

List of Contents for Volume 28

Volume 28, Number 1, 2008

- 1 An estimation of ceramic fracture at singularities by a statistical approach
J. LAURENCIN, G. DELETTE & M. DUPEUX (France)
- 15 Advances on the hot wire technique
W.N. DOS SANTOS (Brazil)
- 21 The effect of packing structure of powder particles on warping during sintering
N. CHANTARAMEE, S. TANAKA & K. UEMATSU (Japan)
- 27 Reactivity and stability of rare earth oxide– Li_2CO_3 mixtures
M. YAMAUCHI, Y. ITAGAKI, H. AONO & Y. SADAOKA (Japan)
- 35 Effects of Cu and Zn co-doping on the electrical properties of $\text{Ni}_{0.5}\text{Mn}_{2.5}\text{O}_4$ NTC ceramics
C. ZHAO, B. WANG, P. YANG (China), L. WINNUBST (China, The Netherlands) & C. CHEN (China)
- 41 Thermoelectric ceramics for generators
J.G. NOUDEM, S. LEMONNIER, M. PREVEL, E.S. REDDY, E. GUILMEAU & C. GOUPIL (France)
- 49 Solid-state dewetting of $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3\pm\delta}$ thin films during annealing
D. BECKEL, A. DUBACH (Switzerland), A.N. GRUNDY (Canada), A. INFORTUNA & L.J. GAUCKLER (Switzerland)
- 61 Glass–ceramic seal to join Crofer 22 APU alloy to YSZ ceramic in planar SOFCs
F. SMEACETTO, M. SALVO, M. FERRARIS (Italy), J. CHO & A.R. BOCCACCINI (UK)
- 69 Microstructure and property evaluation of barium aluminosilicate glass–ceramic sealant for anode-supported solid oxide fuel cell
S. GHOSH, P. KUNDU, A. DAS SHARMA, R.N. BASU & H.S. MAITI (India)
- 77 Young's modulus of some SOFCs materials as a function of temperature
S. GIRAUD & J. CANEL (France)
- 85 Effect of bismuth addition on the electrical conductivity of gadolinium-doped ceria ceramics
Y.-P. FU, C.-W. TSENG & P.-C. PENG (Taiwan)
- 91 Phase transformations and microstructures of TiO_2 – SnO_2 due to solution annealing versus reactive sintering
H.-C. YU & P. SHEN (Taiwan)
- 101 Electrophoretic deposition of BaTiO_3 films on a Si substrate coated with conducting polyaniline layers
J.Q. WANG (Japan, China) & M. KUWABARA (Japan)
- 109 Nano-sized barium titanate powders with tetragonal crystal structure prepared by flame spray pyrolysis
D.S. JUNG, S.K. HONG, J.S. CHO & Y.C. KANG (Republic of Korea)
- 117 Fabrication and dielectric properties of the BaTiO_3 –polymer nano-composite thin films
Y. KOBAYASHI, T. TANASE, T. TABATA, T. MIWA & M. KONNO (Japan)
- 123 Effect of sintering conditions on the pyrochlore phase content in PMN–PFN ceramics prepared by sol–gel process
H. BRUNCKOVÁ, L'. MEDVECKÝ & J. MIHALIK (Slovak Republic)

- 133 Measurements of complex materials constants of piezoelectric ceramics: Radial vibrational mode of a ceramic disk
M. MASAKI, H. HASHIMOTO, W. MASAHIKO & I. SUZUKI (Japan)
- 139 Processing of AB-type carbonated hydroxyapatite $\text{Ca}_{10-x}(\text{PO}_4)_{6-x}(\text{CO}_3)_x(\text{OH})_{2-x-2y}$ (CO_3)_y ceramics with controlled composition
J.P. LAFON, E. CHAMPION & D. BERNACHE-ASSOLLANT (France)
- 149 Manufacture of macroporous β -tricalcium phosphate bioceramics
M. DESCAMPS, T. DUHOO, F. MONCHAU, J. LU, P. HARDOUIN, J.C. HORNEZ & A. LERICHE (France)
- 159 Sintering behaviour of calcium phosphate filaments for use as hard tissue scaffolds
H.Y. YANG, S.F. YANG, X.P. CHI, J.R.G. EVANS, I. THOMPSON, R.J. COOK & P. ROBINSON (UK)
- 169 Heterocoagulation-spray drying process for the inclusion of ceramic pigments
A.L. COSTA, F. MATTEUCCI, M. DONDI, I. ZAMA, S. ALBONETTI & G. BALDI (Italy)
- 177 Formation of inorganic polymers (geopolymers) from 2:1 layer lattice aluminosilicates
K.J.D. MACKENZIE, S. KOMPHANCHAI & R. VAGANA (New Zealand)
- 183 Mechanical properties of hemp fibre reinforced cement: Influence of the fibre/matrix interaction
D. SEDAN, C. PAGNOUX, A. SMITH & T. CHOTARD (France)
- 193 Dependence of particle size distribution upon brittleness in glass
S. HWANG & H. KIM (Republic of Korea)
- 199 Tribological properties of pressureless sintered alumina matrix ceramic materials improved by diopside
C. LIU, J. ZHANG, J. SUN & X. ZHANG (PR China)
- 205 Sintering behaviour and microstructural evolution of ultrapure α -alumina containing low amounts of SiO_2
N. LOUET, H. REVERON & G. FANTOZZI (France)
- 217 Gelcasting of alumina foams consolidated by epoxy resin
X. MAO, S. SHIMAI & S. WANG (PR China)
- 223 Tuning Al_2O_3 crystallinity under supercritical fluid conditions: Effect on sintering
C. BOUSQUET, C. ELISSALDE, C. AYMONIER, M. MAGLIONE, F. CANSELL & J.M. HEINTZ (France)
- 229 Microstructure and material properties of double-network type fibrous $(\text{Al}_2\text{O}_3-\text{m-ZrO}_2)/\text{t-ZrO}_2$ composites
B.-T. LEE, S.K. SARKAR & H.-Y. SONG (South Korea)
- 235 Fabrication of $\text{Y}_3\text{Al}_5\text{O}_{12}-\text{Al}_2\text{O}_3$ eutectic materials having ultra fine microstructure
Y. HARADA, N. UEKAWA, T. KOJIMA & K. KAKEGAWA (Japan)
- 241 Indentation creep of free-standing EB-PVD thermal barrier coatings
V. JAN (Japan), F. DORČÁKOVÁ, J. DUSZA (Slovak Republic) & M. BARTSCH (Germany)
- 247 Threshold fracture stress of thin ceramic components
J. MALZBENDER & R.W. STEINBRECH (Germany)
- 253 Mechanical properties of polymer-derived ceramic composite coatings on steel
J.D. TORREY & R.K. BORDIA (USA)
- 259 Hot corrosion of $\gamma\text{-Y}_2\text{Si}_2\text{O}_7$ in strongly basic Na_2CO_3 molten salt environment
Z. SUN, M. LI, Z. LI & Y. ZHOU (China)
- 267 Preparation of porous titanium phosphate glass-ceramics for NH_3 gas adsorption with self-cleaning ability
Y. DAIKO, H. YAJIMA & T. KASUGA (Japan)
- 271 Modification of perhydropolysilazane with aluminum hydride: Preparation of poly(aluminasilazane)s and their conversion into Si-Al-N-C ceramics
R. TOYODA, S. KITAOKA & Y. SUGAHARA (Japan)
- 279 The effect of mechanical activation on the properties of β -sialon precursors
M. SOPICKA-LIZER, M. TAŃCULA, T. WŁODEK, K. RODAK (Poland), M. HÜLLER (Germany), V. KOCHNEV, E. FOKINA (Russia) & K. MACKENZIE (New Zealand)
- 289 PTFE, an effective additive on the combustion synthesis of silicon nitride
Y. CHEN, Z. LIN, J. LI, J. DU & S. YANG (PR China)

- 295 Effect of processing variables on synthesis of β -Si₃N₄ particles
L.A. GENOVA (Brazil), V.A. IZHEVSKYI (Ukraine) & J.C. BRESSIANI (Brazil)
- 303 Hydroxide catalysis bonding of silicon carbide
A.A. VAN VEGGEL (UK), D. VAN DEN ENDE (The Netherlands), J. BOGENSTAHL, S. ROWAN, W. CUNNINGHAM (UK), G.H.M. GUBBELS & H. NIJMEIJER (The Netherlands)
- 311 Effect of temperature on the formation of β -silicon carbide by hot isostatic pressing the pyrolyzed phenol resin–silicon composite
M.A. SHARIF & H. SUEYOSHI (Japan)
- 321 The low-pressure infiltration of diamond by silicon to form diamond–silicon carbide composites
K. MLUNGWANE (South Africa), M. HERRMANN (Germany) & I. SIGALAS (South Africa)

Volume 28, Number 2, 2008**Papers Presented at the International Workshop Mullite 2006****Hartmut Schneider: An Appreciation**

- 327 Hartmut Schneider: An appreciation
A. BERAN (Austria), K.K. CHAWLA, W.M. KRIVEN (USA), M. SCHMUECKER & H. SCHNEIDER (Germany)
- 329 Structure and properties of mullite—A review
H. SCHNEIDER, J. SCHREUER & B. HILDMANN (Germany)
- 345 Atomistic calculations of lattice constants of mullite with its compositions
J.-C. CHEN, C.-S. CHEN (Taiwan), H. SCHNEIDER (Germany), C.-C. CHOU & W.-C.J. WEI (Taiwan)
- 353 Effect of transition-metal-ion doping on high temperature thermal expansion of 3:2 mullite—An in situ, high temperature, synchrotron diffraction study
P. SARIN, W. YOON, R.P. HAGGERTY, C. CHIRITESCU, N.C. BHORKAR & W.M. KRIVEN (USA)
- 367 Atomistic simulations on mullite Al₂(Al_{2+2x}Si_{2-2x})O_{10-x} in a variable range of composition
D. MAZZA, S. RONCHETTI & A. COSTANZO (Italy)
- 371 Observation of dislocation assisted high temperature deformation in mullite and mullite composites
L. TAHERABADI, J.E. TRUJILLO, T. CHEN, J.R. PORTER & M.L. MECARTNEY (USA)
- 377 Activation energy of mullitization from various starting materials
K. OKADA (Japan)
- 383 Formation mechanism and microstructure development in acicular mullite ceramics fabricated by controlled decomposition of fluorotopaz
A.J. PYZIK, C.S. TODD & C. HAN (USA)
- 393 Hydrogen bonding and diffusion in mullite
C.H. RÜSCHER, N. EILS, L. ROBBEN & H. SCHNEIDER (Germany)
- 401 Kinetics of alumina segregation in mullite ceramics
P. FIELITZ, G. BORCHARDT, P. MECHNICH & M. SCHMÜCKER (Germany)
- 407 Topotactic growth of α -alumina platelets on 2/1 mullite single crystal surfaces upon thermal decomposition of mullite in dry and wet atmospheres
B. HILDMANN, W. BRAUE & H. SCHNEIDER (Germany)
- 425 Water vapor corrosion of mullite: Single crystals versus polycrystalline ceramics
M. SCHMÜCKER, P. MECHNICH, S. ZAEFFERER & H. SCHNEIDER (Germany)
- 431 Corrosion and recession of mullite in water vapor environment
S. UENO, T. OHJI (Japan) & H.-T. LIN (USA)
- 437 Functionally graded chemical vapor deposited mullite environmental barrier coatings for Si-based ceramics
S.N. BASU, T. KULKARNI, H.Z. WANG & V.K. SARIN (USA)
- 447 Interface engineering in mullite fiber/mullite matrix composites
K.K. CHAWLA (USA)

- 455 Growth of textured mullite fibers using a quadrupole lamp furnace
W. YOON, P. SARIN & W.M. KRIVEN (USA)
- 465 Mullite formation in clays and clay-derived vitreous ceramics
W.E. LEE, G.P. SOUZA, C.J. MCCONVILLE, T. TARVORNPANICH & Y. IQBAL (UK)
- 473 Reaction bonding of mullite (RBM) in presence of scandia Sc_2O_3
P. MECHNICH & H. SCHNEIDER (Germany)
- 479 Mullite-refractory metal (Mo, Nb) composites
J.S. MOYA, M. DÍAZ, C.F. GUTIÉRREZ-GONZÁLEZ, L.A. DIAZ, R. TORRECILLAS & J.F. BARTOLOMÉ (Spain)
- 493 Alkali gallates with mullite-type structure
P. ANGERER (Austria), R.X. FISCHER, M. SCHMÜCKER & H. SCHNEIDER (Germany)
- 499 The electronic properties of complex oxides of bismuth with the mullite structure
K.J.D. MACKENZIE, T. DOUGHERTY & J. BARREL (New Zealand)
- I Keyword List
III Notes for Authors

Volume 28, Number 3, 2008**Review**

- 505 SnO_2 , ZnO and related polycrystalline compound semiconductors: An overview and review on the voltage-dependent resistance (non-ohmic) feature
P.R. BUENO, J.A. VARELA & E. LONGO (Brazil)

Regular papers

- 531 Fabrication of three-dimensional inter-connective porous ceramics via ceramic green machining and bonding
L. YIN, H.X. PENG, L. YANG & B. SU (UK)
- 539 Spark plasma sintering of macroporous calcium phosphate scaffolds from nano-crystalline powders
F. ZHANG, K. LIN, J. CHANG, J. LU & C. NING (China)
- 547 Dispersant selection for aqueous medium pressure injection moulding of anhydrous dicalcium phosphate
R. JEWAD, C. BENTHAM (UK), B. HANCOCK (USA), W. BONFIELD & S.M. BEST (UK)
- 555 Induced crystallization porosity and properties of sintered diopside and wollastonite glass-ceramics
A. KARAMANOV (Bulgaria) & M. PELINO (Italy)
- 563 The influence of *in situ* spinel formation on microstructure and phase evolution of MgO–C refractories
M. BAVAND-VANDCHALI, F. GOLESTANI-FARD, H. SARPOOLAKY, H.R. REZAIE (Iran) & C.G. ANEZIRIS (Germany)
- 571 A critical assessment of the dislocation-driven model for superplasticity in yttria tetragonal zirconia polycrystals
A. DOMÍNGUEZ-RODRÍGUEZ, D. GÓMEZ-GARCÍA & M. CASTILLO-RODRÍGUEZ (Spain)
- 577 The effect of the valence state of titanium ions on the hydrophilicity of ceramics in the titanium–oxygen system
D. KUSCER, J. KOVÁČ, M. KOSEC (Slovenia) & R. ANDRIESEN (Belgium)
- 585 Structure and microwave dielectric characteristics of $\text{Ca}_{1-x}\text{Nd}_{2x/3}\text{TiO}_3$ ceramics
M.S. FU, X.Q. LIU & X.M. CHEN (China)
- 591 Deposition of PbTiO_3 films on Pt/Si substrates using pulsed laser deposition
M.A. KHAN, T.P. COMYN & A.J. BELL (UK)
- 599 Densification and grain growth in BaTiO_3 ceramics fabricated from nanopowders synthesized by ball-milling assisted hydrothermal reaction
Y. HOTTA (Japan), C. DURAN (Japan, Turkey), K. SATO, T. NAGAOKA & K. WATARI (Japan)
- 605 A new microwave ceramic with low-permittivity for LTCC applications
Q.-L. ZHANG, H. YANG & H.-P. SUN (China)
- 611 Glass and composite seals for the joining of YSZ to metallic interconnect in solid oxide fuel cells
F. SMEACETTO, M. SALVO, M. FERRARIS, V. CASALEGNO & P. ASINARI (Italy)
- 617 Joining of partially sintered alumina to alumina, titanium, Hastalloy and C–SiC composite using Ag–Cu brazes
R. ASTHANA & M. SINGH (USA)

- 633 Thermodynamics of the Al_2O_3 - Al_4C_3 system. I. Thermochemical functions of Al oxide, carbide and oxycarbides between 298 and 2100 K
J.-M. LIHRMANN (France)
- 643 Thermodynamics of the Al_2O_3 - Al_4C_3 system. II. Free energies of mixing, solid solubilities and activities
J.-M. LIHRMANN (France)
- 649 Thermodynamics of the Al_2O_3 - Al_4C_3 system. III. Equilibrium vapour pressures and activation energies for volatilisation
J.-M. LIHRMANN (France)
- 657 Development of manufacturing method for NITE-porous SiC ceramics using decarburization process
Y.-H. PARK, J.-S. PARK, T. HINOKI & A. KOHYAMA (Japan)
- 663 Effect of grain size, notch width, and testing temperature on the fracture toughness of $\text{Ti}_3\text{Si}(\text{Al})\text{C}_2$ and Ti_3AlC_2 using the chevron-notched beam (CNB) method
D.T. WAN, F.L. MENG, Y.C. ZHOU, Y.W. BAO & J.X. CHEN (PR China)
- 671 Role of impurities on the spark plasma sintering of ZrC_x - ZrB_2 composites
F. GOUTIER, G. TROLLIARD, S. VALETTE, A. MAÎTRE & C. ESTOURNES (France)
- 679 Effect of calcium carbonate addition on carbothermic formation of hexagonal boron nitride
H.E. ÇAMURLU, N. SEVINÇ & Y. TOPKAYA (Turkey)
- 691 Oxidation behavior of AlN films at high temperature under controlled atmosphere
C.-Y. LIN & F.-H. LU (Taiwan)

Volume 28, Number 4, 2008

- 699 Editorial
R. BROOK & R. DUHLEV (UK)
- 701 Green strength testing of pressed compacts: An analysis of the different methods
J.L. AMORÓS, V. CANTAVELLA, J.C. JARQUE & C. FELÍU (Spain)
- 711 Optimizing substrate and intermediate layers geometry to reduce internal thermal stresses and prevent surface crack formation in 2-D multilayered ceramic coatings
R. VALLE, D. LÉVÈQUE & M. PARLIER (France)
- 717 Liquid metal wettability and advanced ceramic brazing
Y.V. NAIDICH, V.S. ZHURAVLEV, I.I. GAB, B.D. KOSTYUK, V.P. KRASOVSKYY, A.A. ADAMOVSKYY & N.YU. TARANETS (Ukraine)
- 729 Hard glass-ceramic coating by microwave processing
S. DAS, A.K. MUKHOPADHYAY, S. DATTA, G.C. DAS & D. BASU (India)
- 739 Preparation of foamed glasses from CRT TV glass by means of hydrothermal hot-pressing technique
Z. MATAMOROS-VELOZA, J.C. RENDÓN-ANGELES (Mexico), K. YANAGISAWA (Japan), M.A. CISNEROS-GUERRERO, M.M. CISNEROS-GUERRERO & L. AGUIRRE (Mexico)
- 747 Phase formation of CaAl_2O_4 from CaCO_3 - Al_2O_3 powder mixtures
S. IFTEKHAR, J. GRINS, G. SVENSSON, J. LÖÖF, T. JARMAR (Sweden), G.A. BOTTON, C.M. ANDREI (Canada) & H. ENGQVIST (Sweden)
- 757 Compositional analysis of XVIII century glazed, polychrome, layered porcelain by non-destructive micro a-PIXE
A. ZUCCHIATTI (Spain, Italy), C. PASCUAL, M.D. YNSA, L. CASTELLI, P. RECIO, E. CRIADO, F.J. VALLE & A. CLIMENT-FONT (Spain)
- 763 Production of alumina parts by powder injection molding with a binder system based on high density polyethylene
P. THOMAS-VIELMA, A. CERVERA, B. LEVENFELD & A. VÁREZ (Spain)
- 773 Synthesis of zirconia nanopowders from various zirconium salts via polyacrylamide gel method
M. TAHMASEBPOUR, A.A. BABALUO & M.K.R. AGHJEH (Islamic Republic of Iran)
- 779 The influence of screen-printing parameters on the microstructure and gas permeance of a zirconia electrolyte
G.J. WRIGHT & J.A. YEOMANS (UK)

- 787 The preparation and mechanical properties of the unidirectional carbon fiber reinforced zirconia composite
G.H. ZHOU, S.W. WANG, J.K. GUO & Z. ZHANG (PR China)
- 793 Thermomechanical modelling of ion-conducting membrane for oxygen separation
E. BLOND & N. RICHET (France)
- 803 Synthesis of and densification of oxygen-conducting $\text{La}_{0.8}\text{Sr}_{0.2}\text{Ga}_{0.8}\text{Mg}_{0.2}\text{O}_{2.8}$ nano powder prepared from a low temperature hydrothermal urea precipitation process
T.-Y. CHEN & K.-Z. FUNG (Taiwan)
- 811 Influence of sintering conditions on microstructure and electrical conductivity of yttrium-substituted SrTiO_3
Q.X. FU, S.B. MI, E. WESSEL & F. TIETZ (Germany)
- 821 Influence of cationic vacancies on the ionic conductivity of oxyapatites
P.J. PANTEIX, I. JULIEN, P. ABÉLARD & D. BERNACHE-ASSOLLANT (France)
- 829 Electrical barriers formation at the grain boundaries of Co-doped SnO_2 varistor ceramics
R. METZ, D. KOUMEIR, J. MOREL, J. PANSIOT, M. HOUABES & M. HASSANZADEH (France)
- 837 Screen printed low-sintering-temperature barium strontium titanate (BST) thick films
T. TICK, J. PERÄNTIE, H. JANTUNEN & A. UUSIMÄKI (Finland)
- 843 Structure and electrical properties of $(\text{Na}_{0.5}\text{Bi}_{0.5})_{1-x}\text{Ba}_x\text{TiO}_3$ piezoelectric ceramics
M. CHEN (South Korea), Q. XU (PR China), B.H. KIM, B.K. AHN, J.H. KO, W.J. KANG & O.J. NAM (South Korea)
- 851 Grain size effect on the poling of soft $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ ferroelectric ceramics
T.M. KAMEL & G. DE WITH (The Netherlands)
- 863 Texture evolution in tape cast lead metaniobate
B. IVERSON, H.J. KIM, E. SLAMOVICH & K. BOWMAN (USA)
- 871 Tantalum doped $0.94\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3 - 0.06\text{BaTiO}_3$ piezoelectric ceramics
R. ZUO, C. YE, X. FANG (PR China) & J. LI (Japan)
- 879 Dense β -SiAlONs consolidated by a modified hydrolysis-assisted solidification route
I. GANESH (India, Portugal), N. THIYAGARAJAN, D.C. JANA, P. BARICK, G. SUNDARARAJAN (India) & J.M.F. FERREIRA (Portugal)
- 887 Effect of the polycarbosilane structure on its final ceramic yield
H. LI, L. ZHANG, L. CHENG, Y. WANG, Z. YU, M. HUANG, H. TU & H. XIA (China)

Volume 28, Number 5, 2008**Engineering Ceramics '07: from Engineering to Functionality**

- 893 Preface
P. ŠAJGALÍK, M.J. HOFFMAN & R. RIEDEL
- 895 Synthesis of nanosized ceramic powders in a radiofrequency thermal plasma reactor
J. SZÉPVÖLGYI, I. MOHAI, Z. KÁROLY & L. GÁL (Hungary)
- 901 SiAlON ceramics from nanopowders
I. ZALITE, N. ZILINKA (Latvia) & G. KLADLER (Austria)
- 907 Adapting of sol-gel process for preparation of TiB₂ powder from low-cost precursors
Ľ. BAČA & N. STELZER (Austria)
- 913 Nanosize hexagonal tungsten oxide for gas sensing applications
C. BALÁZSI (Hungary), L. WANG (USA), E.O. ZAYIM (Turkey), I.M. SZILÁGYI, K. SEDLACKOVÁ, J. PFEIFER, A.L. TÓTH (Hungary) & P.-I. GOUMA (USA)
- 919 Nanoreactor engineering and SPS densification of multimetal oxide ceramic nanopowders
O. VASYLKIV, H. BORODIANSKA & Y. SAKKA (Japan)
- 929 Texturing behavior in sintered reaction-bonded silicon nitride via strong magnetic field alignment
X. ZHU, T.S. SUZUKI, T. UCHIKOSHI & Y. SAKKA (Japan)

- 935 Fabrication and some properties of textured alumina-related compounds by colloidal processing in high-magnetic field and sintering
Y. SAKKA, T.S. SUZUKI & T. UCHIKOSHI (Japan)
- 943 Controlling particle size distribution for preparing multi-layer structure compacts
B.-G. KIM, C.-L. PARK & H.-S. JEON (Republic of Korea)
- 947 Deposition of organic-based superhydrophobic films for anti-adhesion and self-cleaning applications
O.-U. NIMITRAKOOOLCHAI & S. SUPOTHINA (Thailand)
- 953 b-SiAlON/TiN nanocomposites prepared from TiO₂-coated Si₃N₄ powder
K. KRNEL, A. MAGLICA & T. KOSMAČ (Slovenia)
- 959 Alumina/cerium oxide nano-composite electrolyte for solid oxide fuel cell applications
R. CHOICKALINGAM, V.R.W. AMARAKOON & H. GIESCHE (USA)
- 965 Ceramic oxide electrolytes based on CeO₂—Preparation, properties and possibility of application to electrochemical devices
M. DUDEK (Poland)
- 973 Dense nanostructured zirconia by two stage conventional/hybrid microwave sintering
J. BINNER, K. ANNAPOORANI, A. PAUL, I. SANTACRUZ & B. VAIDHYANATHAN (UK)
- 979 Synthesis and mechanical properties of Ti₃AlC₂ by hot pressing TiCx/Al powder mixture
J.-H. HAN, S.-S. HWANG, D. LEE & S.-W. PARK (Republic of Korea)
- 989 SiAlON based ceramic cutting tools
B. BITTERLICH, S. BITSCH & K. FRIEDERICH (Germany)
- 995 Density functional study of structures and mechanical properties of Y-doped a-SiAlONs
L. BENCO, J. HAFNER (Austria), Z. LENCES & P. SAJGALIK (Slovak Republic)
- 1003 The influence of temperature and time on the AlN powder hydrolysis reaction products
A. KOCJAN, K. KRNEL & T. KOSMAČ (Slovenia)
- 1009 Ceramic nanolaminates—Processing and application
J. LIS, L. CHLUBNY, M. ŁOPACIŃSKI, L. STOBIERSKI & M.M. BUĆKO (Poland)
- 1015 Rheology and processability of multi-walled carbon nanotubes—ABSE polycarbosilazane composites
S. KOKOTT, L. HEYMANN & G. MOTZ (Germany)
- 1023 Microstructure and properties of carbon nanotube/zirconia composite
A. DUSZOVÁ, J. DUSZA, K. TOMÁŠEK (Slovak Republic), G. BLUGAN & J. KUEBLER (Switzerland)
- 1029 Processing and properties of polysiloxane-derived porous silicon carbide ceramics using hollow microspheres as templates
J.-H. EOM, Y.-W. KIM, I.-H. SONG & H.-D. KIM (Republic of Korea)
- 1037 SiOC ceramic with high excess free carbon
H.-J. KLEEVE (Germany) & Y.D. BLUM (USA)
- 1043 Water vapor corrosion behavior of porous silicon carbide membrane support
M. FUKUSHIMA, Y. ZHOU, Y.-I. YOSHIZAWA & K. HIRAO (Japan)
- 1049 “Snow flake” structures in silicon nitride ceramics – Reasons for large scale optical inhomogeneities
M. HERRMANN, I. SCHULZ, A. BALES, K. SEMPF & S. HOEHN (Germany)
- 1057 Properties of silicon nitride for aluminum melts prepared by nitrided pressureless sintering
I.-S. HAN, D.-W. SEO, S.-Y. KIM, K.-S. HONG, K.H. GUAHK & K.S. LEE (Republic of Korea)
- 1065 Reactive sintering of YAG-based materials using micrometer-sized powders
L. ESPOSITO, A.L. COSTA & V. MEDRI (Italy)
- 1073 Fracture behaviour of Al₂O₃/SiC nanocomposite ceramics after crack healing treatment
Z. CHLUP, P. FLASAR (Czech Republic) A. KOTOJI (Japan) & I. DLOUHY (Czech Republic)
- 1079 Stereo fabric modeling technology in ceramics manufacture
H. KITA, H. HYUGA & N. KONDO (Japan)

- 1085 The effects of dental grinding and sandblasting on ageing and fatigue behavior of dental zirconia (Y-TZP) ceramics
T. KOSMAČ, Č. OBLAK & L. MARION (Slovenia)
- 1091 Transparent armour materials
R. KLEMENT, S. ROLC, R. MIKULIKOVA & J. KRESTAN (Czech Republic)
- 1097 Automotive and industrial applications of structural ceramics in Japan
A. OKADA (Japan)
- 1105 Boron nitride (BN) and BN composites for high-temperature applications
J. EICHLER & C. LESNIAK (Germany)

- I Keyword List
III Notes for Authors

Volume 28, Number 6, 2008

- 1111 A semi-analytical equation for the Young's modulus of isotropic ceramic materials
D.T. HRISTOPULOS & M. DEMERTZI (Greece)
- 1121 Effect of initial particle packing on the sintering of nanostructured transition alumina
M. AZAR (France), P. PALMERO, M. LOMBARDI (Italy), V. GARNIER (France), L. MONTANARO (Italy), G. FANTOZZI & J. CHEVALIER (France)
- 1129 Solute and defect segregation at the space charge layers of Fe-doped fine-grained Al₂O₃: Effect on the creep rate
A. BATAILLE, A. ADDAD, C. COURTOIS, T. DUHOO & J. CRAMPON (France)
- 1135 New insights into the thermal evolution of aluminophosphate solutions: A complementary XRD and solid state NMR study
G. TRICOT, D. COILLOT, E. CRETON & L. MONTAGNE (France)
- 1143 Particle in-flight behavior and its influence on the microstructure and mechanical properties of plasma-sprayed Al₂O₃ coatings
Z. YIN, S. TAO, X. ZHOU & C. DING (PR China)
- 1149 Interfacial reaction behavior and thermal stability of barium zirconate-coated alumina fiber/alumina matrix composites
Z.-C. CHEN, T. TAMACHI (Japan), R. KULKARNI, K.K. CHAWLA & M. KOOPMAN (USA)
- 1161 Thermal stability of ordered mesoporous yttria-stabilized zirconia
I.-M. HUNG, K.-Z. FUNG, D.-T. HUNG & M.-H. HON (Taiwan)
- 1169 On the reorientation of ZrTiO₄ particles during reactive sintering of TiO₂–ZrO₂
K.C. YANG, P. SHEN & D. GAN (Taiwan)
- 1177 Applying the experimental statistical method to deal the preparatory conditions of nanometric-sized TiO₂ powders from a two-emulsion process
C.-S. HSIEH (Taiwan), H. ZHU (PR China), T.-Y. WEI, Z.-J. CHUNG, W.-D. YANG & Y.-H. LING (Taiwan)
- 1185 Tape casting and reaction sintering of titanium–titanium oxide–nickel oxide mixtures
M.D. SNEL (The Netherlands, Belgium), F. SNIJKERS, J. LUYTEN (Belgium), A. KODENTSOV & G. DE WITH (The Netherlands)
- 1191 Influence of zirconia addition on the microstructure of K_{0.5}Na_{0.5}NbO₃ ceramics
B. MALIC, J. BERNARD, A. BENCAN & M. KOSEC (Slovenia)
- 1197 Structural and electrical characteristics of LiNbO₃ embedded in a 34% SiO₂ glass matrix
M.P.F. GRAÇA, M.G. FERREIRA DA SILVA & M.A. VALENTE (Portugal)
- 1205 Dispersion of nano-sized BaTiO₃ powders in nonaqueous suspension with phosphate ester and their applications for MLCC
L.W. CHU, K.N. PRAKASH, M.-T. TSAI & I.-N. LIN (Taiwan)
- 1213 Role of yttrium and magnesium in the formation of core-shell structure of BaTiO₃ grains in MLCC
C.-H. KIM, K.-J. PARK, Y.-J. YOON, M.-H. HONG, J.-O. HONG & K.-H. HUR (South Korea)

- 1221 Influence of pore formers on slurry composition and microstructure of tape cast supporting anodes for SOFCs
A. SANSON, P. PINASCO & E. RONCARI (Italy)
- 1227 Preparation and properties of $\text{Si}_2\text{N}_2\text{O}/\beta$ -cristobalite composites
Q. TONG, J. WANG, Z. LI & Y. ZHOU (PR China)
- 1235 Dynamic hardness and elastic modulus calculation of porous SiAlON ceramics using depth-sensing indentation technique
O. SAHIN, O. UZUN (Turkey), M. SOPICKA-LIZER (Poland), H. GOCMEZ & U. KÖLEMEN (Turkey)
- 1243 Some new perspectives on oxidation kinetics of SiAlON materials
X.-M. HOU, K.-C. CHOU & F.-S. LI (PR China)
- 1251 Oxidation behaviour of $\text{Si}_3\text{N}_4/\text{Y}_2\text{O}_3$ system ceramics and effect of crack-healing treatment on oxidation
M. NAKATANI, K. ANDO & K. HOUJOU (Japan)
- 1259 Synthesis under NH_3 and thermal behaviour of SiCNAIO polymer-derived nanopowders
V. SALLES, S. FOUCAUD, P. GOURSAT & E. CHAMPION (France)
- 1267 High-temperature mechanical behavior of carbon–silicide–carbide composites developed by alloyed melt infiltration
M. ESFEHANIAN, J. GUENSTER, J.G. HEINRICH, J. HORVATH, D. KOCH & G. GRATHWOHL (Germany)
- 1275 Determination of thermal shock resistance of silicon carbide/cordierite composite material using nondestructive test methods
M. POSARAC, M. DIMITRIJEVIC, T. VOLKOV-HUSOVIC, A. DEVECERSKI & B. MATOVIC (Serbia)
- 1279 Mechanical and physical behavior of spark plasma sintered $\text{ZrC}-\text{ZrB}_2-\text{SiC}$ composites
S.-Q. GUO, Y. KAGAWA, T. NISHIMURA (Japan), D. CHUNG & J.-M. YANG (USA)
- 1287 Spark plasma sintering of Zr- and Hf-borides with decreasing amounts of MoSi_2 as sintering aid
D. SCITI, L. SILVESTRONI (Italy) & M. NYGREN (Sweden)
- 1297 Processing of carbide-derived carbon (CDC) using biomorphic porous titanium carbide ceramics
M. KORMANN, H. GHANEM, H. GERHARD & N. POPOVSKA (Germany)

Volume 28, Number 7, 2008**Developments in Ceramic Science & Engineering: The last 50 years.****Dedicated to Professor Sir Richard Brook on the occasion of his 70th birthday.**

- 1305 Guest Editorial
M. EDIRISINGHE (UK)
- 1307 Ferroelectrics: The role of ceramic science and engineering
A.J. BELL (UK)
- 1319 Bioceramics: Past, present and for the future
S.M. BEST, A.E. PORTER, E.S. THIAN & J. HUANG (UK)
- 1329 Processing of bulk nanostructured ceramics
J. BINNER & B. VAIDHYANATHAN (UK)
- 1341 Shaping ceramics by plastic processing
S. BLACKBURN & D.I. WILSON (UK)
- 1353 Electrophoretic deposition: From traditional ceramics to nanotechnology
I. CORNI, M.P. RYAN & A.R. BOCCACCINI (UK)
- 1369 Tailor-made ceramic-based components—Advantages by reactive processing and advanced shaping techniques
R. JANSEN, S. SCHEPPOKAT & N. CLAUSSEN (Germany)

- 1381 Stresses and strains in colloidal films during lateral drying
D.M. HOLMES, F. TEGELER & W.J. CLEGG (UK)
- 1389 Engineering porosity in polymer-derived ceramics
P. COLOMBO (Italy, USA)
- 1397 Integrating functional ceramics into microsystems
R.A. DOREY, S.A. ROCKS, F. DAUCHY, D. WANG, F. BORTOLANI & E. HUGO (UK)
- 1405 The influence of oxides on the performance of advanced gas turbines
A.G. EVANS, D.R. CLARKE & C.G. LEVI (USA)
- 1421 Seventy ways to make ceramics
J.R.G. EVANS (UK)
- 1433 Microstructural engineering of microwave dielectric ceramics
R. FREER & F. AZOUGH (UK)
- 1443 Microstructures and mechanical properties of dense particle gels: Microstructural characterisation
I. SCHENKER, F.T. FILSER (Switzerland), T. ASTE (Australia) & L.J. GAUCKLER (Switzerland)
- 1451 Constrained sintering: A delicate balance of scales
D.J. GREEN (USA), O. GUILLOU & J. RÖDEL (Germany)
- 1467 Materials challenges for hydrogen storage
Z.X. GUO, C. SHANG, K.F. AGUEY-ZINSOU (UK)
- 1475 Oxynitride glasses
S. HAMPSHIRE (Ireland)
- 1485 Demystifying the role of sintering additives with “complexion”
S.J. DILLON & M.P. HARMER (USA)
- 1495 Oxygen and aluminum diffusion in a-Al₂O₃: How much do we really understand?
A.H. HEUER (USA)
- 1509 Densification of powder compacts: An unfinished story
F.F. LANGE (USA)
- 1517 Solid–liquid interactions: The key to microstructural evolution in ceramics
W.E. LEE, D.D. JAYASEELAN & S. ZHANG (UK)
- 1527 Sintering and grain growth in SiO₂ doped Nd:YAG
S. KOCHAWATTANA, A. STEVENSON, S.-H. LEE, M. RAMIREZ, V. GOPALAN, J. DUMM, V.K. CASTILLO, G.J. QUARLES & G.L. MESSING (USA)
- 1535 Creep of monolithic and fibre-reinforced silicon carbide
B. WILSHIRE & M.R. BACHE (UK)
- 1543 Ductile particle ceramic matrix composites—Scientific curiosities or engineering materials?
J.A. YEOMANS (UK)

- I Keyword List
III Notes for Authors

Volume 28, Number 8, 2008

- 1551 Fracture statistics of ceramic laminates strengthened by compressive residual stresses
J. PASCUAL, T. LUBE & R. DANZER (Austria)
- 1557 Analysis and interpretation of refractory microstructures in studies of corrosion mechanisms by liquid oxides
J. POIRIER (France), F. QAFSSAOUI (Morocco), J.P. ILDEFONSE & M.L. BOUCHETOU (France)
- 1569 Sintering behavior and mechanical properties of the mica–diopside machinable glass-ceramics
P. ALIZADEH, B. EFTEKHARI YEKTA & T. JAVADI (Iran)

- 1575 Optimal strength and toughness of Al₂O₃–ZrO₂ laminates designed with external or internal compressive layers
R. BERMEJO, J. PASCUAL, T. LUBE & R. DANZER (Austria)
- 1585 Sonochemical synthesis of nanostructured anatase and study of the kinetics among phase transformation and coarsening as a function of heat treatment conditions
L. GONZALEZ-REYES, I. HERNÁNDEZ-PÉREZ (Mexico), F.C. ROBLES HERNÁNDEZ (USA), H.D. ROSALES & E.M. ARCE-ESTRADA (Mexico)
- 1595 Preparation of bioactive spherical particles in the CaO–SiO₂ system through sol–gel processing under coexistence of poly(ethylene glycol)
I.Y. KIM, G. KAWACHI, K. KIKUTA (Japan), S.B. CHO (Republic of Korea), M. KAMITAKAHARA & C. OHTSUKI (Japan)
- 1603 Nanostructured surface modification of microporous ceramics for efficient virus filtration
M. WEGMANN, B. MICHEN & T. GRAULE (Switzerland)
- 1613 Liquid phase assisted hot pressing of boron suboxide-materials
A. ANDREWS (South Africa), M. HERRMANN (Germany), T.C. SHABALALA & I. SIGALAS (South Africa)
- 1623 Preparation of Ni(II)/Ti(IV) layered double hydroxide at high supersaturation
W.H. ZHANG, X.D. GUO, J. HE & Z.Y. QIAN (PR China)
- 1631 Laser ablation condensation and defect generation of Ti_{1+x}ZrxO₂ nanoparticles
M.-H. TSAI, P. SHEN & S.-Y. CHEN (Taiwan)
- 1641 Preparation and properties of neodymium-modified bismuth titanate ceramics
Y.-M. KAN, G.-J. ZHANG, P.-L. WANG (China) & Y.-B. CHENG (Australia)
- 1649 Improvement of composite sol–gel process for manufacturing 40 µm piezoelectric thick films
A. BARDAINE, P. BOY, P. BELLEVILLE, O. ACHER & F. LEVASSORT (France)
- 1657 Growth behaviour of potassium sodium niobate single crystals grown by solid-state crystal growth using K₄CuNb₈O₂₃ as a sintering aid
J.G. FISHER, A. BENČAN, J. GODNJAVAEC & M. KOSEC (Slovenia)
- 1665 Microwave metathetic approach for the synthesis and characterization of ZnCr₂O₄
P. PARHI & V. MANIVANNAN (USA)
- 1671 Synthesis of transition metal carbide nanoparticles through melamine and metal oxides
M. LEI, H.Z. ZHAO, H. YANG, B. SONG & W.H. TANG (PR China)
- 1679 Microstructure and properties of bulk Ta₂AIC ceramic synthesized by an *in situ* reaction/hot pressing method
C. HU, L. HE, J. ZHANG, Y. BAO, J. WANG, M. LI & Y. ZHOU (China)
- 1687 Microstructural features of the ZrO₂ interfacial coatings on SiC fibers before and after exposition to air at high temperatures
N.I. BAKLANOVA, O.I. KISELYOVA, A.T. TITOV & T.M. ZIMA (Russian Federation)
- 1697 TiC–TiB₂ composites: A review of phase relationships, processing and properties
D. VALLAURI, I.C. ATÍAS ADRIÁN (Italy) & A. CHRYSANTHOU (UK)
- 1715 Thermal decomposition, densification and mechanical properties of AlN–SiC(–TiB₂) systems with and without B, B₄C and C additives
S.-H. LEE, S. GUO, H. TANAKA, K. KURASHIMA, T. NISHIMURA & Y. KAGAWA (Japan)
- 1723 Young's modulus, density and phase composition of pressureless sintered self-sealed Si₃N₄/BN laminated structures
Z. KRSTIC & V.D. KRSTIC (Canada)

Technical note

- 1731 Combustion of the “Ti–TiO₂” and “Ti–Al” powdery mixtures in air
A.A. GROMOV, Y.I. STROKOVA, T.A. KHABAS, A.G. MELNIKOV (Russia) & H.-J. RITZHAUPT-KLEISSL (Germany)

Volume 28, Number 9, 2008

- 1737 Dehydration of Ca₃Al₂(SiO₄)_y(OH)₄(3y) (01737 Dehydration of Ca₃Al₂(SiO₄)_y(OH)₄(3y) studied by neutron thermodiffractometry
J.M. RIVAS-MERCURY (Brazil), P. PENA, A.H. DE AZA & X. TURRILLAS (Spain)

- 1749 Evolution of aluminosilicate structure and mullite crystallization from homogeneous nanoparticulate sol–gel precursor with organic additives
J. LEIVO, M. LINDÉN, J.M. ROSENHOLM, M. RITOLA, C.V. TEIXEIRA, E. LEVÄNEN & T.A. MÄNTYLÄ (Finland)
- 1763 The role of magnesium on the stability of crystalline sepiolite structure
A. ESTEBAN-CUBILLO, R. PINA-ZAPARDIEL, J.S. MOYA, M.F. BARBA & C. PECHARROMÁN (Spain)
- 1769 Light weight silica tiles through foam casting method
S. MISHRA, R. MITRA & M. VIJAYAKUMAR (India)
- 1777 Color in ceramic glazes: Analysis of pigment and opacifier grain size distribution effect by spectrophotometer
L.M. SCHABBACH (Brazil), F. BONDIOLI, A.M. FERRARI, T. MANFREDINI (Italy), C.O. PETTER & M.C. FREDEL (Brazil)
- 1783 Nanocrystalline ZrO₂ ceramics with idealized macropores
H. SANTA CRUZ, J. SPINO & G. GRATHWOHL (Germany)
- 1793 Lowering the sintering temperature for EPD coatings by applying reaction bonding
B. BAUFELD, O. VAN DER BIEST (Belgium) & H.-J. RÄTZER-SCHEIBE (Germany)
- 1801 Processing of YSZ screen printing pastes and the characterization of the electrolyte layers for anode supported SOFC
P. RIED, C. LORENZ, A. BRÖNSTRUP, T. GRAULE (Switzerland), N.H. MENZLER (Germany), W. SITTE (Austria) & P. HOLTAPPELS (Switzerland)
- 1809 Neutron diffraction residual stress analysis of zirconia toughened alumina (ZTA) composites
J.F. BARTOLOMÉ (Spain), G. BRUNO (UK) & A.H. DEAZA (Spain)
- 1815 Effect of water content in powder mixture on mechanochemical reaction of LaMnO₃ fine powder
S. OHARA, H. ABE, K. SATO, A. KONDO & M. NAITO (Japan)
- 1821 Abnormal grain growth of BaTiO₃ by 2D nucleation and lateral growth
S.J. ZHENG, K. DU & X.L. MA (China)
- 1827 Poling of hard ferroelectric PZT ceramics
T.M. KAMEL & G. DE WITH (The Netherlands)
- 1839 Microstructural and electrical characterisation of PZT thick films on LTCC substrates
H. URŠIČ, M. HROVAT, D. BELAVIČ, J. CILENŠEK, S. DRNOVŠEK, J. HOLC, M.S. ZARNIK & M. KOSEC (Slovenia)
- 1845 The influence of cooling rate and SiO₂ additions on the grain boundary structure of Mn-doped PTC thermistors
M.A. ZUBAIR & C. LEACH (UK)
- 1857 A numerical tool to estimate SOFC mechanical degradation: Case of the planar cell configuration
J. LAURENCIN, G. DELETTRE, F. LEFEBVRE-JOUD & M. DUPEUX (France)
- 1871 Gradient pore size distributions in porous silicon oxycarbide materials
A. TAMAYO (USA), J. RUBIO, R. PEÑA-ALONSO, F. RUBIO & J.L. OTEO (Spain)
- 1881 Role of boron on the Spark Plasma Sintering of an α -SiC powder
A. MAÎTRE, A.V. PUT, J.P. LAVAL, S. VALETTE & G. TROLLIARD (France)
- 1891 Mechanical properties of hot-pressed ZrB₂–MoSi₂–SiC composites
S.-Q. GUO, T. NISHIMURA, T. MIZUGUCHI & Y. KAGAWA (Japan)
- 1899 Arc-jet testing on HfB₂ and HfC-based ultra-high temperature ceramic materials
R. SAVINO, M. DE STEFANO FUMO, L. SILVESTRONI & D. SCITI (Italy)
- 1909 Microstructure and mechanical properties of hot-pressing chromium carbide/alumina nanocomposite prepared by MOCVD in fluidized bed
S.-C. WANG, Y.-L. CHIN & J.-L. HUANG (Taiwan)
- 1917 Reaction synthesis and characterisation of lanthanum silicon nitride
Z. LENČÉŠ (Slovakia), L. BENCO (Slovakia, Austria), J. MADEJOVÁ (Slovakia), Y. ZHOU (Japan), L. KIPSOVÁ (Slovakia) & K. HIRAO (Japan)

Volume 28, Number 10, 2008

- 1923 Direct observation of mould cavity filling in ceramic injection moulding
P. DVORAK (Czech Republic), T. BARRIERE & J.C. GELIN (France)
- 1931 A further report on finite element analysis of sintering deformation using densification data—Error estimation and constrained sintering
R. HUANG & J. PAN (UK)
- 1941 Assessment of viscoelastic crack bridging toughening in refractory materials
D.N. BOCCACCINI, M. CANNIO (Italy), T.D. VOLKOV-HUSOVIÆ (Serbia), I. DLOUHY (Czech Republic), M. ROMAGNOLI, P. VERONESI & C. LEONELLI (Italy)
- 1953 Microstructural changes and evolutions of elastic properties versus temperature of alumina and alumina–magnesia refractory castables
J.-M. AUVRAY, C. GAULT & M. HUGER (France)
- 1961 Fracture behaviour of microcrack-free alumina–aluminium titanate ceramics with second phase nanoparticles at alumina grain boundaries
S. BUENO (Spain), M.H. BERGER (France), R. MORENO & C. BAUDÍN (Spain)
- 1973 Formation of Y₃Al₅O₁₂–Al₂O₃ eutectic microstructure with off-eutectic composition
Y. HARADA, N. UEKAWA, T. KOJIMA & K. KAKEGAWA (Japan)
- 1979 Failure of the plasma-sprayed coating of lanthanum hexaluminates
X.Q. CAO, Y.F. ZHANG, J.F. ZHANG, X.H. ZHONG, Y. WANG, H.M. MA, Z.H. XU, L.M. HE & F. LU (China)
- 1987 Synthesis of CoAl₂O₄ by double decomposition reaction between LiAlO₂ and molten KCoCl₃
N. OUAHDI (France, Morocco), S. GUILLEMET, B. DURAND (France), R. EL OUATIB (France, Morocco), L. ER RAKHO, R. MOUSSA & A. SAMDI (Morocco)
- 1995 Sintering of tricalcium phosphate–fluorapatite composites with zirconia
F. BEN AYED & J. BOUAZIZ (Tunisia)
- 2003 Cracking of titania nanocrystalline coatings
M. MAHÉ (Germany, France), J.-M. HEINTZ (France), J. RÖDEL & P. REYNDERS (Germany)
- 2011 Improving the quality of nanocrystalline MgAl₂O₄ spinel coating on graphite by a prior oxidation treatment on the graphite surface
A. SABERI, F. GOLESTANI-FARD (Iran), M. WILLERT-PORADA, R. SIMON, T. GERDES (Germany) & H. SARPOOLAKY (Iran)
- 2019 Dilatometer analysis of sintering behavior of nano-CeO₂ particles
Y. KINEMUCHI & K. WATARI (Japan)
- 2025 A stabilization mechanism for the perovskite La_{2/3}TiO₃ compound with Fe₂O₃: A structural and electrical investigation
S.D. ŠKAPIN, A.S. ŠKAPIN, D. SUVOROV & M. GABERŠČEK (Slovenia)
- 2033 Brown pigment of the nanopowder spinel ferrite prepared by combustion reaction
A.C.F.M. COSTA, A.M.D. LEITE, H.S. FERREIRA, R.H.G.A. KIMINAMI, S. CAVA & L. GAMA (Brazil)
- 2039 Analyzing indentation behavior of LaGaO₃ single crystals using sharp indenters
S. PATHAK, S.R. KALIDINDI (USA), B. MOSER (Switzerland), C. KLEMENZ & N. ORLOVSKAYA (USA)
- 2049 Piezospectroscopic measurement of the stress field around an indentation crack tip in ruby using SEM cathodoluminescence
R.I. TODD, D. STOWE, S. GALLOWAY, D. BARNES & P.R. WILSHAW (UK)
- 2057 A two-step synthesis of NiZn–W hexaferrites
D. LISJAK, A. ŽNIDAŘŠIČ (Slovenia), A. SZTANISLAV (Hungary) & M. DROFENIK (Slovenia)
- 2063 Effect of different templates on microstructure of textured Na_{0.5}Bi_{0.5}TiO₃–BaTiO₃ ceramics with RTGG method
F. GAO, R.-Z. HONG, J.-J. LIU, Y.-H. YAO & C.-S. TIAN (PR China)
- 2071 Electrical characterizations of PZT ceramics in large frequency and temperature ranges
D. FASQUELLE & J.C. CARRU (France)
- 2075 Sintering and dielectric properties of Cu₂Ta₄O₁₂ ceramics
D. SZWAGIERCZAK & J. KULAWIK (Poland)

- 2085 New production of TiC_xN_{1-x} -based cermets by one step mechanically induced self-sustaining reaction: Powder synthesis and pressureless sintering
J.M. CÓRDOBA, M.D. ALCALÁ, M.A. AVILÉS, M.J. SAYAGUÉS & F.J. GOTOR (Spain)
- 2099 Surface strengthening of Ti_3SiC_2 through magnetron sputtering Cu and subsequent annealing
H. GUO, J. ZHANG, F. LI, Y. LIU, J. YIN & Y. ZHOU (China)

Volume 28, Number 11, 2008

- 2109 Green ceramic machining: A top-down approach for the rapid fabrication of complex-shaped ceramics
B. SU, S. DHARA & L. WANG (UK)
- 2117 Experimental and FEM-supported investigation of wet ceramic clay extrusion for the determination of stress distributions on the applied tools' surfaces
K.-D. BOUZAKIS, K. EFSTATHIOU, G. PARADISIADIS & A. TSOUKNIDAS (Greece)
- 2129 High temperature characterisation of cordierite–mullite refractory by ultrasonic means
T. CHOTARD, J. SORO, H. LEMERCIER, M. HUGER & C. GAULT (France)
- 2137 Effect of Ti ion substitution on the structure of hydroxylapatite
C. ERGUN (Turkey)
- 2151 Microstructural self-healing effect of hydrothermal crystallization on bonding strength and failure mechanism of hydroxyapatite coatings
C.-W. YANG & T.-S. LUI (Taiwan)
- 2161 Production and characterization of plasma-sprayed TiO_2 –hydroxyapatite functionally graded coatings
V. CANNILLO, L. LUSVARGHI & A. SOLA (Italy)
- 2171 Colloidal stability of nanosized titania aqueous suspensions
S. FAZIO (Italy), J. GUZMÁN, M.T. COLOMER (Spain), A. SALOMONI (Italy) & R. MORENO (Spain)
- 2177 Analysis of roughness parameters to specify superhydrophobic antireflective boehmite films made by the sol–gel process
X. ZHANG, M. JÄRN, J. PELTONEN, V. PORE, T. VUORINEN, E. LEVÄNEN & T. MÄNTYLÄ (Finland)
- 2183 Long-term stability of Pt/alumina catalyst combustors for micro-gas sensor application
M. NISHIBORI, W. SHIN, K. TAJIMA, L.F. HOULET, N. IZU, T. ITOH & I. MATSUBARA (Japan)
- 2191 Mullite/ZrO₂ coatings produced by flame spraying
C. CANO, E. GARCIA, A.L. FERNANDES, M.I. OSENDI & P. MIRANZO (Spain)
- 2199 Thermal stability of zircon ($ZrSiO_4$)
A. KAISER, M. LOBERT & R. TELLE (Germany)
- 2213 Analyzing indentation stress–strain response of $LaGaO_3$ single crystals using spherical indenters
S. PATHAK, S.R. KALIDINDI, C. KLEMENZ & N. ORLOVSKAYA (USA)
- 2221 Subsolidus phase equilibria in the RuO_2 – Bi_2O_3 – SiO_2 system
M. HROVAT (Slovenia), T. MAEDER (Switzerland), J. HOLC, D. BELAVIČ, J. CILENŠEK & J. BERNARD (Slovenia)
- 2225 Sintering of thin film nanocrystalline titania–tin oxide composites
J. WALLOT, P. REYNDERS (Germany), A.A. HERZING, C.J. KIELY, M.P. HARMER (USA) & J. RÖDEL (Germany)
- 2233 Synthesis of bismuth ferrite lead titanate nano-powders and ceramics using chemical co-precipitation
T.P. COMYN, D.F. KANGUWE, J. HE & A.P. BROWN (UK)
- 2239 Visualisation of environmental degradation in ceramic superconductors using digital speckle photography
S. RECUERO, M.T. BONA, N. ANDRÉS, J.M. ANDRÉS & L.A. ANGUREL (Spain)
- 2247 Synthesis and structural characterization of carbon-rich SiC_xO_y derived from a Ni-containing hybrid polymer
M.G. SEGATELLI, A.T.N. PIRES & I.V.P. YOSHIDA (Brazil)
- 2259 Two-stage sintering inhibits abnormal grain growth during β to α transformation in SiC
A.M. KUECK & L.C. DE JONGHE (USA)

- 2265 The synthesis of SiC and TiC protective coatings for carbon fibers by the reactive replica process
R. GADIOU, S. SERVERIN, P. GIBOT & C. VIX-GUTERL (France)
- 2275 Combustion synthesis of TiC_x-TiB_2 composites with hypoeutectic, eutectic and hypereutectic microstructures
B. ZOU, P. SHEN, Z. GAO & Q. JIANG (PR China)
- 2281 A non-aqueous processing route for phosphate-protection of AlN powder against hydrolysis
I. GANESH (India, Portugal), N. THIYAGARAJAN, G. SUNDARARAJAN (India), S.M. OLHERO & J.M.F. FERREIRA (Portugal)
- 2289 Silicon nitride tools for the hot rolling of high-alloyed steel and superalloy wires – Crack growth and lifetime prediction
M. LENGAUER & R. DANZER (Austria)

Volume 28, Number 12, August 2008 SI**Papers Presented at the Second International Workshop on Directionally Solidified Eutectic Ceramics**

- 2299 Preface
A. SAYIR (USA)
- 2301 Microstructures, crystallography of interfaces, and creep behavior of melt-growth composites
L. MAZEROLLES, L. PERRIERE, S. LARTIGUE-KORINEK, N. PIQUET & M. PARLIER (France)
- 2309 Residual stresses in YAG phase of melt growth Al_2O_3/YAG eutectic composite estimated by indentation fracture test and finite element analysis
S. OCHIAI, S. IKEDA, S. IWAMOTO, J.J. SHA, H. OKUDA, Y. WAKU, N. NAKAGAWA, A. MITANI, M. SATO & T. ISHIKAWA (Japan)
- 2319 Residual stresses in YAG phase in directionally solidified eutectic Al_2O_3/YAG ceramic composite estimated by X-ray diffraction
J.J. SHA, S. OCHIAI, H. OKUDA, Y. WAKU, N. NAKAGAWA, A. MITANI, M. SATO & T. ISHIKAWA (Japan)
- 2325 Crystallography and thermal stability of textured Co-YSZ cermets from eutectic precursors
M.A. LAGUNA-BERCERO, A. LARREA, R.I. MERINO, J.I. PEÑA & V.M. ORERA (Spain)
- 2331 Calculation of mechanical properties of hypothetical eutectic nanocomposites LaB_6-MeB_2
B. GALANOV, V. KARTUZOV, Y. KARTUZOV & K. ROTMISTROVSKY (Ukraine)
- 2337 Crack propagation in directionally solidified eutectic ceramics
L. PERRIERE, R. VALLE, L. MAZEROLLES & M. PARLIER (France)
- 2345 Fracture toughness and strength of $Al_2O_3-Y_3Al_5O_12$ and $Al_2O_3-Y_3Al_5O_12-ZrO_2$ directionally solidified eutectic oxides up to 1900 K
J.Y. PASTOR, J. LLORCA, A. MARTÍN, J.I. PEÑA & P.B. OLIETE (Spain)
- 2353 The water vapor hot gas corrosion of MGC materials with Al_2O_3 as a phase constituent in a combustion atmosphere
M. FRITSCH & H. KLEMM (Germany)
- 2359 Corrosion and recession mechanism of $Lu_2Si_2O_7$ /mullite eutectic
S. UENO (Japan), H.-T. LIN (USA) & T. OHJI (Japan)
- 2363 Phase equilibria in the refractory oxide systems of zirconia, hafnia and yttria with rare-earth oxides
E.R. ANDRIEVSKAYA (Ukraine)
- 2389 Phase diagram of the $Al_2O_3-ZrO_2-Er_2O_3$ system
S.M. LAKIZA & L.M. LOPATO (Ukraine)
- 2399 Crystallization behavior of the eutectic glass in the $C_12A_7-CaYAlO_4$ system
N. SAKAMOTO, K. SUDA, T. WATANABE, N. MATSUSHITA & M. YOSHIMURA (Japan)
- 2405 Nanoparticulate composites of melt textured $YBa_2Cu_3O_{7-2x}$ superconductors
O. JONGPRATEEP & F. DOGAN (USA)
- 2411 Directional solidification of $Al_2O_3-Al_2TiO_5$ system
M.-H. BERGER (France) & A. SAYIR (USA)

- 2421 Lanthanum phosphate calcium aluminate glasses: 27Al and 31P NMR spectroscopy
R. MARZKE, S. BOUCHER, G. WOLF, J. PIWOWARCZYK & W. PETUSKEY (USA)
- 2433 Laser processed protonic ceramics
F.W. DYNYS (USA), M.H. BERGER (France) & A. SAYIR (USA)

- I Keyword List
III Notes for Authors

Volume 28, Number 13, 2008

- 2441 Coordination measurements in compacted NaCl irregular powders using X-ray microtomography
A. MARMOTTANT, L. SALVO, C.L. MARTIN (France) & A. MORTENSEN (Switzerland)
- 2451 High-temperature mechanical properties of porous NaMgF₃ derived from directionally solidified NaMgF₃–NaF eutectics
J. RAMÍREZ-RICO, A.R. DE ARELLANO-LÓPEZ, J. MARTÍNEZ-FERNÁNDEZ, A. LARREA & V.M. ORERA (Spain)
- 2459 Rapid identification of steatite–enstatite polymorphs at various temperatures
B. REYNARD (France), J.D. BASS (France, USA) & J.M. JACKSON (USA)
- 2463 Influence of macroscopic residual stresses on the mechanical behavior and microstructure of porcelain tile
A. DE NONI JR., D. HOTZA (Brazil), V.C. SOLER (Spain) & E.S. VILCHES (Spain)
- 2471 Effect of thermal treatment on damage mechanical behaviour of refractory castables: Comparison between bauxite and andalusite aggregates
M.G. KAKROUDI (Islamic Republic of Iran, France), E. YEUGO-FOGAING, C. GAULT, M. HUGER & T. CHOTARD (France)
- 2479 Densification of Ca-doped alumina nanopowders prepared by a new sol–gel route with seeding
A. ODAKA, T. YAMAGUCHI, T. FUJITA, S. TARUTA & K. KITAJIMA (Japan)
- 2487 Microstructural and morphological analysis of nanostructured alumina particles synthesized at low temperature via aerosol route
M.I. MARTÍN, M.E. RABANAL, L.S. GÓMEZ, J.M. TORRALBA (Spain) & O. MILOSEVIC (Serbia)
- 2495 Study of magnesium aluminate spinel formation from carbonate precursors
A. WAJLER, H. TOMASZEWSKI, E. DROŻDŻ-CIĘSLA, H. WĘGLARZ & Z. KASZKUR (Poland)
- 2501 Preparation, characterization and electrical properties of spinel-type environment friendly thick film NTC thermistors
S. JAGTAP, S. RANE, S. GOSAVI & D. AMALNERKAR (India)
- 2509 Phase equilibria in the TiO₂–YO_{1.5}–ZrO₂ system
T.A. SCHAEDLER (USA), O. FABRICHNAYA (Germany) & C.G. LEVI (USA)
- 2521 Characterization and performance of glass–ceramic sealant to join metallic interconnects to YSZ and anode-supported-electrolyte in planar SOFCs
F. SMEACETTO, M. SALVO, M. FERRARIS, V. CASALEGNO, P. ASINARI (Italy) & A. CHRYSANTHOU (UK)
- 2529 Microwave sintering of plasma-sprayed yttria stabilized zirconia electrolyte coating
C. ZHANG (France, China), G. ZHANG (France), S. LEPAROUX (Switzerland), H. LIAO (France), C.-X. LI, C.-J. LI (China) & C. CODDET (France)
- 2539 Preparation of transparent Ce:YSAG ceramic and its optical properties
T. FENG, J. SHI & D. JIANG (China)
- 2545 {1 0 1̄1} artificial epitaxy of ZnO on glass via pulse laser deposition
B.-H. HUANG, P. SHEN & S.-Y. CHEN (Taiwan)
- 2557 Investigation into the interactions between Bi₂O₃-doped ZnO and AgPd electrode
S.-T. KUO, W.-H. TUAN, Y.-W. LAO, C.-K. WEN, H.-R. CHEN & H.-Y. LEE (Taiwan)
- 2563 Combustion synthesis of the cermet LaCrO₃–Ru
B. MORENO, E. CHINARRO & J.R. JURADO (Spain)

- 2567 An in situ study of the formation of multiferroic bismuth ferrite using high resolution synchrotron X-ray powder diffraction
M. THRALL, R. FREER, C. MARTIN, F. AZOUGH (UK), B. PATTERSON (Switzerland) & R.J. CERNIK (UK)
- 2573 Role of urea addition in the preparation of tetragonal BaTiO₃ nanoparticles using flame-assisted spray pyrolysis
Y. TERASHI, A. PURWANTO, W.-N. WANG, F. ISKANDAR & K. OKUYAMA (Japan)
- 2581 Barium titanate based dielectric sintered with a two-stage process
C.-S. HSI, Y.-C. CHEN (Taiwan), H. JANTUNEN (Finland), M.-J. WU & T.-C. LIN (Taiwan)
- 2589 Effects of milling condition on the formation of core-shell structure in BaTiO₃ grains
C.-H. KIM, K.-J. PARK, Y.-J. YOON, D.-S. SINN, Y.-T. KIM & K.-H. HUR (Republic of Korea)
- 2597 Effect of organic additives on the zeta potential of PLZST and rheological properties of PLZST slurries
Y.-P. ZENG (PR China, Germany), A. ZIMMERMANN, F. ALDINGER (Germany) & D. JIANG (PR China)
- 2605 Effects of composition tailoring on structure and microwave dielectric characteristics of SrSmAlO₄ ceramics
M.M. MAO, X.C. FAN & X.M. CHEN (China)
- 2611 Meta-stability and microstructure of the LaFe_{0.65}Co_{0.3}Pd_{0.05}O₃ perovskite compound prepared by a modified citrate route
G.C. MONDRAGÓN RODRÍGUEZ, R. OCHROMBEL & B. SARUHAN (Germany)
- 2617 Droplet size control in the filter expansion aerosol generator
D.S. JUNG & Y.C. KANG (Republic of Korea)
- 2625 Direct inkjet printing of Si₃N₄: Characterization of ink, green bodies and microstructure
B. CAPPI, E. ÖZKOL, J. EBERT & R. TELLE (Germany)

Volume 28, Number 14, 2008

- 2629 Analysis of the development of microscopic residual stresses on quartz particles in porcelain tile
A. DE NONI JUNIOR, D. HOTZA (Brazil), V.C. SOLER & E.S. VILCHES (Spain)
- 2639 Thermal conductivity and specific heat of kaolinite: Evolution with thermal treatment
A. MICHOT, D.S. SMITH, S. DEGOT & C. GAULT (France)
- 2645 Photocatalytic activity for exposed building materials
D.M. TOBALDI, A. TUCCI, G. CAMERA-RODA, G. BALDI & L. ESPOSITO (Italy)
- 2653 Hydrothermal synthesis of nanostructure NaA zeolite: The effect of synthesis parameters on zeolite seed size and crystallinity
B. BAYATI, A.A. BABALUO & R. KARIMI (Republic of Iran)
- 2659 Glass-forming region in the Ca–Si–O–N system using CaH₂ as Ca source
A. SHARAFAT, J. GRINS & S. ESMAEILZADEH (Sweden)
- 2665 DOE analyses on aqueous suspensions of TiO₂ nanoparticles
S. BALDASSARI, A.B. CORRADI, F. BONDIOLI, A.M. FERRARI, M. ROMAGNOLI & C. VILLA (Italy)
- 2673 Laser drilling of Ni–YSZ cermets
J. GURAUSKIS, D. SOLA, J.I. PEÑA & V.M. ORERA (Spain)
- 2681 Crystallographic texture in Al₂O₃–ZrO₂ (Y₂O₃) directionally solidified eutectics
J. RAMÍREZ-RICO, A.R. DE ARELLANO-LÓPEZ, J. MARTÍNEZ-FERNÁNDEZ, J.I. PEÑA & A. LARREA (Spain)
- 2687 Pressureless sintering and mechanical properties of mica glass–ceramic/Y-PSZ -composite
M. MONTAZERIAN, P. ALIZADEH & B. EFTEKHARI YEKTA (Iran)
- 2693 Processing and properties of a mica–apatite glass–ceramic reinforced with Y-PSZ -particles
M. MONTAZERIAN, P. ALIZADEH & B. EFTEKHARI YEKTA (Iran)
- 2701 Pressureless brazing of zirconia to stainless steel with Ag–Cu filler metal and TiH₂ powder
G.W. LIU, G.J. QIAO, H.J. WANG, J.F. YANG & T.J. LU (China)
- 2709 Effects of dopant concentration and calcination temperature on the microstructure of Ca-doped ceria nanopowders
M. YAN, T. MORI, F. YE, D.R. OU (Japan), J. ZOU & J. DRENNAN (Australia)

- 2717 Synthesis of lanthanum silicate oxyapatite materials as a solid oxide fuel cell electrolyte
E. BÉCHADE, I. JULIEN (France), T. IWATA (Japan), O. MASSON, P. THOMAS, E. CHAMPION (France) & K. FUKUDA (Japan)
- 2725 Mechanochemical activation of a titanium–magnetite mixture: Mössbauer spectroscopy study
A.A. CRISTÓBAL, E.F. AGLIETTI, J.M.P. LÓPEZ, F.R. SIVES & R.C. MERCADER (Argentina)
- 2731 ‘Ultra’-low-temperature sintering of PZT: A synergy of nano-powder synthesis and addition of a sintering aid
R. MAZUMDER & A. SEN (India)
- 2739 Formation of PZT crack-free thick films by electrohydrodynamic atomization deposition
D. WANG, M.J. EDIRISINGHE & R.A. DOREY (UK)
- 2747 Hydrothermal deposition of heteroepitaxial lead zirconate titanate nanostructures and thin films
S. DUNN & S. HARADA (UK)
- 2755 Homogeneous templated grain growth of $0.65\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3\text{-}0.35\text{PbTiO}_3$ from nanocrystalline powders obtained by mechanochemical activation
H. AMORÍN, J. RICOTE (Spain), J. HOLC, M. KOSEC (Slovenia) & M. ALGUERÓ (Spain)
- 2765 Co-sintering of barium strontium titanate (BST) thick films inside a LTCC substrate with pressure-assisted sintering
T. TICK, J. PERÄNTIE (Finland), S. RENTSCH, J. MÜLLER, M. HEIN (Germany) & H. JANTUNEN (Finland)
- 2771 The synthesis and polymorphic phase transitions of $\text{Ba}_4\text{Nb}_2\text{O}_9$ ceramics
J. BEZJAK, B. JANČAR, A. REČNIK & D. SUVOROV (Slovenia)
- 2777 Low temperature sintering and microwave dielectric properties of $\text{Ba}_2\text{Ti}_3\text{Nb}_4\text{O}_{18}$ ceramics for LTCC applications
D. ZOU, Q. ZHANG, H. YANG & S. LI (China)
- 2783 Frequency effects on fatigue behavior of Nextel720TM/alumina at room temperature
S. MALL (USA) & J.-M. AHN (USA, Republic of Korea)
- 2791 Multilayer SiC for thermal protection system of space vehicles: Manufacturing and testing under simulated re-entry conditions
S. BIAMINO (Italy), V. LIEDTKE (Austria), C. BADINI (Italy), G. EUCHBERGER, I. HUERTAS OLIVARES (Austria), M. PAVESE & P. FINO (Italy)
- 2801 Electrophoretic deposition in the production of SiC/SiC composites for fusion reactor applications
S. NOVAK, K. RADE, K. KÖNIG (Slovenia) & A.R. BOCCACCINI (UK)
- 2809 Fractal modelling of medium–high porosity SiC ceramics
C. ATZENI, G. PIA & U. SANNA (Italy)

Volume 28, Number 15, 2008

- 2815 Gas-filled microspheres as an expandable sacrificial template for direct casting of -complex-shaped macroporous ceramics
L. ANDERSSON & L. BERGSTRÖM (Sweden)
- 2823 Fracture properties of spray-dried powder compacts: Effect of granule size
J.L. AMORÓS, V. CANTAVELLA, J.C. JARQUE & C. FELÍU (Spain)
- 2835 Investigation of the damage behaviour of refractory model materials at high -temperature by combined pulse echography and acoustic emission techniques
G. BRICHE, N. TESSIER-DOYEN, M. HUGER & T. CHOTARD (France)
- 2845 Magnesia grain size effect on in situ spinel refractory castables
M.A.L. BRAULIO, L.R.M. BITTENCOURT & V.C. PANDOLFELLI (Brazil)
- 2853 Room temperature mechanical properties of high alumina refractory castables with spinel, periclase and dolomite additions
L.A. DÍAZ, R. TORRECILLAS (Spain), F. SIMONIN & G. FANTOZZI (France)
- 2859 High temperature mechanical characterisation of an alumina refractory concrete for Blast Furnace main trough. Part I. General context
N. PROMPT & E. OUEDRAOGO (France)

- 2867 High-temperature mechanical characterisation of an alumina refractory concrete for Blast Furnace main trough.
PART II. Material behaviour
E. OUEDRAOGO & N. PROMPT (France)
- 2877 Oxyfluoride glass-silica ceramic composite for low temperature co-fired ceramics
R. WANG, J. ZHOU, H. ZHAO, B. LI & L. LI (China)
- 2883 Preparation and properties of -CaSiO₃/ZrO₂ (3Y) nanocomposites
L. LONG, F. ZHANG, L. CHEN, L. CHEN & J. CHANG (China)
- 2889 Gel-casting of -TCP using epoxy resin as a gelling agent
B. CHEN, D. JIANG, J. ZHANG, M. DONG & Q. LIN (PR China)
- 2895 Mechanical properties and damage tolerance of Y₂SiO₅
Z. SUN, J. WANG, M. LI & Y. ZHOU (China)
- 2903 Synthesis of yttrium aluminum garnet (YAG) powder by homogeneous precipitation combined with supercritical carbon dioxide or ethanol fluid drying
R. Yang, J. Qin, M. Li & G. Liu (China)
- 2915 Preparation and characterization of zinc hydroxide carbonate and porous zinc oxide particles
M. BITENC, M. MARINŠEK & Z. CRNJAK OREL (Slovenia)
- 2923 Reduced strength degradation of alumina–aluminium titanate composite subjected to low-velocity impact loading
S. BUENO (Italy, Spain), L. MICELE (Italy), C. BAUDIN (Spain) & G. DE PORTU (Italy)
- 2933 Densification and grain growth of nanocrystalline 3Y-TZP during two-step sintering
M. MAZAHERI, A. SIMCHI & F. GOLESTANI-FARD (Iran)
- 2941 Formation of GdAlO₃–Al₂O₃ composite having fine pseudo-eutectic microstructure
Y. HARADA, K. AYABE, N. UEKAWA, T. KOJIMA, K. KAKEGAWA (Japan) & S.J. KIM (Republic of Korea)
- 2947 Synthesis and performances of Ni–SDC cermets for IT-SOFC anode
M. CHEN, B.H. KIM (South Korea), Q. XU (PR China), O.J. NAM & J.H. KO (South Korea)
- 2955 Fabrication and photoactivities of spherical-shaped BiVO₄ photocatalysts through solution combustion synthesis method
H.-Q. JIANG, H. ENDO, H. NATORI, M. NAGAI & K. KOBAYASHI (Japan)
- 2963 Good temperature stability of K_{0.5}Na_{0.5}NbO₃ based lead-free ceramics and their applications in buzzers
L. WU, D. XIAO, J. WU, Y. SUN, D. LIN, J. ZHU, P. YU, Y. ZHUANG & Q. WEI (China)
- 2969 ZnBO-doped (Ba, Sr)TiO₃ ceramics for the low-temperature sintering process
S.-H. KIM & J.-H. KOH (Republic of Korea)
- 2975 Time-resolved neutron diffraction study of Ti–TiC–Al₂O₃ composites obtained by SHS
M.J. MAS-GUINDAL, X. TURRILLAS (Spain), T. HANSEN (France) & M.A. RODRÍGUEZ (Spain)
- 2983 Abrasive wear of Al₂O₃–SiC and Al₂O₃–(SiC)–C composites with micrometer- and submicrometer-sized alumina matrix grains
J. SEDLÁČEK (Germany, Slovak Republic), D. GALUSEK, P. ŠVANČÁREK (Slovak Republic), R. RIEDEL (Germany), A. ATKINSON & X. WANG (UK)
- 2995 Behavior of SiC at high temperature under helium with low oxygen partial pressure
J. ECK, M. BALAT-PICHELIN, L. CHARPENTIER, E. BÈCHE & F. AUDUBERT (France)

Volume 28, Number 16, 2008

- 3005 Combinatorial preparation of solid-state materials by injection moulding
S. REN, W. KOCHANEK, H. BOLZ, M. WITTMAR, I. GROBELSEK & M. VEITH (Germany)
- 3011 Kinetic study of calcite particle (powder) thermal decomposition: Part I
A. ESCARDINO, J. GARCIA-TEN & C. FELIU (Spain)
- 3021 Thermal expansion investigation of iron rich glass-ceramic
P. PISCIELLA & M. PELINO (Italy)

- 3027 Optimization of wastes content in ceramic tiles using statistical design of mixture experiments
R.R. MENEZES, H.G.M. NETO, L.N.L. SANTANA, H.L. LIRA, H.S. FERREIRA & G.A. NEVES (Brazil)
- 3041 AlPO₄-coated mullite/alumina fiber reinforced reaction-bonded mullite composites
Y. BAO & P.S. NICHOLSON (Canada)
- 3049 Defect and microstructural evolution during drying of soapnut-based alumina foams
M. PRADHAN & P. BHARGAVA (India)
- 3059 In situ vibration enhanced pressure slip casting of submicrometer alumina powders
S. MALEKSAEEDI, M.H. PAYDAR, S. SAADAT & H. AHMADI (Iran)
- 3065 Influence of ZnO buffer layer on AZO film properties by radio frequency magnetron sputtering
C.Y. HSU, T.F. KO & Y.M. HUANG (Taiwan)
- 3071 Yb₂O₃ and Gd₂O₃ doped strontium zirconate for thermal barrier coatings
W. MA, D. MACK, J. MALZBENDER, R. VAÑEN & D. STÖVER (Germany)
- 3083 Hydroxyapatite/titania nanocomposites derived by combining high-energy ball milling with spark plasma sintering processes
W. QUE (People's Republic of China, Singapore), K.A. KHOR, J.L. XU & L.G. YU (Singapore)
- 3091 Correlations of the temperature and pressure dependencies of the elastic constants of zircon
H. ÖZKAN (Turkey)
- 3097 Microstructural characterization and crystallization of (1-x)TeO₂-xCdF₂ (x = 0.10, 0.15, 0.25 mol) glasses
D. TATAR, M.L. ÖVEÇOĞLU & G. ÖZEN (Turkey)
- 3107 Synthesis of nano-crystalline Ce_{0.9}Gd_{0.1}O_{1.95} electrolyte by novel sol-gel thermolysis process for IT-SOFCs
D.H. PRASAD, J.-W. SON, B.-K. KIM, H.-W. LEE & J.-H. LEE (Republic of Korea)
- 3113 Slip casting combined with colloidal spray coating in fabrication of tubular anode-supported solid oxide fuel cells
J. DING, J. LIU, W. YUAN & Y. ZHANG (PR China)
- 3119 Phase relations and electrical properties in the pseudo-ternary La₂O₃-TiO₂-Mn₂O₃ system in air
S.D. ŠKAPIN, Š. KUNEJ & D. SUVOROV (Slovenia)
- 3125 Improving the oxygen permeability of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-δ} membranes by a surface-coating layer of GdBaCo₂O_{5+δ}
Y. WANG, H. HAO, J. JIA, D. YANG & X. HU (China)
- 3131 Novel forming of columnar lead zirconate titanate structures
D. SUN, S.A. ROCKS, D. WANG, M.J. EDIRISINGHE & R.A. DOREY (UK)
- 3141 The influence of tetrahedral ordering on the microwave dielectric properties of Sr_{0.05}Ba_{0.95}Al₂Si₂O₈ and Ba_{0.95}Al₂Si₂O₈ and B_aM'₂O₈ (M=Al, Ga, M'=Si, Ge) ceramics
M.M. KRZMANC, B. JANČAR & D. SUVOROV (Slovenia)
- 3149 Low-temperature firing and microwave dielectric properties of 16CaO-9Li₂O-12Sm₂O₃-63TiO₂ ceramics with V₂O₅ addition
Y.-J. GU, J.-L. HUANG, Q. LI, D.-M. SUN & H. XU (China)
- 3155 Degradation of TiB₂ ceramics in liquid aluminum
M.S. JENSEN, M. PEZZOTTA, Z.L. ZHANG, M.-A. EINARSrud & T. GRANDE (Norway)
- 3165 Oxidation of titanium carbide-graphite hetero-modulus ceramics with low carbon content. I. Phenomenological modeling of the ridge effect
I.L. SHABALIN, D.L. ROACH (UK) & L.I. SHABALIN (Russia)
- 3177 Oxidation of titanium carbide-graphite hetero-modulus ceramics with low carbon content. II. Physico-chemical interpretation of the ridge effect
I.L. SHABALIN, D.L. ROACH (UK) & L.I. SHABALIN (Russia)
- Technical notes**
- 3189 Effects of thermal treatment on broadband near-infrared emission from Bi-doped chalcohalide glasses
G. YANG, D. CHEN, W. WANG, Y. XU, H. ZENG, Y. YANG & G. CHEN (China)

- 3193 Phase transition behavior and electrical properties of lead-free $(1 - x)(0.98\text{K}_{0.5}\text{Na}_{0.5}\text{NbO}_3 - 0.02\text{LiTaO}_3) - x(0.96\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3 - 0.04\text{BaTiO}_3)$ piezoelectric ceramics
Y. DAI & X. ZHANG (PR China)

II List of contents for volume 28

XXIII Author index for volume 28

XXXII Keywords index for volume 28