Special Issue

Preparation and Application of Regularly Structured Porous Materials

Message from the Guest Editor

Rapid developments in the field of materials and production technologies have made it possible to produce new types of sophisticated components that are significantly lighter than traditional products filled with material in the entire volume. This is due to materials that are characterized by a periodic or stochastic arrangement of open or closed pores with different characteristics of their topology, whether they are two-dimensional configurations of structures (e.g., honeycomb), three-dimensional polyhedral arrangements (e.g., lattice structures), or three-dimensional periodic complex shapes (e.g., minimum areas). These specific materials can provide a product with an extraordinary combination of mechanical, physical, or chemical properties compared to full-volume materials.

Potential topics include, but are not limited to:
- Recent innovation in materials with a regular distribution of pores (cellular materials/mesoporous materials/metamaterials/lightweight materials);
- Mechanical/chemical/physical properties;
- Testing, analysis, simulation, and behavior;
- Production and processing;
- Application.

Guest Editor

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Deadline for manuscript submissions

closed (20 November 2024)

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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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