

Elementary analysis of soil samples using a combination method of PIXE and activation analysis

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Abstract

PIXE analysis for soil samples was performed using a combination technique with neutron activation analysis. In PIXE analysis for soil the internal standard method is effectively employed; however, it is sometimes difficult to prepare homogenous fine soil mixture with the internal standard in the case of coarse sand. In this report, after the PIXE measurement the soil samples were irradiated for a short time in a nuclear reactor to determine aluminum content. The elementary analysis was carried out using relative content of the elements obtained by the PIXE analysis and the aluminum content precisely determined in the activation analysis instead of the internal standard method.