

1. Record Nr.	UNINA9910822012903321
Titolo	Innovative processing and manufacturing of advanced ceramics and composites II . Volume 243 Ceramic transactions : a collection of papers presented at the 10th Pacific Rim Conference on Ceramic and Glass Technology June 2-6, 2013 Coronado, California // edited by Tatsuki Ohji [and four others]
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2014 ©2014
ISBN	1-118-77146-X 1-118-77144-3
Descrizione fisica	1 online resource (214 p.)
Collana	Ceramic Transactions, , 1042-1122 ; ; Volume 243
Altri autori (Persone)	OhjiT (Tatsuki)
Disciplina	666
Soggetti	Ceramic materials Ceramic-matrix composites Ceramic engineering Composite materials Fractography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Cover; Title Page; Copyright Page; Contents; Preface; NOVEL, GREEN, AND STRATEGIC PROCESSING ANDMANUFACTURING TECHNOLOGIES; Optimized Shaping Process for Transparent Spinel Ceramic; ABSTRACT; INTRODUCTION; MATERIAL PREPARATION; UNIAXIAL HYDRAULIC PRESSING; THERMAL PROCESSING; SAMPLE CHARACTERIZATION; SUMMARY AND OUTLOOK; REFERENCES; Thermal Diffusion Coatings for Wear-Resistant Components for Oil and Gas Industry; ABSTRACT; INTRODUCTION; BASIC PRINCIPLES OF THERMAL DIFFUSION BORONIZING PROCESS; EXPERIMENTAL; Starting Materials and Processing; Testing and Evaluation; RESULTS AND DISCUSSION CONCLUSIONACKNOWLEDGEMENT; REFERENCES; POLYMER DERIVED CERAMICS AND COMPOSITES; Polymer-Derived Ceramics for Development of Ultra-High Temperature Composites; ABSTRACT; I.

INTRODUCTION; II. EXPERIMENTAL; II.1 Woven Fabric HfB₂-SiC Matrix Laminate Fabrication; II.2 Unidirectional Tape HfB₂-SiC Matrix Laminate Fabrication; II.3 CMC/PMC Hybrid Fabrication; III. RESULTS AND DISCUSSION; III.1 Woven SiC Fabric Reinforced UHTCs; III.2 Filament Wound SiC Fiber Reinforced UHTCs; III.3 CMC and Ceramic Components for Hybrid TPS; IV. CONCLUSION; ACKNOWLEDGEMENTS
Siliconboronoxycarbide (SiBOC) Foam from Methyl Borosiloxane ABSTRACT; INTRODUCTION; EXPERIMENTAL; Materials; Preparation of SiBOC foam from borosiloxane; Characterization; RESULTS AND DISCUSSION; Synthesis and Characterization of methylborosiloxane; Siliconboronoxycarbide foam; CONCLUSIONS; REFERENCES; Synthesis of a Porous SiC Material from Polycarbosilane by Direct Foaming and Radiation Curing; ABSTRACT; INTRODUCTION; EXPERIMENTAL PROCEDURE; RESULTS AND DISCUSSION; CONCLUSION; REFERENCES
Fabrication of SiOC/C Coatings on Stainless Steel using Poly(Phenyl Carbosilane) and their Anti-Corrosion Properties ABSTRACT; INTRODUCTION; EXPERIMENTAL; Coating process; Characterization of the films; Corrosion testing; RESULTS AND DISCUSSION; Chemical structure of SiOC/C; Oxide layer between the SiOC/C film and the substrate; Microscopic analysis of the interface between the SiOC/C film and the substrate; Corrosion test and microstructure of the test surface; CONCLUSIONS; ACKNOWLEDGMENT
Photo Luminescent Properties of Polymer Derived Ceramics at Near Stoichiometric SiO₂-xSiC-y(H) Compositions ABSTRACT; INTRODUCTION; EXPERIMENTAL PROCEDURE; RESULTS AND DISCUSSION; SUMMARY; ACKNOWLEDGEMENTS; REFERENCES; Synthesis of Hierarchical Porous SiCO Monoliths from Pre-ceramic Polymer Impregnated with Porous Templates; ABSTRACT; INTRODUCTION; EXPERIMENTAL PROCEDURE; Porous SiCO ceramics prepared from PU sponge or wood biomass; Characterization; RESULTS AND DISCUSSION; XRD analysis; FTIR analysis; SEM analysis; N₂ adsorption isotherms and pore size distributions; CONCLUSIONS
ACKNOWLEDGMENTS

Sommario/riassunto

Contains 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: Novel, Green, and Strategic Processing and Manufacturing Technologies
Polymer Derived Ceramics and Composites
Advanced Powder Processing and Manufacturing Technologies
Synthesis and Processing of Materials Using Electric Fields/Currents
