



“Gheorghe Asachi” Technical University of Iasi, Romania



BIOLEACHING OF SOME HEAVY METALS FROM POLLUTED SOILS

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Abstract

In this paper are presented preliminary studies regarding the utilization of microorganisms for the decontamination of soils polluted with heavy metals. The concentration of heavy metals was determined by inductive coupled plasma atomic emission spectroscopy (ICP-AES). It has been confirmed that the studied area is polluted with Zn, Pb, Cr, Fe, Cu, Cd, Mn, the concentrations exceeding in most cases the alert threshold and the intervention threshold. The experiments led to the conclusion that this area needs reclaiming which can be done by bioleaching. This is a biologic treatment method, which uses microorganisms to encourage the solubility and the extraction of heavy metals from polluted soils.

Key words: bioleaching, contaminated soil, heavy metals, microorganisms

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