^{262}Rf

Somerville et al. identified ^{262}Rf in "Spontaneous fission of rutherfordium isotopes" in 1985 (1985So03). Oxygen and neon beams from the Berkeley 88-in. cyclotron were used to form ^{262}Rf in the reactions ^{248}Cm(^{18}O,4n) and ^{244}Pu(^{22}Ne,4n) at beam energies of 89 and 113 MeV, respectively. Helium transported the recoils onto a long tape collector which passed one meter of stationary mica track detectors. "The following tentative assignments are based on several cross bombardments and comparisons between experimental and calculated production cross sections: ^{256}Rf(9±2 ms), ^{257}Rf(3.8±0.8 s, l4±9% SF), ^{258}Rf(13±3 ms), ^{259}Rf(3.4±1.7 s, 9±3% SF), ^{260}Rf(2l±1 ms), and ^{262}Rf(47±5 ms)." Later papers did neither confirm nor reject this measurement reporting half-lives of 1.2 s (1994La22) and 2.1(2) s (1996La11). Recently, it was suggested that these longer half-lives were due to an isomeric state of ^{261}Rf (2006Dv01).

Adapted from reference (2013Th02)

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