Special Issue

Synthesis and Electrochemical Performance of Novel Carbon Materials

Message from the Guest Editors

This Special Issue aims to investigate the electrochemical performance of novel carbon materials in energy storage, electrocatalysis, and CO2 conversion. To achieve this purpose, we will focus on three aspects: (1) improving new methods to produce carbon-based materials; (2) designing and preparing new nanostructures for carbon materials; and (3) investigating the reaction mechanisms occurring on carbon-based electrodes via advanced in situ characterization techniques. Areas of interest include but are not limited to:

- Development of new techniques to synthesize carbon-based materials, including graphene, graphite, hard carbon, soft carbon, carbon nanotubes, and composite materials containing carbon;
- Design of new strategies to obtain nanostructures (0D, 1D, and 2D) of carbon-based materials;
- Improvement of the electrochemical performance of carbon-based electrode materials in energy storage devices, electrocatalysts, and CO2 conversion reactions;
- Preparation of lightweight, flexible, wearable electronic devices based on carbon materials;
- Research of the reaction mechanisms of carbon-based electrode materials via advanced characterization techniques.

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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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