Special Issue

Advances in Contaminant Transport in Porous Media: Mechanisms, Remediation, and Numerical Simulation

Message from the Guest Editor

This Special Issue is dedicated to advancing our understanding of the mechanisms of contaminant transport, effective remediation technologies, and the application of numerical simulation models to predict contaminant behavior in porous media. Topics of interest include, but are not limited to, the following: Mechanisms of contaminant transport in porous media, including diffusion, advection, and dispersion; The influence of aquifer and soil properties on contaminant migration and retention; Remediation strategies for contaminated porous media, such as bioremediation, phytoremediation, and advanced chemical treatments; Numerical simulation techniques for modeling contaminant transport, fate, and remediation processes; Emerging contaminants (e.g., microplastics, antibiotics) and their behavior in soil–groundwater systems;Nanotechnology applications in the removal and immobilization of contaminants; The impact of climate change on the transport and fate of contaminants in groundwater; Case studies on real-world contamination and remediation efforts in subsurface environments.

Guest Editor

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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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