

## Special Issue

# Key Materials for Superconducting Devices

### Message from the Guest Editors

The content discusses superconducting innovation, focusing on high-temperature superconductors like  $REBa_2Cu_3O_{7-x}$  (REBCO) compounds for second-generation high-T<sub>c</sub> superconducting tapes. It aims to optimize performance and reduce production costs. Traditional methods like MOCVD, PLD, and sputtering are used for REBCO films, but chemical solution deposition (CSD) is a cost-effective alternative. Low-temperature superconductors, particularly Nb<sub>3</sub>Sn, are explored for high-energy physics applications. MgB<sub>2</sub> is used in MRI machines and fault current limiters. Iron-based superconductors (IBS) are emerging for various applications due to their diverse phases and properties. The Special Issue in Crystals invites research papers to advance knowledge of superconducting materials and devices.

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### Guest Editors

Dr. Pablo Cayado

Dr. Haitao Yang

Dr. Gianmarco Bovone

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### Deadline for manuscript submissions

closed (31 October 2024)



## Crystals

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*Crystals*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[crystals@mdpi.com](mailto:crystals@mdpi.com)

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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.

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### Editor-in-Chief

Prof. Dr. Alessandra Toncelli  
Department of Physics, University of Pisa, 56126 Pisa, PI, Italy

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