^{149}Gd

Hoff et al. reported the observation of ^{149}Gd at the University of California at Berkeley in the 1951 paper "Neutron deficient europium and gadolinium isotopes" in 1951 (1951Ho30). Natural samarium, enriched $^{147}Sm_2O_3$ and europium oxide targets were bombarded with α-particles and protons with energies between 28 and 36 MeV. Decay curves and absorption spectra were measured following chemical separation. "The gadolinium isotope, Gd^{149}, has been observed as a product in a number of different bombardments. Natural europium oxide was bombarded with protons in a stacked foil arrangement which produced a proton energy range from 32 Mev to 8 Mev. The Gd^{149} was produced in largest yield with 28- to 32-Mev protons, and therefore, a (p,3n) reaction was assumed as the predominant mechanism in the production of this isotope.".

Adapted from reference (2013Ma01)

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