



Research on High-Temperature Superconducting Materials

Guest Editors:

Dr. Hongye Zhang

School of Electrical and
Electronic Engineering, University
of Manchester, Manchester, UK

Dr. Kévin Berger

GREEN, Université de Lorraine, F-
54000 Nancy, France

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Message from the Guest Editors

The properties of high-temperature superconducting materials are determined by both their intrinsic characteristics (e.g., crystal structure, grain, defect, etc.) and the external environment (e.g., temperature, pressure, electromagnetic field, etc.). Nevertheless, the physical mechanism behind the superconductivity of such inorganic crystalline ceramics remains unclear, as it cannot be fully explained by either the Bardeen-Cooper-Schrieffer theory, the resonating valence bond theory, or the spin fluctuation theory.

In view of the above, it is worth further investigating the correlation between the high-temperature superconductivity and the microscopic structures of HTSs and exploring their electromagnetic, mechanical, as well as thermal characteristics in various physical/chemical/engineering scenarios. This Special Issue is aimed at providing a useful platform for scientists and researchers working in superconductivity related domains to share new insights and advancements in understanding, characterisation, and application of HTSs, addressing a variety of facets of the topic.





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Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University
of Pisa, 56126 Pisa, Italy

Message from the Editor-in-Chief

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Crystals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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