Special Issue

Application of Nanoporous Carbon in Energy

Message from the Guest Editor

Nanoporous carbon materials have been applied as catalysts in many fields, especially for producing energy by using thermal chemistry, electrochemistry, and photolytic chemistry. With functionalized porous carbon, a specific catalytic reaction can be achieved through certain mechanisms. Different strategies to create porous carbon with an enlarged surface area have been explored through physical and chemical methods. Accompanied by an adjusted pore volume and surface functional groups, the carbon framework needs to retain its mechanical properties to maintain stability and reutilization. The ongoing exploration of the best activity and stability available are still underway. This Special Issue in 'Nanomaterials' focuses on the application of nanoporous carbon in energy, such as biomass based carbon, coal char, polymer carbon, and fossil carbon for energy production. The hydrogen from hydrogencontaining precursors, such as water, ammonia, methane, etc., catalyzed by porous carbon are preferable. See more information in: https://www.mdpi.com/si/202968

Guest Editor

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometerscale dimensions, which we call "nanomaterials". These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, Nanomaterials, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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