

Special Issue

Advanced Methods for Studying Thermal Parameters (Thermal Conductivity and Temperature) at the Nanoscale

Message from the Guest Editor

In this Special Issue, we would like to encourage authors to present their latest research on nanomaterials and heat; various types of articles are welcome, such as experimental (the lock-in-based method or classical approaches) and theoretical studies on nanomaterials such as nanodots, nanowires, superlattices, polymers, and ZnO-based materials. These studies should report on the nanomaterials' properties (thermal conductivity, thermal diffusivity, thermal boundary resistance, temperature, heat capacity) as well as the development of the measurement methods used (such as photothermal infrared radiometry, thermoreflectance, photothermal beam deflections, and luminescent thermometry). A particularly important aspect of this Special Issue is the comparison of experimental data with the results of theoretical work; therefore, both types of work are welcome. We also encourage papers describing new materials, and new research methods for measuring temperature and thermal conductivity, thermal diffusivity, and thermal boundary resistance at the nanoscale. Papers on improving existing methods are also welcome.

Guest Editor

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About the Journal

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.

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