

Special Issue

Advanced Electrocatalysts and Electrodes for Water Treatment and Resource-Positive Energy

Message from the Guest Editors

This Special Issue of *Water* focuses on emerging advances in electrocatalysts and electrochemical systems for pollutant degradation, disinfection and clean energy generation from contaminated waters. These innovations lead to efficient degradation of persistent organic microcontaminants and improved performance in electrochemical disinfection via optimised ROS, RCS and RSS formation. A complementary theme of this issue is the development of electrochemical platforms that couple water purification with energy recovery, including fuel cells, photoelectrocatalytic hybrids and pollutant-driven power generation systems (hydrogen and hydrogen peroxide, in particular). Emphasis is placed on electrode engineering, electrolyte design, catalyst stability and deep mechanistic insights that enable simultaneous remediation and energy output. The Special Issue welcomes contributions on material synthesis, fundamental mechanisms, reactor design, and pilot-scale demonstrations, aiming to advance electrocatalysis as a key technology for sustainable water treatment and resource-positive environmental engineering.

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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

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