^{219}Th

The 1973 paper "Short-lived α emitters of thorium: new isotopes $^{218-220}$Th" described the discovery of ^{219}Th by Häusser et al. (1973Ha32). ^{16}O beams from the Chalk River MP tandem accelerator bombarded $^{206-208}$Pb targets. ^{219}Th was formed in the reactions ^{206}Pb(^{16}O,3n) and ^{207}Pb(^{16}O,4n). Reaction products were stopped in a carbon catcher foil and α particles were observed in an annular surface barrier detector. "[The figure] shows a time spectrum for the 9.34-MeV α group from ^{219}Th corresponding to a half-life $T_{1/2}$=1.05$\pm$0.03 μsec for this isotope."

Adapted from reference (2013Fr03)

1973Ha32 O. Hausser, W. Witthuhn, T. K. Alexander, A. B. McDonald *et al.*, Phys. Rev. Lett. **31**, 323 (1973).

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