



DISTRIBUTION AND MIGRATION OF CHROME IN URBAN SOILS – CASE STUDY: IAŞI CITY (INDUSTRIAL ZONE)

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Abstract

In this study, we follow the chrome distribution and his association forms with mineral and organic components, from 14 soil samples from industrial zone of Iași city.

The total chrome concentration in studied soil samples varied between 11.73–129.35 µg/g, being lower than the normal values only for four samples. The Cr(VI) weight of total chrome content varied between 3.78–14.52 %. For none of studied soil samples the chrome content is not over to value of alert concentration. The quantitative ratio between Cr(III) and Cr(VI) is conditioned by the redox potential values, and the occurrence of speciation forms is conditioned by pH, concentration and specific association forms with soils components. The continuous variation of urban soils properties increases the probability of Cr(VI) accumulation as species with high toxic potential.

Keywords: chrome, urban soil, pollution

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