Special Issue

Mechanical Behavior of High-Strength Low-Alloy Steels

Message from the Guest Editors

High-strength low-alloy steels are designed to provide specific desirable combinations of properties, such as strength, toughness, formability, weldability, and corrosion resistance. These steels are used in a myriad of engineering applications, namely highway and off-road vehicles, passenger car components, mine and railroad cars, construction machinery, industrial equipment, offshore structures, storage tanks, oil and gas pipelines, power transmission towers, and bridges, among others. This Special Issue aims to address the mechanical behavior of high-strength low-alloy steels from different perspectives in terms of mechanical deformation, damage and failure under applied load. Papers dealing with processing techniques, modeling of the mechanical behavior, characterization of material microstructure, testing solutions, influence of environmental parameters, temperature dependence, as well as advanced applications are encouraged. *Co-*

Guest Editors

Dr. Ricardo Branco

Department of Mechanical Engineering, University of Coimbra, 3030-788 Coimbra, Portugal

Prof. Dr. Filippo Berto

Department of Chemical Engineering, Materials and Environment, Sapienza University of Rome, 00184 Rome, Italy

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Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

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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

Prof. Dr. Hugo F. Lopez
Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

Prof. Dr. Yong Zhang
Beijing Advanced Innovation 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

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