

## Special Issue

# Microstructure, Mechanical Properties and Surface Engineering for Construction and Building Materials

### Message from the Guest Editors

The performance, durability, and environmental impact of construction materials are strongly influenced by their microstructure, mechanical properties, and surface characteristics. With growing demand for sustainable solutions, strategies to improve efficiency, extend service life, and reduce carbon footprint are increasingly important. This Special Issue will spotlight research and reviews on advances in characterization and development of construction materials from microstructural, mechanical, and surface engineering perspectives. Emphasis will be on coatings, protective layers, nanostructured surfaces, and treatments that enhance strength, durability, thermal stability, and resistance to aggressive environments. Topics include microstructure–property relationships, mechanical and thermal performance, corrosion and weathering resistance, coatings for cement-based materials, nanomaterials, functional coatings, sustainable approaches, recycling, modeling, and applications in infrastructure maintenance and rehabilitation. We look forward to receiving your contributions.

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### Guest Editors

Dr. Mayara Amario  
Dr. Karoline Figueiredo  
Dr. Carina Mariane Stolz

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### Deadline for manuscript submissions

31 August 2026



## 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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### Editors-in-Chief

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