Special Issue

Exploration and Application of Emerging Superconducting Materials

Message from the Guest Editor

High-temperature superconductivity (HTS) is of great technological importance, although the dream of superconductivity at room temperature has still not been fulfilled, despite recent reports. Learning about the basic properties of HTS, modeling, and the synthesis of materials with specific physico-chemical parameters and shapes has a significant impact on the development of technology.

This Special Issue is intended to provide an overview of the progress in selected fields of superconductivity. Emphasis is placed on experimental and theoretical studies of high-temperature superconductors, advances in theoretical understanding, advances in research and applications, as well as the development of new material-synthesis methods.

Keywords

- experimental and theoretical studies of new superconductor advances in experimental results (electrical, thermal, magnetic, optical)
- advances in theoretical understanding, including the use of ab initio methods
- development of new methods of superconducting relative material synthesis, e.g., production of targets for superconducting tapes
- superconductor-multiferroic heterostructures
- application of superconducting materials

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2024)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
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mdpi.com/si/184051

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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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