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Optical and Electrical Properties of Low-Dimensional Crystalline Materials

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Message from the Guest Editors

Low-dimensional materials made a real revolution in both the technological and research fields during the last decades. Among them, we can find two main categories: 1D systems, like nanowires, nanotubes or nanofibers, and 2D systems, with the paradigmatic example of graphene, but also a huge number of novel 2D materials currently under extensive development. All of them present a broad variety of applications in highly active fields such as electronics, photonics, materials science, sensors, energy storage or biomedical applications, among many others. The common factor of both categories consists of the presence of certain confined physical dimensions. This allows for the tailoring and engineering of their physical properties further beyond those of the equivalent bulk materials. Moreover, most materials show entirely new characteristics in the low-dimensional regime, making them the keystones of new-generation devices.

We invite researchers to contribute to this Special Issue aiming to better understand the optical and electrical properties of nanoscale materials without leaving behind potential applications in the future optoelectronic devices.



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Special Issue



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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.

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