

## Special Issue

# Advances in Ceramic Coatings: Fabrication, Properties and Applications in Industry, Energy and Biomedicine

### Message from the Guest Editor

Ceramic coatings and materials have garnered increasing attention due to their exceptional mechanical, thermal, and chemical properties. With advancements in material science, these coatings are being widely employed in the aerospace, automotive, biomedical, and energy industries for enhanced performance, durability, and sustainability. Their unique properties, such as high hardness, thermal stability, and corrosion resistance, make them essential for next-generation engineering solutions. This Special Issue aims to explore recent advancements in the development, characterization, and applications of ceramic coatings and materials. **Suggested Topics:**

- Novel fabrication techniques for ceramic coatings (thermal spraying, sol-gel, PVD, and CVD);
- Advances in high-performance ceramic materials;
- Microstructural characterization and analysis of ceramic coatings;
- Corrosion, wear, and oxidation resistance of ceramic coatings;
- Functional and smart ceramic coatings for extreme environments;
- Ceramic coatings in biomedical applications;
- Energy-efficient and sustainable ceramic coatings;
- Computational modeling and simulation;
- Industrial and real-world applications.

### Guest Editor

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### Deadline for manuscript submissions

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## 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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