Special Issue

Ultra-High Temperature Thermal Protection and Insulation Composites

Message from the Guest Editor

Thermal protection material which combines lightweight, non-ablation, thermal insulation, and reliability is the core technology for the development of space vehicles. However, the low-usage temperature of traditional thermal insulation materials limited the application of aircraft in ultra-high temperature environments above 1700°C. Therefore, new ultra-high temperature thermal protection materials have become a hot spot for research in various countries. TUFROC used in the X-37B aircraft represents the current trend of ultra-high temperature thermal protection and insulation composites. To date, numerous efforts for ultra-high temperature thermal protection and insulation composites have been made to meet higher temperature resistance, durability, and reliability requirements of materials. The Special Issue “Ultra-High Temperature Thermal Protection and Insulation Composites” aims to collect the most recent achievements in ultra-high temperature thermal protection materials, which forecast important advances in novel thermal insulation materials.

Guest Editor

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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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