

Special Issue

Advanced Synthesis, Forming, and Computational Design of Composite Materials

Message from the Guest Editor

Composite materials play a crucial role in modern materials science, with their synthesis and forming processes directly determining the microstructure and macroscopic properties of the final products. With the growing demand for high-performance, lightweight, and multifunctional composites in fields such as aerospace, automotive, new energy, and electronic devices, traditional trial-and-error experimental approaches can no longer meet the needs of rapid development. This Special Issue aims to present the latest research achievements in the fields of advanced synthesis, advanced forming, and computational design of composite materials. Particular attention will be given to microstructural evolution and interface regulation during synthesis and forming, performance optimization, as well as the application of computational simulations in guiding experimental design, predicting material behavior, and enabling inverse design. We especially encourage cross-disciplinary studies that integrate computational materials science with experimental validation.

Guest Editor

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Message from the Editor-in-Chief

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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