^{200}Rn α decay (0.96 s)   1995Bi17,1984Ca32,1971Ho01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong	NDS 108, 1093 (2007)	1-Jan-2006

Parent: ^{200}Rn: E=0.0; $J^{\pi}=0^+$; $T_{1/2}$=0.96 s 3; Q(α)=7043 3; %α decay=98.0

^{200}Rn-$T_{1/2}$: From 1984Ca32. Other value: 1.0 s 2 (1971Ho01), 1.1 s $+6-3$(2005Uu02).

^{200}Rn-Q(α): From 2003Au03. Others: 7050 8 (1971Ho01), and 7040 10 (1984Ca32), 7021 10 (1967Va17).

^{200}Rn-%α decay: Estimated from β^- strength function systematics (1971Ho01,1970Du09). Other: 0.86 $+14-4$ (1993Wa04).

1995Bi17: sources from 1.0 GeV-proton on Th and on-line mass separator. Measured Eα, Iα, K x-ray, and K x-ray -α coin.

1984Ca32,1971Ho01: sources from ^{232}Th(p,spallation)^{200}Rn, E(p)=600 MeV.

1982Hi14: sources from ^{86}Kr(^{116}Sn,2n), E(^{116}Sn)=370 MeV. Secondary electron transmission detector, Si surface barrier detector.

^{196}Po Levels

E(level)[†]	J^{π}[†]	$T_{1/2}$	Comments
0.0	0^+	5.5 s 5	%α=98; %ε+%$\beta^+\approx$2 From systematics of β^- strength function (1973Ta30). $T_{1/2}$: from 1967Si09.
463 1	2^+		
558 7	0^+		

[†] From ^{196}Po Adopted Levels.

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
6355 6	558	0.0081 7	$\approx$92	Eα,Iα: from 1995Bi17.
6454 14	463	0.006 2	$\approx$299	Eα,Iα: from 1995Bi17.
6902 3	0.0	100	$\approx$1	Eα: from 1993Wa04. Others: 6909 8 (1971Ho01),6903 6(2005Uu02). See 1967Va31,1967Va32, 1967Va17. $\Gamma\alpha/\Gamma$(tot)=0.7 (1984Ca32).

[†] r_0=1.513 10.

[‡] For absolute intensity per 100 decays, multiply by 0.98.