

## Advances in Hydrophobic Surfaces, Texturing, and Coatings: Unveiling the Future of Surface Engineering

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### Message from the Guest Editors

This Special Issue of *Coatings* explores the significance of hydrophobic surfaces, texturing techniques, and coatings in tribology, materials science, and surface engineering. Hydrophobic surfaces have immense potential across various industries. They enhance aerospace efficiency, improve energy production, and prevent infections in medical devices. Surface texturing, achieved through laser ablation and chemical etching, complements hydrophobicity by introducing self-cleaning and anti-fogging properties. Research areas may include, but are not limited to:

1. Advanced surface engineering methods for creating hydrophobic surfaces;
2. Nanotechnology and nanomaterials applications in hydrophobic coatings and surface texturing;
3. Biomedical applications to expand the use of hydrophobic surfaces and coatings in the medical field;
4. Environmental Impact and implications of hydrophobic materials and coatings;
5. Hydrophobic surfaces in energy production, storage, and transportation;
6. Integration of hydrophobic technologies with smart surfaces and sensors;
7. Tribology of hydrophobic surfaces and coatings;
8. Electrochemistry for micro and nanostructuring of hydrophobic surfaces.



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## Message from the Editorial Board

Now more than ever, research is called for to produce technologies and improve knowledge 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 at the center of most contemporary research. Surface science and engineering play a key role in this regard. Refining surfaces and their modifications provides new materials, architectures and processes with a huge potential to aid most societal challenges. *Coatings* is a well-established, peer-reviewed, online journal that focuses on the dissemination of publications in the field of surface science and engineering. *Coatings* publishes original research articles that report cutting-edge results and review papers on the hottest topics.

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