

²⁵³Fm

Amiel described the identification of ²⁵³Fm in “Properties of fermium-253” in 1957 ([1957Am49](#)). A 40 MeV α beam from the Berkeley 60-in. cyclotron bombarded a ²⁵²Cf target forming ²⁵³Fm in the reaction ($\alpha,3n$). Alpha particle spectra were measured with an ionization-grid-chamber following chemical separation. “The decay of the 6.94 ± 0.04 Mev peak of Fm²⁵³ was followed by a corresponding growth of a 6.64 ± 0.03 Mev peak of E²⁵³. The alpha-particle energy emitted by the Fm²⁵³ was found in the range of 6.90–6.98 Mev... The growth of E²⁵³ was found to result from the decay of Fm²⁵³ with a 4.5 ± 1.0 day half-life.” An earlier tentative assignment of a half-life of >10 d ([1956Fr07](#)) was incorrect.

Adapted from reference ([2013Th02](#))

- [1956Fr07](#) A. M. Friedman, J. E. Gindler, R. F. Barnes, R. Sjoblom, and P. R. Fields, Phys. Rev. **102**, 585 (1956).
[1957Am49](#) S. Amiel, Phys. Rev. **105**, 1412 (1957).
[2013Th02](#) M. Thoennessen, At. Data Nucl. Data Tables **99**, 312 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”