

Special Issue

Innovative Thin Films for Efficient Wastewater Treatment

Message from the Guest Editors

This Special Issue aims to highlight recent advances in the development, fabrication, modification, and characterization of thin films and coatings specifically tailored to water purification and wastewater treatment. We welcome research from both academic and industrial researchers, and seek contributions that address experimental, theoretical, and computational aspects of the thin films employed in environmental applications. The scope of this Special Issue includes, but is not limited to, the following topics:

- Thin film deposition methods (e.g., interfacial polymerization, phase separation) for water treatment membranes.
- Surface functionalization strategies to mitigate fouling and improve hydrophilicity or oleophobicity.
- Characterization and modeling of thin film properties relevant to wastewater separation performance.
- Development of coatings with enhanced chemical, mechanical, or environmental durability.
- Application of porous and patterned thin films for selective contaminant rejection, oil/water separation, and dye removal.

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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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