Special Issue

Advances in Functional Ceramic Materials: Fabrication, Properties, and High-Temperature Applications

Message from the Guest Editors

In recent decades, functional ceramic materials have attract a significant amount of interest thanks to their thermal, mechanical, and functional properties. Many different materials possess interesting properties at high temperatures, such as metal oxides, nitrides, and their composites. The need to achieve improved properties and extend their service lives under extreme conditions has driven many efforts in these fields. The aim of this Special Issue is to provide an overview of the latest achievements in functional ceramic materials for high-temperature applications and to highlight possible research directions to further advance the development of these materials. Contributions are welcome on topics that include but are not limited to:

- New syntheses, sintering, and additive manufacturing of functional ceramic materials and composites;
- Deposition of advanced ceramic coatings for high temperature applications;
- Chemical and mechanical resistance at high temperatures and under operational conditions;
- In situ characterization under operational conditions;
- Applications of functional ceramic materials at high temperatures.

Guest Editors

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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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