Special Issue

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

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.

Guest Editor

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Deadline for manuscript submissions

closed (31 December 2021)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/36693

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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