

²⁷⁷Hs

The discovery of ²⁷⁷Hs was reported in 2010 by Düllmann et al. in “Production and decay of element 114: High cross sections and the new nucleus ²⁷⁷Hs” (2010Du06). The GSI Universal Linear Accelerator (UNILAC) was used to bombard a ²⁴⁴Pu target with 236.4–241.0 MeV ⁴⁸Ca beams to form ²⁸⁹114 in the (3n) fusion-evaporation reaction. Reaction products as well as α -emission and spontaneous fission decays were measured with the detection system of the gas-filled recoil separator TASCA. ²⁷⁷Hs was then populated in subsequent α -emission. One decay event of ²⁷⁷Hs was observed: “The chain was then terminated 4.5 ms later by SF of the α -decay daughter of ²⁸¹Ds, i.e., the new nucleus ²⁷⁷Hs with Z = 108 and N = 169.” An earlier reported observation of the spontaneous fission of ²⁷⁷Hs (1999Og10) could not be reproduced.

Adapted from reference (2013Th02)

- 1999Og10 Yu. Ts. Oganessian, V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin *et al.*, Phys. Rev. Lett. **83**, 3154 (1999).
2010Du06 Ch. E. Düllmann, M. Schadel, A. Yakushev, A. Turler *et al.*, Phys. Rev. Lett. **104**, 252701 (2010).
2013Th02 M. Thoennessen, At. Data Nucl. Data Tables **99**, 312 (2013).

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