

Contents

P. Šajgalík, M.J. Hoffman and R. Riedel	893	Preface
J. Szépvölgyi, I. Mohai, Z. Károly and L. Gál	895	Synthesis of nanosized ceramic powders in a radiofrequency thermal plasma reactor
I. Zalite, N. Zilinska and G. Kladler	901	SiAlON ceramics from nanopowders
L'. Bača and N. Stelzer	907	Adapting of sol–gel process for preparation of TiB ₂ powder from low-cost precursors
C. Balázs, L. Wang, E.O. Zayim, I.M. Szilágyi, K. Sedlacková, J. Pfeifer, A.L. Tóth and P.-I. Gouma	913	Nanosize hexagonal tungsten oxide for gas sensing applications
O. Vasykiv, H. Borodianska and Y. Sakka	919	Nanoreactor engineering and SPS densification of multimetal oxide ceramic nanopowders
X. Zhu, T.S. Suzuki, T. Uchikoshi and Y. Sakka	929	Texturing behavior in sintered reaction-bonded silicon nitride via strong magnetic field alignment
Y. Sakka, T.S. Suzuki and T. Uchikoshi	935	Fabrication and some properties of textured alumina-related compounds by colloidal processing in high-magnetic field and sintering
B.-G. Kim, C.-L. Park and H.-S. Jeon	943	Controlling particle size distribution for preparing multi-layer structure compacts
O.-U. Nimittrakoolchai and S. Supothina	947	Deposition of organic-based superhydrophobic films for anti-adhesion and self-cleaning applications
K. Krnel, A. Maglica and T. Kosmač	953	β-SiAlON/TiN nanocomposites prepared from TiO ₂ -coated Si ₃ N ₄ powder
R. Chockalingam, V.R.W. Amarakoon and H. Giesche	959	Alumina/cerium oxide nano-composite electrolyte for solid oxide fuel cell applications
M. Dudek	965	Ceramic oxide electrolytes based on CeO ₂ —Preparation, properties and possibility of application to electrochemical devices
J. Binner, K. Annapoorani, A. Paul, I. Santacruz and B. Vaidhyanathan	973	Dense nanostructured zirconia by two stage conventional/hybrid microwave sintering
J.-H. Han, S.-S. Hwang, D. Lee and S.-W. Park	979	Synthesis and mechanical properties of Ti ₃ AlC ₂ by hot pressing TiC _x /Al powder mixture
B. Bitterlich, S. Bitsch and K. Friederich	989	SiAlON based ceramic cutting tools
L. Benco, J. Hafner, Z. Lences and P. Sajgalik	995	Density functional study of structures and mechanical properties of Y-doped α-SiAlONs

A. Kocjan, K. Krnel and T. Kosmač	1003	The influence of temperature and time on the AlN powder hydrolysis reaction products
J. Lis, L. Chlubny, M. Łopaciński, L. Stobierski and M.M. Bućko	1009	Ceramic nanolaminates—Processing and application
S. Kokott, L. Heymann and G. Motz	1015	Rheology and processability of multi-walled carbon nanotubes—ABSE polycarbosilazane composites
A. Duszová, J. Dusza, K. Tomášek, G. Blugan and J. Kuebler	1023	Microstructure and properties of carbon nanotube/zirconia composite
J.-H. Eom, Y.-W. Kim, I.-H. Song and H.-D. Kim	1029	Processing and properties of polysiloxane-derived porous silicon carbide ceramics using hollow microspheres as templates
H.-J. Kleebe and Y.D. Blum	1037	SiOC ceramic with high excess free carbon
M. Fukushima, Y. Zhou, Y.-I. Yoshizawa and K. Hirao	1043	Water vapor corrosion behavior of porous silicon carbide membrane support
M. Herrmann, I. Schulz, A. Bales, K. Sempf and S. Hoehn	1049	“Snow flake” structures in silicon nitride ceramics – Reasons for large scale optical inhomogeneities
I.-S. Han, D.-W. Seo, S.-Y. Kim, K.-S. Hong, K.H. Guahk and K.S. Lee	1057	Properties of silicon nitride for aluminum melts prepared by nitrided pressureless sintering
L. Esposito, A.L. Costa and V. Medri	1065	Reactive sintering of YAG-based materials using micrometer-sized powders
Z. Chlup, P. Flasar, A. Kotoji and I. Dlouhy	1073	Fracture behaviour of Al ₂ O ₃ /SiC nanocomposite ceramics after crack healing treatment
H. Kita, H. Hyuga and N. Kondo	1079	Stereo fabric modeling technology in ceramics manufacture
T. Kosmač, Č. Oblak and L. Marion	1085	The effects of dental grinding and sandblasting on ageing and fatigue behavior of dental zirconia (Y-TZP) ceramics
R. Klement, S. Rolc, R. Mikulikova and J. Krestan	1091	Transparent armour materials
A. Okada	1097	Automotive and industrial applications of structural ceramics in Japan
J. Eichler and C. Lesniak	1105	Boron nitride (BN) and BN composites for high-temperature applications

I Keyword List

III Notes for Authors