

**Speciation Analysis of As(III) and As(V) in Soil Samples from the Area of the Chemical Plant in Luboń near Poznań** – Lidia Kozak, Przemysław Niedzielski

Summary

Arsenic content was determined in the soil profiles collected from the former dumping ground of post-crystallization lye (presently under recultivation) in the area of the chemical plant in Luboń, near Poznań. Of particular concern was the content of the two most toxic species of As(III) and As(V) in the environmentally available exchange fraction. Extraction was performed with a phosphate buffer of  $\text{pH} = 6 \pm 0.2$ , and the analytical method applied was HPLC-HG-AAS. As(V) species were found in all samples, whereas As(III) species in a few samples collected at different depths. The concentration of As(V) varied from 91 to 1228 ng/g, while that of As(III) – from 17 to 48 ng/g. As there are no watertight rock formations underneath the dumping site, the polluting substances can be easily washed out by ground waters and carried into the Warta River, which is a main source of water for the city of Poznań.