

## **<sup>216</sup>Th**

<sup>216</sup>Th was discovered in 1968 by Valli and Hyde in “New isotopes of thorium studied with an improved helium-jet recoil transport apparatus” (1968Va18). <sup>16</sup>O beams with a maximum energy of 166 MeV from the Berkeley heavy ion linear accelerator HILAC bombarded <sup>206</sup>Pb targets to produce <sup>216</sup>Th in (6n) fusion-evaporation reactions. Recoil products were deposited on a metallic surface in front of a semiconductor detector with a helium gas jet. “Thorium-216: ...In [the figure] an  $\alpha$  group is presented at  $7.921\pm 0.008$  MeV. The measured decay period for this group is  $28\pm 2$  msec. Supporting evidence for the assignment of this activity to <sup>216</sup>Th comes from the excitation function shown in [the figures] which has the shape characteristic of a compound nucleus reaction product.”

Adapted from reference (2013Fr03)

1968Va18 K. Valli and E. K. Hyde, Phys. Rev. **176**, 1377 (1968).

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

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