

²⁴⁵Md

In 1996, Ninov et al. discovered ²⁴⁵Md as reported in the paper “Identification of new mendelevium and einsteinium isotopes in bombardments of ²⁰⁹Bi with ⁴⁰Ar” (1996Ni09). ⁴⁰Ar beams were accelerated to 4.78, 4.93, and 5.12 A·MeV with the GSI UNILAC accelerator and bombarded ²⁰⁹Bi targets to form ²⁴⁵Md in (4n) fusion-evaporation reactions. Recoil products were separated with the velocity filter SHIP and implanted in a position sensitive PIPS detector which also recorded subsequent α decay and spontaneous fission. “Since the chosen bombarding energy further coincided with the maximum of the 4n deexcitation channel, we assign this decay sequence to ²⁴⁵Md and its daughter ²⁴¹Es. From these events in $E_{\alpha m1}$ and $E_{\alpha m2}$ we obtained a mean half-life of $T_{1/2} = (0.35^{+0.23}_{-0.16})$ s for ²⁴⁵Md.” In addition, 12 fission events with a half-life of 0.90(25) ms were assigned to ²⁴⁵Md.

Adapted from reference (2013Th02)

- 1996Ni09 V. Ninov, F. P. Hessberger, S. Hofmann, H. Folger *et al.*, Z. Phys. A **356**, 11 (1996).
2013Th02 M. Thoennessen, At. Data Nucl. Data Tables **99**, 312 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”