# Special Issue

# Thermal Properties of Alloy Nanomaterials

### Message from the Guest Editor

Control of thermal energy in and out of a device is a fundamental issue in all applications. For the device to perform at its maximum, the importance of tailoring the thermal properties of materials utilized in the device cannot be stressed enough. For example, for light-emitting diodes (LED), materials with high thermal conductivity are demanded in order to extract heat easily from the device. On the contrary, heat transfer in thermoelectric materials must be minimized to maximize the efficiency of their module. The classical heat transfer phenomena become complicated once nanostructured materials are utilized instead of bulk material. Here, this Special Issue will address theoretical/experimental works where thermal properties of the nanostructured alloy have been tailored. Potential topics include, but not limited to:

- Thermal properties of nanostructured thermoelectric materials (0D, 1D, 2D, 3D)
- Thermal properties of colloidal quantum dots
- Thermal properties of nanostructured solar cells
- Thermal properties of nanostructured batteries and their components

### Guest Editor

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### Deadline for manuscript submissions

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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.

## Editor-in-Chief

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