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**HEAVY METALS PARTITIONING IN SEDIMENTS
FROM RIVER PRUT**

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Abstract

Pronounced concentration gradient in a series sediments – interstitial water– bottom water horizon suggests potential possibilities for mobilizing of metals from sediments into overlying water layers. The re-suspension of sediments under natural conditions mobilizes up to 1-5% from the contents of Cu, Zn and Pb in interstitial water of sediments from river Prut, increasing their amounts in the bottom water horizon by 2 – 5 times. High migratory mobility is registered for Cd, being mobilized into water up to 37-84% from its content in the interstitial water, in dependence of re-suspension duration. Partitioning of metals among organic-mineral complex, amorphous and mineral phases of sediments collected from Stinca-Costesti lake reveals the predominant accumulation of Cu and Zn in the amorphous phase, and Pb in the mineral phase. Considerable amounts of Cd are registered in the mineral phase and organic-mineral complex of sediments. Spatial dynamics emphasizes partitioning changes along river Prut, revealing profiling of the tendency for decreasing of metals in mineral phases, and for their concentrating in the amorphous phases, especially considerable for Cd and Zn.

Keywords: sediments, heavy metals, chemical partitioning

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