



Plenary Lecture

Title	Prof.	First Name	Jingyang	Last Name	Wang
Affiliation			Institute of Metal Research, Chinese Academy of Sciences		
Presentation Title			Advancements of high temperature coating for SiCf/SiC composite		
Biography			<p>Jingyang Wang is the Vice President of Liaoning Academy of Materials and the director of Institute of Coating Technology for Hydrogen Gas Turbines. He is also a distinguished professor at the Institute of Metal Research, CAS, China. His research interests are focused on fundamental exploration and technological developments of structure ceramics, ceramic-matrix-composites, and high temperature coating for extreme environment applications.</p> <p>He received many prestigious recognitions and awards, represented by Academician of Word Academy of Ceramics, Fellow of The American Ceramic Society, Fellow of ASM International, Fellow of The European Ceramic Society, Acta Materialia Silver Medal Award, ACerS John Jeppson Award, Samuel Geijsbeek PACRIM International Award, ACerS ECD Bridge Building Award, ACerS Global Star Award, and National Leading Talent for Science and Technology Innovation (China), National Leading Talent of Young and Middle-aged Scientists (China), National/Ministry Science and Technology Progress Award (China, 2011/2010) and Liaoning Natural Sciences Award (China).</p>		



Abstract

SiCf/SiC composite is disruptive material for the hot-section components in new generation aviation engine. High temperature coatings, including thermal barrier coating, environmental barrier coating, as well as abradable coating, can protect various SiCf/SiC components against harsh thermal and chemical attacks in combustion environment. The request for service temperature of coatings has been critically increased up to 1350 to 1500oC, regarding the various combustion environments. The key technology depends on the whole chain advancement of intelligent design, feedstock production, coating fabrication, and coating evaluations. This talk presents the recent progresses of high temperature coating technologies for SiCf/SiC components in aviation engine. The developments support the explorations and applications of SiCf/SiC composite in high-thrust aeroengine.