

Special Issue on
Application of Ionic Liquids in Various Chemical and Biochemical Systems

CALL FOR PAPERS

In the past few decades, ionic liquids (ILs) have been one of the most exciting research topics drawing attention of researchers working in various interdisciplinary research areas. Ionic liquid is generally low-melting salt that melts at or below 100 °C, which is normally composed of an asymmetric organic cation and any type of anion. Due to some unique properties such as low vapor pressure, high boiling point, high thermal stability, structural designability, and their ability to dissolve a wide range of chemical species, ionic liquids have brought a green revolution to science and technology in the past few years. Ionic liquids show immense application potential in various fields, such as synthesis and catalysis, separation and analysis, electrochemistry, biochemistry, material science, pharmaceuticals, and pretreatment of biomass, energy technology. Combination of ionic liquids with various chemical and biochemical species is the center of attraction among researchers working in interdisciplinary research areas. Undoubtedly, this discipline comprising of ionic liquids with other materials, thus forming hybrid systems, has provided novel avenues for potential application of these functional materials.

We invite investigators to contribute original research articles as well as review articles that stimulate the continuing efforts to explore these ionic liquid-based hybrid systems using various spectroscopic and microscopic techniques along with different other tools such as electrochemistry, surface tension, and electrical conductance. We are particularly interested in articles describing the physical aspects of ionic liquids in understanding the interactions taking place between ionic liquids and other chemical and biochemical species of large importance.

Potential topics include but are not limited to the following:

- ▶ Study on physicochemical properties of different types of ionic liquids
- ▶ Investigation of aqueous ionic liquid solutions and ionic liquid-polymer mixtures
- ▶ Exploring the formation and properties of surfactant self-assembled nanostructures within ionic liquid-based media
- ▶ Study on the effect of ionic liquid on dye aggregation
- ▶ Exploring solvent-solvent and solute-solvent interactions involving ionic liquids
- ▶ Study on ionic liquid-drug binding
- ▶ Investigation on DNA and protein stability within ionic liquid-based media
- ▶ Study on interaction of ionic liquids with nanoparticles

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jchem/physical.chemistry/ailvc/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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Submission Deadline

Friday, 14 December 2018

Publication Date

May 2019