‡] From Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ^-[†]	Log *ft*	Comments
(6226 *13*)	988.34	≥70	≤4.0	av Eβ=2820.7 *63* Iβ^-,Log *ft*: not a measurement, but an estimate supported by shell model calculations.

[†] Absolute intensity per 100 decays.

$\gamma(^{94}Rb)$

E$_\gamma$[‡]	I$_\gamma$[#]	E$_i$(level)	J_i^π	E$_f$	J_f^π	Comments
[x]98 *2*	6.3 *5*					
121[†&a] *2*	4.9 *5*	988.34	(1+)	866.4?		
135.190 *6*	13.0 *10*	359.01	(1,2,3)	223.82		E$_\gamma$: 134.9 *1* (1989Lh03).
167.3 *1*	31[@] *5*	359.01	(1,2,3)	190.87		
186.320 *7*	37.4 *21*	190.87		4.54		E$_\gamma$: 186.9 *2* (1989Lh03).
191.5[†&a] *10*	5.1 *5*	190.87		0.0	3(−)	
203.4[†&a] *10*	3.6 *4*	394.7	(1,2,3)	190.87		
219.466 *52*	72 *11*	223.82		4.54		E$_\gamma$: 219.5 *1* (1989Lh03).
288.175 *16*	33.6 *20*	292.72		4.54		E$_\gamma$: 288.1 *2* (1989Lh03).
[x]292.8 *2*	8.8 *31*					
[x]320.839 *43*	25.7 *16*					
354.51 *6*	27.1 *18*	359.01	(1,2,3)	4.54		E$_\gamma$: 354.6 *2* (1989Lh03).
359.0 *1*	37 *6*	359.01	(1,2,3)	0.0	3(−)	E$_\gamma$: 358.8 *2* (1989Lh03).
394.9 *8*	21.5 *7*	394.7	(1,2,3)	0.0	3(−)	E$_\gamma$: 395.1 *4* (1989Lh03).
[x]402.6 *3*	20.2 *15*					

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^{94}Kr β^- decay 1989Lh03 (continued)

$\gamma(^{94}Rb)$ (continued)

E_γ[‡]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Comments
471.6[†a] *8*	11.2 *8*	866.4?		394.7	(1,2,3)	
593.7 *3*	16 *4*	988.34	(1^+)	394.7	(1,2,3)	E_γ: from 1989Lh03.
629.3 *1*	100	988.34	(1^+)	359.01	(1,2,3)	E_γ: 629.2 *2* (1989Lh03).
695.8 *3*	25.2 *18*	988.34	(1^+)	292.72		E_γ: from 1989Lh03.
764.5 *2*	71[@] *8*	988.34	(1^+)	223.82		
985[†a] *1*	1.8 *3*	988.34	(1^+)	4.54		

† From 1973Ca03.
‡ From 1979Bo26 (curved-crystal spectrometer), unless otherwise stated.
# Relative intensities from 'adopted intensities' in 1989Lh03.
@ Seen only by 1989Lh03.
& Not seen by 1989Lh03.
a Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

^{94}Kr β^- decay 1989Lh03

Decay Scheme

Intensities: Relative I_γ