

Special Issue

Corrosion, Tribocorrosion, and Surface Modification of Steel and Alloys—State of the Art

Message from the Guest Editors

This Special Issue covers advances in metals, alloys, and surface modification, including how protective layers are controlled, studied, and perform. Surface engineering methods like thermal spraying, laser processing, PVD/CVD, and electrochemical treatments provide properties the base alloy cannot offer, enabling new uses for structural metals. The customizable nature of modified surfaces makes this field highly appealing. Surface modification itself significantly determines final material structure and performance. Processes—whether single- or multi-step, using controlled energy input, chemical precursors, or hybrid technologies—can produce fully resilient surfaces without additional post-processing. We welcome articles on innovative metals, alloys, or surface methods affecting product performance against corrosion and tribocorrosion. Fully controllable, fast, low-cost processes with high implementation potential for high-performance protective surfaces are of special interest.

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About the Journal

Message from the Editor-in-Chief

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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