

^{218}Th

Hiruta et al. reported the discovery of ^{218}Th in the 1973 paper “Alpha-particle decay of ^{218}Th , a new isotope” (1973Hi06). A ^{209}Bi target was bombarded with 65–96 MeV ^{14}N beams from the RIKEN cyclotron forming ^{218}Th in the (5n) fusion-evaporation reaction. Alpha-particle spectra were measured with a Si surface barrier detector. “Moreover, the excitation function of the 7.13 MeV peak, which is assigned to the decay of ^{214}Ra from its energy and half-life is almost identical with that of the 9.67 MeV peak, indicating that this nucleus is populated from the decay of ^{218}Th .” Less than a month later Häusser et al. independently reported a half-life of 122(8) ns for ^{218}Th (1973Ha32).

Adapted from reference (2013Fr03)

- 1973Ha32 O. Häusser, W. Witthuhn, T. K. Alexander, A. B. McDonald *et al.*, Phys. Rev. Lett. **31**, 323 (1973).
1973Hi06 K. Hiruta, T. Nomura, T. Inamura, and M. Odera, Phys. Lett. B **45**, 244 (1973).
2013Fr03 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 345 (2013).

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