

^{211}Fr ε decay [1972KeZB](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	T. D. Johnson, Y. J. Chen, S. Enkhbold, G. Khalil, B. Yang		NDS 114, 661 (2013)	28-Feb-2013

Parent: ^{211}Fr : $E=0.0$; $J^\pi=9/2^-$; $T_{1/2}=3.10$ min 2; $Q(\varepsilon)=4615$ 14; $\% \varepsilon + \% \beta^+$ decay < 20.0

[Additional information 1.](#)

$Q(\varepsilon)$ from [2012Wa38](#). ε/β^- unknown. ε branchings to individual levels are poorly known and thus not given here.

The decay scheme suggested by [1972KeZB](#) is based on coincidence data and analogy with ^{209}At ε decay.

 ^{211}Rn Levels

E(level)	J^π [†]
0.0	$1/2^-$
540	$5/2^-$
1458	$9/2^-$
1739	$(11/2^-)$ [‡]
1960?	
2179?	$(9/2^+)$ [‡]
2722?	$(11/2^+)$ [‡]

[†] From Adopted Levels.

[‡] Based on analogy with ^{209}At ε decay to ^{209}Po ([1972KeZB](#)).

 $\gamma(^{211}\text{Rn})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
221	9 2	1960?		1739	$(11/2^-)$
281	34 3	1739	$(11/2^-)$	1458	$9/2^-$
440	20 3	2179?	$(9/2^+)$	1739	$(11/2^-)$
540	100	540	$5/2^-$	0.0	$1/2^-$
763	5 1	2722?	$(11/2^+)$	1960?	
918	55 5	1458	$9/2^-$	540	$5/2^-$
983	20 3	2722?	$(11/2^+)$	1739	$(11/2^-)$

^{211}Fr ϵ decay **1972KeZB**

Decay Scheme

Intensities: Relative I_γ

Legend

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

$\% \epsilon + \% \beta^+ < 20.0$ $\xrightarrow{9/2^- \quad 0.0}$ 3.10 min 2
 $Q_\epsilon = 4615.14$
 $^{211}_{87}\text{Fr}_{124}$

