

Special Issue

Synthesis and Properties of Photocatalysts

Message from the Guest Editors

Photocatalysts hold significant importance due to their transformative potential across a wide range of fields, from environmental remediation to sustainable energy production. They enable the direct conversion of solar energy into chemical energy by initiating photochemical reactions. This is particularly significant as it offers a sustainable and clean way to harness sunlight for various applications. Understanding the properties of photocatalysts allows researchers to fine-tune their composition, structure, and morphology to maximize their efficiency in converting light energy into chemical energy. Different applications require specific photocatalyst properties. Studying properties such as band gap, energy levels, and charge separation dynamics provides insights into how efficiently these carriers are utilized in catalytic processes.

We welcome submissions to this Special Issue in the form of original research papers, reviews, or communications that highlight studying the properties of photocatalysts, which is the basis for developing efficient, selective, and sustainable materials with broad applications in energy, environment, chemistry, and beyond.

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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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