

## Special Issue

# Bioinspired Superlyophobic Surface/Interface: Development, Fabrication, and Applications

### Message from the Guest Editor

Inspired by natural phenomena such as the self-cleaning properties of lotus leaves and the water-repellent characteristics of insect cuticles, bioinspired superlyophobic surfaces/interfaces have emerged as a revolutionary field in materials science and surface engineering. The development and fabrication of superlyophobicity surfaces draw inspiration from biological models, leveraging advanced manufacturing techniques like laser ablation, chemical vapor deposition, and 3D printing to achieve precise control over wettability. These surfaces hold immense potential across diverse applications, including biomedical devices, waterproof coatings, microfluidics, and energy-efficient systems. The scope of this Special Issue includes, but is not limited to, the following topics:

- Bioinspired superlyophobic surface/interface
- Interactions between liquid and surface
- Superhydrophilic or superhydrophobic coatings
- Novel superwetting functional coatings

We look forward to receiving your contributions.

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### Guest Editor

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### Deadline for manuscript submissions

28 March 2026



## Coatings

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## About the Journal

### Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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