^{37}Sc

The first observation of ^{37}Sc was described in 2024 by Dronchi et al. in "Evolution of shell gaps in the neutron-poor calcium region from invariant-mass spectroscopy of ^{37,38}Sc, ^{35}Ca, and ^{34}K" (2024Dr01). A 140 MeV/nucleon ^{40}Ca beam from the Coupled Cyclotron Facility of the National Superconducting Cyclotron Laboratory at Michigan State University was used to deliver a secondary 72 MeV/nucleon ^{37}Ca beam to a 0.5 mm thick Be target. ^{37}Sc isotopes were populated via charge-exchange reactions and identified by invariant mass spectroscopy by detecting ^{36}Ca fragments with a Scintillating-Fiber Array and the S800 spectrometer and protons in a ΔE-E Ring Telescope. "The newly measured mass excesses are: ΔM(^{37}Sc) = 3500(410) keV, ..."

2024Dr01 N. Dronchi, R. J. Charity, L. G. Sobotka, B. A. Brown *et al.*, Phys. Rev. C **110**, L031302 (2024).

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