

Special Issue

Titanium Alloys and Titanium-Based Matrix Composites

Message from the Guest Editor

Titanium alloys, thanks to unique physical and chemical properties (mainly high relative strength combined with very good corrosion resistance), are considered as advanced metallic materials. Their development has led to design of several groups of structural alloys, including single-phase: α or β alloys, two-phase $\alpha + \beta$ alloys and TiAl intermetallic alloys. The range of material applications are also related to modern manufacturing and processing technologies. Pure nanocrystalline titanium is characterized by the strength level very close to solution-strengthened titanium alloys. Another developing processing areas worth mentioning are: surface engineering, joining methods (e.g. diffusion bonding or friction stir welding—FSW) and highly promising additive manufacturing (AM) method. The purpose of this Special Issue is to collect works related to various aspects of research on titanium alloys and Ti-based matrix composites—manufacturing and processing methods and materials characterization. It is my pleasure to invite you to submit manuscripts for this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editor

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Deadline for manuscript submissions

closed (30 June 2021)



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About the Journal

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.

Editor-in-Chief

Prof. Dr. Yong Zhang

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