^{87}Tc

In "First Observation of the Nuclei ^{87}Tc and ^{88}Tc" Rudolph et al. describes the first observation of ^{87}Tc in 1991 (1991Ru06). Enriched ^{58}Ni and ^{40}Ca targets were bombarded with 110 MeV ^{32}S and 170 MeV beams, respectively. ^{87}Tc was formed in (p,2n) fusion evaporations. Isotopes were separated with the Daresbury recoil separator and identified with coincident γ rays measured with POLLYTESSA, a 19 element Compton-suppressed Ge-detector array. "From $\gamma\gamma$ coincidence data, a decay scheme of 11 transitions was constructed for ^{88}Tc, the ground state of which is suggested to have $I^{\pi} = 7^{-}$ or 8^{+}. Two transitions identified in ^{87}Tc follow the pattern of a $g_{9/2}$ one-particle band."

Adapted from reference (2012Ny02)

1991Ru06 D. Rudolph, F. Cristancho, C. J. Gross, A. Jungclaus *et al.*, J. Phys. G **17**, L113 (1991).

2012Ny02 A. Nystrom and M. Thoennessen, At. Data Nucl. Data Tables **98**, 95 (2012).

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