# Special Issue

# Tribology of Layered and 2D Materials on the Nano- and Micro-Scale

**Message from the Guest Editors**

Layered materials (graphite, MoS2, etc.) and their two-dimensional counterparts (2D materials) have demonstrated unique tribological properties, especially on the nano- and micro-scale. The highly anisotropic nature of their mechanical, physical, and chemical properties leads to exotic phenomena different from other systems. They provide us not only with a playground to look into the fundamental mechanisms of tribological processes, but also possible solutions to engineering challenges. This Special Issue aims at reporting recent advances in research on the tribology of layered materials and 2D materials on the nano- and micro-scale. Contributions in all related areas are greatly welcomed on topics including (but not limited to):

- Novel experimental or theoretical methods;
- Novel tribological phenomena in 2D or layered materials and their mechanisms;
- Tribological behavior of 2D or layered materials in multi-physical fields;
- Tribological behavior of emerging 2D materials;
- Tribological applications of 2D materials;
- Structural superlubricity;
- Dissipation mechanisms and atomistic friction in 2D or layered materials;
- Experiments and theories for electronic friction.

**Guest Editors**

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Dr. Zhangpeng Li

Prof. Dr. Andreas Rosenkranz

**Deadline for manuscript submissions**

closed (31 December 2023)


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# 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
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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).

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