

1. Record Nr.	UNINA9910462383603321
Titolo	SiAlONs and non-oxides [[electronic resource] ] : selected, peer reviewed papers from the 2nd International Symposium on SiAlONS and Non-Oxides, December 2nd-5th, 2007, Ise-shima Royal Hotel, Mie, Japan / / edited by Katsutoshi Komeya ... [et al.]
Pubbl/distr/stampa	Stafa-Zurich, Switzerland, : Trans Tech Publications Ltd., 2009
ISBN	3-03813-272-1
Descrizione fisica	1 online resource (279 p.)
Collana	Key engineering materials, , 1013-9826 ; ; v. 403
Altri autori (Persone)	KomeyaKatsutoshi
Disciplina	620.14
Soggetti	Ceramic materials Electronic books.
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 indexes.
Nota di contenuto	SiAlONs and Non-oxides; Table of Contents; Sponsors; Foreword; Nitrides; Preparation and Characterization of MM'Si4N6C Ceramics; The Phase Evolution in the Si3N4-AlN System after High-Energy Mechanical Treatment of the Precursor Powder; New Green Phosphor Ba3Si6O12N2: Eu for White LED: Crystal Structure and Optical Properties ; Application of Nitride and Oxynitride Compounds to Various Phosphors for White LED; Fabrication of Electrically Conductive Si3N4 Ceramics by Dispersion of Carbon Nanotubes Low Temperature Sintering of Si3N4 Ceramics and its Applicability as an Inert Matrix of the Transuranium Elements for Transmutation of Minor Actinides 2.45 GHz Microwave Sintering of Silicon Nitride; Sintering Shrinkage Behavior of Si3N4 Ceramics Prepared by a Post-Reaction Sintering Technique; Sintering Shrinkage Behavior and Mechanical Properties of HfO2-Added Si3N4 Ceramics; Fabrication and Evaluation of AlN-SiC Solid Solutions with p-Type Electrical Conduction; Atomic Resolution and In Situ Characterization of Structural Ceramics; Non-Oxide Ceramic Nanocomposites with Multifunctionality Electrical Resistivity Control of Hot-Pressed Aluminum Nitride Ceramics Fracture Resistance and Wear Properties of Silicon Nitride Ceramics; Oxidation of Rare Earth Silicon Oxynitride J-Phases; Effect of Second Phase After-Heat Treatment on the Thermal Conductivity of AlN

Ceramics; Thermal Conductivity Measurement of the AlN Ceramics at the Grain Scale Using Thermoreflectance Technique; Viscosity Measurement of Molten RE-Mg-Si-O-N (RE=Y, Gd, Nd and La) Glasses; First Principles Calculations of Advanced Nitrides, Oxides and Alloys Advances in Computation of Temperature-Pressure Phase Diagrams of High-Pressure Nitrides SiAlONs; Luminescence Properties of -SiAlONs and Related Compounds; Developments in SiAlON Glasses and their Derivatives: Effects of Chemistry on Properties; Controlled Crystallisation of a Y-Si-Al-O-N Glass Typical of Grain Boundary Glasses Formed in Silicon Nitride-Based Ceramics; Synthesis and Refinement of -SiAlON by Nitriding and Post-Sintering of Si Mixture ; Interactions between AlN and SiAlON Ceramics; Surface Structuring of /-Sialon Ceramics by Plasma-Etching  
SiAlON B-Phase Glass-Ceramic Microstructures Development of -SiAlON Ceramics from Different Si<sub>3</sub>N<sub>4</sub> Starting Powders; Effects of Process on Optical Transmittance of Dy--Sialon Sintered at Lower Temperatures ; Mechanical Properties of - and -SiAlON Composite Ceramics Using -SiAlON Powder; Tribological Performance of Translucent Dy--Sialon Ceramics; High-Temperature Compressive Deformation of SiAlON Polycrystals Prepared without Additives; Dielectric Properties of -SiAlON at High Temperature Using Perturbation Method ; Dielectric Properties of SiAlON Ceramics Subcritical Crack Growth of /-Sialon Ceramics in Distilled Water

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#### Sommario/riassunto

During the past fifty years, significant progress has been achieved in the theory and application of SiAlONs and other similar non-oxide ceramics. In particular, the advances of the last thirty years in research and development have made SiAlONs, and similar materials, some of the most important engineering ceramics and new functional ceramics of today. The papers presented in this volume are authored by leading international experts on SiAlON and non-oxide materials and therefore give an excellent overview of current and future trends in the field.

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