^{133}Sm

The first identification of ^{133}Sm 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. "By using the BEMS-2 isotope separator with a heavy-ion beam, we succeeded in producing 19 new isotopes with mass numbers ranging from 117 to 138. Five of these (^{117}Ba, ^{129,131}Nd and ^{133,135}Sm) turned out to be delayed proton emitters." The reported half-life for ^{133}Sm was 3.2(4) s. The half-life of 32$\pm$0.4 s mentioned for ^{133}Sm in the table was apparently a typographical error.

Adapted from reference (2013Ma01)

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

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