^{108}Te

^{108}Te was observed by Bogdanov et al. in the 1974 paper "Delayed protons from Te^{109} and the β-decay strength function" (1973Bo15). ^{108}Te was produced in the (4n) fusion-evaporation reaction by bombarding an enriched ^{96}Ru target with a 137 MeV ^{16}O beam from the Dubna cyclotron. Reaction products were transported by a gas-jet in front of detectors measuring β-rays, α and proton decays. "Different assumptions concerning the number of evaporated neutrons, namely 4 (Te^{108}) and 5 (Te^{107}), yield for ε the values 7.0±0.8 and 3.0±0.6 MeV. The second value is low, and the identification of this isotope as Te^{108} is preferable." Previously reported half-lives of 2.2(2) s and 5.3(4) s assigned to ^{107}Te and ^{108}Te (1965Ma12, 1965Si04) were later reassigned to ^{108}Te and ^{109}Te, respectively (1973Bo20, 1977Ki11).

Adapted from reference (2013Ka01)

1965Ma12 R. D. Macfarlane and A. Siivola, Phys. Rev. Lett. **14**, 114 (1965).

1965Si04 A. T. Siivola, Phys. Rev. Lett. **14**, 142 (1965).

1973Bo15 D. D. Bogdanov, V. A. Karnaukhov, and L. A. Petrov, Sov. J. Nucl. Phys. **18**, 1 (1974).

1973Bo20 D. D. Bogdanov, V. A. Karnaukhov, and L. A. Petrov, Sov. J. Nucl. Phys. **17**, 233 (1974).

1977Ki11 R. Kirchner, O. Klepper, G. Nyman, W. Reisdorf *et al.*, Phys. Lett. B **70**, 150 (1977).

2013Ka01 J. Kathawa, C. Fry, and M. Thoennessen, At. Data Nucl. Data Tables **99**, 22 (2013).

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