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Advances in Modeling and Simulation of Nanofluid Flows

Guest Editor:

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Message from the Guest Editor

This Special Issue of *Nanomaterials* will cover the advancement of nanofluids for the enhancement of heat transfer and drug delivery applications. Nanofluids are an advanced form of energy resource and are used to control energy consumption. Small-sized nanoparticles are stably dispersed in the base solvents to enhance the thermal efficiency of the base fluids. These nanofluids are used in energy devices such as solar collectors, heat exchangers, heat pipes, and so on.

Furthermore, nanofluids are working as a medication for various diseases, such as cancer therapy. For example, copper oxide, titanium oxide, silver, and gold nanoparticles are working as medications. Modeling is one of the important phenomena in the field of science.

Mathematical models are required for the transportation of the nanofluids in various devices including, closed channels, free surfaces, disks, cones, cylinders, and so on.

This Special Issue calls for research and review papers on the application of nanofluids flow for heat transfer enhancement applications and medication.



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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.

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