Special Issue

High-Performance Applications of Metals and Alloys: Material Properties, Behaviour Modeling, Optimal Design and Advanced Processes

Message from the Guest Editors

This Special Issue is focused on the recent evolution of metals and alloys with the scope of presenting the state of the art of solutions, where metallic materials have become established as a successful design solution. The Special Issue also intends to outline the fundamental development trends in the field of metallic materials. Synthesis, advanced experimental characterization, material modelling, and engineering applications are between the proposed Special Issue's prevalent aspects. All these topics will be covered in this collection of contributions referring to a large assortment of metals and metallic alloys. The processes covered include traditional techniques and the newest processes. Contributions will be considered noteworthy if they represent a real element of novelty in the world of metallic materials as well as in the advanced characterization and use of metals for effective design solutions. It is highly recommended to expect papers related to applying new technologies with respect to mechanical performance and materials behaviour in terms of modelling various phenomena and many other factors that constitute materials reliability in engineering applications.

Guest Editors

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Dr. Grzegorz Lesiuk

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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.

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