

²⁶⁰No

Somerville et al. identified ²⁶⁰No in “Spontaneous fission of rutherfordium isotopes” in 1985 ([1985So03](#)). A 99 MeV ¹⁸O beam from the Berkeley 88-in. cyclotron bombarded a ²⁵⁴Es target forming ²⁶⁰No in a multi-nucleon transfer reaction. Helium transported the recoils onto a long tape collector which passed one meter of stationary mica track detectors. “We have found a 106±8-ms SF activity shown in [the figure] with a production cross section of 1.1±0.2 μb in the reaction 99-MeV ¹⁸O + ²⁵⁴Es... But ²⁶⁰No is a possible assignment because it is the only even-even nuclide whose production cross section of 1.1 μb would fit an extrapolation of the yield curve for transfer products from the reaction ¹⁸O + ²⁵⁴Es... However, a ~100-ms half-life for ²⁶⁰No would be surprisingly long, based on an extrapolation of the known nobelium half-lives in [the figure] and a known half-life of only 1 ms for ²⁵⁸No. Thus, an assignment to ²⁶⁰No is supported by our cross bombardments but would be surprising in view of the nobelium half-life systematics.”

Adapted from reference ([2013Th02](#))

[1985So03](#) L. P. Somerville, M. J. Nurmi, J. M. Nitschke, A. Ghiorso *et al.*, Phys. Rev. C **31**, 1801 (1985).

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

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