Special Issue

Removal of Metals or Other Toxic Substances from Wastewaters by Natural Sorbents

Message from the Guest Editors

Adsorption remains a popular methodology for the fast, reliable, and easy-to-operate removal of specific compounds in the tertiary treatment of wastewater. Traditionally, adsorbent materials of choice included activated carbons, clays, zeolites, and minerals, with large surface areas and high density of specific surface groups for chemical bonding. Research is evolving to propose alternative materials with lower prices and environmental impact. That is the case of natural sorbents derived from biomass, usually comprising byproducts or wastes from agri-food and forestry industries. Repurposing these waste flows for upcycling as adsorbents is a valuable input to reducing wastewater treatment costs and increasing the sustainability of biomass-based industrial activities, such as:

- Novel uses for raw natural sorbents;
- Modification of biomass for selective uptake of specific compounds;
- Removal of emerging contaminants;
- Scale-up of existing applications;
- Environmental and industrial assessment of natural sorbent technology.

We welcome contributions to the development and application of natural sorbents for the removal of metals and other toxic substances from wastewater.

Guest Editors

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Editor-in-Chief

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