

Special Issue

Recent Advances in Eco-Friendly Ionic Liquids as Lubricants and Additives

Message from the Guest Editors

Since 2001, when the first study on using Ionic Liquids (ILs) as lubricants was published, interest in these ordered fluids has grown significantly within the tribology community. ILs, known for their low melting points and customizable physico-chemical properties, offer several unique advantages for lubricant applications. Their non-flammability, negligible volatility, excellent thermal stability, and wide liquid range make them highly promising candidates. Additionally, their high polarity can enhance the formation of adsorption films or tribolayers on contact surfaces, leading to notable reductions in friction and wear. This Special Issue aims to capture recent progress and explore emerging trends in the application of eco-friendly ionic liquids as lubricants and additives. Key topics of interest include, but are not limited to, the following:

- Ionic Liquids as high-performance neat lubricants.
- Ionic Liquids as additives in lubricants.
- Biodegradability and miscibility of Ionic Liquids.
- Ionic Liquids as additives in cutting fluids.
- Ionic Liquids for high-temperature applications.

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Editor-in-Chief

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