

Special Issue

Materials for Heavy Metals Removal from Waters

Message from the Guest Editors

Removal of contaminants from wastewater, such as heavy metals, has become a severe problem around the world. Therefore, appropriate steps need to be taken to reduce heavy metal content in water to acceptable levels. Several methods have been used to remove heavy metals from contaminated water, including chemical precipitation, ion exchange, adsorption, membrane filtration, reverse osmosis, solvent extraction, electrochemical treatment, and biosorption and bioaccumulation as the ecofriendly alternatives. Extensive research has also been carried out to introduce materials which can remove and alleviate heavy metal ions from wastewaters. However, these methods have several disadvantages, such as high reagent requirement, unpredictable metal ion removal, generation of toxic sludge, etc. This Special Issue focuses on innovative trends in heavy metal removal using advanced materials, reagents, and technologies that respect the environmental and economic requirements over the world. Additionally, composition and properties of used materials, experimental conditions, mechanisms of the studied processes and efficiency of heavy metals removal are of interest.

Guest Editors

Prof. Dr. Magdalena Balintova

Institute for Sustainable and Circular Construction, Faculty of Civil Engineering, Technical University of Kosice, Košice, Slovakia

Prof. Dr. Adriana Estokova

Institute for Sustainable and Circular Construction, Faculty of Civil Engineering, Technical University of Kosice, Košice, Slovakia

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editors-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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