Special Issue

Chemical Treatment and Advanced Catalysis Process in Water

Message from the Guest Editor

Climate change has emerged as an urgent global concern. In the pursuit of achieving carbon neutrality, significant advancements have been made in water-related catalytic processes over the past few decades, such as water splitting for hydrogen production, ammonia synthesis using nitrate solutions, CO2 reduction, and hydrogenation reactions. Water, whether utilized as a reactant or a reaction medium, assumes a pivotal role in catalytic processes. However, comprehending these catalysis processes in an aqueous environment remains challenging due to the involvement of multiple phases. Furthermore, practical implementation lags behind in current research on water catalysis reactions, primarily due to issues of low efficiency and stability. This Special Issue aims to spotlight the latest breakthroughs in water-related catalytic reactions as enumerated above. The scope encompasses both fundamental research and practical application endeavors. Additionally, we invite contributions that delve into other water-related catalytic techniques relevant to energy generation and conversion.

Guest Editor

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Deadline for manuscript submissions

closed (30 March 2024)

Water

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0

mdpi.com/si/181686

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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.

Editor-in-Chief

Dr. Jean-Luc PROBST
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