



Risk assessment and remediation of trace elements in fresh water and marine sediments

Anna Sophia Knox (US) and Jörg Rinklebe (DE)

Rapid industrialization and urbanization has led to the contamination of sediments with heavy metals and organic contaminants creating a pervasive problem worldwide. Metals that enter the aquatic environment often accumulate in sediments that subsequently act as a source for contaminant remobilization. Arsenic, Cd, Cu, Hg, Ni, and Pb are often found in harbor sediments and other areas affected by anthropogenic activities. These contaminants can harm benthic organisms and enter aquatic food chains that lead to humans. Because sediments are a sink for contaminants, benthic organisms are often exposed to far higher concentrations of contaminants than organisms that occupy the water column.

This symposium will facilitate discussions on contaminants in both marine and freshwater sediments, current technologies for remediating contaminated sediments, and explore the role of bioavailability in risk assessment and regulatory decision making.