



Heavy metal contents of urban soils in parks of Iași, Romania

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Abstract

The determination of the heavy metal content of the soils of parks in major urban areas has become vital for the estimation of potential threats to public health. In order to assess the quality of the soils in the Copou and Expoziției parks of Iași, as well as to determine the likely sources of the heavy metals, 85 samples were collected, and their Fe, Mn, Cr, Co, Ni, Cu, Zn, Pb and As contents were measured. The statistical parameters indicate a great variability of the heavy metal contents of the soils of Copou Park, compared to those of Expoziției Park. Multivariate analysis has highlighted the presence of 3 factors describing heavy metal variability which account for nearly 86% of the total variance. The Igeo and EF values, which can be correlated with the location and age of the parks, suggest the presence of an anthropogenic source for Cr, Cu, Zn, Pb and As.

Keywords: pollution, urban parks, heavy metals, Iași, Romania.
