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Nota di contenuto	Characterization & Control of Interfaces for High Quality Advanced Materials; Contents; Preface; Nanoparticle Design and Suspension Control; Supercritical Hydrothermal Synthesis of Nanoparticles; Production of Ordered Porous Structures with Controlled Wall Thickness; Control of Dispersion Characteristics of T i 0 2 Nano-Powders for Electronic Paper; Direct Force Measurements of Ceramic Nanoparticles in Liquid Media; Direct Force Measurements Between Zirconia Surfaces: Influence of the Concentration of Polyacrylic Acid, pH, and Molecular Weight Effects of Polymer Dispersant Molecular Structure on Nonaqueous Ceramic Suspensions Influence of the Molecular Structure of a Polymer Dispersant on Concentrated SiC Aqueous Suspensions; Synthesis of TiO2 Nano-Powders from Aqueous Solutions with Various Cation and Anion Species; Characterization of Nano-Particle Dispersion in a Silica

Slurry; Effects of Slurry Preparation Conditions on Granule Properties and the Strength of Alumina Ceramics; High Temperature Interfaces; Effects of Titanium on Wettability and Interfaces in Aluminum/Ceramic Systems

Interface Phenomena and Wettability in the B₄C/(Me-Si) Systems (Me = Cu, Au, Sn) Interfacial Reactions Between Metals and Ceramics at Elevated Temperatures; Intrinsic Wettability and Wetting Dynamics in the Al/a-Al₂O₃ System; Wetting in the Tin-Silver-Titanium/Sapphire System; Tensile Properties of a Friction Stir Welded Thin-Sheet of I050-H24 Aluminum Alloy; Surface Tension of 304 Stainless Steel under Plasma Conditions; The Effect of Minor Elements in Argon Shielding Gas on Convection in a Molten Weld Pool; Particulate Materials Characterization of a Photocatalyst Prepared by a New Method to Introduce Ti Sites on the Surface of Silica Particle Oriented Bismuth Titanate Ceramics Prepared in a Magnetic Field; Formation of Nanostructure Composites Using Advanced Mechanical Processing; Synthesis of AlN by Gas-Reduction-Nitridation of Transition Alumina Powder; Effects of a Phase Content on the Sintering Behavior of Si₃N₄ Powder; Fabrication, Microstructure, and Corrosion Resistance of β-Sialon Nano-Ceramics; Characteristics of Dehumidifier Sheets for an Adsorptive Desiccant Cooling System; Novel Processing Development of New Materials by Mechanical Alloying Magnetic Properties of Ni-Ferrite Produced by High Energy Milling; Centrifugal Pressure Assisted Diffusion Bonding of Ceramics; Formation of Interfacial Phases at a SiC/Cu Joint Friction-Bonded With Ti; An Aerosol Deposition Method and its Application to Make MEMS Devices; Morphology and Performance of a Ni-YSZ Cermet Anode for Solid Oxide Fuel Cells; Fuel Cell Technology in Thailand; Electrophoretic Deposition of a High Performance La(Sr)Ga(Mg)O₃ Electrolyte Film for a Low Temperature Solid Oxide Fuel Cell Formation of MgB₂ Superconducting Phase from Mg and B Composite Particles Produced by Mechanical Mixing

Sommario/riassunto

Interface characterization and control are critical in the design and manufacture of high quality advanced materials, particularly, for nanomaterials. This proceedings features papers on interface science and technology that provide a unique and state-of-the art perspective on interface characterization and control. Articles from scientists and engineers from 11 different countries address interface control, high temperature interfaces, nanoparticle design, nanotechnology, suspension control, novel processing, particulate materials, microstructure, and hot gas cleaning. This unique volume will
