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# Nanofluids: The Frontier Trends and Application

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Deadline for manuscript submissions: closed (31 August 2021)

#### **Message from the Guest Editors**

Nanofluids are an emerging new kind of fluid containing nanometer-sized particles suspended in a base liquid fluid.

Much research has been performed on rheological characterization of nanofluids. Fundamentally, the rheological properties have a strong dependence on the size and shape of nanoparticles, pH value, aggregation of nanoparticles, and type of nanoparticles.

This Special Issue aims to collect various showcases of the current state-of-the-art of nanofluids and their potential applications. Because of the complex behavior of nanofluids, fundamental and applied studies in nanofluids are welcomed. Review articles providing a comprehensive review of specific topics, including but not limited to thermal-physical properties, rheological characterization, and electrochemicallyactive nanofluids, are welcome. Papers focusing on the expansion of nanofluid applications in diverse, multidisciplinary research and development are also welcomed.

**Keywords:** thermophysical properties; nanofluidics; nanofluidic electrolyte; rheological characterization; magnetic responsive nanoparticles; plasmonic resonance nanoparticles; nanolubricants









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# **Editor-in-Chief**

#### Message from the Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo** Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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