Special Issue

Recent Progress of Porous Materials

Message from the Guest Editor

Periodic cellular structures, such as honeycomb and lattice structures, have been widely used as lightweight sandwich cores in many kinds of mechanical components. In particular, because of the rapid development of additive manufacturing technology, more precise and more complex three-dimensional lattices with micrometer lengths can be fabricated relatively easily. Such structures are expected to be useful as novel new multi-functional metamaterials that cannot be found in natural materials. For the past 15 years, we have been conducting research on the mechanical, vibration, sound absorption and heat transfer properties of porous structures through nonlinear numerical simulation and experimental tests. More recently, we have also analyzed the multifunctional properties of porous structures and investigated their high potential in combination with optimized design. In this Special Issue, we would like to present some interesting properties of lattice structures.

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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