Special Issue

Porous Ceramics: Structure Analysis and Applications

Message from the Guest Editor

This Special Issue aims to showcase the latest advancements in relevant research on the production of advanced porous ceramics, with a focus on tailoring pore structures and properties for specific applications. Emphasis will be placed on the fabrication processes responsible for determining pore structures, geometries, surface chemistry, and their potential to reduce the overall carbon footprint in porous ceramic production (such as additive manufacturing techniques), emerging as a promising method for producing components of porous ceramics. This Special Issue also seeks to underscore the potential applications of advanced porous ceramics in energy and environmental contexts such as energy storage and conversion, water purification, the degradation of pollutants, and hydrogen production. Research areas includes but are not limited to: (1) the fabrication, functionalization, and characterization of porous ceramic materials with desired pore configuration and geometry; (2)the exploration of correlations between process, structure, and properties; (3) circular porous ceramic materials; (4) the application of porous ceramics in environmental- and energy-related scenarios.

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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