



Synthesis and Characterization of New Superconductors Materials

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Message from the Guest Editors

In recent years, the saturation of the scientific interest in high-T_c superconductor perovskites, i.e., cuprates, was accompanied by a new stream of works based on new families of compounds showing high critical temperature superconductivity, i.e., intermetallic borides (e.g. MgB₂), iron–nickel-based superconductors (La(Fe,Ni)(Pn,Ch)O, (Pn,Ch= pnictide or chalcogenide ions), heavy fermion superconductors (e.g., CeCoIn₅), and superhydrides systems (e.g., H₃S). This Special Issue aims to attract scientific contributions providing new insights and advances in the synthesis and characterization of novel superconductor materials, addressing multiple aspects of the overall physical/chemical problem, specifically the following:

Synthesis and structural analysis

Magnetic and/or electric characterization of the
superconductive transition

Structural effects on superconductivity

Effect of magnetism on the superconductive state

Role of crystal symmetry

TC dependence on external stimuli and/or non-ambient
conditions

Theoretical modeling





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Message from the Editor-in-Chief

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