

Special Issue

Cold-Spray Coatings: Microstructure, Mechanical Properties and Applications

Message from the Guest Editors

Cold spray is an emerging metal deposition technology that uses high-pressure gas to propel micron-sized particles through a de Laval nozzle at supersonic speeds. Upon impact with the substrate, these particles form dense, high-performance coatings. This technique offers key advantages—including high bonding strength, high hardness, and a low processing temperature—which have made it a growing focus in surface engineering research. This Special Issue on *Spray Coatings* aims to highlight the latest advancements in cold-spray technology, with a focus on coating microstructure, mechanical performance, and innovative applications across multiple fields. We invite submissions of original research articles and comprehensive reviews in areas including, but not limited to, the following topics:

- Novel coating microstructures induced by cold spray.
- Mechanical properties of cold-sprayed coatings.
- Advanced process diagnostics and characterization methods.
- Emerging applications using cold spray.

We look forward to your contributions and to showcasing cutting-edge research that pushes the boundaries of cold-spray technology.

Guest Editors

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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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