

^{227}Np

The 1990 discovery of ^{227}Np by Andreyev et al. was reported in “A new isotope and α -lines in the Th-Np region and their production cross-sections” (1990An19). Beams of 106–115 MeV ^{22}Ne from the Dubna U-400 cyclotron bombarded a ^{209}Bi target forming ^{227}Np in the (4n) fusion-evaporation reaction. ^{227}Np was separated with the VASSILISSA kinematic separator and implanted in seven surface barrier detectors which also recorded subsequently emitted α particles. “We explain these correlation groups as due to the α -decay chain of the new isotope of ^{227}Np . The time distribution of the events in the correlation groups observed at 8.00 MeV and 8.20 MeV supports this conclusion.” In a table an α energy of 7680(10) keV is listed for ^{227}Np . Less than five months later Ninov et al. independently reported α -decay energies of 7650(20) keV and 7677(20) keV with a 510(60) ms half-life (1990Ni05).

Adapted from reference (2013Fr02)

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2013Fr02 C. Fry and M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 96 (2013).

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