

**SEQUENTIAL EXTRACTION TECHNIQUES FOR TRACE ELEMENT
SPECIATION STUDIES IN MARINE SEDIMENTS**

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ABSTRACT

Metal speciation in marine sediments by sequential extraction involves the use of a series of chemical extractants that selectively dissolve the different chemical constituents of the sediment material. The method operationally defines the different major carriers of metals in marine sediments and provides information on the metal-particle bonding mechanisms. A short review of sequential extraction studies in coastal sediments of Greece was presented to support the usefulness of the method in metal pollution studies in marine sediments. The methods used were comparable and were able to distinguish between the different processes of metal association in sediments. They provided information on the possible availability of the metals as well as the impact of distinctive land -based pollution sources on the metal geochemistry in coastal marine sediments.