

⁴³Ar

Hansen et al. reported the first observation of ⁴³Ar in the paper “Decay characteristics of short-lived radio-nuclides studied by on-line isotope separator techniques” in 1969 ([1969Ha03](#)). 600 MeV protons from the CERN synchrocyclotron bombarded a TiO₂(H₂O)_x target and argon isotopes were separated using the ISOLDE facility. Electron capture, β- and γ-rays were measured. The paper summarized the ISOLDE program and did not contain details about the individual nuclei other than in tabular form. The measured half-life was 5.35(15) min. Less than 6 months later Larson and Gordon independently reported a half-life of 6.5(18) min ([1969La16](#)).

Adapted from reference ([2012Th10](#))

- [1969Ha03](#) P. G. Hansen, P. Hornshoj, H. L. Nielsen, K. Wilsky *et al.*, Phys. Lett. B **28**, 415 (1969).
[1969La16](#) R. E. Larson and C. M. Gordon, Nucl. Phys. A **133**, 237 (1969).
[2012Th10](#) M. Thoennessen, At. Data Nucl. Data Tables **98**, 933 (2012).

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