1. Record Nr. UNINA9910132155803321

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Titolo	Processing and Properties of Advanced Ceramics and Composites VI [[electronic resource]] : Ceramic Transactions
Pubbl/distr/stampa	Hoboken, : Wiley, 2014
ISBN	1-118-99667-4 1-118-99543-0
Descrizione fisica	1 online resource (389 p.)
Collana	Ceramic Transactions Series
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Disciplina	668.12690
Soggetti	Ceramic materials Composite materials -- Congresses Composite materials Chemical & Materials Engineering Engineering & Applied Sciences Materials Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Cover; Title Page; Copyright Page; Contents; Preface; Ceramic Matrix Composites; FABRICATION OF NOVEL ZrO2(Y2O3)-Al2O3 CERAMICS HAVING HIGH STRENGTH AND TOUGHNESS BY PULSED ELECTRIC-CURRENT PRESSURE SINTERING (PECPS) OF SOL-GEL DERIVED SOLID SOLUTION POWDERS; ABSTRACT; INTRODUCTION; EXPERIMENTAL

PROCEDURE; Preparation of ZrO2(Y2O3)- 25mol%AhO3 ceramics; EVALUATION OF SAMPLES; Microstructures; Mechanical properties; RESULTS AND DISCUSSION; Characterization of powders and ceramics; CONCLUSIONS; ACKNOWLEDGMENTS; REFERENCES; SiC MANUFACTURE VIA REACTIVE INFILTRATION; ABSTRACT; 1 INTRODUCTION
2 EXPERIMENTAL PROCEDURE2.1 MATERIALS; 2.2 INFILTRATION TESTS; 2.3 MICROSTRUCTURE; 3. RESULTS AND DISCUSION; 3.1 GREEN PREFORM CHARACTERIZATION; 3.2 EFFECT OF REACTION TEMPERATURE ON THE DENSITY OF THE COMPOSITES; 3.3 EFFECT OF DWELL TIME ON THE DENSITY OF THE COMPOSITES; 3.4 MICROSTRUCTURE OF THE COMPOSITES; 4. CONCLUSIONS; 5. ACKNOWLEDGEMENTS; REFERENCES; FABRICATION AND CHARACTERIZATION OF CONDUCTIVE GLASS COMPOSITES WITH NETWORKS OF SILICON CARBIDE WHISKERS; ABSTRACT; INTRODUCTION; EXPERIMENT; DISCUSSION; CONCLUSIONS; ACKNOWLEDGMENTS; REFERENCES
ALUMINA-TITANIUM COMPOSITES WITH IMPROVED FRACTURE TOUGHNESS AND ELECTRICAL CONDUCTIVITYABSTRACT; INTRODUCTION; EXPERIMENTAL; RESULTS; Density; Microstructure; Mechanical properties; Electrical properties; CONCLUSIONS; Acknowledgments; References; FRACTURE TOUGHNESS ENHANCEMENT OF MULLITE-CERAMICS REINFORCED WITH METALS; ABSTRACT; INTRODUCTION; EXPERIMENTAL; RESULTS; Density; X-ray diffraction; Microstructure; Mechanical properties (HV and Kic); CONCLUSIONS; Acknowledgments; References; Innovative Processing; STEEL-CERAMIC LAMINATES MADE BY TAPE CASTING - PROCESSING AND INTERFACES; ABSTRACT
INTRODUCTIONEXPERIMENTAL; Powder Preparation; Tape casting; Lamination and reshaping of green laminates; Heat treatment; RESULTS; CONCLUSIONS; REFERENCES; COMPARISON OF WAX EXTRACTION METHODS USED IN SYNTHETIC GRANULAR COMPOSITE SPORT SURFACES; ABSTRACT; INTRODUCTION; EXPERIMENTAL; Materials; Solvent Decanting Method; Soxhlet Extraction Method; RESULTS AND DISCUSSION; CONCLUSIONS; ACKNOWLEDGEMENTS; REFERENCES; SYNTHESIS AND MAGNETIC PROPERTIES OF Ni-Cu NANO-MAGNETIC CERAMICS; ABSTRACT; INTRODUCTION; EXPERIMENTAL PROCEDURE; RESULTS AND DISCUSSION; Structural properties; Magnetic Performance CONCLUSIONSACKNOWLEDGMENTS; REFERENCES; A STUDY OF ARMOUR RELATED PROPERTIES OF CERAMIC; ABSTRACT; INTRODUCTION; EXPERIMENTAL DETAILS; where F is the applied load in kgf; Microstructure; CONCLUSION; REFERENCES; A NOVEL DIP COATING METHOD FOR REACTION BONDING OF ALUMINUM ON ALUMINA; ABSTRACT; INTRODUCTION; EXPERIMENTAL; RESULTS; DISCUSSION; CONCLUSIONS; ACKNOWLEDGEMENT; REFERENCE; PROCESSING AND MICROSTRUCTURAL CHARACTERIZATION OF SINTERED LANTHANUM ALUMINATE OBTAINED BY TWO DIFFERENT ROUTES; ABSTRACT; INTRODUCTION; EXPERIMENTAL PROCEDURE; RESULT AND DISCUSSION; CONCLUSIONS; ACKNOWLEDGEMENTS
REFERENCES

Sommario/riassunto

With contributed papers from the 2011 Materials Science and Technology symposia, this is a useful one-stop resource for understanding the most important issues in the processing and properties of advanced ceramics and composites. Logically organized and carefully selected, the articles cover the themes of the symposia: Innovative Processing and Synthesis of Ceramics, Glasses and Composites; Advances in Ceramic Matrix Composites; Solution-Based Processing of Materials; and Microwave Processing of Materials. A must for academics in mechanical and chemical engineering, materials and

or ceramics,