



metals



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Advances in Preparation Methods and Numerical Simulation of Composites: Formation and Properties

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Message from the Guest Editors

Advanced composite materials are lightweight and high strength and have designable performance. Further advantages include their heat insulation, heat conduction, vibration reduction, high (low) temperature resistance, corrosion resistance, and wave transmission and absorption. The composites are widely used in aerospace, transportation, energy, and chemical industries, as well as in construction, textiles, sports, and medical treatment, and have played an important role in the development of modern science and technology and the renewal and upgrading of high-end equipment. Composite materials represent an emerging future with many industrial applications.

This Special Issue intends to cover original research and critical review articles on recent advances in all aspects of metal-metal, metal-nonmetal, and nonmetal-nonmetal composites. In particular, the topics of interest include, but are not limited to the following: Material composition design; The design and manufacturing process; Microstructure and properties; Interfacial diffusion behavior; Microstructure characterization of constituent phases; Physical and chemical properties; Modeling and simulation.



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Special Issue



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Message from the Editorial Board

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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