



“Gheorghe Asachi” Technical University of Iasi, Romania



METHODS FOR HEAVY METALS (HM) EXTRACTION FROM SLUDGE SAMPLES AND THEIR USE FOR SOIL UPGRADING

**Cristian Predescu¹, Grigore Vlad², Ecaterina Matei¹, Andra Predescu^{1*}
Mirela Sohaciu¹, George Coman¹**

¹*Politehnica University of Bucharest, Faculty of Materials Science and Engineering, 313 Splaiul Independentei,
060042 Bucharest, Romania*

²*ICPE Bistrița, 7 Parcului Street, 420035, Bistrita, Romania*

Abstract

The paper presents results obtained by analysis of some soil and wastes samples in order to establish the heavy metal (HM) content from these samples. The analyzed wastes were sewage sludge from municipal waste treatment and hydrotechnical basin sludge. These types of wastes were mixed with soil from Oltenia Sub-Carpathian area, obtaining the substrates useful for different types of plants. It was studied the migration potential of the metals from substrate to apple trees, the results being compared with the Ministry Order no. 344 values (OM, 2004). Also, internal quality control (QC) for the obtained results was applied in order to verify the accuracy and sensitivity of the methods. The heavy metals content was established by atomic absorption spectrometry, after digestion of samples.

Keywords: heavy metals, sewage sludge, soil, spectrometry

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* Author to whom all correspondence should be addressed: e-mail: ecomet@ecomet.pub.ro; Phone/Fax: 0040213169564