

^{207}Ra α decay (59 ms) [1996Le09,1987He10](#)

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	F. G. Kondev	NDS 177, 509, 2021	4-Jul-2021

Parent: ^{207}Ra : E=558 10; $J^\pi=(13/2^+)$; $T_{1/2}=59$ ms 4; $Q(\alpha)=7270$ 60; % α decay $\leq$ 15.0

^{207}Ra -E: From the excitation energy of 362 keV 4 of the $J^\pi=13/2^+$ isomer in the daughter nucleus ^{203}Rn and the adopted $E\alpha=7323$ keV 8 (isomer) and 7131 keV 4 (ground state).

^{207}Ra - $J^\pi, T_{1/2}$: From [2011Ko04](#).

^{207}Ra - $Q(\alpha)$: From [2021Wa16](#).

^{207}Ra -% α decay: From [2011Ko04](#).

 ^{203}Rn Levels

<u>E(level)[†]</u>	<u>J^π[†]</u>	<u>$T_{1/2}$[†]</u>
362 4	13/2 ⁺	26.9 s 5

[†] From Adopted Levels.

 α radiations

<u>$E\alpha$</u>	<u>E(level)</u>	<u>$I\alpha$[‡]</u>	<u>HF[†]</u>	<u>Comments</u>
7323 8	362	100	≥ 1.8	$E\alpha$: Weighted average of 7331 keV 15 (1996Le09), supersedes 7330 keV 15 (1995Le15), and 7320 keV 10(1987He10).

[†] Using $r_0(^{205}\text{Ra})=1.513$ 22, weighted average of 1.539 +27–50 in ^{206}Ra (N=118) and 1.510 27 in ^{208}Ra (N=120), determined using $\text{HF}_\alpha=1$.

[‡] For absolute intensity per 100 decays, multiply by ≤ 0.15 .