

²³⁸Pu

Kennedy et al. published the observation ²³⁸Pu in the 1949 paper “Formation of the 50-year element 94 from deuteron bombardment of U²³⁸” (1949KeZZ). An enriched ²³⁸U sample was bombarded with 14 MeV deuterons from the Berkeley 60-in. cyclotron. Following chemical separation, the growth of α -particles was followed and aluminum absorption curves were measured with a Lauritsen electroscope. “For these reasons, the most probable assignments of the 2.0-day element 93 and 50-year element 94 are ⁹³²³⁸ and ⁹⁴²³⁸ produced by the reactions U²³⁸(d,2n)⁹³²³⁸, ⁹³²³⁸ $\xrightarrow{\beta^-}$ 2.0 day ⁹⁴²³⁸.” The ²³⁸Pu activity had been observed earlier representing the discovery of the element ²³⁸Pu, however, no firm mass assignment was made (1946Se33). The parent β -activity was assigned to either mass 238, 236 or 235.

Adapted from reference (2013Fr02)

- 1946Se33 G. T. Seaborg, E. M. Mcmillan, J. W. Kennedy, and A. C. Wahl, Phys. Rev. **69**, 366 (1946).
- 1949KeZZ J. W. Kennedy, M. L. Perlman, E. Segre, and A. C. Wahl, The Transuranium Elements: Research Papers, Book 1, Vol. 14B, paper 1. 9, G. T. Seaborg ed. , p. 79 (1949).
- 2013Fr02 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 96 (2013).

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