

^{224}Th

Meinke et al. reported the observation of ^{224}Th in the 1949 paper “Three additional collateral alpha-decay chains” (1949Me54). Thorium was bombarded with 100–120 MeV ^4He beams from the Berkeley 184-inch cyclotron. Alpha-decay chains from ^{228}U and ^{229}U were measured following chemical separation. “Immediately after 120-Mev helium ion bombardment of thorium the uranium fraction contains another series of five alpha-emitters, which is apparently a collateral branch of the 4n family: ${}_{92}\text{U}^{228} \xrightarrow{\alpha} {}_{90}\text{Th}^{224} \xrightarrow{\alpha} {}_{88}\text{Ra}^{220} \xrightarrow{\alpha} {}_{86}\text{Em}^{216} \dots$ ” In a table summarizing the energies and half-lives of the decay chain only the α -decay energy was given for ^{224}Th stating a calculated half-life of ~ 1 s.

Adapted from reference (2013Fr03)

1949Me54 W. W. Meinke, A. Ghiorso, and G. T. Seaborg, Phys. Rev. **75**, 314 (1949).

2013Fr03 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 345 (2013).

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