
 ^{208}Ra α decay

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	C. J. Chiara and F. G. Kondev		NDS 111,141 (2010)	1-Oct-2009

Parent: ^{208}Ra : $E=0.0$; $J^\pi=0^+$; $T_{1/2}=1.3\text{ s}$ 2; $Q(\alpha)=7273\text{ 5}$; $\% \alpha$ decay=95 5

α branching for ^{208}Ra was adopted as 95% 5 by [2007Ma45](#) from estimated ε branching of $\approx 5\%$ based on gross β decay theory calculations by [1973Ta30](#). The partial β half-life was calculated by [1997Mo25](#) as 23.8055 s which gives $\% \varepsilon + \% \beta^+ = 5.46$.

 ^{204}Rn Levels

<u>E(level)</u>	<u>J^π</u>
0.0	0^+

 α radiations

<u>E_α</u>	<u>E(level)</u>	<u>I_α^\ddagger</u>	<u>HF†</u>	Comments
7133 5	0.0	100	1.000	E_α : Recommended by 1991Ry01 .

† $r_0(^{204}\text{Rn})=1.496\text{ 8}$ is calculated from $\text{Hf}(7133\alpha)=1.0$. This value fits the local r_0 trend where $r_0=1.50\text{ f}$ is obtained.

‡ For absolute intensity per 100 decays, multiply by 0.95 5.