>>**Entry Name: Francium**

CAS Registry Number: 7440-73-5
Fr

Molecular Formula: Fr
Molecular Weight: 223.02
Accurate Mass: 223.019733
Percentage Composition: Fr 100.00%
General Statement: Atomic No. 87. Ground state electron config. [Rn]7s^1. Identified in 1939 by M. Perey. Only 1 naturally occurring isotope ^{223}Fr known. Intensely radioactive and short lived. Occurs in traces in U ores
Source/Synthesis: Obt. from ^{227}Ac by neutron bombardment of Ra
Melting Point: Mp 27°
Boiling Point: Bp 680°

>>**Variant: Francium 210**

CAS Registry Number: 17620-06-3
General Statement: Radioactive, $t_{½}$ 3.2 min.
Source/Synthesis: Prod. from ^{203}Tl (^{12}C,5n), ^{205}Tl (^{12}C,7n), or ^{197}Au (^{16}O,3n)
Other Data: I = +6; μ = +4.4 μ_N. Decays by α emission to ^{206}At, or orbital electron capture to ^{210}Rn

>>**Variant: Francium 211**

CAS Registry Number: 17620-07-4
General Statement: Radioactive, $t_{½}$ 3.10 min.
Source/Synthesis: Prod. from ^{203}Tl (^{12}C,4n), ^{205}Tl (^{12}C,6n), ^{197}Au (^{18}O,4n), or ^{197}Au (^{16}O,2n)
Other Data: I = - 9/2 ; μ = +4.0 μ_N. Decays by α emission to ^{207}At, or orbital electron capture to ^{211}Rn

>>**Variant: Francium 212**

CAS Registry Number: 15756-97-5
General Statement: Radioactive, $t_{½}$ 20 min.
Source/Synthesis: Prod. from ^{205}Tl (^{12}C,5n), or by proton bombardment of Th
Other Data: I = +5; μ = +4.6 μ_N. Decays by α emission (43%) to ^{208}At, or orbital electron capture (57%) to ^{212}Rn

>>**Variant: Francium 221**

CAS Registry Number: 15756-41-9
General Statement: Radioactive, $t_{½}$ 4.8 min.
Source/Synthesis: Descendant of ^{229}Th
Other Data: I = - 5/2 ; μ = +1.58 μ_N. Decays by α emission to ^{217}At

>>**Variant: Francium 222**

CAS Registry Number: 36840-25-2
General Statement: Radioactive, $t_{½}$ 14.3 min.
Source/Synthesis: Prod. by proton bombardment of Th
Other Data: I = -2; μ = 0.63 μ_N. Decays by $\beta^{(-)}$ emission (>99%) to ^{222}Ra

>>**Variant: Francium 223**

CAS Registry Number: 15756-98-6
General Statement: Radioactive, $t_{½}$ 21.8 min. Traces occur naturally
Other Data: I = + 3/2 ; μ = +1.17 μ_N. Decays by $\beta^{(-)}$ emission to ^{223}Ra

>>**Variant: Francium 224**

CAS Registry Number: 18696-67-8
General Statement: Radioactive, $t_{½}$ 2.7 min.
Source/Synthesis: Prod. by proton bombardment of Th. Daughter of ^{224}Rn
Other Data: I = -1; μ = +0.40 μ_N. Decays by $\beta^{(-)}$ emission to ^{224}Ra