Special Issue

Advanced Carbon Electrode Materials: Modification, Characterization, and Applications

Message from the Guest Editors

Carbon-based electrode materials have garnered significant attention due to their unique combination of properties. In the environmental domain, they play a crucial role in electrochemical processes like electrosorption, capacitive deionization, electro-Fenton reactions, and electrocatalysis for wastewater treatment. In the energy sector, carbon-based electrodes are integral to technologies such as supercapacitors, lithium-ion batteries, and electrocatalysis, where their performance is continuously enhanced through doping, functionalization, and nanostructuring. This Special Issue aims to provide a comprehensive overview of the latest research on advanced carbon electrode materials, focusing on their modification, characterization, and applications in both environmental and energy-related fields. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but not limited to) the following:

- Modification of Carbon Electrode Materials
- Characterization Techniques
- Environmental Applications
- Energy Applications
- Interdisciplinary Approaches

We look forward to receiving your contributions.

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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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