Special Issue

Alloy Steels—Properties and Applications

Message from the Guest Editor

Alloy steels have a broad range of uses. Most papers on developing these steels focus on their microstructure and properties; however, interest in these alloys stems from their application. The combination of strength, ductility, wear resistance, and processing options available in alloy steels provides a large toolbox for the industrial metallurgist to use. The discovery of TRIP/TWIP mechanisms in these steels, which are not fully understood, provides a new opportunity to create innovative structures or improve performance and energy efficiency in older designs. The goal of this Special Issue is to provide an outlet for discussing alloy steel properties and their application. We are looking for papers related to the properties and applications of alloy steels. The goal is to collect a series of papers that look at the property requirements for an application and how the processing or composition must be changed to meet those applications. Papers examining the manufacturability of a new alloy system to meet a target industry are also welcome.

Guest Editor

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Deadline for manuscript submissions

closed (31 May 2021)

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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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