^{161}Eu

^{161}Eu was discovered in 1986 by Mach et al. with the results published in their paper titled "Identification of four new neutron rare-earth isotopes" (1986Ma12). ^{161}Eu was produced in thermal neutron fission of ^{235}U at Brookhaven National Laboratory. X-rays and γ-rays were measured at the on-line mass separator TRISTAN. " Five transitions of energy 71.9±0.2, 91.9±0.2, 163.7±0.2, 293.9±0.3, and 314.3±0.3 keV were assigned to the decay of ^{161}Eu on the basis of γ-γ and x-γ coincidences and the measured half-lives. Four of them fit immediately into the level scheme of ^{161}Gd as revealed in the ^{160}Gd(d,p) reaction. The $T_{1/2}$ value is the average of the measurements for the 71.9-, 91.9-, and 163.7-keV transitions."

Adapted from reference (2013Ma01)

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