^{254}Cf

The 1955 article "Nuclide 99^{254}" described the first observation of ^{254}Cf by Harvey et al. from Berkeley (1955Ha35). ^{254}Cf was produced by neutron irradiation of ^{239}Pu in the Materials Testing Reactor. Resulting activities were measured following chemical separation. "Preliminary experiments showed that a californium isotope decaying by spontaneous fission, with no detectable emission of alpha particles, grew into very carefully purified samples containing 99^{253}, 99^{254}, 99^{254m}, and 99^{255}. The californium exhibited a half-life of 85 ± 15 days... The californium isotope most responsible for such a short-lived spontaneous fission decay is most likely even mass, and is therefore probably Cf^{254}."

Adapted from reference (2013Fr02)

1955Ha35 B. G. Harvey, S. G. Thompson, G. R. Choppin, and A. Ghiorso, Phys. Rev. **99**, 337 (1955).

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

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