

^{265}Sg

The identification of ^{265}Sg was reported by Lazarev et al. in the 1994 paper “Discovery of enhanced nuclear stability near the deformed shells $N = 162$ and $Z = 108$ ” (1994La22). A ^{248}Cm target was bombarded with a 121 MeV ^{22}Ne beam from the Dubna U400 cyclotron and ^{265}Sg was formed in the (5n) fusion-evaporation reaction. Recoil products were separated with a gas-filled recoil separator and implanted in a position sensitive surface barrier detector array which also measured subsequent α -decay and spontaneous fission. “We assigned the four $\alpha - \alpha - (\alpha)$ correlations at 121 MeV with $E_{\alpha_1} = 8.71$ to 8.91 MeV to the decay chain $^{265}106 \rightarrow ^{261}104$ ($T_{1/2} = 65$ s, $E_{\alpha} \sim 8.29$ MeV) $\rightarrow ^{257}102$ ($T_{1/2} = 26$ s, $E_{\alpha} \sim 8.22, 8.27, 8.32$ MeV) for which we measured a production cross section of 260 pb.”

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).

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

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