

²⁴⁴Cf

In the 1956 article “Mass assignment of the 44-minute californium-245 and the new isotope californium-244”, Chetham-Strode et al. identified ²⁴⁴Cf ([1956Ch43](#)). Samples of ²⁴⁴Cm were bombarded with α particles from the Berkeley 60-in. cyclotron. Subsequent emission of α particles was measured following chemical separation. “The 44-minute californium alpha emitter previously thought to be Cf²⁴⁴ has been reassigned to mass number 245 on the basis of milking experiments, excitation functions, cross bombardments, and decay scheme studies. Californium-245 decays by the emission of (7.11±0.02)-Mev alpha particles (~30%) and by orbital electron capture (~70%). The new isotope Cf²⁴⁴ was also identified and found to decay by the emission of (7.1±0.02)-Mev alpha particles with a half-life of 25±3 minutes.” In the paper reporting the discovery of the element californium the 45 min half-life had tentatively been assigned to ²⁴⁴Cf instead of ²⁴⁵Cf ([1950Th56](#), [1950Th57](#)).

Adapted from reference ([2013Fr02](#))

- [1950Th56](#) S. G. Thompson, K. Street Jr., A. Ghiorso, and G. T. Seaborg, Phys. Rev. **78**, 298 (1950).
[1950Th57](#) S. G. Thompson, K. Street Jr., A. Ghiorso, and G. T. Seaborg, Phys. Rev. **80**, 790 (1950).
[1956Ch43](#) A. Chetham-Strode Jr., G. R. Choppin, and B. G. Harvey, Phys. Rev. **102**, 747 (1956).
[2013Fr02](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 96 (2013).

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