^{214}Rn α decay (6.5 ns)   1981Go06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 121, 561 (2014)	31-Mar-2014

Parent: ^{214}Rn: E=1625.1; J$^\pi$=8$^+$; T$_{1/2}$=6.5 ns 30; Q(α)=9208 9; %α decay$\approx$10.0
^{214}Rn was produced from ^{208}Pb(^{12}C,α2n) reaction, measured Eα.

^{210}Po Levels

E(level)	J$^\pi$	T$_{1/2}$
0.0	0$^+$	138.376 d 2
1556.8 2	8$^+$	

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
(9103 9)	1556.8	≤36	≥1.0	α was not observed (1983Lo01). Eα: calculated by the evaluator from Q(α)(g.s.), E(parent level)=1625.1, and E(daughter level)=1556.8. Iα: requirement of HF≤4.0 yields Iα≥85.7. If α decay branch of this isomer is 10%, then Iα≥8.6.
10630 30	0.0	≥64	≤700	Eα: measurement of 1981Go06. Other measurement: 10.7 MeV (1983Lo01). Eα=10631 11 from Q(α)(g.s.)=9209 10 and E(parent level)=1625.1. Iα: only one α group was observed. Limit on Iα of a possible α decay to the 8$^+$ level at 1557 keV in ^{210}Po was given by 1983Lo01 as Iα(to 0$^+$)/Iα(to 8$^+$)≥1.8.

[†] r$_0$(^{210}Po)=1.532 6 has been used in calculations (1998Ak04).
[‡] For absolute intensity per 100 decays, multiply by ≈0.10.