water

an Open Access Journal by MDPI

IMPACT FACTOR 3.0

CITESCORE 6.0

Diffusion Processes in Water Pollution and Remediation

Guest Editors:

Prof. Dr. Thomas Boving
Department of Geosciences & Department of Civil and Environmental Engineering, University of Rhode Island, Kingston, RI 02881, USA

Dr. Julie Blue
Eastern Research Group, Lexington, MA 02421, USA

Deadline for manuscript submissions:
closed (15 December 2022)

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

water

IMPACT FACTOR 3.0

CITESCORE 6.0

an Open Access Journal by MDPI

Editor-in-Chief

Dr. Jean-Luc PROBST
Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.
Journal Rank: JCR - Q2 (Water Resources) / CiteScore - Q1 (Aquatic Science)

Contact Us

Water Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/water
water@mdpi.com
𝕏@Water_MDPI