^{95}Kr

The credit for the discovery of ^{95}Kr is attributed to Bernas et al. in the 1994 paper "Projectile Fission at Relativistic Velocities: A Novel and Powerful Source of Neutron-Rich Isotopes Well Suited for In-Flight Isotopic Separation" (1994Be24). A 750 MeV/nucleon ^{238}U beam accelerated by the GSI UNILAC-SIS accelerator system was used to produce ^{95}Kr in projectile fission on a lead target. Although not explicitly mentioned in the text ^{95}Kr events are clearly shown in the particle identification plot of Figure 2. The authors do not mention the discovery of ^{95}Kr because its existence had previously been reported. In 1976, Ahrens et al. extracted the half-life of ^{95}Kr ($T_{1/2}$ = 0.78(3) s) from its long-lived decay products using a gas-flow method (1976Ah01). However, in 2003 Bergmann et al. (2003Be05) measured a significantly shorter half-life of 114(3) ms which raises doubt about the Ahrens measurement: "In particular, the half-lives from the earlier indirect radiochemical measurements ... (quoted by nuclear data evaluators for ^{95}Kr ...) deviate considerably from our results, indicating that these identifications probably were not correct." Thus, we credit the discovery to Bernas et al. who produced ^{95}Kr after Ahrens et al. but prior to Bergman et al.

Adapted from reference (2010He02)

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