

²⁵³Cf

Choppin et al. from Berkeley reported the first observation of ²⁵³Cf in 1954 in their paper “Nuclear properties of some isotopes of californium, elements 99 and 100” (1954Ch23). ²⁵³Cf was produced by neutron irradiation of ²³⁹Pu in the Materials Testing Reactor. Resulting activities were measured following chemical separation. “The nuclide Cf²⁵³ decays by β^- emission to 99²⁵³. From the rate of growth of the 99²⁵³ alpha activity in the purified Cf²⁵³ sample and the rate of decay of separated 99²⁵³, the half-life of both these nuclides was found to be approximately twenty days.” Less than a week later Diamond et al. independently reported a half-life of 18(3) d (1954Di11).

Adapted from reference (2013Fr02)

- 1954Ch23 G. R. Choppin, S. G. Thompson, A. Ghiorso, and B. G. Harvey, Phys. Rev. **94**, 1080 (1954).
1954Di11 H. Diamond, L. B. Magnusson, J. F. Mech, C. M. Stevens *et al.*, Phys. Rev. **94**, 1083 (1954).
2013Fr02 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 96 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152”