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Nota di contenuto	Cover; Title Page; Copyright Page; Contents; Preface; ENGINEERING CERAMICS AND CERAMIC MATRIX COMPOSITES: DESIGN, DEVELOPMENT, AND APPLICATIONS; DESIGN AND TESTING OF A C/C-SIC NOZZLE EXTENSION MANUFACTURED VIA FILAMENT WINDING TECHNIQUE AND LIQUID SILICON INFILTRATION; ABSTRACT; INTRODUCTION; NOZZLE CONTOUR DESIGN; NOZZLE MANUFACTURE; PRELIMINARY NOZZLE CHARACTERIZATION; CONCLUSION; REFERENCES; PREPARATION OF ZIRCONIUM PHOSPHATE BONDED SILICON NITRIDE POROUS CERAMICS REINFORCED BY IN-SITU REACTED SILICON NITRIDE NANOWIRES; ABSTRACT; INTRODUCTION; EXPERIMENTAL PROCEDURES; 2.1 Materials 2.2 Preparation of ceramics 2.3 Characterization; RESULTS AND DISCUSSION; 3.1 Microstructure of zirconium phosphate bonded Si ₃ N ₄ porous ceramics; 3.2 Si ₃ N ₄ porous ceramics reinforced by in-situ reacted SNNWs; 3.3 Porous structure formation and strengthening mechanism of Si ₃ N ₄ porous ceramics reinforced by in-situ reacted SNNWs; CONCLUSIONS; ACKNOWLEDGEMENTS; REFERENCES; RESIDUAL STRAINS IN STRUCTURAL STONE: A DEGRADATION MECHANISM;

ABSTRACT; INTRODUCTION; METHODS; Finite-element simulations; Thermal expansion measurements; MATERIALS; RESULTS; Thermal-elastic response from modeling
Thermal dilatation from experimental measurements
Correlation between modeled and experimental thermal expansion results;
CONCLUSION; ACKNOWLEDGMENTS; REFERENCES; JOINING OF SiC/SiC CERAMIC MATRIX COMPOSITES USING REABOND TECHNOLOGY;
ABSTRACT; INTRODUCTION; EXPERIMENTAL; RESULTS AND DISCUSSION; CONCLUSIONS; REFERENCES; FRACTURE CRITERION OF SHORT CARBON FIBER-DISPERSED SiC MATRIX COMPOSITE UNDER MIXED MODE LOADING CONDITION; ABSTRACT; INTRODUCTION; EXPERIMENTAL PROCEDURE; Composite material; Fracture toughness test; RESULTS & DISCUSSION; Load-displacement curve and crack path
Fracture toughness
CONCLUDING REMARKS; REFERENCES; CERAMIC MATRIX COMPOSITES MANUFACTURED BY MULTISTEP DENSIFICATION OF Si-O-C FIBRE PREFORM; ABSTRACT; KEYWORDS; 1. INTRODUCTION; 2. MATERIALS AND EXPERIMENTAL PROCEDURE; 2.1. Materials; 2.2. Processing of composites; 2.3. Characterizations methods; 3. RESULTS AND DISCUSSION; 3.1. PIP of precursors in pellets; 3.2. Preparation and characterization of Ceramic Matrix Composites; CONCLUSION; ACKNOWLEDGEMENTS; REFERENCES
EFFECTS OF PARTICLE SIZE AND CRYSTALLINE PHASES DEVELOPED AFTER THERMAL SHOCK. CYCLES ON THE PHYSICAL PROPERTIES AND MECHANICAL RESISTANCE OF CORDIERITE-MULLITE CONCRETE MIXES.
ABSTRACT; INTRODUCTION; Experimentation; DISCUSSION AND ANALYSIS; Chemical Analysis; Physical Properties of Mixes; Thermal Treatment of Cordierite Concretes; CONCLUSION; REFERENCES;
ADVANCED CERAMIC COATINGS: PROCESSING, PROPERTIES, AND APPLICATIONS; DEVELOPMENT OF NEW OBSERVATION SYSTEM USED FOR DEFORMATION MEASUREMENT OF CERAMIC MATRIX COMPOSITES AT HIGH TEMPERATURE; ABSTRACT; INTRODUCTION
CONCEPT OF PROPOSED OPTICAL SYSTEM

Sommario/riassunto

Contains a collection of papers from the below symposia held during the 10th Pacific Rim Conference on Ceramic and Glass Technology (PacRim10), June 2-7, 2013, in Coronado, California 2012: Engineering Ceramics and Ceramic Matrix Composites: Design, Development, and Application
Advanced Ceramic Coatings: Processing, Properties, and Application
Geopolymers - Low Energy, Environmentally Friendly, Inorganic Polymeric Ceramic
Multifunctional Metal Oxide Nanostructures and Heteroarchitectures for Energy and Device Application
Advanced Characterization a
