lubricants

an Open Access Journal by MDPI

IMPACT FACTOR 2.9

CITESCORE 4.5

Modeling and Characterization of Wear

Guest Editors:

Dr. Tanmaya Mishra
Surface Technology and Tribology, Faculty of Engineering Technology, University of Twente, 7500 AE Enschede, The Netherlands

Dr. Norbert Bader
Surface Technology and Tribology, Faculty of Engineering Technology, University of Twente, 7500 AE Enschede, The Netherlands

Deadline for manuscript submissions:
closed (31 March 2025)

Message from the Guest Editors

Dear Colleagues,

Wear on materials predominantly contributes to the degradation and failure of mechanical systems. The lack of understanding of wear is explicable due to the challenges in simulating and characterizing wear phenomena effectively for different tribological conditions, especially given the synergistic and transient nature of wear. The limitations range from analysis of worn specimens to developing lab-scale experiments and multiscale wear models, replicating tribogical systems.

The scope of this Special Issue will include research work on experimental wear characterization and numerical wear models. The research approach taken can employ related studies on contact mechanics, surface engineering, as well as frictional and lubrication. Of interest are numerical and experimental methods to simulate and analyze complex wear phenomena such as three-body abrasive wear, surface fatigue, adhesive wear, fretting, tribochemical wear, erosion, and lubricant wear.

lubricants

IMPACT FACTOR 2.9

CITESCORE 4.5

an Open Access Journal by MDPI

Editor-in-Chief

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

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*.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
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)

Contact Us

Lubricants Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/lubricants
lubricants@mdpi.com
𝕏@@Lubricants_MDPI