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| Titolo                  | Mass and charge transport in inorganic materials - III : proceedings of the 3rd International Conference "Mass and Charge Transport in Inorganic Materials" of the Forum on New Materials, part of CIMTEC 2006 - 11th International Ceramics Congress and 4th Forum on New Materials, held in Acireale, Sicily, Italy on June 4-9, 2006 // edited by P. Vincenzini, World Academy of Ceramics and National Research Council, Italy, V. Buscaglia, CNR - IENI, Genoa, Italy  |
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| Altri autori (Persone)  | VincenziniP<br>BuscagliaV   |
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| Note generali           | Description based upon print version of record.   |
| Nota di bibliografia    | Includes bibliographical references and indexes.  |
| Nota di contenuto       | Mass and Charge Transport in Inorganic Materials III; Committees; Preface; Table of Contents; Session 1 - Mass and Charge Transport Mechanisms; 1A - Transport in Non-Ionic and Ionic Crystalline Materials; Studies by In Situ and Real-Time Synchrotron Imaging of Interface Dynamics and Defect Formation in Solidification Processing; Electric Field-Induced Unmixing in Mixed Ferrite Spinel (Co,Fe) <sub>3</sub> O <sub>4</sub> ; Electron Transport and Dielectric Breakdown Kinetics in Pr <sub>2</sub> O <sub>3</sub> High K Films; Diffusion Rates of <sup>51</sup> Cr, <sup>54</sup> Mn and <sup>59</sup> Fe in MnCr <sub>2</sub> O <sub>4</sub> and FeCr <sub>2</sub> O <sub>4</sub> Spinel<br>Phase Transformations and Interstitial Atom Diffusion in Iron-Nitride, Iron-Carbonitride and Iron-Carbide Layers Contribution to the Theory of Demixing of Yttrium in Yttria-Stabilized-Zirconia in an Electric Field; Computer Modelling of Oxygen Mobility at Ceria Surfaces and the Construction of Ceria Nanotube Models; 1B - Transport in Metals, |

Semiconductors, Melts, Glasses; Extraction of Diffusion Correlation Information from Tracer, Interdiffusion and Ionic Conductivity Data; Hydrogen Diffusion Mechanisms and Hydrogen-Dopant Interactions in Diamond  
Electric-Field-Enhanced Thermal Emission from Osmium-Related Deep Level in n-GaAs Water Diffusion in Silicate Glasses and Melts; Ionic Conductivity of Hydrous Silicate Glasses; Diffusivity, Solubility and Speciation of Sulphur in Silicate Melts; Influence of Elasticity of Dislocations on Thermal Motion of Trapped Liquid Pb Inclusions in Al;  
1C - Transport Through Nanoscale Systems; Heat Transport in Superlattices and Nanocomposites for Thermoelectric Applications; In Situ Ultrahigh Vacuum Transmission Electron Microscope Investigations of Dynamical Changes of Nanostructures on Silicon  
Finite Element Modeling of Space Charge Phenomena on the Nanoscale  
Session 2 - Role of Transport in Materials Reactivity, Synthesis, Processing and Microstructure; Atom Probe Tomography: Studying Reactions on Top of the Tip; Periodic Pattern Formation in Metal-Ceramic Reactions; Growth and Characterization of (012)- and (001)-Oriented Epitaxial Anatase Thin Films; Study on Microstructure and Magnetic Properties of TM-Mg (TM: Fe, Co) Alloys Synthesized by Mechanical Alloying; Session 3 - Role of Transport in Application Engineering; Power Generation Using Oxide Thermoelectric Modules  
Synthesis and Thermoelectric Properties of Bi<sub>2</sub>Te<sub>3</sub>-GeTe Pseudo Binary System Diffusion and Defects in Oxides with the K<sub>2</sub>NiF<sub>4</sub> Structure Type; Carbon-Coated TiO<sub>2</sub> - Hybridization between Photoactivity and Adsorptivity; Molecular Simulation of Ion-Transport inside Chitosan Membranes; Keywords Index; Authors Index

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**Sommario/riassunto**

This collection presents 26 papers. Altogether, the collection offers a wealth of up-to-date information on Mass and Charge Transport in Inorganic Materials.

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