

# SPEKTROMETRIA MAS Z JONIZACJĄ W PLAZMIE INDUKCYJNIE SPRZEŻONEJ W POSZUKIWANIU ROŚLIN O ZDOLNOŚCIACH AKUMULACJI PIERWIASTKÓW ŚLADOWYCH

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## ABSTRACT

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A new procedure of plant sample analysis has been introduced for prospecting of new species of trace element accumulating plants. This procedure is based on collection of the above-ground biomass of several plant species growing in their natural habitats, and subsequent semiquantitative and quantitative analyses of samples. The semiquantitative mode allows us for selecting species showing natural enrichment in one or more elements. The quantitative analysis of selected samples provides details about element concentrations in these samples.

The above methodology was used to study 30 species of plants growing in different ecosystems of the Świętokrzyskie province. All the samples were analyzed semiquantitatively and consecutively ten of them were analyzed quantitatively. After performing analyses, three plant species (*Tanacetum vulgare*, *Juncus effusus*, *Cichorium intybus*) were sampled at different sites and studied in more detail during the same vegetation season. The results showed that *J. effusus* accumulated Mn and Ag. The samples of this species were collected once from different randomly selected sites and at three permanent sites four times during the same vegetation season. The aim of this study phase was to confirm of bioaccumulative properties of *J. effusus* in relation to time and sampling area. Several samples were enriched in Mn. Additionally, all the samples showed a positive Eu anomaly.

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