Berkelium Encyclopedia Article

Berkelium

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Berkelium

Berkelium is a transuranic element, with an **atomic number** of 97 and an atomic **mass** of 274.0703. Its chemical symbol is Bk. Berkelium is also classified as an actinide element, one of the elements that makes up Row 7 of the **periodic table**.

Properties

Berkelium exists in such small quantities that very little is known about its properties. Its melting point is estimated to be about 1,810°F (986°C). Two allotropes of the element are known with densities of 13.25 and 14.78 grams per cubic centimeter. All known isotopes of berkelium are radioactive, with the longest-lived being berkelium-247, with a half life of 1,380 years.

Occurrence and Extraction

Berkelium has not been found in the Earth's crust. It is produced artificially by bombarding other transuranic elements in a particle accelerator.

Discovery and Naming

Berkelium was discovered in 1949 by a team of researchers at the University of California at Berkeley (UCB). The UCB team was analyzing reactions that occur when very heavy atoms are bombarded with alpha particles. When **americium** was used as a target in this research, evidence for the formation of a new element was obtained. The UCB research team selected the name berkelium for the new element in honor of the city in which the research was done.

Uses

There are no commercial uses for berkelium, although it is sometimes used in research projects.