

^{264}Hs

The first identification of ^{264}Hs was reported by Münzenberg et al. in the 1986 paper “Evidence for $^{264}108$, the heaviest known even-even isotope” (1986Mu10). An enriched ^{207}Pb target was bombarded with a 5.04 MeV/u beam from the GSI UNILAC accelerator and ^{264}Hs was populated in the (1n) fusion-evaporation reaction. Recoil products were separated with the velocity filter SHIP and implanted in position sensitive surface barrier detectors which also measured subsequent α -decays and spontaneous fission. “We have observed the decay of one atom of the doubly even isotope 108. we observed α -decay with a half-life of $(76_{-36}^{+364}) \mu\text{s}$.” In 1984, Oganessian et al. reported evidence for the formation of ^{264}Hs by identifying the decay of daughter nuclei, however, no direct evidence for the observation of ^{264}Hs was measured (1984Og02).

Adapted from reference (2013Th02)

- 1984Og02 Yu. Ts. Oganessian, A. G. Demin, M. Hussonnois, S. P. Tretyakova *et al.*, *Z. Phys. A* **319**, 215 (1984).
1986Mu10 G. Munzenberg, P. Armbruster, G. Berthes, H. Folger *et al.*, *Z. Phys. A* **324**, 489 (1986).
2013Th02 M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 312 (2013).

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