

Thesis Title                      Development of Method for the Determination  
   of Trace Amounts of Copper Nickel Chromium  
   and Cobalt in Soil for Geological Application

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### Abstract

Soil sample preparations for atomic absorption spectroscopic (AAS) determination of trace amounts of copper, nickel, chromium and cobalt were investigated. The methods concerned wet digestion procedures using acid mixtures with various ratios of nitric and perchloric acids and mixtures of nitric, perchloric and hydrofluoric acids. Fusion with sodium peroxide flux was also studied. Attempts were made for a simple procedure for a soil sample preparation by fusion for x-ray fluorescence spectrometric determination of the metals, although without success. Three procedures for soil sample preparation used for AAS have been proposed. The procedures were applied for a reference soil material and soil samples collected for minerals survey.