Special Issue

Feature Papers in Refractories and Ceramics: Microstructure, Properties and Applications

Message from the Guest Editors

Refractories, as a class of ceramics with high fusion points, are basic materials in high-temperature industries such as metallurgy, cement/glass production, etc. Today, “new refractory” is being developed to not only meet high-temperature structural support, but to be designed or tailored to special functional requirements. The “new refractory” is extending the frontiers of design and preparation of traditional high-temperature ceramics and allows significant improvements in high-temperature industries on economic and environmental impacts. In addition, the “structure–function” relationship of these ceramics as related to their high-temperature service performance should be known for every application. This Special Issue focuses on the development of new refractories and novel ceramics. The potential topics concerning their microstructure, properties, and applications include but are not limited to: functional refractory; novel ceramics; non-oxide ceramics; high-temperature heat-insulating materials; green ecological refractory; refractory castable; refractory raw materials; high-temperature behavior.

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Message from the Editorial Board

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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