^{206}Rn α decay 1993Wa04,1971Go35,1967Va17

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 196,342 (2024)	1-Sep-2023

Parent: ^{206}Rn: E=0.0; $J^\pi=0^+$; $T_{1/2}$=5.67 min *17*; Q(α)=6383.7 *16*; %α decay=62 *3*

^{206}Rn-$T_{1/2}$: From 2008Ko21.

^{206}Rn-Q(α): From 2021Wa16.

^{206}Rn-%α decay: From 2008Ko21.

1993Wa04: ^{206}Rn was produced at the Leuven Isotope Separator On-Line (LISOL) facility in Belgium. α particles were detected with a PIPS detector (FWHM=15 keV). Measured: Eα, Iα. Deduced: $T_{1/2}$ and %α.

1971Go35: Mass separated ^{206}Rn was produced in bombardment of a metallic thorium target with 660 MeV proton beams. Detectors: magnetic spectrograph with energy resolution of 4-6 keV; Measured: Eα, Iα. Deduced: $T_{1/2}$ and %α.

1967Va17: ^{206}Rn was produced in fusion-evaporation reactions using ^{12}C, ^{14}N and ^{16}O beams on Hg, Au and Pt targets, respectively. Measured Eα and Iα with Si(Au) detectors with energy resolution of 15 to 20 keV. Deduced: $T_{1/2}$.

^{202}Po Levels

E(level)	J^π	$T_{1/2}$	Comments
0	0^+	44.5 min *4*	$T_{1/2}$: From Adopted Levels.

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
6259.7 *16*	0	100	1.000	Eα: Weighted average of 6258 keV *3* (1967Va17), 6260 keV *3* (1971Go35) and 6260.6 keV *25* (1993Wa04). Others: 6250 keV *50* (1954Bu67) and 6250 keV *50* (1957St10). Eα=6259.0 keV *21* is recommended in 1991Ry01.

[†] HF(6259.7α)=1.0 yields $r_0(^{202}Po)$=1.4917 *27*.

[‡] For absolute intensity per 100 decays, multiply by 0.62 *3*.