

^{95}Kr IT decay 2006Ge05,2007Si16

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, G. Mukherjee, A. A. Sonzogni		NDS 111, 2555 (2010)	30-Jun-2009

Parent: ^{95}Kr : E=195.5 3; $J^\pi=(7/2^+)$; $T_{1/2}=1.4 \mu\text{s}$ 2; %IT decay=100.0

2006Ge05,2007Si16: produced by $^{241}\text{Pu}(n,F)$ E=thermal, ^{95}Kr was selected by Lohengrin mass spectrometer; γ singles, $\gamma\gamma$ and $\gamma F(t)$ coincidences measured using Clover Ge and Ge Cluster detectors in coincidence with fission fragments.

α : [Additional information 1](#).

 ^{95}Kr Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	(1/2 ⁺)	0.114 s 3	$T_{1/2}$: from Adopted Levels.
113.8 2	(3/2 ⁺)		
195.5 3	(7/2 ⁺)	1.4 μs 2	$T_{1/2}$: from 113.8 $\gamma(t)$.

 $\gamma(^{95}\text{Kr})$

I_γ normalization: From $\Sigma(I_\gamma + I_{ce \text{ to g.s.}}) = 100$.

E_γ	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	α	Comments
81.7 2	35 2	195.5	(7/2 ⁺)	113.8	(3/2 ⁺)	(E2)	1.95 4	$\alpha(K)=1.63$ 3; $\alpha(L)=0.270$ 5; $\alpha(M)=0.0436$ 8; $\alpha(N)=0.00385$ 7; $\alpha(N+..)=0.00385$ 7 B(E2)(W.u.)=1.47 27 Mult.: from decay systematics of isomeric states in N=59 isomer; B(E2)(W.u.)=1.5 (RUL).
113.8 2	100 5	113.8	(3/2 ⁺)	0.0	(1/2 ⁺)	(M1)	0.0905	$\alpha(K)=0.0800$ 12; $\alpha(L)=0.00893$ 14; $\alpha(M)=0.001449$ 22; $\alpha(N)=0.0001453$ 22 $\alpha(N+..)=0.0001453$ 22 Mult.: from intensity balance, it is expected to be dipole, M1 is chosen from comparison with neighboring N=59 isotones.

† For absolute intensity per 100 decays, multiply by 0.917.

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Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
%IT=100.0

Legend

- $I_{\gamma} < 2\% \times I_{\gamma}^{max}$
- $I_{\gamma} < 10\% \times I_{\gamma}^{max}$
- $I_{\gamma} > 10\% \times I_{\gamma}^{max}$
- Coincidence

