Americium Encyclopedia Article

Americium

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Americium

Americium is an element in the actinide series which has an atomic number of 95, and the atomic weight of its most stable isotope is 243. Fourteen isotopes of the element are known. The element exists as a silver-white metal with a melting point of 2,148.8°F (1,176°C) and a boiling point of 3,651.8°F (2,011°C).

The fourth transuranium element to be produced was named *americium* (chemical symbol: Am) after the Americas by its discoverers Glenn T. Seaborg, R. A. James, L. O. Morgan (b. 1919), and Albert Ghiorso in 1944. The element was first produced in a nuclear reaction when plutonium -239 was bombarded with neutrons.

Americium has three primary uses. The radiation it releases can be used to measure the thickness of glass during production. One isotope, americium-241, is used in portable devices for taking gamma ray photographs. The same isotope is also used as an ionization source in smoke detectors.

The gamma radiation produced by all americium isotopes is very intense and poses a serious health hazard to anyone who works with samples of more than a gram.