^{136}Eu

Kern et al. reported the observation of ^{136}Eu in the 1987 paper "Transition through triaxial shapes of the light samarium isotopes and the beta decay of ^{136,138,140}Eu" (1987Ke05). A 220 MeV ^{48}Ti beam from the Oak Ridge HHIRF tandem accelerator bombarded an enriched ^{92}Mo target. Reaction products were separated with the UNISOR mass separator and γ-rays were measured with two Ge detectors. "The assignment of the yrast cascade to A = 136 is confirmed by the magnetic separator results in which the 536-433-256-keV γ ray cascade was obtained. We have measured the half-life of the β decay of ^{136}Eu for the first time; a typical decay curve with half-life of 3.9$\pm$0.5 s is shown in [the figure]." This level corresponds to an isomer and the ground state of $\sim$3 s was reported two years later by Vierinen et al. (1989Vi04).

Adapted from reference (2013Ma01)

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