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^{156}Dy as an Activable Yield Tracer for Determination of Rare Earth Elements in Biological Materials by Neutron Activation Analysis*

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Use of an enriched ^{156}Dy isotope as an activable yield tracer for the determination of lanthanoid contents in various biological reference materials has been proposed. The method consists of preconcentration of the lanthanoid in the ^{156}Dy doped samples followed by neutron irradiation and further chemical purification steps. The chemical behaviour of lanthanoid elements in the whole procedure was found, in separate runs, similar to that of the added ^{156}Dy within experimental errors. Simple purification steps after irradiation allow the measurement of relatively short-lived nuclides and diminish the radiation dose received during the chemical treatment. The present results for orchard leaves (NBS SRM 1571) are generally in good agreement with the previously reported data. Some new data are obtained for other biological reference materials.

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