^{155}Er

Toth et al. observed ^{155}Er and published the results in their 1969 paper "New erbium isotope, ^{155}Er" (1969To06). Dysprosium oxide targets enriched in ^{156}Dy were irradiated with 72.6 MeV α particles from the Oak Ridge isochronous cyclotron and ^{155}Er was populated in the (5n) reaction. Recoil products were collected with a beryllium catcher which was rotated in front of a Si(Au) detector to record subsequent α emission. "The 4.01-MeV α peak which decays with a 5.3-min half-life is assigned to ^{155}Er on the basis of the following evidence: (a) The peak was not observed in 20–60-MeV proton bombardments of ^{156}Dy... (b) The shape of the calculated ^{156}Dy(α,5n) excitation function followed closely the experimental excitation function for the production of this 4.01-MeV peak. A mass number of 155 appears thus likely for this new α emitter."

Adapted from reference (2013Fr10)

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