

^{239}Cf

Münzenberg et al. reported the discovery of ^{239}Cf in 1981 in “The new isotopes ^{247}Md , ^{243}Fm , ^{239}Cf , and investigation of the evaporation residues from fusion of ^{206}Pb , ^{208}Pb , and ^{209}Bi with ^{40}Ar ” (1981Mu12). A ^{206}Pb target was bombarded with a 4.8 MeV/u ^{40}Ar beam from the GSI UNILAC accelerator to form ^{243}Fm in the (3n) fusion-evaporation reaction. Recoil products were separated with the velocity filter SHIP and implanted in an array of position sensitive surface-barrier detector which also recorded subsequent α decay and spontaneous fission. “Correlated to this decay we observed a daughter decay of $(7,630\pm 25)\text{keV}$ and a half life of $(39^{+37}_{-12})\text{s}$. We assign these two decays to ^{243}Fm and its daughter ^{239}Cf .”

Adapted from reference (2013Fr02)

1981Mu12 G. Munzenberg, S. Hofmann, W. Faust, F. P. Hessberger *et al.*, Z. Phys. A **302**, 7 (1981).

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

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