^{238}Cf

^{238}Cf was discovered in 1995 by Lazarev et al. and the results were reported in the paper "Spontaneous fission of light californium isotopes produced in ^{206,207,208}Pb + ^{34,36}S reactions; new nuclide ^{238}Cf" (1995La09). Enriched ^{206}Pb, ^{207}Pb and ^{208}Pb targets were bombarded with 215 MeV ^{34}S and ^{36}S beams from the Dubna U400 cyclotron. ^{238}Cf was formed with ^{34}S on ^{206,207,208}Pb and ^{36}S on ^{206}Pb. Mica fission-fragment detectors arranged around a rotating target cylinder detected spontaneous fission events. "We identified a new spontaneously fissioning isotope ^{238}Cf with $T_{sf} \approx T_{1/2}$ = 21±2 ms and obtained evidence of the production of a new isotope ^{237}Cf with $T_{1/2}$ = 2.1±0.3 s."

Adapted from reference (2013Fr02)

1995La09 Yu. A. Lazarev, I. V. Shirokovsky, V. K. Utyonkov, S. P. Tretyakova, and V. B. Kutner, Nucl. Phys. A **588**, 501 (1995).

2013Fr02 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 96 (2013).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"