

Special Issue on Metals in the Environment: Toxic Metals Removal

CALL FOR PAPERS

Water is the new oil of the 21st century and is becoming more valuable due to the increased consumption and demand. Safe drinking water is one of mankind's most basic needs. It is generally defined as water that does not pose any health risk to humans. World Health Organization (WHO) defines safe drinking water as water that has chemical, microbial, and physical characteristics that comply with both WHO guidelines for drinking water quality and the respective country's drinking water standard. Good quality water (i.e., water free of contaminants) is essential to human health and is a critical feedstock in a variety of key industries including oil and gas, petrochemicals, pharmaceuticals, and food. The available supplies of water are decreasing due to (i) low precipitation, (ii) increased population growth, (iii) more stringent health based regulations, and (iv) competing demands from a variety of user's industrial, agricultural, and urban development. Consequently water scientists and engineers are seeking alternative sources of water. These alternative sources include seawater, storm water, wastewater (e.g., treated sewage effluent), and industrial wastewater. Water recovery/recycle/reuse has proven to be effective and successful in creating a new and reliable water supply, while not compromising public health.

The pollution of water due to release of heavy metals into ecosystem metals has been causing worldwide concern. The main sources of heavy metals are the wastewaters from modern chemical industries such as metal plating facilities, battery manufacturing, fertilizer, mining, paper and pesticides, metallurgy, mining, fossil fuel, tannery, and production of polymers. The rapid industrialization during recent years has greatly contributed to heavy metals release into environment. Heavy metals tend to accumulate in living organisms, as they are not biodegradable, unlike organic contaminants.

We invite the submission of original, substantial, unpublished research papers on toxic metals removal technologies and related topics. We believe that your contribution would create a high standard of reliability and useful information within this journal. The special issue has been dedicated to the removal of trace metals from water.

Potential topics include but are not limited to the following:

- ▶ Membrane technology
- ▶ Adsorption
- ▶ Advance oxidation system
- ▶ Reduction
- ▶ Bioremediation
- ▶ Electrochemical treatment
- ▶ Coagulation and flocculation
- ▶ Precipitation
- ▶ Ion exchange

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

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