

¹⁵⁵Eu

The first identification of ¹⁵⁵Eu was reported by Winsberg in 1951 in “Study of 2y Eu¹⁵⁵ in fission” (1950Wi11) as part of the Manhattan Project as summarized in 1946 (1946Pi01). Seven month after the irradiation, a portion of a Clinton Pile slug was chemically separated and measured for 1.5 yr with a Lauritsen electroscope: “A europium isotope having a mass of 155 and a half-life of 2 yr has been found in fission. It decays by the emission of a 0.2 MeV β ray and an 0.08 Mev γ ray.” Earlier Kurbatov and Pool reported a 1 y europium activity without a mass assignment (1943Ku01) and Lewis had assigned the 2 y activity to ¹⁵⁵Eu (1946Ha27), However, both results were only published as meeting abstracts.

The assignment was changed from the original compilation (2013Ma01) which credited a 1947 paper by Inghram et al. (1947In07) with the discovery of ¹⁵⁵Eu. The 2016 update of the discovery project stated: “Many fission fragments were identified within the Manhattan Project and the detailed results were only published in 1951 as part of the National Nuclear Energy Series (1951CoZZ). However, a survey of the properties of the fission fragments had already been published in two simultaneous publications in the Journal of the American Chemical Society and Reviews of Modern Physics (1946Pi01) quoting the still classified papers. Thus researchers at the time were aware of the results and credit for the discovery should be given to the initially classified work if it was included in the survey paper” (2016Th03).

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