Special Issue

Physical and Mechanical Properties of Advanced Micro-/Nano-Composite Materials

Message from the Guest Editors

We would like to invite you to revisit and share your recent advances in functional and structural composite materials. This Special Issue welcomes contributions on the processing–structure–property relationships in composite materials for electronic, structural, and energy applications, highlighting the design power of matrix/filler chemistry, dimensionality, and surface treatments, the capability of novel characterization methods and modelling efforts. Topics include and are not limited to the following:

- Micro-/nano-material synthesis and processing techniques for improved compounding and structure–property relationships;
- Physical/mechanical characterization and modeling methods for functional and structural composite materials;
- Filler–matrix interactions and effects on mechanical, thermomechanical, dielectric, electrochemical, and optical properties;
- Interface electrical/thermal transport, absorption, friction, and energy generation/dissipation;
- Demonstration and performance prediction in electronics and industrial applications.

Guest Editors

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Prof. Dr. Rong Zhang

Deadline for manuscript submissions

closed (20 July 2025)

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Message from the Editorial Board

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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