^{192}Bi

^{192}Bi was identified by Tarantin et al. in the 1971 paper "Identification and study of the radioactive properties of bismuth isotopes with an electromagnetic mass separator in a heavy-ion beam" (1970Ta14). A 200 MeV ^{20}Ne beam from the Dubna U-300 cyclotron bombarded a ^{181}Ta target forming $^{192-195}$Bi in (9n-6n) fusion-evaporation reactions. Recoil products were separated with an online mass separator and the subsequent α decay was measured with a semiconductor α counter. The α-decay energies and half-lives are summarized in a table. For ^{192}Bi only the decay energy (6.09(2) MeV) was given which could correspond to the ground or an isomeric state. Earlier Treytl and Vali had assigned a 5.892(5) MeV, 74(5) s activity to either ^{192}Bi or ^{196}Bi. Tarantin et al. did not consider these observations discoveries referring to an overview article by Eskola (1967Es05), who listed results for these isotopes based on a private communication by Siivola. The half-lives of the isomeric and the ground state were first measured later to be 42.3(23) s by Gauvin et al. (1972Ga27) and 33(2) s by van Duppen et al. (1987Va09), respectively.

Adapted from reference (2013Fr04)

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