# Special Issue

# Development of Advanced High-Strength Steels

## Message from the Guest Editors

The automobile and mechanical engineering industries are continuously challenged to reduce weight and improve fuel efficiency due to economic and environmental requirements. For this purpose, advanced high-strength steels (AHSS) are popular, such as quenching and partitioning (Q&P), medium Mn transformation-induced plasticity (TRIP), TRIP-aided bainitic ferrite (ABF) steels, etc. AHSSs are commonly designed with the addition of various alloying elements to achieve a favorable combination of strength and toughness. Via hot rolling, heat treatment, ausfroming, etc., the phase transformation and microstructure can be optimized, including how to refine hard matrix and how to tailored the retained austenite, which can contribute to an excellent combination of strength, ductility and toughness.

The topics addressed in this Special Issue may include, but are not limited to, advanced high strength steels, novel heat treatment processes, new methods to tailor retained austenite, mechanical performance and fatigue behavior.

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## Deadline for manuscript submissions

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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.

## Editors-in-Chief

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