Special Issue

Synthesis and Application of Carbon Gels

Message from the Guest Editors

Carbon gels are nanostructured carbons obtained by sol–gel polycondensation of certain organic monomers. Due to the flexibility of the sol–gel process, their final chemical, structural, and porous properties can be controlled and designed at nanoscale by adjusting the different variables involved during their synthesis. The form can also be tuned from monoliths to breads, powders or thin films. Furthermore, composite materials and metal-doped carbon gels can also be obtained by the addition of other components, metal precursors or nanoparticles during synthesis. Thus, a wide spectrum of materials with unique properties can be produced and specifically designed for a wide range of applications from adsorption and separation processes to catalysis, sensing, insulation, energy storage, and electrochemistry. This Special Issue is devoted to the latest advances in designing carbon gels and carbon-gel-based composites, as well as for their different cutting-edge applications in fields such as catalysis, adsorption, energy production and storage, biotechnology, environment, and so on.

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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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