Special Issue

Microstructure and Mechanical Properties Relationship for Metallic Materials

Message from the Guest Editor

The application potential of engineering materials is related to their properties for the considered use. For metals, the potential exists to improve or tailor properties for specific and especially high-end applications through the processes affecting the microstructure evolution. These processes include heat treatment, thermomechanical treatment, severe plastic deformations processes, or basically processes of casting, welding, or recently additive manufacturing, which can play a significant role in the creation of the desired properties of traditional metallic materials. Currently available processes provide not only homogeneous materials but also yielding heterogeneous and functionally graded materials, such as additive manufacturing, laser processing, processing with inductive treatment.

This Special Issue is focused on papers considering the relationships between microstructure and related properties for the application of advanced metallic materials. This Special Issue will collect quality papers providing a sound base in the field for present and future scientists dealing with the enhancement of metallic materials properties for specific high-end applications.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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