Special Issue

Mechanical Behaviors of Materials: Modelling and Measurement

Message from the Guest Editor

With the advancement in modern materials, the relationship between mechanical behavior and novel material properties has become a critical issue in the field of engineering design and development. Thanks to the recent development of computational power and data storage, the multiscale modelling analysis has become available for the mechanical behavior study of material elements from the macroscopic, micro- and nanoscale approached to the characterization of materials. Moreover, novel developments of nondestructive, optical, acoustic and image processing methods, etc., have actualized the mechanical characterization and application in view of their capability to accurately measure displacements, strains and stresses in real time and to gather full-field information without altering object conditions, making them fundamentally useful in complex fields such as bioengineering, MEMS, high-precision metrology, etc. This Special Issue aims to focus on advances in the multiscale "Mechanical Behaviors of Materials: Modelling and Measurement". The goal is to provide a forum on the state-of-the-art and frontier applications for modelling and characterization.

Guest Editor

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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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