Special Issue

Structure-Properties-Processing Relationships in Metallic Materials

Message from the Guest Editor

The microstructure–properties relationships in combination with processing or alloying strategies for the development of tailored microstructures and, thus, also mechanical properties, in new steels grades have been throughout the years intensively investigated by academia and industry. Simulation approaches for addressing not only diffusional, but also shear and displacive transformations are now of great interest for the process simulation and control of the microstructure evolution, taking into consideration processing conditions and/or limitations. In the Special Issue of *Metals*, we cordially invite all researchers to submit their latest research developments, and achievements in this field. Our aim is to shed more light into the fascinating world of advanced high-strength steels, aluminum, copper and other lightweight materials for automotive applications including electrical steels for electrification needs. Works that focus on physical metallurgy, new characterization techniques, microstructure–properties relationships, and also on the significant scientific and technical challenges of simulation studies, both physical and numerical, are especially encouraged.

Guest Editor

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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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