

Special Issue

Additive Manufacturing of Special Alloys

Message from the Guest Editor

This Special Issue explores the latest advancements, challenges, and applications of additive manufacturing (AM) techniques for producing high-performance special alloys, including nickel-based superalloys, titanium alloys, high-entropy alloys, and other advanced metallic materials. This Special Issue highlights innovative research on process optimization, microstructure control, and mechanical property enhancement to meet the demanding requirements of the aerospace, biomedical, energy, and defense industries. Contributions cover a wide range of topics, such as powder feedstock development, laser/electron beam melting, directed energy deposition, post-processing strategies, and computational modeling of AM processes. Particular emphasis is placed on overcoming defects including porosity, residual stresses, and anisotropic behavior, as well as tailoring alloy compositions for superior performance. By integrating experimental and theoretical approaches, this Special Issue provides valuable insights into the scalability, sustainability, and industrial adoption of AM for special alloys.

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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