

"Gh. Asachi" Technical University of Iasi, Romania

DYNAMICS OF HEAVY METALS IN SEDIMENTS FROM RIVER PRUT

Vasile Rusu^{1*}, Tudor Lupascu¹, Mihai Revenco², Larisa Postolachi¹

 ¹Institute of Chemistry of Academy of Sciences RM, Department of Ecological Chemistry, Academiei 3 str, MD-2028 Chisinau, Republic of Moldova,
²Moldavian State University, Faculty of Chemistry, Department of Analytical and Organic Chemistry, Mateevici 60 str, MD-2009 Chisinau, Republic of Moldova

Abstract

Sequential distribution of the metals content for sediment cores collected from Stinca-Costesti lake indicates decreasing of their amount towards the bottom of sediment cores, being in the concordance with redox potential dynamics and reveals reduction of their quantity as are intensified anoxic conditions in sediment horizons. Data registered during 2000-2002 indicate the accumulation of metals in sediments along river Prut. Statistical analyses indicate maximal levels of the average values for Cu and Pb content on the inferior sector of the river (Cahul-Giurgiulesti), while for Zn and Cd on the middle sector (Valea Mare – Stoianovca). Statistics demonstrate relatively stable contents for Cu and Pb in sediments on the sector Stinca-Costesti – Sculeni during last years. Cluster analysis of spatial distribution indicates narrow countered clusters for their contents in sediments on this sector. Homogeneity of data decreases along river, also higher values of their content is depicted during 2000-2001. Higher heterogeneity of data is registered for Zn content in sediments on all stretch of the river.

Keywords: heavy metals, bottom sediments

^{*} Author to whom all correspondence should be addressed: Phone: 739731, Fax: 739954, e-mail: vrusumd@yahoo.com