

⁸⁹As

In 1994, Bernas et al. announced the discovery of ⁸⁹As in “Projectile Fission at Relativistic Velocities: A Novel and Powerful Source of Neutron-Rich Isotopes Well Suited for In-Flight Isotopic Separation” at GSI in Darmstadt, Germany ([1994Be24](#)). A 750 A·MeV ²³⁸U beam accelerated by the heavy ion synchrotron SIS impinged on a lead target. “Reaction products were analyzed with the fragment separator FRS which was operated in the achromatic mode. Energy loss of the separation fragments, which is characteristic for their nuclear charge Z, was measured in a four-stage MUSIC ionization chamber at the exit of the FRS” which allowed particles to be “unambiguously identified by their energy-loss and time-of-flight.” 8 counts of ⁸⁹As were observed.

Adapted from reference ([2010Sh34](#))

[1994Be24](#) M. Bernas, S. Czajkowski, P. Armbruster, H. Geissel *et al.*, Phys. Lett. B **331**, 19 (1994).

[2010Sh34](#) A. Shore, A. Fritsch, M. Heim, A. Schuh, and M. Thoennessen, At. Data Nucl. Data Tables **96**, 299 (2010).

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