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Titolo	Advanced ceramic coatings and interfaces : a collection of papers presented at the 30th International Conference on Advanced Ceramics and Composites, January 22-27, 2006, Cocoa Beach, Florida // editors, Dongming Zhu, Uwe Schulz ; general editors, Andrew Wereszczak, Edgar Lara-Curzio
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Altri autori (Persone)	ZhuDongming SchulzUwe WereszczakAndrew Lara-CurzioEdgar <1963->
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Nota di contenuto	Advanced Ceramic Coatings and Interfaces; Contents; Preface; Introduction; Advanced Thermal Barrier Coating Development and Testing; Relation of Thermal Conductivity with Process Induced Anisotropic Void Systems in EB-PVD PYSZ Thermal Barrier Coatings; Segmentation Cracks in Plasma Sprayed Thin Thermal Barrier Coatings; Design of Alternative Multilayer Thick Thermal Barrier Coatings; Creep Behaviour of Plasma Sprayed Thermal Barrier Coatings; Corrosion Rig Testing of Thermal Barrier Coating Systems; Thermal Properties of

Nanoporous YSZ Coatings Fabricated by EB-PVD

Oxidation Behavior and Main Causes for Accelerated Oxidation in Plasma Sprayed Thermal Barrier Coatings Crack Growth and Delamination of Air Plasma-Sprayed Y<sub>2</sub>O<sub>3</sub>-ZrO<sub>2</sub> TBC After Formation of TGO Layer; Lanthanum-Lithium Hexaaluminate-A New Material for Thermal Barrier Coatings in Magnetoplumbite Structure-Material and Process Development; Modeling and Life Prediction of Thermal Barrier Coatings; Simulation of Stress Development and Crack Formation in APS-TBCS For Cyclic Oxidation Loading and Comparison with Experimental Observations

Numerical Simulation of Crack Growth Mechanisms Occurring Near the Bondcoat Surface in Air Plasma Sprayed Thermal Barrier Coatings

Comparison of the Radiative Two-Flux and Diffusion Approximations; Damage Prediction of Thermal Barrier Coating; Environmental Barrier Coatings for Si-Based Ceramics; The Water-Vapour Hot Gas Corrosion Behavior of Al<sub>2</sub>O<sub>3</sub>-Y<sub>2</sub>O<sub>3</sub> Materials, Y<sub>2</sub>SiO<sub>5</sub> and Y<sub>3</sub>O<sub>12</sub>-Coated Alumina in a Combustion Environment; Evaluation of Environmental Barrier Coatings for SiC/SiC Composites

Life Limiting Properties of Uncoated and Environmental-Barrier Coated Silicon Nitride at Higher Temperature Multilayer EBC for Silicon Nitride; Non-Destructive Evaluation of Thermal and Environmental Barrier Coatings; Characterization of Cracks in Thermal Barrier Coatings Using Impedance Spectroscopy; Nondestructive Evaluation Methods for High Temperature Ceramic Coatings; Nondestructive Evaluation of Environmental Barrier Coatings in CFCC Combustor Liners; Ceramic Coatings for Spacecraft Applications; Charging of Ceramic Materials Due to Space-Based Radiation Environment

Spacecraft Thermal Management via Control of Optical Properties in the Near Solar Environment Multifunctional Coatings and Interfaces; Preparation of Carbon Fiber Reinforced Silicon Oxycarbide Composite by Polyphenylsilsesquioxane Impregnation and Their Fracture Behavior; Interfacial Processing Via CVD For Nicalon Based Ceramic Matrix Composites; Coatings of Fe/FeAlN Thin Films; Polymeric and Ceramic-Like Coatings on the Basis of SiN(C) Precursors for Protection of Metals Against Corrosion and Oxidation

Effect of Temperature and Spin-Coating Cycles on Microstructure Evolution for Tb-Substituted SrCeO<sub>3</sub> Thin Membrane Films

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Sommario/riassunto

Recent advances in coating development, processing, microstructure and property characterization, and life prediction are included in this book, which came from the proceedings of the 30th International Conference on Advanced Ceramics and Composites, January 22-27, 2006, Cocoa Beach, Florida. Organized and sponsored by The American Ceramic Society and The American Ceramic Society's Engineering Ceramics Division in conjunction with the Nuclear and Environmental Technology Division.. Integrated structural, environmental properties and functionality through advanced coating processing and structu

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