

Special Issue

Advanced Coating Strategies for Steel Materials

Message from the Guest Editors

The scope of this Special Issue includes, but is not limited to, the following topics:

- Design and fabrication of novel corrosion-resistant, wear-resistant, and high-temperature coatings for steel materials.
- Interfacial structure evolution, adhesion mechanisms, and failure mechanisms of coatings for steel materials.
- Advanced surface modification and coating deposition techniques (e.g., PVD, CVD, thermal spraying, laser cladding, electrochemical deposition, and so on) for steel materials.
- Functional coatings (self-healing, antibacterial, smart-responsive, and eco-friendly) for steel materials.
- Multi-scale characterization and simulation of coating microstructure and performance for steel materials.
- Service behavior of coatings under extreme environments (marine, atmospheric, thermal cycling, wear–corrosion coupling, etc.) for steel materials.

We hope that this Special Issue will provide an international academic platform for researchers and engineers working in the field of coatings for steel materials, thereby promoting both scientific development and industrial applications.

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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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