^{214}U

In the 2021 paper "New α-Emitting Isotope ^{214}U and Abnormal Enhancement of α-Particle Clustering in Lightest Uranium Isotopes" Zhang et al. reported the first observation of ^{214}U (2021Zh22). The Heavy Ion Research Facility in Lanzhou (HIRFL), China was used to accelerate a ^{36}Ar beam of 184 MeV which then was delivered on to 300−350 μg/cm^2 ^{182}W sputtered on carbon foils. Evaporation residues were separated with the gas-filled recoil separator Spectrometer for Heavy Atoms and Nuclear Structure (SHANS) and implanted in three 16-strip position-sensitive silicon detectors which also recorded correlated subsequent α decays. "Two decay events in Fig. [...] were assigned to the new isotope ^{214}U unambiguously. [...] Based on these measurements, the mean α-particle energy and half-life of ^{214}U were determined to be 8533(18) keV and $0.52^{+0.95}_{-0.21}$ ms, respectively,..."

Adapted from reference (2023Th03)

2021Zh22 Z. Y. Zhang, H. B. Yang, M. H. Huang, Z. G. Gan *et al.*, Phys. Rev. Lett. **126**, 152502 (2021).

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