

Methods for Preparation of Soil Samples for Determination of Trace Elements

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Abstract : It is generally accepted that only about ten microelements are vitally important to all plants, and approximately ten more elements are proved to be significant for the development of some species. The main methods for their determination in soils are the atomic spectral techniques - AAS and ICP-OAS. Critical stage to obtain correct results for content of heavy metals and nutrients in the soil is the process of mineralization. A comparative study of the most widely spread methods for soil sample preparation for determination of some trace elements was carried out. Three most commonly used methods for sample preparation were used as follows: ISO11466, EPA Method 3051 and BDS ISO 14869-1. Their capabilities were assessed and their bounds of applicability in determining the levels of the most important microelements in agriculture were defined.

Keywords : analysis, copper, methods, zinc

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