



New Developments and Future Trends of Ionic Liquids as Lubricants

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Message from the Guest Editors

Since 2001, when the first paper on the use of ionic liquids (ILs) as lubricants was published, the interest in these ordered fluids has increased rapidly in the tribology community. ILs are low-melting-point salts with unique and tunable physicochemical properties. Their non-flammability, negligible volatility, good thermal stability, and wide liquid range make them ideal candidates for lubricant applications. In addition, their high polarity may promote the formation of effective adsorption films or tribolayers on the surfaces in contact, resulting in important friction and wear reductions. The purpose of this Special Issue is to summarize the latest developments and future trends in the field of ionic liquids as lubricants and additives. The main topics of interest include, but are not limited to:

- Ionic liquids as high-performance neat lubricants;
- Ionic liquids as additives to lubricants;
- Biodegradability and miscibility of ionic liquids;
- Ionic liquids as green lubricants/additives;
- Ionic liquids for high-temperature applications.

