Special Issue

Mechanical and Microstructure Properties of Ti-6Al-4V Alloy

Message from the Guest Editor

Dear colleagues, The titanium alloy Ti-6Al-4V, or Grade 5, is often referred to as the workhorse titanium alloy, given its widespread usage across a range of industries, including aerospace airframes, gas turbines, marine sectors, and biomedical implants. It is a two-phase □/□ alloy, with this retained □ phase interspersed in the □ grains providing concomitant benefits to the mechanical properties that the alloy displays. This Special Issue welcomes articles that focus on the causal relationships between the microstructure development and the final mechanical properties of this critically important alloy Ti-6Al-4V, with particular usage in one of the key industries the alloy has become such a critical part of. Research considering manufacturing processing routes, experimental characterization methods, mechanical testing methods, and computational modeling methods of the alloy is of great interest.

Guest Editor

Dr. Richard Turner
School of Metallurgy and Materials, University of Birmingham, Birmingham B15 2TT, UK

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Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

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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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Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

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