

1. Record Nr.	UNINA9910830214003321
Titolo	Advances in sintering science and technology [[electronic resource]] : a collection of papers presented at the International Conference on Sintering, November 16-20, 2009 [i.e. 2008], La Jolla, California / / edited by Rajendra K. Bordia, Eugene A. Olevsky
Pubbl/distr/stampa	[Westerville, Ohio], : American Ceramic Society Hoboken, N.J., : Wiley, c2009
ISBN	1-282-48187-8 9786612481871 0-470-59973-1 0-470-59970-7
Descrizione fisica	1 online resource (455 p.)
Collana	Ceramic transactions, , 1042-1122 ; ; v. 209
Altri autori (Persone)	BordiaRajendra K OlevskyEugene A
Disciplina	666 671.373
Soggetti	Sintering Sinter (Metallurgy)
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 and index.
Nota di contenuto	Advances in Sintering Science and Technology; Contents; Preface; Acknowledgements; APPLICATION OF SINTERING IN EMERGING ENERGY APPLICATIONS: FUEL CELLS, SOLAR CELLS, HYDROGEN STORAGE; Sintering Behavior of Ce _{0.9} Gd _{0.1} O _{1.95} - in Reducing Atmosphere; Hydrogen Sorption Properties of Ti-Oxide/Chloride Catalyzed Na ₂ LiAlH ₆ ; High Density Green Pellets of ZrN Fabricated by Particle Processing; EVOLUTION AND CONTROL OF MICROSTRUCTURE DURING SINTERING PROCESSES; The Effect of Carbon Source on the Microstructure and the Mechanical Properties of Reaction Bonded Boron Carbide Modification of Mass Transport during Sintering Induced by Thermal Gradient FUNDAMENTAL ASPECTS OF SINTERING; Effects of Crystallization and Vitrification on Sintering Properties of Bentonite Clay; Dissolution of Alumina in Silicate Glasses and the Glass Formation

Boundary; The Effect of Volume Fraction on Grain Growth during Liquid Phase Sintering of Tungsten Heavy Alloys; IN-SITU MEASUREMENTS IN SINTERING; In-Situ Investigation of the Cooperative Material Transport during the Early Stage of Sintering by Synchrotron X-Ray Computed Tomography; Geopolymers Sintering by Optical Dilatometry
MODELING OF SINTERING AT MULTIPLE SCALES Meso-Scale Monte Carlo Sintering Simulation with Anisotropic Grain Growth; Numerical Simulation of Densification and Shape Distortion of Porous Bodies in a Granular-Transmitting Medium; The Effect of a Substrate on the Microstructure of Particulate Films; Modelling Constrained Sintering and Cracking; Atomistic Scale Study on Effect of Crystalline Misalignment on Densification during Sintering Nano Scale Tungsten Powder; Variations in Sintering Stress and Viscosity with Mixing Ratio of Metal/Ceramic Powders
NOVEL SINTERING PROCESSES: FIELD-ASSISTED SINTERING TECHNIQUES Finite Element Modelling of Microwave Sintering; Direct and Hybrid Microwave Sintering of Ytria-Doped Zirconia in a Single-Mode Cavity; The Influence of Minor Additives on Densification and Microstructure of Submicrometer Alumina Ceramics Prepared by SPS and HIP; The Electro-Discharge Compaction of Powder Tungsten Carbide-Cobalt-Diamond Composite Material; Microwave Sintering Explored by X-Ray Microtomography; Pulse Plasma Sintering and Applications; Influence of Electric Fields during the Field Assisted Sintering Technique (FAST)
Sintering of Combustion Synthesized TiB₂-ZrO₂ Composite Powders in Conventional and Microwave Furnaces Production and Characterization of WC-Co Cemented Carbides by Field Assisted Sintering; Microwave Rapid Debinding and Sintering of MIM/CIM Parts; SINTERING OF BIOMATERIALS; Analysis of Sintering of Titanium Porous Material Processed by the Space Holder Method; Effect of Sintering Temperature and Time on Microstructure and Properties of Zirconia Toughened Alumina (ZTA); Sintering Zirconia for Dental CAD/CAM Technology; SINTERING OF MULTI-MATERIAL AND MULTI-LAYERED SYSTEMS Co-Sintering Behaviors of Oxide Based Bi-Materials

Sommario/riassunto

This volume is part of the Ceramic Engineering and Science Proceeding (CESP) series. This series contains a collection of papers dealing with issues in both traditional ceramics (i.e., glass, whitewares, refractories, and porcelain enamel) and advanced ceramics. Topics covered in the area of advanced ceramic include bioceramics, nanomaterials, composites, solid oxide fuel cells, mechanical properties and structural design, advanced ceramic coatings, ceramic armor, porous ceramics, and more.
