^{108}Xe

Auranen et al. described the first identification of ^{108}Xe in 2018 in "Superallowed α Decay to Doubly Magic ^{100}Sn" (2018Au04). The ATLAS facility of Argonne National Laboratory was used to accelerate ^{58}Ni to 245 MeV and bombard 450 μg/cm^2 ^{54}Fe targets. Evaporation residues from the reaction ^{54}Fe(^{58}Ni,4n)^{108}Xe were separated with the Fragment Mass Analyzer (FMA) and implanted in a double-sided silicon strip detector (DSSD). Subsequent α decays were measured in the DSSD and a box of eight single-sided strip detectors. "The α-particle energy reconstruction resulted in values of E_α(^{108}Xe) = 4.4(2) MeV and E_α =^{104}Te = 4.9(2) MeV."

Adapted from reference (2019Th02)

2018Au04 K. Auranen, D. Seweryniak, M. Albers, A. D. Ayangeakaa *et al.*, Phys. Rev. Lett. **121**, 182501 (2018).

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