Special Issue

Synthesis and Characterization of Advanced Adsorption Materials and Their Role in Environmental Applications

Message from the Guest Editor

Potential topics of this Special Issue include, but are not limited to the following: development of new adsorption materials (porous micro-/nano-structured inorganic materials, organic/inorganic hybrid materials, polymeric materials, natural materials); new synthesis strategies and techniques; scale-up synthesis; characterization of structural, surface, and other physicochemical properties and ecotoxicity of adsorbents, and their adsorption applications in the removal of pollutants from air, soil and water (removal and purification of chemicals, drugs, pharmaceuticals and biological substances, pesticides, herbicides, fumigants, polycyclic aromatics hydrocarbons, organic micropollutants, microplastics, heavy metals, rare-earth elements, radionuclides, impurities from liquids and gases, air pollutants, removal of dyes in decolorization processes, separation and storage of gases); basic and practical aspects of adsorption and adsorption processes (adsorption mechanisms, desorption, regeneration, equilibrium data, adsorption isotherms, kinetic models, thermodynamics, batch methods, fixed-bed type processes, fluidized beds, pulsed beds, new measurement techniques).

Guest Editor

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Deadline for manuscript submissions

closed (31 August 2021)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/55513

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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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