^{152}Lu

The identification of ^{152}Lu was reported by Toth et al. in 1987 in "Investigation of A = 152 radioactivities with mass-separated sources: Identification of ^{152}Lu" (1987To02). An enriched ^{96}Ru target was bombarded with 354 MeV ^{58}Ni ions from the Berkeley SuperHILAC and ^{152}Lu was formed in the (pn) fusion evaporation reaction. The products were separated by the OASIS isotope separator which delivered the isotopes to a $\Delta E - E$ telescope, Ge detectors, and a plastic scintillator with a tape system. "Three weak γ rays, 312.6, 358.7, and 1531.4 keV, known to deexcite ^{152}Yb levels, were seen in our spectra to decay with a (0.7$\pm$0.1)-s half-life, one that had previously not been observed in the $A = 152$ isobaric chain. We therefore attribute them to the β decay of the new isotope ^{152}Lu."

Adapted from reference (2012Gr19)

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