

## $^{175}\text{Pt}$

Siivola first observed  $^{175}\text{Pt}$  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  $^{16}\text{O}$  and  $^{20}\text{Ne}$ , 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  $^{176}\text{Pt}$ . The three lighter isotopes were assigned in a similar way using  $^{20}\text{Ne} + \text{Er}$  bombardments.”

Adapted from reference (2011Am01)

1966Si08 A. Siivola, Nucl. Phys. **84**, 385 (1966).

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

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