



metals



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Optimization of Industrial Casting Processes

Guest Editor:

Prof. Dr. Steve Cockcroft

TIMET Professor of Advanced
Titanium Processing,
Department of Materials
Engineering, The University of
British Columbia, Vancouver
Campus, Frank Forward Building,
309-6350 Stores Road,
Vancouver, BC Canada V6T 1Z4

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Message from the Guest Editor

Dear Colleagues,

Casting processes have seen continuous technological development for close to 5000 years, largely through a process of trial-and-error improvement. While modern casting is a sophisticated, technologically-advanced process capable of producing high quality parts economically, there remain significant opportunities for the optimization of the existing technologies.

This Special Issue aims to present some of the latest research devoted to exploring the application of numerical optimization methodologies to casting. Suitable subjects include, but are not limited to, optimization algorithms and their application to example casting problems, case studies in process parameter optimization, case studies in geometry optimization, advances in cooling or heating technologies and their optimization in casting processes and objective functions and design constraints in casting optimization problems.

Prof. Dr. Steve Cockcroft

Guest Editor



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Center of Materials Genome
Engineering, State Key
Laboratory for Advanced Metals
and Materials, University of
Science and Technology Beijing,
30 Xueyuan Road, Beijing 100083,
China

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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Metals Editorial Office
MDPI, St. Alban-Anlage 26
4052 Basel, Switzerland

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