

²¹⁹Ac

In the 1970 article “Production and decay properties of protactinium isotopes of mass 222 to 225 formed in heavy-ion reactions,” Borggreen et al. identified ²¹⁹Ac ([1970Bo13](#)). The Berkeley heavy-ion linear accelerator (HILAC) was used to bombard ²⁰⁹Bi, ²⁰⁸Pb and ²⁰⁵Tl targets with ¹⁶O, ¹⁹F and ²²Ne beams forming ²²⁴Pa, ²²³Pa, and ²²²Pa in (xn) fusion-evaporation reactions. ²¹⁸Ac was then populated by α -decay. Recoil products were deposited by a helium gas stream on a metal surface located in front of a gold surface-barrier detector which recorded the subsequent α decay. “The time plots corresponding to these data sortings revealed a one-component half-life of $7 \pm 2 \mu\text{sec}$ for ²¹⁹Ac”

Adapted from reference ([2013Fr03](#))

[1970Bo13](#) J. Borggreen, K. Valli, and E. K. Hyde, Phys. Rev. C **2**, 1841 (1970).

[2013Fr03](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 345 (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)”