Special Issue

Nanostructured Crystalline Semiconductors: Structure, Morphology and Functional Properties

Message from the Guest Editors

This Special issue aims at collecting recent, cutting-edge progress in the field of Nanostructured Crystalline Semiconductors for energy conversion, chemical and physical sensing, photo- and electrocatalysis, and biomedical applications. Particular attention will be devoted to contributions focusing on the role of the crystal structure and nanoscale morphology on functional properties, as well as to the modeling prediction of the structure–properties relation and the development of innovative synthetic techniques. We invite the submission of papers on the following topics, including but not limited to: inorganic nanostructured binary and ternary semiconductors, e.g., metal oxides and chalcogenides, silicon and germanium nanocrystals, 2D semiconductors, nanoscale homo- and heterojunctions, doped semiconducting nanomaterials, Perovskite nanostructures, and quantum dots. Furthermore, the Special Issue is expected to highlight recent challenges and novel applications for organic crystalline nanostructures exhibiting semiconducting properties and hybrid inorganic–organic semiconductors.

Guest Editors

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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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