Special Issue

Heat and Mass Transfer in Advanced Materials

Message from the Guest Editor

This Special Issue aims to explore the latest advancements and challenges in the field of heat and mass transfer within advanced materials. Advanced materials, such as nanomaterials, composites, intelligent materials, phase-change materials, and biomaterials, are revolutionizing industries by enabling enhanced thermal management, energy efficiency, and mass diffusion capabilities. However, understanding and optimizing heat and mass transfer in these materials remain complex and multidisciplinary challenges, requiring insights from material science, thermal engineering, and computational modeling.

Topics of interest include, but are not limited to, the following:

Enhanced thermal conductivity and energy storage in advanced materials.
Mass diffusion and transport phenomena in porous and composite materials.
Applications in energy systems, electronics cooling, biomedical devices, and environmental engineering.
Artificial intelligence methods in the innovative design of thermal conductive materials.
Novel techniques for characterizing and optimizing heat and mass transfer properties.

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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