

²²¹Ra

²²¹Ra was first observed by Meinke et al. and the results were published in the 1949 paper “Three additional collateral alpha-decay chains” (1949Me54). 100-120 MeV helium ions irradiated a thorium target at Berkeley. The target was dissolved and the first element in the series was separated, then measured with an alpha-particle pulse analyzer. “The irradiation of thorium with 100-Mev helium ions resulted in the observation of the following collateral branch of the artificial 4n+1, neptunium, radioactive family shown with Po²¹³ and its decay products: ${}_{92}\text{U}^{229} \xrightarrow{\alpha} {}_{90}\text{Th}^{225} \xrightarrow{\alpha} {}_{88}\text{Ra}^{221} \xrightarrow{\alpha} {}_{86}\text{Em}^{217} \dots$ ”

Adapted from reference (2013Fr09)

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

2013Fr09 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 497 (2013).

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