

Special Issue

Mechanical Metamaterials and Their Applications

Message from the Guest Editors

This Special Issue aims to bring together the theory, concept, and applications of mechanical metamaterials. Mechanical metamaterials are an emerging field where engineered structures enable unique and rather exotic material properties, such as introducing a negative Poisson's ratio and negative compressibility.

Mechanical design of structures can introduce these properties, allowing us to develop functional materials for a wide range of applications in bioengineering, energy, and acoustics, to name a few. So far, various structures have been demonstrated from nano- to macro-scales as functional materials with engineered properties. These structures, usually in a periodic lattice formation, have been introduced using various manufacturing techniques, including 3D printing, micromachining, and nanofabrication. Once the structure is manufactured, it is also feasible to change its material properties on demand using transduction mechanisms for tunability.

Guest Editors

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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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