



Recent Advances in Superlubricity

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Message from the Guest Editors

Dear Colleagues,

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;

