

## **Element Plutonium**

<u>Plutonium</u>, a radioactive element, was first produced and isolated at the **Berkeley Radiation Laboratory** by **Dr. Glenn T. Seaborg, Joseph W. Kennedy, Edwin M. McMillan, and Arthur C. Wahl in 1940.** 

- They produced it by bombarding **uranium-238** with **deuterium nuclei** (alpha particles).
- Plutonium production was essential for the Manhattan Project (a top-secret program to make the first atomic bombs during World War II).
- Its basic chemistry is closely related to uranium.
- Plutonium-239, an isotope of plutonium, could undergo fission and be used as fuel for an atomic bomb.
- Plutonium is also a key material in the development of nuclear power.

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