



## Advances in Nanofluids

Guest Editor:

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### Message from the Guest Editor

The study of suspensions of nanoscale-sized particles in a base fluid, termed nanofluids, has become an extremely dynamic research field. The initial works published on this topic soon revealed intriguing heat transfer properties that were not adequately described by the existing classical colloid theories. The inferred implications of this unusual heat transfer profile for practical applications related to cooling and refrigeration boosted research on nanofluids, which soon evidenced a complexity that is still far from being rationalized.

Nevertheless, most studies in this field are mainly experimental, and a theoretical framework comprehensively supporting the available laboratory evidence is still poorly developed. The complexity of the needed multiscale approach is a major obstacle, and this underlines the fact that nanofluids still represent a major challenge for the physico-chemical and engineering communities.





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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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