

Special Issue

Advanced Ceramic Materials and Coatings: Synthesis, Properties and Applications

Message from the Guest Editors

This Special Issue will provide a comprehensive platform for researchers to share their latest findings and innovations on advanced ceramic materials and coatings. We welcome original research articles and reviews that address both fundamental aspects and practical applications. This Special Issue's scope aligns with the journal's focus on coating sciences and technologies, particularly emphasizing the development, characterization, and application of ceramic-based materials and coatings.

- Novel synthesis methods and processing technologies for ceramic materials and coatings;
- Advanced characterization techniques and property evaluation;
- Thermal barrier coatings and environmental barrier coatings;
- Functional ceramic materials and coatings (electrical, optical, magnetic, etc.);
- Ceramic composite materials and coatings;
- Industrial applications in aerospace, energy, electronics, and biomedical fields;
- Smart and multifunctional ceramic materials and coatings;
- Advanced computational methods and modeling in terms of materials design and prediction, property simulation, performance modeling, and artificial intelligence applications.

Guest Editors

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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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