

Special Issue

Recent Advances in Microstructure and Mechanical Properties of High-Strength Steels

Message from the Guest Editor

This Special Issue aims to provide a platform for the dissemination of the latest research and developments in the field of high-strength steels, with a particular focus on the relationship between microstructure and mechanical properties. High-strength steels are of great importance in various industries, such as automotive, aerospace, and infrastructure, due to their superior strength-to-weight ratio, durability, and cost-effectiveness. The scope of this Special Issue includes a wide range of topics, including, but not limited to: - Novel steel compositions and microstructural design strategies for enhanced strength and ductility - Advancements in thermomechanical processing and heat treatment of high-strength steels - Characterization techniques for in-depth understanding of microstructural evolution and phase transformations - Modeling and simulation of microstructure-property relationships in high-strength steels - Innovative manufacturing and joining techniques for high-strength steel components - Corrosion and wear behavior of high-strength steels in service environments

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Yong Zhang

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