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

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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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