Nobelium Encyclopedia Article

Nobelium

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Nobelium

Nobelium is a man-made, radioactive element denoted by the atomic symbol, No. It has an atomic number of 102 and an atomic weight of 259. Ten isotopes of nobelium have been produced. The longest lived isotope, nobelium-259, has a half-life of 58 hours ± 5 minutes. Little is known about the chemical properties of nobelium because of the difficulty in producing a stable enough sample.

First reports of the discovery of nobelium appeared in 1957. A team of researchers from the Argonne National Laboratory in Chicago, Illinois, the Atomic Energy Research Establishment in Great Britain, and the Nobel Institute for Physics in Sweden announced the discovery of the element. The Commission on Atomic Weights of the International Union of Pure and Applied Chemistry (IUPAC) accepted the results almost immediately, and approved the proposed name for the element, *nobelium*. That decision turned out to be premature. In 1958, a team of workers at the University of California, Berkeley, including Albert Ghiorso and Glenn T. Seaborg, were unable to confirm the earlier results. They were, however, able to produce an isotope of element 102 with a mass of 254. They obtained this isotope by bombarding a target of curium with carbon-12 nuclei. In view of the naming decision already made by IUPAC, the Berkeley group agreed to accept *nobelium* as the name for element 102.