



Advanced Functional, Structural, High-Entropy Ceramics, Refractories and MAX Phases: Preparation and Performance Research

Guest Editor:

Prof. Dr. Oleg L. Khasanov
Nano-Centre of Tomsk
Polytechnic University, Tomsk
634050, Russia

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Message from the Guest Editor

Contemporary comprehensive approaches to the development of novel functional and structural ceramics, composites, refractories and ultra-high-temperature materials (max phases), and high-entropy ceramics allow us to reach new frontiers in the competitive production and reliable operation of such materials, even in extreme environments.

Various functional ceramics and composites are of interest, e.g., different types and values of electrical conductivity (from dielectrics to superconductors), ferroelectrics, optically transparent and luminescent materials, and radiation-shielding composites. This fully applies to nanostructured ceramics, nanocomposites of complex compositions.

Especially important is the development of methods for manufacturing bulk products from these materials with individual shapes and complex geometry. For new technologies, it is necessary to use methods to model both 3D structures with complex chemical compositions and to model the processes of their consolidation from nano-, micro-scaled powders or their mixtures, with experimental verification of such models.

We kindly invite you to submit your work to this Special Issue.





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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

Message from the Editor-in-Chief

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Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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