Special Issue

Sustainable and Advanced Lubrication Strategies for Industrial and Environmental Applications

Message from the Guest Editors

Sustainable and advanced lubrication strategies are becoming increasingly crucial in modern industry and environmental protection. With the growing demands for efficiency, environmental friendliness, and economic feasibility, both modern industry and environmental protection are facing unprecedented opportunities and challenges. The application of lubricants spans multiple industries, each with its unique working conditions and application requirements. This makes formulating and managing lubrication strategies extremely challenging, from initial selection to ongoing management. This Special Issue is dedicated to sharing the latest research progress in sustainable and advanced lubrication strategies for industrial and environmental applications. It aims to present the most up-to-date research advancements in this field, covering the following aspects:

- (1) Novel lubricants, including additives, synthetic base stocks, formulation processes, etc.
- (2) Innovative lubrication technologies, such as surface modifications, and hybrid lubrication methods, among others.
- (3) Advanced monitoring technologies, encompassing sensor technology, data analysis, machine learning algorithms, and others.

Guest Editors

Dr. Hongmei Yang

State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, China

Dr. Wenjing Hu

Laboratory for Advanced Lubricating Materials, Shanghai Advanced Research Institute, Chinese Academy of Sciences, Shanghai 201210, China

Deadline for manuscript submissions

30 November 2025



Lubricants

an Open Access Journal by MDPI

Impact Factor 2.9 CiteScore 4.5



mdpi.com/si/228500

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





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).