Special Issue

Research and Application of Photoelectrocatalytic Materials

Message from the Guest Editors

Photoelectrocatalysis provides an effective and green approach to convert solar energy into chemical energy. In addition, it can also convert molecules like H2O, N2, and CO2 into high-value-added chemical products. So far, modulation strategies such as element doping, defect engineering, structural tuning, crystal facet engineering, interface regulation, heterojunction construction, and loading of cocatalysts have been explored as effective strategies for overcoming these drawbacks. Additionally, in recent years, various scientific issues have been the focus of research in the photoelectrocatalytic field, including the regulation and structure–activity relationship in functional materials, the mechanisms of photoelectrocatalytic reactions, the surface and interface charge transfer, etc.In this Special Issue, we sincerely invite researchers to share their latest research findings in the application of photoelectrocatalytic materials to photoelectrode material development, device design, energy conservation, high-value-added chemical products, and pollutant removal/recycling.

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About the Journal

Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

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