^{135}Eu

^{135}Eu was observed in 1989 by Veirinen et al. as reported in "Decay of neutron deficient Eu, Sm, and Pm isotopes near the proton dripline" (1989Vi04). An enriched ^{92}Mo target was bombarded with ^{46}Ti beams of 204 and 223 MeV from the Berkeley SuperHILAC. Reaction products were separated with the OASIS on-line mass separator. Charged particles and γ-rays were measured at the end of a fast-cycling tape system. "$^{134}_{63}Eu_{71} \rightarrow ^{134}_{62}Sm_{72}$: Beta-delayed proton emission from ^{134}Eu was established on the basis of proton-Sm K_α X-ray coincidences. Half-life analyses for the protons were carried out with least-squares and maximum-likelihood methods. The former method gave $T_{1/2}$ = 0.5±0.2 s and the latter $T_{1/2} = 0.4\pm^{0.3}_{0.1}$ s, resulting in an adopted half-life of 0.5±0.2 s for the β-delayed proton decay... $^{135}_{63}Eu_{71} \rightarrow ^{135}_{62}Sm_{72}$: The isotope ^{135}Eu was observed for the first time and identified by Sm K_α X-rays following its EC decay. A half-life of 1.5±0.2 s was measured for the Sm K_α X-rays.".

Adapted from reference (2013Ma01)

1989Vi04 K. S. Vierinen, J. M. Nitschke, P. A. Wilmarth, R. B. Firestone, and J. Gilat, Nucl. Phys. A **499**, 1 (1989).

2013Ma01 E. May and M. Thoennessen, At. Data Nucl. Data Tables **99**, 1 (2013).

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