Special Issue

Finite Element Analysis and Simulation of Materials

Message from the Guest Editor

The use of Advanced Materials and Advanced Digital and Manufacturing Technology is provided by such scientific fields as Mechanical Engineering, Mathematical Modelling, Computational Mechanics, Computational Materials Science, Numerical Methods, primarily Finite Element Analysis (FEA), Numerical and Computer Simulation, Digital Technology, Digital Engineering, Digital Twins и Advanced Manufacturing Technology, especially Additive Technology. This Special Issue focuses on the publication of original research related to: – the structure, mechanical, electronic, chemical, magnetic, optical properties and various applications of classes of materials such as metals and alloys, polymers, composites, ceramics, glasses and semiconductors, including advanced materials (e.g., nanomaterials, smart materials, biomaterials); – the technological processes (plastic deformation processes of metal, forming, cutting, moulding, friction stir welding, additive technology, vacuum-assisted resin transfer moulding and many others); – the different finite element modelling approaches, multiscale analysis (from nano-, micro- through meso- to macro-level).

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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