Special Issue

Design, Manufacturing and Properties of Refractory Materials

Message from the Guest Editors

Refractory materials are strategic materials taking into account the fact that they enable the production of strategic building materials, such as steel, cement, or glass. Extensive research into their properties, including corrosion resistance, mechanical properties or thermal behavior, is critical in the development of new types of long-life and ecologic materials as well as in enhancing the properties of existing ones. At present, Artificial Intelligence (AI) contributes to facilitating R&D and industrial processes, including the refractory industry, e.g., in predicting selected material properties or wear of refractory lining. Thus, exploring this cutting-edge technology has great potential. This issue invites a broad group of researchers who test and assess primary and secondary refractory raw materials, design or investigate properties of both formed and monolithic refractory materials with the intention to increase their lifetime or enhance positive or neutral environmental character, including those applying AI technology.

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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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