



## Sustainable Remediation Using Metallic Iron: Quo Vadis?

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### Message from the Guest Editors

Dear Colleagues,

During the past three decades, groundwater remediation using permeable reactive barriers (PRBs) containing metallic iron ( $\text{Fe}^0$ ) has become a well-established technology. However, many uncertainties exist regarding their design, suggesting that  $\text{Fe}^0$  PRBs is still an innovative technology.

Research on  $\text{Fe}^0$  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  $\text{Fe}^0/\text{H}_2\text{O}$  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  $\text{Fe}^0$ ), it was proposed that reductive dechlorination was the main cause, with electrons coming from the metal body. In the meantime,  $\text{Fe}^0$  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](https://www.mdpi.com/journal/water/special_issues/Metallic_Iron)





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## Message from the Editor-in-Chief

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