

Special Issue

Advanced Functional Coatings and Composite Structural Design

Message from the Guest Editors

High-performance protective coatings are widely used in fields such as aviation, aerospace, automotive, and shipping. Coatings designed as composite structures often have high comprehensive performance. However, in long-term harsh environments, the coating's functionality experiences severe degradation. Under high and low-temperature cycling conditions, the coating's premature peeling may also occur due to factors. To develop high-performance coatings, practical material selection is required through the development of preparation technology, composite structure design, and the disclosure of failure mechanisms.

In particular, topics of interest include, but are not limited to:

- Advanced materials for functional coatings;
- Advanced coating preparation technology;
- The failure mechanisms of coating services;
- The design of multi-layer composite structures or single-layer composite materials;
- Theoretical studies on high-performance protective coatings;
- Finite element analysis;
- Functional coatings other than thermal barrier coatings, environmental barrier coatings, wear-resistant coatings, sealing coatings, and lubricating coatings.

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Deadline for manuscript submissions



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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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