



## Advances in Ultrafine-Grained Metals Research

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### Message from the Guest Editor

Dear Colleagues,

This Special Issue aims at presenting the state-of-the-art, and new concepts and principles of UFG obtained by both a top-down approach (SPD) and a bottom-up approach (BM and SPS). Great scientific and technologic interest is based on the fact that grain size can be regarded as a key microstructural factor affecting nearly all aspects of the physical and mechanical behaviour of polycrystalline metals. Hence, control over grain size has long been recognized as a way to design materials with desired properties. Most of the mechanical and chemical-physical properties benefit greatly from grain size reduction. As the race for better materials performance is never ending, attempts to develop viable techniques for microstructure refinement continue. The contributions of the present Special Issue include the different major techniques nowadays in use to produce sound and reliable UFG metallic materials. These include light alloys and steels.





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## Message from the Editor-in-Chief

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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