

²⁵⁵No

In the 1967 paper “Nuclear properties of the isotopes of element 102 with mass numbers 255 and 256” Druin et al. reported the identification of ²⁵⁵No (1967Dr02). Natural uranium targets were bombarded with ²²Ne beams of energies up to 177 MeV from the Dubna 310-cm cyclotron forming ²⁵⁵No in the fusion evaporation reactions ²³⁸U(²²Ne,5n). Alpha-particles emitted from the recoils were measured. No further details about the experimental setup were given referring to a preprint (1966Ak01). “By comparing the illustrated excitation functions of reactions leading to the formation of α -emitters with 8.08, 8.23, and 8.35 MeV, we see that the reaction reminiscent of $\text{U}^{238}(\text{Ne}^{22},5\text{n})102^{255}$, (as regards the shape and position of the maximum) only gives an α -emitter with an energy of 8.08 MeV and a half-life of about 3 min, which may thus be the isotope 102^{255} .” A 15 s half-life assigned to ²⁵⁵No (1961Gh03) was incorrect.

Adapted from reference (2013Th02)

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