Special Issue

Advances in High Temperature Materials: Manufacture, Characterization and Simulation

Message from the Guest Editors

High temperature materials demonstrate a series of superior properties at high temperatures. Due to their 'super' performance, they have sustained wide applications in aircraft, industrial gas turbines, oil equipment, and vehicles for over seven decades. As we move through the third decade of the twenty-first century, higher requirements are put forward for the temperature-bearing capacity. These demands necessitate a Special Issue, "Advances in High Temperature Materials: Manufacture, Characterization and Simulation", to publish recent progress upon which new developments can be built.

- high temperature materials
- refractory metals
- high temperature ceramics
- new types of superalloy
- blade alloy behavior
- disk alloy manufacture
- environmental behavior
- alternative materials
- microstructure
- dislocation structure
- modeling and simulation
- constitutive modeling

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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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