

|                         |  |
|-------------------------|--|
| 1. Record Nr.           | UNINA9910840512503321  |
| Autore                  | Ewsuk Kevin  |
| Titolo                  | Characterization and Control of Interfaces for High Quality Advanced Materials II  |
| Pubbl/distr/stampa      | [Place of publication not identified], : Wiley American Ceramic Society Imprint, 2007  |
| ISBN                    | 1-118-14414-7  |
| Descrizione fisica      | 1 online resource (xiv, 476 pages) : illustrations   |
| Collana                 | Ceramic transactions ; ; 198   |
| Disciplina              | 541.33   |
| Soggetti                | Interfaces (Physical sciences)<br>Ceramic materials<br>Surfaces (Technology)   |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | Bibliographic Level Mode of Issuance: Monograph  |
| Nota di contenuto       | Joining Technology for New Metallic Glasses and Inorganic Materials. The Structure of the Welded Zone and Phase Transformation Behavior of Ni-Based Bulk-Glass Forming Alloy / D V Louzguine-Luzgin, G Xie, T Tsumura, K Nakata, Y Murakami, H M Kimura, A Inoue -- Brazing of Advanced Ceramic Composites: Issues and Challenges / Mrityunjay Singh, Rajiv Asthana -- Development of A Variable Temperature UHV-Laser Microscope Combined with A Pulsed Laser Deposition for In Situ Studies of Ceramics/Metallic Glass Interfaces / Yuji Matsumoto, Takuma Obata, Miki Hiraoka, Masao Katayama -- Stress Analysis of Geometrically Complex and Ultra Large Scale Model by Fractal Multi-Grid Method / H Murakawa, H Serizawa, M Tejima, K Taguchi, S Itoh -- Influence of Grain-Grain Interfaces on Heat Transfer in Dense and Porous Oxide Ceramics / DS Smith, C Poulier, B Nat-Ali, A Michot, J Absi -- Fabrication of Colloidal Photonic Crystals from Submicron-Sized Spheres / Daisuke Nagao, Mitsuaki Hirose, Ryoji Kameyama, Hideki Matsumoto, Yoshio Kobayashi, Mikio Konno -- Spark Plasma Sintering of AlO Particulate Dispersed ZrCuAlNi Metallic Glassy Matrix Composite / Guoqiang Xie, Dmitri V Louzguine-Luzgin, Akira Okubo, Hisamichi Kimura, Akihisa Inoue -- Porous Bulk Metallic Glass Produced by Spark Plasma Sintering of Gas Atomized ZrCuAlNi Glassy Powders / Guoqiang Xie, Wei Zhang, Qingsheng Zhang, Dmitri V Louzguine- |

Luzgin, Akira Okubo, Hisamichi Kimura, Akihisa Inoue -- Mechanical Properties of Friction-Stir Welded Titanium Joint / Hidetoshi Fujii, Hideaki Kato, Kazuhiro Nakata, Kiyoshi Nogi -- Silica-Coating of Barium Titanate Particles / Hideki Matsumoto, Daisuke Nagao, Yoshio Kobayashi, Mikio Konno -- Dissolution of Hydrogen into Tungsten Phosphate Glasses through Palladium Coating / Hiromasa Tawarayama, Hiroshi Kawazoe, Shouichi Sugata, Futoshi Utsuno, Hiroyuki Inoue, Hideo Hosono -- Properties of Metallic Glass Coatings on An Aluminum Alloy Substrate Produced Using A HVOF Spraying Process / Hyun-Guen Kim, Kazuhiro Nakata, Takuya Tsumura, Masaharu Sugiyama, Takanori Igarashi, Masahiro Fukumoto, Hisamichi Kimura, Akihisa Inoue -- Photoelectron Spectroscopic Study of Energy Level Alignment at C12A7: e / Alq Interfaces / Ki-Beom Kim, Maiko Kikuchi, Masashi Miyakawa, Hiroshi Yanagi, Toshio Kamiya, Masahiro Hirano, Hideo Hosono -- Development of Nanoceramics: Application to Diffusion Bonding / Michiyuki Yoshida, Yutaka Shinoda, Takashi Akatsu, Fumihiko Wakai -- Influence of Friction Stir Welding Parameters on Microstructure and Mechanical Properties of AA2024-T3 Aluminum Alloy / Saad Ahmed Khodir, Toshiya Shibayanagi, Masaaki Naka -- Effects of Processing Temperature on Bonding Behavior of Hydroxyapatite Ceramics and Titanium by Hydrothermal Hot-Pressing Method / Takamasa Onoki, Tomoaki Watanabe, Eiichi Yasuda, Toshiyuki Hashida, Yasuhiro Tanabe -- Orientation Distribution in Friction Stir Processed A6061 Aluminum Alloy / Toshiya Shibayanagi, Takamasa Matsumoto -- Weldability and Mechanical Property of NiNbTiZrCoCu Metallic Glass Foil by Laser Welding / Takuya Tsumura, Katsunori Kobayashi, Kazuhiro Nakata, Natsuki Yoneyama, Taichi Murakami, Hisamichi Kimura, Akihisa Inoue -- Glass Transition Phenomena and Heat Capacity of ZrAlNiCu / Yosuke Moriya, Takahiro Yoshida, Hitoshi Kawaji, Tooru Atake, Mikio Fukuhara, Hisamichi Kimura, Akihisa Inoue -- Development of Fiber Laser Aided Spot Heating System and Its Application to Control of Microstructure in Pure Aluminum / Toshiya Shibayanagi, Masahiro Tsukamoto, Nobuyuki Abe, Nobuyuki Matsuda, Yukihiko Soga, Takamasa Matsumoto -- Preparation of An Mtes Hybrid Bioactive Coating on Metal Surfaces Using the Sol-Gel Method / Yasuto Hoshikawa, Eiichi Yasuda, Takamasa Onoki, Masaru Akao, Yasuhiro Tanabe -- Synthesis of SiO-Coated Magnetite Nanoparticles and Immobilization of Proteins on Them / Yoshio Kobayashi, Mayumi Yoshida, Daisuke Nagao, Yasuo Ando, Terunobu Miyazaki, Mikio Konno -- Nano-Particles and Powders. Fabrication of Textured Alumina-Mullite-Silicon Carbide Nano-Composites / Yoshio Sakka, Sho Saito, Atsushi Honda, Tohru S Suzuki -- Colloidal Consolidation of Mixed Powders of the Alumina/Indium Tin Oxide System / Naoki Matsunaga, Shinji Ueno, Yosuke Tanaka, Yoshihiro Hirata -- Improvement of Silica Particle Dispersability in Xylene Using Surface Modification / Chika Takai, Masayoshi Fuji, Minora Takahashi -- Self-Dispersible Silica Nanoparticles Modified with Aminoalkylsilane / Toshio Kakui, Mitsuru Ishii, Sayaka Sato, Masao Ishiguro, Koji Hisanaga -- Low Temperature Co-Fired Ceramics (LTCC) -- Design and Characterization of Interfaces / Torsten Rabe, Markus Eberstein, Wolfgang A Schiller -- Controlling Interfacial Chemistry During the Processing of Micron Scale Surgical Instruments / Nicholas Antolino, Gregory Hayes, James H Adair, Christopher Muhlstein, Mary Frecker, Eric Mockensturm -- Development of Nanoencapsulated Curcumin in Chitosan for Cosmetic Use via Evaporation of O/W/O Emulsion / W Tanthapanichakoon, N Sowasod, T Charinpanitkul -- Structural and Morphological Study of Nanoceramics Prepared by Spray Pyrolysis / LS Gmez, ME Rabanal, JM Torralba, L Mancic, O Milosevic -- Influence of Water Content of Starting Powder Mixture on the

Mechanochemical Synthesis of Strontium Doped Lanthanum Manganite / Jintawat Chaichanawong, Kazuyoshi Sato, Hiroya Abe, Makio Naito, Tawatchai Charinpanitkul, Wiwut Tanthapanichakoon -- Carbon Nanotubes as Photocatalytic Carriers / Georgios Pyrgiotakis, Wolfgang Sigmund -- Anisotropic Sintering Shrinkage and Grain Growth for Spherical Alumina Powder Compacts Aligned in High Magnetic Field / Anze Shui, Lingke Zeng, Yanchun Liu, Atsushi Makiya, Keizo Uematsu -- Effect of Mo Powder Surface Condition on Fabrication of Mo-SiO Functionally Graded Materials with Slipcasting Method / Ayumu Umemoto, Koichi Hayashi, Kyoko Hayano, Noritaka Saito, Kenji Kaneko, Kunihiko Nakashima -- A Mechanically Synthesized LaSrMnO Fine Powder for the Cathode Material of An Intermediate Temperature Solid Oxide Fuel Cell (IT-SOFC) / Kazuyoshi Sato, Akira Kondo, Hiroya Abe, Makio Naito, Jintawat Chaichanawong -- Hydrothermal Synthesis of Nanostructured BiTe Powder / H Kaga, Y Kinemuchi, K Watari -- Influence of Nanoporous Structure on Silane Coupling Surface Modification Behavior and Adhesion Properties of Spherical Silica Particles / Toshiyuki Kani, Maki Tamonoki, Takahiro Suzuki, Mayumi Tsukada, Hidehiro Kamiya -- Effect of Magnetic Field on Orientation of Diamagnetic Ceramic Particles Dispersed in Slurry / Satoshi Tanaka, Atsushi Makiya, Keizo Uematsu, Yutaka Doshida -- Micro-Patterning of Tin Oxide by Micro-Molding in Capillaries / Junko Imasu, Hiroshi Fudouzi, Yoshio Sakka -- Gelcasting Formulation of Alumina Slurry Offering Some Advantages in Ceramic Shaping / Ruben L Menchavez, Masayoshi Fuji, Hiroaki Takegami, Tomohiro Yamakawa, Minora Takahashi -- Effect of Surfactants on the Formation of Hollow CaCO Particle by Bubble Template Method / Yong Sheng Han, Li Wei Lin, Masayoshi Fuji, Takeshi Endo, Hideo Watanabe, Minora Takahashi -- A Facile Method to Synthesize ZNO Tubes by Involving Ammonia Bubbles / Liwei Lin, Yongsheng Han, Masayoshi Fuji, Takeshi Endo, Hideo Watanabe, Minoru Takahashi -- Rapid Drying Technique for Slip Cast Body / Takashi Shirai, Masaki Yasuoka, Yoshiaki Kinemuchi, Yuji Hotta, Koji Watari -- Interface Characterization and Control. Improvement of Molten-Metal Wettability on Ceramics by Micro-Macro Level Morphology Control / Hideki Kita, Hideki Hyuga, Katsumi Yoshida, Naoki Kondo -- Ceramic Surface Roughness Modification Using A Polymethylsilsesquioxane and Silicon Oxycarbide Film Coating / Manabu Fukushima, Seiji Nakano, Hideki Kita -- An AFM Study of the Interaction between An  $\alpha$ -Alumina Particle and A Flat Sapphire Surface in High Ionic Strength Electrolyte Solutions / Huseyin Yilmaz, Kimiyasu Sato, Koji Watari -- Energy and Environment. Cohesive Dust Cake Formation on A Ceramic Tube Filter as The Main Cause of A Pressure Drop Increase in A High Temperature Gas Cleaning Process / Nobuhiro Misawa, Hiroshi Sasatsu, Shinichi Sakuno, Hidehiro Kamiya -- Simulation of the Filtration Process for A Flat Fabric Filter / Yuping Yao, Ning Mao, Masashi Wada, Hidehiro Kamiya, Chikao Kanaoka -- Evaluation of the Long Term Stability of LSM/ScSZ Composite Powder Materials for SOFC Cathodes / Akifusa Hagiwara, Natsuro Hobara, Hiroyuki Shimada, Koichi Takizawa, Kazuyoshi Sato, Hiroya Abe, Makio Naito -- A Novel Concept and Approach to Fabricate Protective KB/PVDF Composite Films on Metallic Bipolar Plates for PEM Fuel Cells / Jingtian Yin, Takehisa Fukui, Kenji Murata, T Hirabayashi, S Yamamuro, M Matsuda, M Miyake -- Study of An Alum-Ceramic Heat Storage Material / Xuetao Ren, Anze Shui, Lingke Zeng, Yanchun Liu, Junsheng Wu -- Development of Filtration Technology for PM2.5 in Diesel Exhaust / Masahiro Yoshikawa, Tomihiko Uemura, Daiki Kan, Takehisa Fukui, Tawatchai Charinpanitkul, Wiwut Tanthapanichakoon, Makio Naito -- Smart Processing Technology. Nanoscale Particle

Processing through Aerosol Routes / Olivera B Milosevic, Lidija T Mancic, Maria Eugenia Rabanal, Luz Gomez, Jose Manuel Torralba -- A Treatment of Carbonaceous Waste Containing Metals by Steam Plasma / Hiroshi Nisikawa, Sumihiro Higuchi, Manabu Tanaka, Tadashi Takemoto. Effect of Ultrasonication on Dispersion and Aggregate Size of TiO Nanoparticles in Concentrated Aqueous Suspension / Kimitoshi Sato, Ji-Guang Li, Takamasa Ishigaki, Hidehiro Kamiya -- Investigation of Bonding Mechanism between Plasma Sprayed AlO Top Coating and Ti-Al Undercoating on Steel Substrate / Shinichiro Adachi, Kazuhiro Nakata -- Mechanochemical Synthesis of Barium Titanate from Nanocrystalline BaCO and TiO / Akira Kondo, Kazuyoshi Sato, Hiroya Abe, Makio Naito, Hirofumi Shimoda -- The Effect of Direct Diode Laser Beam Size in Heat Conduction LAP Welding of A Thin Film on A Thick Substrate / Nobuyuki Abe, Naoyuki Nakamura, Yoshinori Funada, Masahiro Tsukamoto -- Microstructural Characterization and Mechanical Properties of Plasma Sprayed Hydroxyapatite Coatings / M F Morks, Akira Kobayashi -- Measurements of Cathode Surface Temperature of Plasma Torch / Shinichi Tashiro, Hiroshi Nishikawa, Manabu Tanaka -- Topology Analysis of the CUSN Phase in Electronic Interconnections / Feng Gao, Hiroshi Nishikawa, Tadashi Takemoto -- Freeform Fabrication of Photonic Crystals with 3-Dimensional Diamond Structure by Micro-Stereolithography / Weiwu Chen, Soshu Kirihara, Yoshinari Miyamoto -- Properties of Inductively-Coupled RF Plasmas Sustained with Internal Antenna for Deposition of Carbon-Related Films / Kosuke Takenaka, Yuichi Setsuhara, Kazuaki Nishisaka, Akinori Ebe -- Materials Design. Characteristics of ITO Films Deposited by DC Magnetron Sputtering Using Various Sintered Indium-Tin-Oxide Targets / Joon Hong Park, Sang Chul Lee, Jin Ho Lee, Pung Keun Song -- Sintering and Enhanced Mechanical Properties of Densified Multiwalled Carbon Nanotube/TiN Composites / Lian Gao, Linqin Jiang -- Characterization of the Surface Morphology of Organic and Inorganic Hybrid Thin Films -- A First Step to Fabricate An Artificial Cell Membrane / Wakako Manabe, Hiroshi Takano, Masayuki Itoh -- Ion Permeability and Membrane Potential of Organic and Inorganic Hybrid Thin Films- Characterization of Artificial Cell Membrane / Ryuji Okamura, Masayuki Itoh, Hiroshi Takano -- Corrosion Resistance of TiAlN/CrN, TiAlN, and CrN Coatings Prepared by RF Magnetron Sputtering / Dong Hwan Song, Woo Yang Jang, Jong Kook Lee -- Plasma Thermal Deposition of Aluminum on Mg-Li Work-Hardened Alloy / Masato Tsujikawa, Shin-ichiro Adachi, Kazuhiro Nakata, Masaichiro Kamita, Sachio Oki -- Behavior of Superficial Oxide at Diffusion-Bonded Interface of Tin and Its Influence on Bond Strength / Shinji Koyama, Makoto Takahashi, Kenji Ikeuchi -- The Effects of Functional Groups of Surface Modifier on Internal Friction and Young's Modulus of Ceramic Composites / T Shimazu, N Isu, M Miura, E H Ishida.

---

#### Sommario/riassunto

This volume includes papers from the Second International Conference on Characterization and Control of Interfaces for High Quality Advanced Materials, and Joining Technology for New Metallic Glasses and Inorganic Materials (ICCCI2006) in Kurashiki, Japan, 2006. Interfaces are critically important to a broad spectrum of materials and technologies.

---