

^{219}Fr

In the 1948 paper “Artificial collateral chains to the thorium and actinium families” Giorso et al. announced the discovery of ^{219}Fr ([1948Gh01](#)). 80 MeV protons from the Berkeley cyclotron bombarded thorium targets. Alpha particles were counted with an alpha particle pulse analyzer. Results were summarized in a table, assigning a half-life of 10^{-4} s to ^{219}Fr .

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

[1948Gh01](#) A. Giorso, W. W. Meinke, and G. T. Seaborg, Phys. Rev. **74**, 695 (1948).

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

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