



FRANCIUM

It's like a depth charge in the bath

ESTB 1939

AN

8

AM

223

MP

21°C

BP

650°C

EC

Alkali
Metals

Appearance

An intensely radioactive metal.

History

Mendeleev said there should be an element like caesium waiting to be discovered. Consequently, there were claims, denials, and counterclaims by scientists who said they had found it. During the 1920s and 30s, these claims were made on the basis of unexplained radioactivity in minerals, or new lines in their X-ray spectra, but all eventually turned out not to be evidence of element 87.

Francium was finally discovered in 1939 by Marguerite Perey at the Curie Institute in Paris. She had purified a sample of actinium free of all its known radioactive impurities and yet its radioactivity still indicated another element was present, and which she rightly deduced was the missing element 87. Others challenged her results too, and it was not until after World War II that she was accepted as the rightful discoverer in 1946.

Uses

Francium has no uses, having a half life of only 22 minutes.

Natural Abundance

Francium is obtained by the neutron bombardment of radium in a nuclear reactor. It can also be made by bombarding thorium with protons.

Biological Role

Francium has no known biological role. It is toxic due to its radioactivity.

