

^{124}La

The discovery of the isotopes ^{124}La was first presented in the 1978 paper “New neutron-deficient isotopes of lanthanum and cerium” by Bogdanov et al. (1978Bo32). A 190 MeV ^{36}S beam accelerated by the U-300 heavy-ion cyclotron of the Joint Institute for Nuclear Research (JINR) facility at Dubna, bombarded targets of ^{96}Ru and ^{98}Ru . The fusion-evaporation residues were mass separated with the on-line BEMS-2 facility and their X-ray and β emission was detected with a Ge(Li) spectrometer and a plastic counter, respectively. Half-lives were determined from the X-ray decay curves. “Seven isotopes $^{123-125}\text{La}$ and $^{124-127}\text{Ce}$ have been first observed and their half-lives and low-energy γ -ray data are reported.” The observed half-life of 29(3) s was ^{124}La . A 7.2(5) min half-life quoted for ^{124}La in the abstract of reference (1963Pr02) is a typographical error; in the paper itself this half-life is assigned to ^{129}La .

Adapted from reference (2012Ma48)

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