Special Issue

The Application of Adsorption Technologies in Wastewater Treatment

Message from the Guest Editors

This Special Issue aims to highlight recent progress and innovation in adsorption-based technologies for wastewater treatment, from laboratory-scale studies to real-world applications.

We welcome original research articles, critical reviews, and short communications on the development, characterisation, and performance of adsorbent materials, as well as their regeneration, modelling, and integration with other treatment processes. Topics may include novel adsorbent materials, kinetic and isotherm modelling, regeneration techniques, process optimisation, integration with other treatment methods, and the life cycle assessment (LCA) of adsorption-based systems.

Topics of interest include (but are not limited to) the following:

- Removal of heavy metals, dyes, pharmaceuticals, and organic pollutants;
- Development of low-cost and eco-friendly adsorbents;
- Advanced characterisation and performance analysis;
- Fixed-bed/column adsorption and pilot-scale studies;
- Regeneration and reuse of adsorbents;
- Coupling adsorption with biological or physicochemical treatments;
- Life cycle assessment (LCA) and environmental impact analysis.

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

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