Special Issue

Characterizations, Mechanical Properties and Constitutive Modeling of Advanced Materials

Message from the Guest Editors

. Characterization is the process of identifying and understanding the properties of materials, while mechanical properties refer to the behavior of materials under various mechanical loads, such as tension, compression, and bending. Constitutive modeling aims to develop mathematical descriptions of how materials respond to these loads. This Special Issue aims to explore the latest developments in these areas, with a focus on both experimental and theoretical approaches. The Issue will cover a broad range of topics, including the characterization of advanced materials such as nanomaterials and biomaterials, the investigation of their mechanical properties under different loading conditions, and the development of constitutive models to describe their behavior. Topics of interest for this Special Issue include, but are not limited to:

- Advanced materials characterization techniques;
- Mechanical properties of advanced materials;
- Constitutive modeling of materials;
- Fatigue and fracture mechanics of materials;
- Mechanical behavior of composites and hybrid materials.

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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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