^{235}Cm

In the 2020 paper "α decay of $^{243}Fm_{143}$ and $^{245}Fm_{145}$, and of their daughter nuclei" Khuyagbaatar et al. described the first observation of ^{235}Cm (2020Kh10). The linear accelerator UNILAC was used to accelerate ^{40}Ar to 185−204 MeV and impinge on a ∼400 μg/cm^2 lead sulfide target. Evaporation residues were separated with the velocity filter SHIP and implanted in a position sensitive 16-strip silicon detector. ^{243}Fm was formed in the reaction ^{40}Ar + ^{206}Pb: "A signature for detection of the hitherto unknown ^{235}Cm was found in the α-decay chains from ^{243}Fm. Two groups of α events with average energies of 6.69(2) MeV and 7.01(2) MeV and with a half-life of $T_{1/2} = 300^{+250}_{-100}$ s are suggested to originate from ^{235}Cm."

The identification of ^{235}Cm produced in a different reaction had previously only been reported in an annual report (2007KhZQ).

Adapted from reference (2023Th03)

2007KhZQ J. Khuyagbaatar, K. Nishio, S. Hofmann, D. Ackermann *et al.*, REPT-GSI-2007-1 **2007**, p. 138 (2007).

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