# Special Issue

# Laser Cladding Coatings: Microstructure, Properties, and Applications

### Message from the Guest Editors

This Special Issue focuses on “Laser Cladding Coatings: Microstructure, Properties and Applications”. The topics of interest for this Special Issue, in particular, include (but are not restricted to):

- Novel laser cladding material systems, e.g., superalloy, high-entropy alloys, amorphous alloys, gradient alloys;
- External field assisted laser cladding, e.g., ultrasonic and electromagnetic field;
- High wear-resistant, high corrosion-resistant, high temperature-oxidation-resistant and self-lubricating laser cladding coating;
- Repair and strengthening of machine parts;
- Novel laser cladding methods, e.g., extreme high-speed laser material deposition (EHLA), ultra-high-speed laser cladding or extreme high-speed laser metal deposition;
- Simulation analysis of laser cladding layer, e.g., temperature field, stress field, microstructure simulation;
- Monitoring and control of laser cladding processes, including voids, dilution rates and size of laser cladding coating. Combination of image processing and artificial intelligence methods to promote the development of laser cladding technology;
- Any other aspects of laser cladding.

### Guest Editors

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Prof. Dr. Dingding Xiang

Dr. Jiang Ju

Dr. Zhenlin Zhang

### Deadline for manuscript submissions

closed (31 March 2023)

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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.

## Editors-in-Chief

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