^{198}Bi

In 1950, Neumann and Perlman described the first observation of ^{198}Bi in "Isotopic assignments of bismuth isotopes produced with high energy particles" (1950Ne77). Lead targets were bombarded with 100 MeV protons and deuterons from the Berkeley 184-inch cyclotron and ^{198}Bi was identified following chemical separation measuring α- and β-activities with a mica end-window Geiger tube and a parallel plate chamber, respectively. "7-Min. Bi$^{198(?)}$: ...When the short-lived thallium was resolved from the complex decay curve with 1.8-hr. half-life, the yields of this component indicated a half-life for the bismuth ancestor of 7 min." Previously, 9 min, 27 min and 1−2 hr. half-lives was reported without a mass assignment (1948Te01).

Adapted from reference (2013Fr04)

1948Te01 D. H. Templeton and I. Perlman, Phys. Rev. **73**, 1211 (1948).
1950Ne77 H. M. Neumann and I. Perlman, Phys. Rev. **78**, 191 (1950).
2013Fr04 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 365 (2013).

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