

**METAL SPECIATION STUDIES IN A BRACKISH-MARINE INTERFACE
SYSTEM**

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ABSTRACT

The paper reviews briefly the metal speciation methodologies employed by the group of our laboratory in the period 1979-1999 and concludes that **ASV** in combination with selective samplings and use of Chelex-100 resins provides a powerful tool for studies of soluble species of Pb, Zn and Cd in dynamic natural systems such as the brackish-marine interface formed between the waters discharged by the Koumoundouros lake and the marine ones of the golf of Elefsis.

Four categories of species were identified: very labile, moderately labile, slowly labile and inert. Their relative distribution is determined by three main factors: salinity, pH and presence of dissolved organic carbon. Increasing salinity stimulates formation of very labile chloro-complexes, while increase of pH stimulates the formation of inert species and particulates. A considerable part of slowly labile species seem to be metal complexes with organic ligands.