



Advanced Techniques for Metallurgical Characterization

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Message from the Guest Editor

Dear Colleagues,

The metallurgical characterization of materials is crucial for their industrial development and implementation. In recent years, advanced techniques in the metallurgical characterization of metals and alloys have been applied in an effort to understand the relationship between the metallurgical aspect of materials and their properties and processing conditions.

In this context, this Special Issue will include works on the application of advanced characterization techniques to characterize metallic materials at different scales, present the main challenges and applications of characterization, and show different characterization methods that can be performed, as well as the full potential of the characterization of advanced materials. Both theoretical and experimental research, review articles and novel results are welcome. The specific scope of interest includes (but is not limited to) the characterization of metals, alloys, nanomaterials and metal matrix nanocomposites using advanced techniques in order to evaluate metallurgical aspects such as grain growth, deformation behavior, texture, phase transformation, etc.





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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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