Special Issue

Recent Advances in the Field of Mechanical Metamaterials and Their Associated Applications and Fabrication Techniques

Message from the Guest Editors

Mechanical metamaterials with their unique and tailorable characteristics are receiving increased attention for a wide range of applications, such as energy absorption, functional load-bearing, indentation resistance, tissue engineering biomaterials, and enhanced vibro-acoustics. The recent advancements in metamaterials are largely driven by developments in modern manufacturing technologies, such as additive manufacturing (3D printing). As a result, novel metamaterials are emerging from a variety of materials, including metals, thermoplastic, and ceramics. In addition to modern manufacturing technologies, the application of computational modelling techniques is critical in enabling a comprehensive understanding of the behaviour of metamaterials. The aim of this Special Issue is to highlight recent advances in the field of mechanical metamaterials and their associated applications and fabrication techniques. The Special Issue covers all aspects related to the development of mechanical metamaterials, including novel designs, application, manufacturing methods, new materials, numerical modelling, experimental testing, and performance characterisation.

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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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