

Special Issue

Sustainable Remediation Using Metallic Iron: Quo Vadis?

Message from the Guest Editors

During the past three decades, groundwater remediation using permeable reactive barriers (PRBs) containing metallic iron (Fe⁰) has become a well-established technology. However, many uncertainties exist regarding their design, suggesting that Fe⁰ PRBs is still an innovative technology. Research on Fe⁰ PRBs started in the early 1990s and has boomed in the past three decades. Sufficient data and observations have been accumulated to establish the science of the Fe⁰/H₂O system. To explain the initial observation that there were losses of chlorinated organic contaminants from aqueous solutions in contact with a variety of metals (including Fe⁰), it was proposed that reductive dechlorination was the main cause, with electrons coming from the metal body. In the meantime, Fe⁰ is described in the literature as “reservoir of electrons” for contaminant transformation. [...]

For further reading, please follow the link to the Special Issue Website at:
https://www.mdpi.com/journal/water/special_issues/Metallic_Iron

Guest Editors

Dr. Chicgoua Noubactep

Angewandte Geologie, Universität Göttingen, Goldschmidtstraße 3, D-37077 Göttingen, Germany

Dr. Marius Gheju

Faculty of Industrial Chemistry and Environmental Engineering, Politehnica University Timisoara, Bd. V. Parvan Nr. 6, 300223 Timisoara, Romania

Deadline for manuscript submissions

closed (10 November 2023)



Water

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0



[mdpi.com/si/122731](https://www.mdpi.com/si/122731)

Water

Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
water@mdpi.com

[mdpi.com/journal/
water](https://www.mdpi.com/journal/water)





Water

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0



[mdpi.com/journal/
water](https://mdpi.com/journal/water)



About the Journal

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

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

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)