^{152}Dy

Toth and Rasmussen reported the discovery of ^{152}Dy in the 1958 paper "Studies of rare earth alpha emitters" (1958To27). ^{152}Gd was bombarded with 48 MeV alpha particles accelerated by the Berkeley 60-in. cyclotron. Subsequent α emission was measured following chemical separation. The mass assignment was achieved with the stacked foil technique. "The 2.5-hr isotope was seen in the first target foil at 48 Mev but was absent at 41.5 Mev. At least, it was not present in a sufficient amount to be noticed. The (α,4n) reactions, in this region, have thresholds at about 39 Mev. It seems quite reasonable to assume then that the activity was produced by an (α,4n) reaction on Gd^{162} and must be Dy^{162}." Previously, Rasmussen et al. had assigned the half-life of 2.3(2) h to a dysprosium isotope with 149≤A≤153 (1953Ra02).

Adapted from reference (2013Fr10)

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