

Special Issue

Aerogel Composites, Nanocomposites, Hybrids and Their Applications

Message from the Guest Editor

Dear Colleague, Aerogels are the lightest solid-state substances with extremely low density, a very high surface area, and exhibit an open mesopore system. A continuously growing family of aerogel-based materials are aerogel composites and nanocomposites, in which the aerogel phase serves as a matrix. Interaction between the matrix and guest particles may improve certain properties and lead to the appearance of new ones. Molecular level distribution of at least two matrix components creates aerogel hybrids. Chemical modifications and structural reinforcement may lead to unique mechanical, optical, catalytic and surface properties. Aerogel composites and aerogel hybrids are being extensively studied and used in a variety of areas, such as insulation, rechargeable batteries, chemical sensors, catalysts, drug delivery, and tissue engineering. This Special Issue focuses on any aspects of synthesis, production, structure, and properties of aerogel composites, with particular attention given to the interaction between matrix components and guest particles that may result in an enhancement of certain properties. Both original papers and reviews are welcome.

Guest Editor

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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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