# **Special Issue**

## Research and Application of Low-Dimensional Cathode Materials

## Message from the Guest Editors

Due to the unique physical and chemical properties, low-dimensional nanomaterials have potential applications as cathodes in not only battery but also vacuum electronics, including X-ray sources, parallel electron beam sources and thermionic energy convertors. Nano cathode, comprehensive knowledges on the fabrication techniques and electron emission mechanism of low-dimensional nanomaterials are significant in the high performance of chemical properties. This Special Issue aims to encourage researchers to submit reviews or original articles related to both experimental and theoretical studies on the electron emission characteristics of low-dimensional cathode materials and their applications. The scope of the Special Issue includes: 1) Electron emission properties and mechanisms of 1D or 2D nanomaterials; 2) Theory and design of 1D or 2D nanomaterials for cathode applications; 3) Nanofabrication techniques for 1D or 2D nanomaterials cathode and their devices: 4) Application of 1D or 2D nanomaterials as cathode in battery or vacuum devices.

### **Guest Editors**

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## **Deadline for manuscript submissions**

closed (15 September 2023)



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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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