

## Special Issue

# Recent Advances in Topological Materials in 2024

### Message from the Guest Editor

I am pleased to announce this Special Issue on topological materials, which are newly discovered quantum phases of matter, consisting of a broad range of quantum states including topological insulators, topological semimetals, topological superconductors, topological magnets, etc. They exhibit fascinating optical and electronic properties, such as dissipationless transport, quantum anomalous Hall effect, quantum spin Hall effect, Majorana zero modes, chiral anomaly, chiral superconductivity, etc., which are highly desired for next-generation applications in disorder-tolerant quantum electronics, quantum computing with high operation temperatures, spintronics, etc.

While topological materials research has been actively performed and great progress has been achieved, these properties are not yet fully understood. Further research and a better understanding of novel topological phenomena are essential.

This Special Issue aims to present the latest research advances and achievements in all aspects of topological materials, including novel methods for crystal growth and device fabrication, experimental investigations and theoretical calculations, reviews, and perspectives.

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### Guest Editor

Dr. Liang Luo

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### Deadline for manuscript submissions

closed (25 October 2024)



## Crystals

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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

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