

# Special Issue

## Superlubricity: From Nanoscale to Macroscale

### Message from the Guest Editors

Outstanding works have been published in the field of superlubricity in recent decades. With the rapid development of this area, the central issue—how to promote superlubricity from the experimental level to application in real life—should be readily raised to all researchers. Generally, the first point to consider is to clarify the time (or velocity) and size dependence for a superlubric system. From the theoretical perspective, this calls for the understanding of the physical origin of superlubricity, e.g., theoretical models and numerical computations to explore the time/size scaling of friction behavior from nanoscale to macroscale. From the experimental perspective, to the goal is the measurement of friction at a wide range of velocities and contact area sizes for a certain superlubric sample. In addition, materials showing superlubricity at macroscale ( $\mu\text{m}$  to  $\text{m}$ ) or high sliding speed ( $\mu\text{m/s}$  to  $\text{m/s}$ ) should be highly emphasized. The Special Issue aims to promote the application of superlubrication. It reports the recent advances of both the solid-solid structural superlubricity and the solid-liquid hydration superlubricity from nanoscale to macroscale.

### Guest Editors

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### Deadline for manuscript submissions

closed (23 September 2023)



## Lubricants

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Impact Factor 2.9  
CiteScore 4.5



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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*.

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### Editor-in-Chief

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