^{258}Sg

Mosat et al. discovered ^{257}Sg in 2025 in the paper "Probing the Shell Effects on Fission: The New Superheavy Nucleus ^{257}Sg" (2025Mo17). The GSI Universal Linear Accelerator UNILAC accelerated a ^{52}Cr beam to an energy of 257.5 MeV which impinged on a wheel of ^{206}PbS targets. Fusion evaporation residues were selected by the gas-filled recoil separator TASCA and implanted in a double-sided silicon strip detector which also recorded subsequent α- and fission-decays. "We discovered the new isotope ^{257}Sg, which decays by spontaneous fission and α-particle emission with a half-life of $12.6^{+3.7}_{-2.3}$ ms."

2025Mo17 P. Mosat, J. Khuyagbaatar, J. Ballof, R. A. Cantemir *et al.*, Phys. Rev. Lett. **134**, 232501 (2025).

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