Special Issue

Metals under High Pressure

Message from the Guest Editor

The high-pressure field is a useful tool for the development of new materials as it does not form ambient pressure processing. High pressure fields not only create high density phases but also enable the mixing of elements that cannot be mixed at ambient pressure. The material properties obtained by high-pressure processing enable demonstrate the potential of the materials to advance materials design. This Special Issue will cover a wide range of articles, describing materials research related to high-pressure fields, involving experimental, theoretical, and computational work. High-pressure refers not only to the static pressure level, but also to shock wave or high strain field conditions. Target materials are defined as all materials that include elemental metals and compounds or alloys. Articles and Reviews for experimental research should contain results based on one of the following methods: in-situ high-pressure experiments, high-pressure synthesis, high-pressure treatments, and shock wave. Investigations on all aspects of materials properties and structures are welcome.

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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