

Special Issue

Advanced Metal Casting Processes: Latest Research, Insights, and Challenges

Message from the Guest Editor

Metal casting is one of the oldest manufacturing techniques in human history, but it undergoes constant evolution in order to adapt to the particular needs of each era. The goal of this Special Issue is to foster innovative solutions to address current industrial challenges and provide fresh insights for the metal casting community. We will be covering all aspects of any metal casting process, including, but not limited to, low- and high-pressure die casting, sand and investment casting, etc., with particular interest on the latest industrial research and developments. We welcome reviews and research studies on the following sub-topics:

- Alloy and equipment development for process optimization;
- Simulation approaches to predict solidification;
- Sustainability and recyclability challenges;
- Manufacture–structure–properties relationship;
- Pre- and post-processing techniques to improve casting integrity;
- Novel casting processes.

Guest Editor

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About the Journal

Message from the Editorial Board

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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