



materials



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Synthesis and Advanced Characterization of Low-Dimensional and Quantum Materials

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Deadline for manuscript
submissions:

closed (20 February 2022)

Message from the Guest Editors

Reducing dimensionality in matter to an atomic-scale opens the door to physical and chemical properties inaccessible in its bulk counterpart.

From 2-dimensional to 0-dimensional materials, novel and unexpected behaviors are observed in the electronic band structures, thermal and electronic transport, light-matter interaction, chemical reactivity, and mechanical stiffness, as well as quantum mechanical effects related to spatial confinement and nontrivial topological state of the matter.

In this Special Issue, the experimental and theoretical state-of-the-art approaches for the synthesis and advanced characterization of low-dimensional and quantum materials are highlighted and discussed aiming to improve the knowledge of the most important topics about condensed matter.

It is our pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.



mdpi.com/si/36223

Special Issue



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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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