Special Issue

Copper- and Iron-Based Superconductors: Preparation, Properties, and Functionalization Applications

Message from the Guest Editors

This Special Issue focuses on recent advances in copper- and iron-based superconductors, aims to foster interdisciplinary collaboration by presenting progress in material preparation, property characterization, and functionalization strategies. Key aspects include enhancing stability and critical current density for applications in energy transmission, quantum technologies, and medical devices. This Special Issue also highlights innovative approaches, such as hybrid material design, computational modeling, and sustainable synthesis routes, to address scalability and environmental concerns. By integrating experimental, theoretical, and applied perspectives, it seeks to bridge gaps between laboratory research and real-world implementation. Contributions from global researchers will provide insights into overcoming current limitations and exploring the potential of these superconductors for next-generation technologies. This collection invites submissions that address fundamental questions, practical challenges, and novel methodologies, aiming to advance the field while aligning with sustainability goals.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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