Bioavailability and effects of metals and metal mixtures

CHAIRS: Koen Oorts, Karel De Schamphelaere, Paul Whitehouse

Tuesday 13th May 2014, 08:10 – 12:50, room: Boston 2

The aim of this session is to present the current state-of-the-science in understanding and predicting effects of metals in aquatic and terrestrial systems. The session will cover mechanistic research that aims to understand molecular, cellular and/or physiological modes of action of metal and mixed metal exposure. In addition, the session will report on current developments in metal bioavailability modeling for predicting metal and metal mixture toxicity as a function of environmental chemistry parameters such as pH, hardness, DOC, cation exchange capacity, etc. The session welcomes studies on these topics at all levels of organization, from molecular, over organism, to whole community-level, including long-term studies that consider acclamatory and (genetically) adaptive responses. Finally, the session will cover the application and implementation of metal bioavailability and metal mixture toxicity research into regulatory frameworks, while discussing opportunities, current limitations and research gaps.

SESSION TYPE: Platform and Poster