^{283}Cn

^{283}Cn was first identified by Oganessian et al. in "Measurements of cross sections for the fusion-evaporation reactions ^{244}Pu(^{48}Ca,xn)$^{292-x}$114 and ^{245}Cm(^{48}Ca,xn)$^{293-x}$116" in 2004 (2004Og07). ^{48}Ca beams of 243, 250, and 257 MeV from the Dubna U400 cyclotron bombarded a PuO_2 target enriched ^{244}Pu and a CmO_2 target enriched in ^{245}Cm. ^{282}Cn and ^{283}Cn were populated by α decays from ^{290}116 and ^{291}116 which were formed of the 243 MeV beam on the CmO_2 target in (3n) and (2n) evaporation reaction, respectively. ^{283}Cn was also populated by α decay following the (5n) reaction forming ^{287}114 on the PuO_2 target at 257 MeV.The residues were separated with a gas-filled recoil separator and implanted in a semiconductor detector array. Subsequent α particle decay and spontaneous fission events were recorded in this array and in eight detectors arranged in a box configuration around the implantation detector. The decay properties are listed in a table. Three α decays of ^{283}Cn with a half-life of $6.1^{+7.2}_{-2.2}$ s were observed. Earlier reports of ^{283}Cn (1999Og07, 1999Og05, 2004Og02) could not be confirmed. A specific search for ^{283}Cn did not observe in any events (2002Lo15). Finally, the 2004 results for ^{283}Cn could not be reproduced by Gregorich et al. (2005Gr19) but were confirmed by Hofmann et al. (2007Ho18). A comprehensive overview of the reviewing the status of the discovery of these isotopes is presented in reference (2007Og01).

Adapted from reference (2013Th02)

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