

¹⁸⁶Bi

In 1997, Batchelder et al. reported the first observation of ¹⁸⁶Bi in the paper “The α -decay properties of ¹⁸⁶Bi” (1997Ba21). A 420 MeV ⁹²Mo beam from the Argonne ATLAS facility bombarded an enriched ⁹⁷Mo target producing ¹⁸⁶Bi in (p2n) fusion-evaporation reactions. ¹⁸⁶Bi was identified with the FMA fragment mass analyzer and implanted in a double-sided silicon strip detector which also measured subsequent α emission. “In contrast to an earlier work wherein only one α transition was reported, we observed two transitions arising from two isomers in ¹⁸⁶Bi with energy and half-lives of: 7158(20) keV, $T_{1/2} = 15.0(17)$ ms; and 7261(20) keV, $T_{1/2} = 9.8(13)$ ms.” The first half-life corresponds to the ground state. The reference to an earlier work corresponds to an unpublished thesis (1984ScZQ).

Adapted from reference (2013Fr04)

- 1984ScZQ J. Schneider, GSI-84-3 (1984).
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