Special Issue

Tungsten and Tungsten Alloys

Message from the Guest Editor

Dear colleagues, Tungsten, one of the most remarkable refractory materials, has attracted the attention of scientists and engineers for the last two centuries. The technological boom we are currently witnessing has significantly advanced our knowledge and understanding of this extraordinary metal.

One of the most prominent examples of these developments comes from the area of the controlled fusion, the energy source of the stars—one of the most challenging environments imaginable so far. Here, tungsten has found its place as the material protecting the interior of the power station from the hot fusion plasma. New advanced technology, nano-engineering, and sophisticated alloying have helped to turn the disadvantageous properties of tungsten back and to attain the qualities of this material which it had never possessed before. In this Special Issue devoted to tungsten and tungsten alloys, we will see the results of these challenging, but remarkable and fascinating, transformations of tungsten.

Guest Editor

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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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