^{54}Sc

^{54}Sc was discovered in 1990 by Tu et al. in the paper "Direct mass measurement of the neutron-rich isotopes of chlorine through iron" (1990Tu01). 800 MeV protons from the Los Alamos Meson Physics Facility LAMPF bombarded a ^{nat}Th target and the isotopes were identified using the Time-of-Flight Isochronous (TOFI) spectrometer. The mass excesses for 29 neutron-rich isotopes from chlorine to iron (including ^{54}Sc) were measured for the first time and presented in a table. The previously reported "...hints for the observation of ^{54}Sc and ^{66}Mn" (1985Gu14) was not considered to be sufficient to warrant discovery.

Adapted from reference (2011Me01)

1985Gu14 D. Guillemaud-Mueller, A. C. Mueller, D. Guerreau, F. Pougheon *et al.*, Z. Phys. A **322**, 415 (1985).

1990Tu01 X. L. Tu, X. G. Zhou, D. J. Vieira, J. M. Wouters *et al.*, Z. Phys. A **337**, 361 (1990).

2011Me01 D. Meierfrankenfeld, A. Bury, and M. Thoennessen, At. Data Nucl. Data Tables **97**, 134 (2011).

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