Special Issue

New Developments and Future Trends of Ionic Liquids as Lubricants

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.

Guest Editors

Dr. Patricia Iglesias

Department of Mechanical Engineering, Kate Gleason College of Engineering, Rochester Institute of Technology, Rochester, NY 14623, USA

Dr. Hong Guo

Development Engineering of HDD, Western Digital, San Jose, CA 95119, USA

Deadline for manuscript submissions

closed (20 October 2023)

Lubricants

an Open Access Journal by MDPI

Impact Factor 2.9
CiteScore 4.5

mdpi.com/si/111741

Lubricants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
lubricants@mdpi.com

mdpi.com/journal/lubricants

Lubricants

an Open Access Journal by MDPI

Impact Factor 2.9
CiteScore 4.5

mdpi.com/journal/lubricants

MDPI

About the Journal

Message from the Editor-in-Chief

Friction, wear, and lubrication are tribological phenomena that govern the behavior of interacting surfaces in a wide range of machine components. Understanding the physical and chemical nature of these phenomena is critical to achieving long component lifetime and economical operation. Research in the field of tribology is highly interdisciplinary, and encompasses the fields of physics, chemistry, engineering, and mathematical modeling. *Lubricants* invites contributions on new advances in all areas of tribology for publication as peer-reviewed research articles, reviews of current research, letters, and communications. We are committed to providing timely reviews of all articles submitted. Please consider sharing your work with the scientific community through publication in *Lubricants.*

Editor-in-Chief

Prof. Dr. Homer Rahnejat
School of Engineering, University of Central Lancashire, Preston PR1 2HE, UK

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q2 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).