

^{263}Hs

^{263}Hs was discovered by Dragojević et al. in 2009 as described in “New isotope ^{263}Hs ” (2009Dr02). A 280 MeV ^{56}Fe beam from the Berkeley 88-in. cyclotron bombarded an enriched ^{208}Pb target and ^{263}Hs was formed in the (1n) fusion-evaporation reaction. Recoil products were separated with the Berkeley gas-filled separator (BGS) and implanted into a Si-strip focal plane detector array which also recorded the subsequent α -decay and spontaneous fission. “ ^{263}Hs was identified by observing an ‘EVR-like event’ followed by a ‘ ^{263}Hs -like event’ within 10 ms, and then by (i) at least two of the ^{259}Sg , ^{255}Rf , and ^{251}No daughters... within 15 s, or (ii) SF ($E > 90$ MeV), within 10 s.” Six decay chains from ^{263}Hs were observed. In 1984, Oganessian et al. reported evidence for the formation of ^{263}Hs by identifying the decay of daughter nuclei, however, no direct evidence for the observation of ^{263}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).
2009Dr02 I. Dragojevic, K. E. Gregorich, Ch. E. Dullmann, J. Dvorak *et al.*, *Phys. Rev. C* **79**, 011602 (2009).
2013Th02 M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 312 (2013).

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