Special Issue

Quantum Materials: Superconductivity and Topology

Message from the Guest Editors

Quantum materials (QMs) refer to those solids with exotic physical properties and/or emergent phenomena stemming from quantum-mechanical principles. Examples of QMs include unconventional superconductors, quantum spin liquid, topological quantum matter, and some two-dimensional materials, in which electronic correlations and/or topology play a crucial role in the underlying physics. QMs not only provide an exceptional venue for discovering new states of matter, but they are also highly expected to be applied to next-generation technologies coping with energy need and information innovation. This Special Issue covers various research topics on QMs that are mostly associated with electronic correlations and topology. The topics include unconventional superconductivity, topological superconductivity, Majorana fermions, novel topological quantum states, etc. QMs are not only an emerging field but also an interdisciplinary science. We believe that this collection will contribute to the field with important discoveries and innovative ideas. Original research papers and review articles related to the above-mentioned topics are cordially invited.

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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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