^{57}Cu

Vieira et al. reported the observation of excited states of ^{57}Cu in 1976 in the paper "Extension of the $T_z = -3/2$ Beta-Delayed Proton Precursor Series to ^{57}Zn" (1976Vi02). The Berkeley 88-in. cyclotron accelerated ^{20}Ne beams to 62 and 70 MeV which then bombarded calcium targets and ^{57}Zn was produced in the fusion-evaporation reaction ^{40}Ca(^{20}Ne,3n). ^{57}Cu was populated by β-decay and delayed protons were measured with a semiconducting counter telescope. "The groups observed at 4.65 MeV and 1.95 MeV can be assigned to the isospin-forbidden proton decay of the lowest T=3/2 state of ^{57}Cu to the ground state and the first excited state of ^{56}Ni, respectively." The ground state of ^{57}Cu was discovered eight years later by Shinozuka et al. (1984Sh28).

Adapted from reference (2012Ga06)

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