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Superconductivity in Nanoscaled Systems

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Message from the Guest Editor

Dear Colleagues,

Within the last five years, experimental discoveries of intrinsic superconductivity in high-entropy alloys, highly-compressed hydrides, quasicrystals, approximant crystals, few layer stanene, and magic-angle twisted Dirac-cone materials have heralded a new era in this nearly 110-year-old field of science and technology. All these discoveries are associated with newly created/developed nanomaterials. In this special issue potential topics include but are not limited to:

1. First-principles exploration of hydrogen-rich superconductors
2. Experimental discoveries in highly-compressed hydrides
3. Superconductivity in magic-angles twisted 2D nanosheets
4. Experimental and theoretical studies of high-entropy alloys superconductors
5. Theory and experiment in superconducting quasicrystals and approximant crystals
6. Enhanced superconductivity in 2D and 1D limits
7. Hybrids nanoscaled ferroelectric/superconducting nanoscaled systems



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Special Issue



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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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