^{252}Lr

Heßberger et al. reported the first observation of ^{252}Lr in "Decay properties of neutron-deficient isotopes ^{256,257}Db, ^{255}Rf, ^{252,253}Lr" in 2001 (2001He35). A ^{209}Bi target was bombarded with a 5.08 MeV/u ^{50}Ti beam from the GSI UNILAC accelerator and ^{256}Db was formed in (3n) fusion-evaporation reactions. Recoil products were separated with the velocity filter SHIP and implanted in a position-sensitive 16-strip PIPS detector which also measured subsequent α-decay and spontaneous fission. In addition, escaping α-decay and spontaneous fission events were recorded in six silicon detectors located in the backward hemisphere. "The identification of the isotopes ^{256}Db and ^{252}Lr was based on a total of 16 α-decay chains, that were followed down to ^{244}Cf according to the sequences ^{256}Db$\xrightarrow{\alpha}$ ^{252}Lr$\xrightarrow{\alpha}$ ^{248}Md$\xrightarrow{\alpha}$ ^{244}Es$\xrightarrow{EC}$ ^{244}Cf$\xrightarrow{\alpha}$ ^{240}Cm or ^{256}Db$\xrightarrow{\alpha}$ ^{252}Lr$\xrightarrow{\alpha}$ ^{248}Md$\xrightarrow{EC}$ ^{248}Fm$\xrightarrow{\alpha}$ ^{244}Cf$\xrightarrow{\alpha}$ ^{240}Cm." Earlier an upper limit for spontaneous fission of ^{252}Lr was reported (1976Og02).

Adapted from reference (2013Th02)

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