

²³¹Fr

The discovery of ²³¹Fr was reported in the 1985 paper “The new neutron-rich nuclei ²³¹Fr and ²³¹Ra” by Hill et al. ([1985Hi02](#)). Francium was produced by spallation of ²³⁸U with 600 MeV protons from the CERN synchrocyclotron. Beta-particles and γ -rays were measured with a plastic scintillator and two Ge(Li) detectors, respectively, following mass separation with the on-line separator ISOLDE II. “With three other γ -lines, which are assigned to the ²³¹Fr decay due to their half-lives, a weighted average of 17.5(8) s is obtained for the half-life of ²³¹Fr.”

Adapted from reference ([2013Fr09](#))

[1985Hi02](#) P. Hill, N. Kaffrell, W. Kurcewicz, and G. Nyman, Z. Phys. A **320**, 531 (1985).

[2013Fr09](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 497 (2013).

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