^{162}Gd

Wahlgren et al. reported the observation of ^{162}Gd in the 1967 paper "Decay of 10.4-min Gd^{162}" (1967Wa05). Enriched ^{160}Gd samples were irradiated with neutrons at the Savannah River high-flux reactor and ^{162}Gd was produced by double neutron capture. Following chemical separation, γ- and β-rays were measured with a NaI(Tl) detector and a Pilot B scintillator assembly, respectively. "[The figure] shows a comparison of the separated gadolinium and terbium fractions. Concurrent beta-decay curves permit an estimate of the upper limit of branching to 2-h Tb^{162} of $<$2%. Least-squares analysis of the beta-decay curves gave a half-life for Gd^{162} of 10.4$\pm$0.2 min."

Adapted from reference (2013Ma01)

1967Wa05 M. A. Wahlgren, D. C. Stewart, F. R. Lawless, J. J. Hines *et al.*, Phys. Rev. **153**, 1310 (1967).

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