^{65}Se

Batchelder et al. first observed ^{65}Se as reported in the 1993 paper "Beta-delayed proton decay of ^{65}Se" (1993Ba12). The Berkeley 88-Inch Cyclotron was used to accelerate a 175 MeV ^{28}Si beam which bombarded a natural calcium target. ^{65}Se was produced in the fusion-evaporation reaction ^{40}Ca(^{28}Si,3n) and the recoil products were deposited on a moving tape collector with a helium-jet setup. Beta-delayed protons were detected with a Si-Si detector telescope. "A single proton group at 3.55±0.03 MeV has been observed... Combining this measurement with a Coulomb displacement energy calculation yields a mass excess for ^{65}Se of −33.41±0.26 MeV."

Adapted from reference (2012Gr02)

1993Ba12 J. C. Batchelder, D. M. Moltz, T. J. Ognibene, M. W. Rowe, and J. Cerny, Phys. Rev. C **47**, 2038 (1993).

2012Gr02 J. L. Gross, J. Claes, J. Kathawa, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 75 (2012).

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