^{54}Ca

^{54}Ca was first observed by Bernas et al. in 1997, reported in "Discovery and Cross-section Measurement of 58 New Fission Products in Projectile-fission of 750·A MeV ^{238}U" (1997Be70). Uranium ions were accelerated to 750 A·MeV by the GSI UNILAC/SIS accelerator facility and bombarded a beryllium target. The isotopes produced in the projectile-fission reaction were separated using the fragment separator FRS and the nuclear charge Z was determined by the energy loss measurement in an ionization chamber. "The mass identification was carried out by measuring the time of flight (TOF) and the magnetic rigidity Bρ with an accuracy of 10^{-4}." 11, 6 and 3 counts of ^{54}Ca, ^{55}Ca and ^{56}Ca were observed, respectively.

Adapted from reference (2011Am01)

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Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"