Special Issue

Materials for Heavy Metals Removal from Waters (2nd Edition)

Message from the Guest Editors

The 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 the 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 eco-friendly alternatives. Extensive research has also been carried out to introduce materials that can remove and alleviate heavy metal ions from wastewater. However, these methods have several disadvantages, e.g., high reagent requirements, unpredictable metal ion removal, the 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 around the world. Additionally, the composition and properties of used materials, experimental conditions, mechanisms of the studied processes, and efficiency of heavy metal removal are of interest.

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Deadline for manuscript submissions

closed (20 June 2025)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/201687

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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.

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