

²¹⁶Ac

Rotter et al. discovered ²¹⁶Ac in 1967 and reported their results in the paper “The new isotope Ac²¹⁶” (1966Ro12). An 80 MeV ¹²C from the Dubna 1.5 m cyclotron bombarded bismuth targets producing ²¹⁶Ac in (5n) fusion-evaporation reactions. Recoil nuclei were collected on an aluminum foil and α -particle spectra were measured with a silicon surface barrier detector. “When bismuth was bombarded with carbon ions of maximum energy a 9.14-MeV α line was discovered... Several measurements yielded (0.39 ± 0.04) msec as the half-life of this line... We may assign the observed activity to Ac²¹⁶ produced in the reaction Bi²⁰⁹(C¹²,5n)Ac²¹⁶.”

Adapted from reference (2013Fr03)

1966Ro12 H. Rotter, A. G. Demin, L. P. Pashchenko, and H. F. Brinckmann, Soviet J. Nucl. Phys. **4**, 178 (1967).

2013Fr03 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 345 (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)”