

²⁴¹Am

In 1949, Seaborg et al. reported the discovery of ²⁴¹Am in the paper “The new element americium (atomic number 95)” (1949Se02). 38 MeV α particles bombarded ²³⁸U and ²³⁷Np targets and 19 MeV deuterons bombarded ²³⁹Pu targets from the Berkeley 60-in. cyclotron. The reaction ²³⁸U(α ,n) produced ²⁴¹Pu which populated ²⁴¹Am by β decay. Absorption curves were recorded and α and β activities were measured following chemical separation. “This evidence proves that the α activity is due to Am²⁴¹ arising from the β -particle emission of Pu²⁴¹.” The observation of ²⁴¹Am represented the discovery of the element americium. The half-life was later measured to be 510(20) y (1949CuZZ).

Adapted from reference (2013Fr02)

1949CuZZ B. B. Cunningham, The Transuranium Elements: Research Papers, Book 2, Vol. 14B, paper 19. 2, G. T. Seaborg ed. , p. 1363 (1949).

1949Se02 G. T. Seaborg, R. A. James, and L. O. Morgan, The Transuranium Elements: Research Papers, Book 2, Vol. 14B, paper 22. 1, G. T. Seaborg ed. , p. 1525 (1949).

2013Fr02 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 96 (2013).

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