^{233}Bk

Devajara et al. reported the decay of ^{233}Bk in the 2015 paper entitled "Observation of new neutron-deficient isotopes with Z $\leq$ 92 in multinucleon transfer reactions" (2015De22). The UNIversal Linear ACcelerator (UNILAC) at GSI was used to bombard layers of ^{248}Cm oxide with a 270 MeV ^{48}Ca beam. Target-like deep inelastic reaction products were separated and identified with the velocity filter SHIP by correlating implanted residues with subsequent α-decays. "We attributed [the] decay chain to the new isotope ^{233}Bk. The observed half-lives of ^{233}Bk and its daughter nucleus ^{229}Am, which is also a new isotope, are well in agreement with WKB calculations using the measured α energies."

Adapted from reference (2016Th03)

2015De22 H. M. Devaraja, S. Heinz, O. Beliuskina, V. Comas *et al.*, Phys. Lett. B **748**, 199 (2015).

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