

^{162}Eu

In 1987, Greenwood et al. identified ^{162}Eu in the paper entitled “Identification of new neutron-rich rare-earth isotopes produced in ^{252}Cf Fission” (1987Gr12). Spontaneous fission fragments from a ^{252}Cf source were measured with the isotope separation on line (ISOL) system at the Idaho National Engineering Laboratory. ^{162}Eu was identified by mass separation and the measurement of K x-rays. “Identification of the ^{162}Eu decay was accomplished in two separate experiments, with collection-counting cycle times of 24 and 28 s. For each experiment, the resulting γ -ray spectra were observed to contain a strong contamination from ^{146}La decay, resulting from LaO molecular beam formation in the ion source. Since the ^{146}La component was dominant, and since it had a half-life value comparable to that of ^{162}Eu , only the decay of the Gd K x rays could be used to characterize the ^{162}Eu decay.” Mach et al. had previously reported weak evidence for a ~ 6 s half-life and did not claim discovery (1986Ma12).

Adapted from reference (2013Ma01)

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