Special Issue

Synthesis, Electrical Properties and Applications of Carbon-Based Nanocomposites

Message from the Guest Editors

Carbon materials, such as activated carbons or graphite, have been traditionally applied for adsorption processes and electrode development. Nevertheless, the boost in nanotechnology has encouraged the production of different carbon nanostructures with zero (carbon dots), one (carbon nanotubes), two (graphene), or three (carbon gels) dimensions and more advanced properties. This Special Issue aims to collect advances in the synthesis, functionalization, and characterization of carbon-based nanocomposites. Special attention is given to one-pot procedures, advanced synthesis processes (sol–gel, hydrothermal, and ionic liquids), and activation treatments (ultrasound and microwaves) for the preparation of nanocomposites. The application of these nanomaterials in sensors; electrochemical devices; energy; heterogeneous catalysts, including photo-, sono-, electro-, and thermoprocesses; adsorption; and molecular sieves for the separation /concentration of substances is also of significant interest. We look forward to receiving your contributions.

Guest Editors

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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