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New Technologies for Soil and Groundwater Remediation

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Message from the Guest Editors

Advanced oxidation processes (AOPs) are capable of degrading most types of organic contaminants into harmless products through the production of reactive radicals (e.g., HO•, SO₄^{•-}, Cl•, etc.), and have gained great attention in in situ chemical oxidation (ISCO). Effective activation methods, such as transition metals, semiconductor metal oxide, and HE activation on H₂O₂ for HO• generation, as well as heat, UV light, and transition metals activation on PS for SO₄^{•-} production, are developing for organic-contaminated soil and groundwater remediation. However, our knowledge of the innovative activation methods, along with the mechanisms behind them, is still limited. Further research is required for proposing more cost-effective advanced oxidation techniques in soil and groundwater remediation.

This research topic aims to explore the dynamics and mechanisms underlying the advanced oxidation processes for removing organic contaminants in soil and groundwater. Studies on advanced oxidation treatment approaches including (but not limited to) persulfate, H₂O₂, and permanganate are welcome in the



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Special Issue



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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.

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