Special Issue

Processing, Characterization and Applications of Ceramic Matrix Composites

Message from the Guest Editors

Ceramic–matrix composites are ceramic-based materials reinforced with a secondary reinforcing phase that can be other ceramics, fibers, carbonaceous materials, polymers or metals, which create interphases providing non-brittle fracture. CMCs can combine properties of the components providing much better capabilities and performance than the corresponding single constituents. Consequently, they have applications in multiple domains, such as aerospace propulsion, aircraft and automobile components, high-temperature heat exchange and many others.
This Special Issue is devoted to all aspects involved in the processing, characterization and applications of ceramic–matrix composites, and therefore, papers encouraging novel aspects of the different steps of their manufacture and characterization, including microstructure, properties and applications, are welcome. Contributors are required to submit original, high-quality papers on their current progress in fundamental and applied science aspects related to CMCs and, in particular, contributions focusing on the relationships between processing, microstructure and properties facing the final application and in-service behavior.

Guest Editors

Prof. Dr. Rodrigo Moreno

Institute of Ceramics and Glass (ICV), Consejo Superior de Investigaciones Científicas (CSIC), 28049 Madrid, Spain

Prof. Dr. Oscar Rubem Klegues Montedo

Grupo de Biomateriais e Materiais Nanoestruturados, Laboratório de Cerâmica Técnica (CerTec), Programa de Pós-graduação em Ciência e Engenharia de Materiais, Universidade do Extremo Sul Catarinense (UNESC), Criciúma 88806-000, Brazil

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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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