Special Issue

Development of Advanced Adsorption and Catalytic Materials

Message from the Guest Editor

Adsorption and catalytic materials are important in a variety of industrial applications, including environmental remediation, energy production, and chemical synthesis. The materials used for adsorption can be organic or inorganic and can be of different shapes and sizes, such as powders, granules, or fibers. Moreover, the development of hybrid adsorbents, which combine different types of adsorption materials, has led to materials with improved adsorption properties and selectivity, further increasing their potential applications. Common examples of adsorption materials include activated carbon, zeolites, silica gel, alumina, and ion exchange resins. In general, the effectiveness of an adsorption material depends on factors such as its surface area, pore size, and chemical composition, as well as the properties of the molecules or particles being adsorbed. In many cases, adsorption and catalytic materials are used together to achieve specific chemical transformations. This Special Issue seeks to provide a platform for a thorough discussion of the most recent advances in the design, characterization, and application of adsorption and catalytic materials.

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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