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# Mechanical and Functional Properties of Refractory Metal-Ceramic Composites Used in Advanced High-Temperature Applications

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## Message from the Guest Editors

Dear Colleagues,

Advanced refractory materials based on functionalised metal–ceramic composites can help to fulfil the demand for smart refractory installations with increased lifetimes. In addition, the material design must satisfy circular economy needs.

In all cases, composites must withstand harsh environments in their application such as corrosion, thermal shock, thermal stresses and mechanical loads.

This Special Issue encourages authors to contribute works on topics:

- Design and production of metal–ceramic composites used at temperatures above 1000 °C;
- Functional properties, e.g., electrical and thermal conductivity, porosity, etc.;
- Mechanical properties, e.g., characterisation of thermal shock behaviour, strength at RT and high temperature, etc.;
- Oxidation or corrosion resistance of functional materials and/or composites.

Studies on any high-temperature material class, including classical ceramic refractories, refractory metal composites, and carbides are welcome for submission.

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## Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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