Special Issue

Superconductivity at High Pressure

Message from the Guest Editor

High pressure is a powerful tool used to tune the system towards such instabilities and, therefore, in a superconducting state. Therefore, iron-based superconductors with superconductivity emerging on the borderline of ordered magnetic states have been studied under pressure. The pressure tuning of the special electronic structure of topological materials led to the observation of superconductivity in a number of topological materials, an accomplishment which might be regarded as an important step toward topological superconductors with intriguing physics. The recent discovery of high-temperature superconductivity (close to room temperature) in pressurized “superhydrides” on the edge of structural instability is a prominent milestone in the history of superconductivity. The goal of this Special Issue is to provide a view of contemporary achievements in the high-pressure synthesis and study of novel superconducting materials with special emphasis on the interplay between superconductivity and the structural, electronic, magnetic, etc., properties of matter.

Guest Editor

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Deadline for manuscript submissions

closed (31 July 2023)

Crystals

an Open Access Journal by MDPI

Impact Factor 2.4
CiteScore 5.0

mdpi.com/si/123056

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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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