^{266}Sg

Dvorak et al. described the identification of ^{266}Sg in the 2006 paper "Doubly magic nucleus $^{270}_{108}Hs_{162}$" (2006Dv01). A ^{248}Cm target was bombarded with 185 and 193 MeV ^{26}Mg beams from the GSI UNILAC accelerator forming ^{270}Hs in the (4n) fusion-evaporation reaction. ^{266}Sg was then populated by α-decay. Alpha-particles and spontaneous fission events were detected with 2 $\times$ 32 PIPS detectors following rapid chemical separation of hassium. Four chains terminating with spontaneous fission of ^{266}Sg were observed: "Three out of four chains were detected at the lower beam energy at the expected maximum of the 4n evaporation channel. Therefore, we assign these four chains to the decay of the new isotope ^{270}Hs and its daughter ^{266}Sg." The earlier reported α-decay of ^{266}Sg (1994La22, 1998Tu01) could not be confirmed.

Adapted from reference (2013Th02)

1994La22 Yu. A. Lazarev, Yu. V. Lobanov, Yu. Ts. Oganessian, V. K. Utyonkov *et al.*, Phys. Rev. Lett. **73**, 624 (1994).

1998Tu01 A. Turler, R. Dressler, B. Eichler, H. W. Gaggeler *et al.*, Phys. Rev. C **57**, 1648 (1998).

2006Dv01 J. Dvorak, W. Bruchle, M. Chelnokov, R. Dressler *et al.*, Phys. Rev. Lett. **97**, 242501 (2006).

2013Th02 M. Thoennessen, At. Data Nucl. Data Tables **99**, 312 (2013).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"