Special Issue

Recent Advances in Superlubricity

Message from the Guest Editors

Superlubricity, theoretically proposed in the 1980s, describes a phenomenon through which the sliding friction at incommensurate contacts virtually vanishes. Today, superlubricity robustly exists on micro-/macro-scales, at high speeds, in extreme temperatures, with diverse materials and interfaces, and in various environments. The phenomenon's exceptional characteristics of ultra-low friction and wear resistance, combined with its close ties to diverse materials and multi-physical fields, not only promote fundamental scientific research on tribology and energy dissipation, but also show promise for a wide range of potential applications, including data storage and energy and aerospace engineering. This Special Issue aims to report recent advances in research and applications in the field of superlubricity. We welcome contributions from scientists in all related areas, on topics including (but not limited to) the following:

- Structural superlubricity;
- Liquid superlubricity;
- Novel tribological phenomena in superlubricity;
- Novel experimental and/or simulation methods;
- Superlubricity in 2D and 3D materials;
- Superlubricity in multi-physical fields;

Guest Editors

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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

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