

Special Issue

Titanium Alloy and Titanium Matrix Composite

Message from the Guest Editors

Titanium alloys and titanium matrix composites play an important role as structural materials in the automotive and aerospace fields due to their excellent specific strength, good corrosion resistance, outstanding specific modulus, terrific high temperature strength, and high biocompatibility. The methods for fabrication of titanium and titanium matrix composites include ingot metallurgy, powder metallurgy and additive manufacturing routes, etc. Nevertheless, the preparation of titanium matrix composites is still a great challenge, not only due to their inherent poor formability, but also due to the incorporation between ceramic reinforcement/precipitation and titanium matrices, which has become a bottleneck in developing high-performance alloys and compounds. Determining how to design titanium alloys and titanium matrix composites to achieve an optimum combination of strength and toughness is thus an ongoing and fascinating challenge, and it is significant to develop credible design and forming methods. The present Special Issue on “Titanium Alloys and Titanium Matrix Composites” may become a status report summarizing the progress achieved in the last five years.

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

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