

Special Issue on
Geochemistry of Aquatic Sediments

CALL FOR PAPERS

The type and composition of aquatic sediments are key factors in environmental research of freshwater and marine systems. Characterization of sediment is of extreme importance for (a) natural processes as sediment transport and accumulation, biodiversity, and biogeochemical reactions within sediments and (b) contamination evaluation, as sediments act as a sink for a large number of toxic substances, which, if present above certain levels, could harm biological diversity and human health. Geochemical investigations of aquatic sediments in terrestrial (fluvial, lacustrine, and estuarine) and marine environments are of fundamental interest for the assessment of the natural ecosystems and the level of pollution that potentially affect them. Determining the chemical composition of aquatic sediments may detect sources of pollutions as sewage, industry, agriculture, abandoned and active mines, landfills, harbor activities, and oil drilling. In addition, natural anomalies may indicate mineral resources for mining purposes in a particular region.

New methods and approaches for sampling and analysis are continuously being introduced in aquatic sediment research. More attention is given to qualitative and quantitative monitoring of sediment and sediment fluxes, which is regularly established in most European and many countries worldwide. Unfortunately, uniform legislation on sediment quality and load still does not exist on international level and even not on the national level of most countries. Therefore, more attention should be given to further expansion of sediment monitoring and of establishing criteria for assessing sediment quality and legislative for toxic inorganic and organic pollutants.

The purpose of this special issue is to publish high-quality research papers, as well as review articles, addressing recent advances in aquatic terrestrial and marine sediments research and new methods and developments in monitoring, as well as legislative development. Original, high quality contributions that are not yet published or that are not currently under review by other journals or peer-reviewed conferences are sought.

Potential topics include but are not limited to the following:

- ▶ Metal pollution of aquatic terrestrial and marine sediments
- ▶ Organic pollutants in aquatic terrestrial and marine sediments
- ▶ Influence of abandoned and active mines on quality of stream sediments
- ▶ Influence of sewage and industry on quality of stream sediments
- ▶ Sediment load monitoring programs
- ▶ Development of new analytical methods used in aquatic sediments research
- ▶ Influence of harbor activities on marine sediments
- ▶ Influence of oil drilling on marine sediments
- ▶ Adsorption of pollutants on sediments
- ▶ Transport of suspended particles and particle-bound pollutants in rivers
- ▶ Interactions between water column and sediment in aquatic terrestrial and marine environments
- ▶ Chemical composition of aquatic sediments as reflecting provenance and transport
- ▶ Chemical composition of aquatic sediments as a prospection tool
- ▶ Bacterial activity within the aquatic sediments, and its influence on the biogeochemical interactions

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jchem/geochemistry/gas/>.

Lead Guest Editor

Stanislav Frančišković-Bilinski, Institute Ruder Bošković, Zagreb, Croatia
francis@irb.hr

Guest Editors

Marc Schwientek, University of Tübingen, Tübingen, Germany
marc.schwientek@uni-tuebingen.de

Amir Sandler, Geological Survey of Israel, Jerusalem, Israel
sandler@gsi.gov.il

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First Round of Reviews

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