Special Issue

Analytical and Computational Methods in Material and Mechanical Engineering

Message from the Guest Editors

This Special Issue of *Materials* is devoted to analytical and computational methods in materials and mechanical engineering. Today, simulation techniques and numerical methods have been rapidly evolving with the intent to apply increasingly complex models and to face the growing requirements of engineering applications. Also, newly developed analytical solutions have been able to cover a wider range of scientific problems and to serve as benchmark solutions for numerical simulations. This Special Issue is intended to provide a forum for academic researchers and engineers to exchange their recent works on theoretical and computational advancements. Among others, the following topics are the main fields of interest of this Special Issue: linear and non-linear elasticity and plasticity models; materials with anomalous characteristics; metamaterials; auxetic cellular materials; porous materials; functionally graded materials, the fatigue of materials; topological optimization of structures; heat transfer in materials and structures; as well as other topics related to computational methods in materials science, mechanics, and engineering.

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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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