

¹⁰¹Nb

In 1970, Eidens et al. described the first observation of ¹⁰¹Nb in “On-Line Separation and Identification of Several Short-Lived Fission Products: Decay of ⁸⁴Se, ⁹¹Kr, ⁹⁷Y, ⁹⁹Nb, ⁹⁹Zr, ^{100,101}Nb and ¹⁰¹Zr” (1970Ei02). Neutrons from the Jülich FRJ-2 reactor irradiated a ²³⁵U target and the fission fragments were identified with a gas-filled on-line mass separator. Beta- γ - and γ - γ -coincidences were recorded. “A 273 ± 3 keV line and a 399 ± 3 keV line were both assigned to ¹⁰¹Nb, although they were found not to be in coincidence to each other... The results of the half-lives are 7.2 ± 0.3 sec and 6.7 ± 0.3 sec. This gives a mean value of 7.0 ± 0.2 sec.” An earlier report of a 1.0(2) min half-life (1960Or02) was incorrect.

Adapted from reference (2012Ny02)

- 1960Or02 C. J. Orth and R. K. Smith, J. Inorg. Nucl. Chem. **15**, 4 (1960).
1970Ei02 J. Eidens, E. Roeckl, and P. Armbruster, Nucl. Phys. A **141**, 289 (1970).
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