

Special Issue on
Biogeochemistry of Trace Elements in Soils and Sediments

CALL FOR PAPERS

Trace elements (TEs), including arsenic, cadmium, iron, and chromium, have significant roles that can affect the different forms of life in soil and sediment ecosystems. The speciation and bioavailability of these TEs can be influenced by various geochemical and biogeochemical processes in complex soil and sediment systems, such as oxidation–reduction, sorption–desorption, and dissolution–precipitation of bearing minerals. TEs interact with microorganisms as well as with organic and mineral constituents and change in their solid and solution-phase speciation, bioavailability, and toxicity to plants, microbiota, and humans. Therefore, it is important to understand the biogeochemical cycle of TEs in soils and sediments.

This special issue is intended to present and discuss biogeochemistry of TEs in soils and sediments. This will help in gathering, updating, and broadening our knowledge of the biogeochemical processes of TEs by attracting and presenting some important and emergent topics on their biogeochemistry.

Potential topics include but are not limited to the following:

- ▶ Spatial and temporal distribution of trace elements in soils and sediments
- ▶ Trace element-microbial interaction
- ▶ Trace element-plant interaction
- ▶ Sorption-desorption processes of trace elements
- ▶ Oxidation-reduction processes of trace elements
- ▶ Reactive transport of TEs in porous media and complex hydrosystems and unsaturated–saturated zones of soils and subsoils
- ▶ Soils and sediments pollution
- ▶ Bioavailability and health risk assessment of trace elements in soils and sediments
- ▶ Remediation of trace elements in soils and sediments

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