

^{215}Ra α decay [1970To18,1968Va18](#)

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: ^{215}Ra : $E=0.0$; $J^\pi=(9/2^+)$; $T_{1/2}=1.66$ ms 2; $Q(\alpha)=8864$ 3; $\% \alpha$ decay=100.0

^{215}Ra - $T_{1/2}$: Weighted average of 1.64 ms 4 ([2005Li17](#)), 1.62 ms +16-13 ([2000Ni02](#)), 1.68 ms 2 ([2000He17](#), weighted average of 1.67 1, 1.75 7, 1.79 4), 1.56 ms 10 ([1970To18](#)), 1.7 ms 2 ([1968Va18](#)), and 1.5 ms 1 ([1991An10](#)). Other: 1.5 ms 3 ([1991An13](#), same experiment as [1991An10](#)).

^{215}Ra - $\% \alpha$ decay: $\% \alpha=100$ (from log ft systematics $\% \beta^+$ is negligible).

[2000He17](#): Measured $E\alpha$, $\alpha\gamma$ coin.

[Additional information 1](#).

 ^{211}Rn Levels

$E(\text{level})^\ddagger$	$J^\pi^\dagger$
0.0	$1/2^-$
539.6 2	$5/2^-$
833.5 3	$(3/2^-)$

† From Adopted Levels.

‡ From γ -ray energies reported in [2000He17](#).

 α radiations

$E\alpha^\dagger$	$E(\text{level})$	$I\alpha^\ddagger@$	HF [#]
7882 8	833.5	2.8 5	18 4
8171 8	539.6	1.3 5	2.7×10^2 11
8700 5	0.0	95.9 10	100.8 21

† Average of measurements by [1970To18](#), [1968Va18](#), and [2000He17](#). See also [1991Ry01](#).

‡ Average of measurements by [1970To18](#), [1968Va18](#). See also [1991Ry01](#).

[#] Using $r_0(^{211}\text{Rn})=1.4981$ 36; interpolated value from $r_0(^{210}\text{Rn})=1.4552$ 21 and $r_0(^{212}\text{Rn})=1.541$ 5 ([1998Ak04](#)).

@ Absolute intensity per 100 decays.

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

$E_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π
539.6 2	539.6	$5/2^-$	0.0	$1/2^-$
833.5 2	833.5	$(3/2^-)$	0.0	$1/2^-$

† From [2000He17](#).

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Decay Scheme

