

## <sup>271</sup>Hs

<sup>271</sup>Hs was discovered in 2008 by Dvorak et al. as reported in “Observation of the 3n evaporation channel in the complete hot-fusion reaction <sup>26</sup>Mg + <sup>248</sup>Cm leading to the new superheavy nuclide <sup>271</sup>Hs” (2008Dv02). <sup>26</sup>Mg beams accelerated by the GSI linear accelerator UNILAC to 130 and 140 MeV bombarded a <sup>248</sup>Cm target to form <sup>271</sup>Hs in the (3n) fusion-evaporation reaction. Alpha-decay chains were measured with the online chemical separation and detection system COMPACT. “Increased stability, as evidenced by long partial SF and  $\alpha$  decay half-lives is expected when approaching the closed shell at N = 162 and is most pronounced in odd-A nuclei due to the well-known hindrance effect associated with the odd neutron. Considering the beam energy and the decay properties of the chain members, these chains are attributed to the decay of the new isotope <sup>271</sup>Hs.” Six chains originating in <sup>271</sup>Hs were measured. Previously, the same group reported one event tentatively assigned to <sup>271</sup>Hs (2006Dv01).

Adapted from reference (2013Th02)

- 2006Dv01 J. Dvorak, W. Bruchle, M. Chelnokov, R. Dressler *et al.*, Phys. Rev. Lett. **97**, 242501 (2006).  
2008Dv02 J. Dvorak, W. Bruchle, M. Chelnokov, Ch. E. Düllmann *et al.*, Phys. Rev. Lett. **100**, 132503 (2008).  
2013Th02 M. Thoennessen, At. Data Nucl. Data Tables **99**, 312 (2013).

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