NANOPARTICLE-ENHANCED IONIC LIQUIDS



Editor's Preface for the Special Issue on Nanoparticle-Enhanced Ionic Liquids

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Over the last 20 years, nanofluids have been the subject of increased attention due to their enormous potential as heat transfer fluids in energy systems, exploiting their thermal properties boosted through the addition of nanoparticles. Since 2010, a new class of nanofluids is receiving increased consideration: nanoparticle-enhanced ionic liquids, shortly IoNanofluids or NEILs. Nanoparticle-enhanced ionic liquid science is completely multidisciplinary, involving chemistry, physics, materials science and energy engineering due to the intricate phenomena that need to be investigated.

This Special Issue of the International Journal of Thermophysics is dedicated to outstanding research in this very challenging area and comprises original high-quality research papers describing the most recent advances in the field, together with review articles addressing the state-of-the-art in nanoparticle-enhanced ionic liquid science and technology.

This Special Issue covers different aspects of nanoparticle-enhanced ionic liquids research including preparation and characterization, experimental studies and theoretical progress on thermophysical/electrical properties, simulation studies, involving MD techniques, numerical studies involving real life applications, experimental, numerical and theoretical analysis of heat transfer behaviour, and innovative areas of applications.

The editors wish to thank to authors who have submitted papers to this topical issue and the reviewers who have taken time to review and comment on the submissions.

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