Special Issue

Nanofluids for Thermal Solar Energy

Message from the Guest Editor

Nano-colloids, or nanofluids, are colloidal suspensions of nanomaterials in a fluid. The addition of nanomaterials can improve properties such as the thermal conductivity, isobaric specific heat, or heat transfer coefficient of the fluid. Nowadays, one of their most interesting applications is in solar energy systems. The presence of nanoparticles can lead to an improvement of the thermal features of typical heat transfer fluids (HTFs) used in all kinds of types of thermal solar energy technologies, and also can lead to an increase in the absorption of incident solar radiation, which improves the global efficiency of the collectors. We welcome the submission of potential topics include, but are not limited to:

- Nanofluids for thermal solar energy
- Nanofluids for low, medium and high temperature applications
- Design, preparation and characterization of nanofluids
- Simulation and modelling of nanofluids
- Nanofluids for thermal energy storage
- Design of nanomaterials for nanofluids
- Thermal, rheological and optical properties of nanofluids
- Nanofluids based on phase change materials
- Advanced nanomaterials for nanofluids.

Guest Editor

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Deadline for manuscript submissions

closed (5 August 2021)



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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 nanometerscale 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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