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Titolo	13th International Ceramics Congress : proceedings of the 13th International Ceramics Congress, part of CIMTEC 2014-13th International Ceramics Congress and 6th Forum on New Materials, June 8-13, 2014, Montecatini Terme, Italy. Part A / / edited by Pietro Vincenzini, World Academy of Ceramics and National Research Council, Italy ; co-edited by Masahiro Yoshimura, National Cheng Kung University, Taiwan
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	13th International Ceramics Congress - Part A; Preface; Table of Contents; Chapter 1: Powder Synthesis and Characterization; Preparation of Protonic Conductor BaZr <sub>0.5</sub> Ce <sub>0.3</sub> Ln <sub>0.2</sub> O <sub>3</sub> - (Ln=Y, Sm, Gd, Dy) by Using a Solid State Reactive Sintering Method; High Energy Milling of Zirconia: A Systematic Critical Review on the Phase Transformation; Structural and Electrical Properties of (1-x)Pb <sub>x</sub> TiO <sub>3</sub> -xSm(Fe <sub>3</sub> +0.5, Nb <sub>5</sub> +0.5)O <sub>3</sub> Ceramics Prepared by Conventional Solid State Synthesis and Sintered at Low Temperature; Structural and Electrical Properties of Ca <sub>2+</sub> Substituted Pb[(Zr <sub>0.52</sub> Ti <sub>0.48</sub> ) <sub>0.98</sub> (Cr <sub>3</sub> +0.5, Ta <sub>5</sub> +0.5) <sub>0.02</sub> ] <sub>0.96</sub> P <sub>0.04</sub> O <sub>3</sub> Ceramics; Soft Synthesis of FAU Nanozeolites and Microporous Membranes; Characteristic and Sinterability of Alumina-Zirconia-Yttria Nanoparticles Prepared by Different Chemical Methods; Ultradispersed Powdery Y <sub>2</sub> O <sub>3</sub> -Bi <sub>2</sub> O <sub>3</sub> -ZnO Composition with High Chemical Homogeneity for Fine-Grained Ceramics; Preparation of Highly-Dispersed Powders of Cobalt, Nickel, Molybdenum and Tungsten Oxides by Modified Sol-Gel Technique

Development of Highly Dispersed Hybrid Nanoalumina with the Sol-Gel Method  
Study of Gamma Alumina Synthesis - Analysis of the Specific Surface Area; Synthesis and Characterization of Nanocomposite HA-Al<sub>2</sub>O<sub>3</sub> Sol-Gel Powders for Biomedical Applications; Effect of Ammonium Sulfate on Morphology of Y<sub>2</sub>O<sub>3</sub> Nanopowders Obtained by Precipitation and its Impact on the Transparency of YAG Ceramics; Segregation and Color Change on (Cr,Ca) Codoped Nanocrystalline Tin Dioxide; Microstructural Characterization of Activated Carbon Obtained from Waste Tires

Chapter 2: Colloidal Processing, Shape Forming and Compaction Mechanisms  
Transparent Tetragonal Zirconia Ceramics by Colloidal Processing of Nanoparticle Suspension; Composition - Property Relations in Shear Thickening Fluids; Thick Film Processing Challenges in the Realisation of a Co-Fired Solid Oxide Fuel Cell Roll; A Mixed SVD-Neural Network Approach to Optimal Control of Ceramic Mould Manufacturing in Lost Wax Cast Processes; Manufacturing of Porous Ceramic Spheres Using Calcium Phosphates, by a Mechanical Method without Additives or Binders; Chapter 3: Sintering and Related Phenomena

In Situ Platelet Reinforcement of Alumina and Zirconia Matrix Nanocomposites - One Concept, Different Reinforcement Mechanisms  
Sol-Gel Derived Mullite-Gahnite Composite; 3D Phase-Field Simulation and Characterization of Microstructure Evolution during Liquid Phase Sintering; Influence of Alumina Addition on Low Temperature Degradation of Y<sub>2</sub>O<sub>3</sub>-Coated Powder Based Y-TZP Ceramics; Effect of Different Sintering Processes on Microstructure of Alumina Ceramics

Mechanical Characterization of Conventional and Non-Conventional Sintering Methods of Commercial and Lab-Synthesized Y-TZP Zirconia for Dental Applications

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#### Sommario/riassunto

Collection of selected, peer reviewed papers from the 13 th International Ceramics Congress, part of CIMTEC 2014-13 th International Ceramics Congress and 6 th Forum on New Materials, June 8-13, 2014, Montecatini Terme, Italy. The 27 papers are grouped as follows: Chapter 1: Powder Synthesis and Characterization, Chapter 2: Colloidal Processing, Shape Forming and Compaction Mechanisms, Chapter 3: Sintering and Related Phenomena. Temporary description, more details to follow.

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