

²⁵⁸Sg

In 1997, Heßberger et al. described the identification of ²⁵⁸Sg in “Spontaneous fission and alpha-decay properties of neutron deficient isotopes ^{257–253}104 and ²⁵⁸106” (1997He29). ²⁰⁹Bi targets were bombarded with 4.77, 4.91, and 4.99 MeV/u ⁵¹V beams from the GSI UNILAC accelerator and ²⁵⁸Sg was produced in (2n) evaporation reactions. Recoil products were separated with the velocity filter SHIP and implanted in a position sensitive 16-strip silicon wafer which also measured subsequent α decay and spontaneous fission. “The spontaneous fission activity was attributed to ²⁵⁸106, the 2n deexcitation channel, since its maximum production rate was found to be close to the E* value where the measured excitation function for the similar reaction ⁵⁰Ti + ²⁰⁸Pb \rightarrow ²⁵⁸104 showed the maximum of the 2n deexcitation channel.” A total of eleven spontaneous fission events of ²⁵⁸Sg were observed.

Adapted from reference (2013Th02)

1997He29 F. P. Hessberger, S. Hofmann, V. Ninov, P. Armbruster *et al.*, *Z. Phys. A* **359**, 415 (1997).

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

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