

Special Issue

Recent Innovations in Adsorbent Materials for Emerging Water Pollutants

Message from the Guest Editor

The emergence of new classes of pollutants in aquatic environments—such as pesticides, pharmaceuticals, personal care products, ioni metalici, coloranti organici, and different industrial micropollutants—has driven the rapid development of innovative adsorbent materials capable of providing high efficiency and enhanced selectivity in wastewater treatment processes. Recent advances include functionalized synthetic adsorbents, biosorbents based on residual microbial or vegetal biomass, hybrid composites, metal–organic adsorbents, hydrogels, and advanced nanocomposites. This Special Issue aims to synthesize the latest progress in the design and application of advanced adsorbents, discussing adsorption mechanisms and performance-influencing factors, as well as the advantages and limitations of each material category. Overall, the findings highlight the significant potential of modern adsorbents for the efficient and sustainable removal of emerging pollutants from aqueous solutions, while also emphasizing future research directions and the need for optimization at an industrial scale.

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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