

^{174}Pt

Siivola first observed ^{174}Pt in 1966 and reported his results in “Alpha-active Platinum Isotopes” (1966Si08). The Berkeley Heavy Ion Linear Accelerator HILAC was used to bombard $^{168,170,172}\text{Yb}$ and $^{162,164}\text{Er}$ targets with beams of ^{16}O and ^{20}Ne , respectively. The reaction products were deposited on an aluminum plate by helium gas flow. Alpha-particle decay was measured with a surface barrier counter and the isotopes were identified by excitation function measurements. “We conclude that the reaction observed in the $^{16}\text{O} + \text{Yb}$ bombardments at 106 MeV excitation energy is ($^{16}\text{O},8n$), and the others, with their maxima at 93 and 80 MeV, are ($^{16}\text{O},7n$) and ($^{16}\text{O},6n$), respectively. This and the regular behaviour of the $\text{Yb}(^{16}\text{O},xn)$ reactions give unambiguously the mass numbers down to ^{176}Pt . The three lighter isotopes were assigned in a similar way using $^{20}\text{Ne} + \text{Er}$ bombardments.”

Adapted from reference (2011Am01)

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2011Am01 S. Amos, J. L. Gross, and M. Thoennessen, At. Data Nucl. Data Tables **97**, 383 (2011).

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