

Comparison of data analyzed by PIXE with data by XRF in chemical composition on soil samples collected in Mt.Iwaki

M. Tsurumi, K. Taneichi and E. Sugawara

Graduate School of Science and Technology, Hirosaki University
3 Bunkyocho, Hirosaki, Aomori 036-8561, Japan

Abstract

Chemical contents of soil samples were analyzed by Particle Induced X-ray Emission analysis (PIXE) and X-ray fluorescence spectrometry (XRF). A comparison of data by PIXE with by XRF is discussed in composition for soil samples collected on the soil surface at the bottom of the old volcanic crater in Mt. Iwaki, Japan. Between these two methods, serious differences were observed in analytical concentrations for Al, Si, Na and Mg. Because the 100% of total content in oxides may prove analytical accuracy for each samples, PIXE data for these elements were corrected with standard sample, NIES pond sediment.