

Special Issue

Diffusion Processes in Water Pollution and Remediation

Message from the Guest Editors

This Special Issue focuses on the diffusion of contaminants to and from low-permeability zones. These transport processes can significantly delay site remediation progress. Aqueous-phase contaminants or non-aqueous-phase liquids (NAPLs, e.g., chlorinated solvents of petroleum hydrocarbons) present in high-permeability zones such as porous unconsolidated media or fractures in bedrock force pollutants to diffuse into adjacent strata of lower permeability. Known as forward diffusion, this transport process is largely governed by Fick's laws, and its magnitude is a function of the contaminant type, the concentration gradient, and time. The reverse process is back diffusion, which is the diffusive transport of pollutants out of layers of low hydraulic conductivity into zones where the contaminant transport is governed by advection and dispersion. Back diffusion in particular is a challenging problem for contaminant site remediation because limited options exist to manage or enhance this transport process[...] For further reading, please follow the link to the Special Issue Website at:
https://www.mdpi.com/journal/water/special_issues/diffusion_processes

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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

Dr. Jean-Luc PROBST

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