

Special Issue

Advances in Mixed Lubrication

Message from the Guest Editors

Mixed lubrication is the term applied to the transitional region between full hydrodynamic or elastohydrodynamic lubrication and boundary lubrication. In machine elements, rough surface contacts are often not dry and are lubricated by thin films. Machines are often subjected to extreme operating conditions such as high loading configurations, frequent start–stop conditions, starved lubrication, high temperatures, vibrations, and thin films. Both boundary lubrication and elastohydrodynamic lubrication are bridged together by mixed lubrication, which confirms local events such as solid-to-solid (asperity) contact. The movement of interacting surfaces generates friction forces, which are responsible for high heat generation, thereby causing increased energy loss and severe wear on the surface. Moreover, flow, pressure, stress distribution, friction, wear, and adhesion are significantly impacted by the roughness of interacting surfaces when under mixed lubrication. Understanding mixed lubrication is particularly important. The study of mixed lubrication processes such as fluid mechanisms, contact

Guest Editors

Dr. Chunxing Gu

School of Mechanical Engineering, University of Shanghai for Science and Technology, Shanghai 200093, China

Dr. Qin Dong

School of Mechanical Engineering, University of Shanghai for Science and Technology, Shanghai 200093, China

Deadline for manuscript submissions

closed (31 December 2025)



Lubricants

an Open Access Journal
by MDPI

Impact Factor 2.9
CiteScore 5.6



mdpi.com/si/174754

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

[mdpi.com/journal/
lubricants](https://mdpi.com/journal/lubricants)





Lubricants

an Open Access Journal
by MDPI

Impact Factor 2.9
CiteScore 5.6



[mdpi.com/journal/
lubricants](https://mdpi.com/journal/lubricants)



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 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 15.6 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the second half of 2025).