Special Issue

Controllable Preparation and Applications of Functional Carbon-Based Materials

Message from the Guest Editors

This Special Issue, titled "Controllable Preparation and Applications of Functional Carbon-Based Materials", focuses on advanced preparation and the performance/application of functional carbon-based materials, such as carbon fiber, carbon nanotubes, graphene, carbon aerogel, and fiber-reinforced carbon matrix composites. Functional carbon-based materials are primarily materials with desired serving properties, such as wave absorption, thermal insulation, high-temperature resistance, and excellent chemical and physical properties, which are closely related to their composition and structure. Therefore, the present Special Issue aims to collect contributions on the advanced preparation methods (reliable and stable synthesis techniques) and applications of functional carbon-based materials, as well as to review the advanced characterization, modeling and the effect of preparation processing on the material properties. The manuscripts in this Special Issue will focus on the most significant and promising manufacturing technologies, component optimization, structural design, characterization, machining, modeling, simulation, and mechanism analysis.

Guest Editors

Dr. Shun Dong

Science and Technology on Advanced Composites in Special Environment Laboratory, School of Astronautics, Harbin Institute of Technology, Harbin 150001, China

Dr. Cheng Fang

School of Materials Science and Engineering, Zhengzhou University, Zhengzhou 450001, China

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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