^{40}Sc

Glass and Richardson discovered ^{40}Sc in the 1955 article "Radionuclides Al^{24}, P^{28}, Cl^{32}, and Sc^{40}" (1955Gl22). A 20-MeV proton beam from the UCLA 41-in FM cyclotron bombarded a calcium target. The isotope was formed in the charge exchange reaction ^{40}Ca(p,n)^{40}Sc. Positron and γ-ray spectra were measured with a NaI crystal. "Sc^{40} has a half-life of 0.22±0.03 sec, threshold of 15.9±1.0 Mev, a 3.75±0.04 Mev gamma ray, and maximum positron energy of 9.0±0.4 Mev." A previously reported observation of ^{40}Sc estimated a half-life of ≈0.35 s which is almost off by a factor of two and the identification was only suggested "from a simple consideration of preferred reaction type[s] and estimates of threshold[s]" (1954Ty33).

Adapted from reference (2011Me01)

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