



**“Gheorghe Asachi” Technical University of Iasi, Romania**



## **TRACE METALS IN WATER AND SEDIMENTS OF THE PRUT RIVER, ROMANIA**

**Marius Lucian Matache<sup>1\*</sup>, Iulia Gabriela David<sup>2</sup>, Cristina Dinu<sup>3</sup>, Lucian Gabriel Radu<sup>4</sup>**

<sup>1</sup>University of Bucharest, Centre for Environmental Research and Impact Studies, 1 Nicolae Balcescu Blvd., Bucharest 1, Romania

<sup>2</sup>University of Bucharest, Faculty of Chemistry, Department of Analytical Chemistry, 90-92 Panduri Street, 050663 Bucharest 5, Romania;

<sup>3</sup>National Institute of Research and Development for Industrial Ecology-ECOIND, 71-73 Drumul Podu Dambovitei, 060652 Bucharest 6, Romania;

<sup>4</sup>National Institute of Research and Development for Biological Sciences, 296 Splaiul Independentei, 060031 Bucharest 6, Romania

### **Abstract**

A 120 kilometers reach of the Prut River, Romania was surveyed and the concentrations of four trace metals (copper, cadmium, lead and zinc) were determined in water and sediments. These elements are the main pollutants expected in the region, as a steel-producing factory in Romania is located in the close neighbourhood of an area under protection, the Lower Prut Floodplain Natural Park. Samples were collected in 2010 and 2011 from the water-sediment interface at six locations along the lower sector of the Prut River. Sediments were sampled only once whereas water samples were collected during four campaigns organized at the end of the summer and beginning of the autumn in order to include both high and low flow regimes of the river. Toxic metals (Pb and Cd) were not found to reach notable levels. The resulted concentrations for all trace metals were lower than the values determined in other Romanian rivers (e.g. Danube) and within the values range imposed by the Romanian regulations for water and sediments quality.

*Key words:* trace metals, Prut River, Romania, sediments, water

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\* Author to whom all correspondence should be addressed: e-mail: media@portiledefier.ro; make2000@gmail.com