

## $^{219}\text{At}$

In 1953,  $^{219}\text{At}$  was first reported by Hyde and Ghiorso from the University of California at Berkeley in “The alpha-branching of AcK and the presence of astatine in nature” ([1953Hy83](#)). A 20-mC  $^{227}\text{Ac}$  source was used to study the nuclide of the  $4n+3$  decay series by chemical and physical separation and measuring the radioactivity with an alpha-ray differential pulse analyzer. “The observed branching rate is ca  $4 \times 10^{-5}$ , and the  $\text{At}^{219}$  daughter decays predominantly by the emission of 6.27 Mev alpha-particles with a half-life of 0.9 minute to the new isotopes  $\text{Bi}^{215}$ , which in turn emits  $\beta^-$  particles with a half-life of 8 minutes.” The measured half-life was 0.9 min for  $^{219}\text{At}$ .

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

[1953Hy83](#) E. K. Hyde and A. Ghiorso, Phys. Rev. **90**, 267 (1953).

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

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