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Ti-Based Composites: Advances in Technology, Microstructure, Physical Properties and Mechanical Behaviors

Guest Editor:

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Message from the Guest Editor

Titanium-based composites were developed to increase the modulus of elasticity, wear resistance, heat resistance, and oxidation stability of titanium and its alloys. These materials are lightweight and have high specific strength, excellent chemical resistance, and excellent biocompatibility. Therefore, they are an ideal candidate for structural, chemical, petrochemical, marine, and biomedical applications.

New technologies enable to prepare various new microstructures, thus significantly influencing physical, mechanical, and wear properties of titanium-based composites. Therefore, this Special Issue is also devoted to the determination of these properties and investigation of the microstructure and microstructure–property relationships. Finally, the investigation of the lifetime of prepared composites, various types of surface tretment, their interaction with surrounding environment, corrosion, wear and heat resistance, biocompatibility, their behavior under extreme environment or forces, and radiation or vacuum are of interest to this Special Issue.













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Message from the Editor-in-Chief

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