^{185}Bi

Davids et al. discovered ^{185}Bi in 1996 in "Proton decay of an intruder state in ^{185}Bi" (1996Da06). The Argonne ATLAS accelerator was used to bombard an enriched ^{95}Mo target with 410 MeV ^{92}Mo, and ^{185}Bi was produced in the (1p1n) fusion-evaporation reaction. The isotopes were separated with the FMA fragment mass analyzer and implanted in a double-sided silicon strip detector which also measured subsequent proton emission. "...the peak is assigned to the proton decay of ^{185}Bi, with a corresponding Q value of 1.594 $\pm$ 0.009 MeV, and an associated cross section of $\sim$100 nb using an efficiency for the FMA of 20%." The measured half-life was 44(16) μs and corresponds to an isomeric state. The gound state half-life of $2.8^{+2.3}_{-1.0}\mu$s was reported 25 years later by Doberty et al. (2021Do08).

Adapted from reference (2013Fr04)

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