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# Ultra-High Temperature Thermal Protection and Insulation Composites

Guest Editor:

#### Dr. Shun Dong

Science and Technology on Advanced Composites in Special Environment Laboratory, School of Astronautics, Harbin Institute of Technology, Harbin 150001, China

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## **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 povel thermal insulation materials













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### **Editor-in-Chief**

#### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, OC H3A 0C7, Canada

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