Special Issue

Emerging Trends in 2D Materials: Innovations and Applications

Message from the Guest Editors

Two-dimensional materials such as transition metal dichalcogenides (TMDs), hexagonal boron nitride (h-BN), and graphene have emerged as promising avenues for advanced device-based applications. Their tunable properties, stemming from quantum confinement effects and surface phenomena, offer exciting opportunities for tailoring functionality at the nanoscale. These materials find applications in a wide range of fields, including electronics, photonics, energy storage, conversion, and sensing. This Special Issue provides the current scenario in terms of progress in 2D material-based devices for various applications like photovoltaic devices, fuel cells, batteries, wastewater treatment, solar cells, etc. The latest generation of optoelectronic devices is now approaching the nanometer scale dimension, so it is high time to discuss all the aspects regarding their progress in various fields for the knowledge base of researchers and scientists.Original research articles, reviews, and perspective pieces that delve into the aforementioned areas are warmly welcome.

Guest Editors

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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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