

## <sup>190</sup>Bi

The first observation of <sup>190</sup>Bi was described by Gauvin et al. in 1972 in “ $\alpha$  decay of neutron-deficient isotopes of bismuth and lead produced in (Ar,xn) and (Kr,xn) reactions” (1972Ga27). The ALICE accelerator at Orsay was used to bombard a <sup>159</sup>Tb target with 302–500 MeV <sup>40</sup>Ar beams forming <sup>190</sup>Bi in (9n) fusion-evaporation reactions. Recoil products were identified with a helium jet technique and  $\alpha$ -decay spectroscopy. “We observed  $\alpha$  emission from bismuth nuclides and isomers with A = 190–197 and from lead isotopes with A = 186–190.” These observations were not considered discoveries referring to an overview article by Eskola (1967Es05), who listed results for these isotopes based on a private communication by Siivola. The measured half-life was 5.4(5) s for <sup>190</sup>Bi.

Adapted from reference (2013Fr04)

- 1967Es05 P. Eskola, Ark. Fys. **36**, 477 (1967).  
1972Ga27 H. Gauvin, Y. Le Beyec, M. Lefort, and N. T. Porile, Phys. Rev. Lett. **29**, 958 (1972).  
2013Fr04 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 365 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152”