^{209}Po

Kelly and Segre first observed ^{209}Po and reported their results in the 1949 paper "Some excitation functions of bismuth" (1949Ke10). Bismuth targets were bombarded with 19 MeV deuterons from the Berkeley 60-inch cyclotron. Resulting activities were measured with a parallel plate ionization chamber. "The Po^{208} activity seemed to be produced by deuterons of an energy too low to make a (d,3n) reaction. A further close examination of the alpha-activity in the energy region between 10 and 15 Mev showed that we had also another Po isotope present, emitting alphas of 4.95 Mev. This substance is Po^{209} formed by the (d,2n) reaction. If we assume that it decays only by α-emission and that the maximum cross section for its formation is about 10^{-24} cm^2, a half-life of about 200 years results."

Adapted from reference (2013Fr04)

1949Ke10 E. L. Kelly and E. Segre, Phys. Rev. **75**, 999 (1949).
2013Fr04 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 365 (2013).

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