

²⁴⁷Es

²⁴⁷Es was identified for the first time by Mikheev et al. in 1967 in “Synthesis of Einsteinium Isotopes in Reactions with Nitrogen Ions” (1967Mi06). ²⁴⁷Es was produced in the fusion-evaporation reaction $^{238}\text{U}(^{14}\text{N},5\text{n})^{247}\text{Es}$ following the acceleration of the ¹⁴N ions by the JINR cyclotron in Dubna. The recoil atoms were transported in front of charged-particle detectors with a helium jet. “Our results show that the isotopes Es²⁴⁷ and Es²⁴⁶ have practically identical energies of the main α -particle groups, 7.33 ± 0.03 MeV, and nearly equal half-lives, 5.0 ± 0.3 and 7.7 ± 0.5 min.” In 1954, Ghiorso et al. (1954Gh12) had observed a 7.3 m half-life which was tentatively assigned to ²⁴⁷Es, where the mass identification was based only on nuclear systematics. Thus it is probably that the observed half-life corresponded to the decay of ²⁴⁶Es.

Adapted from reference (2011Me01)

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