^{133}Nd

The first identification of ^{133}Nd was reported in 1977 by Bogdanov et al. in "New Neutron-Deficient Isotopes of Barium and Rare-Earth Elements" (1977Bo02). The Dubna U-300 Heavy Ion Cyclotron accelerated a ^{32}S beam which bombarded enriched targets of ^{102}Pd and ^{106}Cd. The isotopes were identified with the BEMS-2 isotope separator. "In the present paper, isotopes were mainly identified by measuring the γ-ray and X-ray spectra of the daughter nuclei formed as a result of measuring the β^+ decay. In addition, the decay curves of the total β-activity of given isobars have been measured." The reported half-life for ^{133}Nd was 70(10) s.

Adapted from reference (2012Gr02)

1977Bo02 D. D. Bogdanov, A. V. Demyanov, V. A. Karnaukhov, L. A. Petrov *et al.*, Nucl. Phys. A **275**, 229 (1977).

2012Gr02 J. L. Gross, J. Claes, J. Kathawa, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 75 (2012).

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