2nd Pacific Rim Engineering Ceramics Summit
Monday, January 27, 2014

Pacific Rim Ceramic Technologies: Trends and Directions I

1:30 PM-5:50 PM
Room: Coquina Salon C
Session Chair(s): Kouichi Yasuda, Hisayuki Suematsu

1:30 PM
(ICACC-PRECS-001-2014) Consolidation of cBN-based composites by spark plasma sintering (Invited Speaker)
Takashi Goto*, Mettaya Kitiwan, Akihiko Ito, Jianfeng Zhang, IMR Tohoku University, Japan

2:00 PM
(ICACC-PRECS-002-2014) Control of Electrical Resistivity in Liquid-Phase Sintered Silicon Carbide Ceramics (Invited Speaker)
Young-Wook Kim*, Kwang-Young Lim, The UNiversity of Seoul, Republic of Korea; Kwang Joo Kim, Konkuk University, Republic of Korea

2:20 PM
(ICACC-PRECS-003-2014) Synthesis of Novel Materials Utilizing Extreme Conditions Obtained by Pulsed Power Technologies (Invited Speaker)
Hisayuki Suematsu*, Nagaoka University of Technology, Japan; Yoshinori Tokoi, Nagaoka National College of Technology, Japan; Tsuneo Suzuki, Tadachika Nakayama, Koichi Niihara, Nagaoka University of Technology, Japan

2:40 PM
(ICACC-PRECS-004-2014) Smart Powder Processing to Produce Advanced Ceramics (Invited Speaker)
Makio Naito*, Osaka University, Japan

3:00 PM
Break

3:20 PM
(ICACC-PRECS-005-2014) Grain Boundary Structures and Plasticity of Ceramics (Invited Speaker)
Yuichi Ikuhara*, Univ.Tokyo/JFCC//Tohoku Univ., Japan

3:50 PM
(ICACC-PRECS-006-2014) Challenges in Model Development for Estimating Internal Stress of Ceramic Laminates during Sintering (Invited Speaker)
Kouichi Yasuda*, Tokyo Institute of Technology, Japan

4:10 PM
(ICACC-PRECS-007-2014) The Development of Environmental Barrier Coatings for SiC/SiC Ceramic Matrix Composites: Challenges and Opportunities (Invited Speaker)
Dongming Zhu*, NASA Glenn Research Center, USA

4:30 PM
(ICACC-PRECS-008-2014) Control of Mass-transfer through Grain Boundaries in Alumina Protective Layer by Dopant Configurations in TBCs (Invited Speaker)
Satoshi Kitaoka*, Tsuneaki Matsudaira, Masashi Wada, Makoto Tanaka, Takafumi Ogawa, Japan Fine Ceramics Center, Japan; Yutaka Kagawa, The University of Tokyo, Japan

4:50 PM
(ICACC-PRECS-009-2014) Overview of Research on C/SiC Ceramic Matrix Composites in Shanghai Institute of Ceramics (Invited Speaker)
Shaoming Dong*, Jianbao Hu, Yanmei Kan, Zhen Wang, Xiangyu Zhang, Shanghai Institute of Ceramics, Chinese Academy of Sciences, China

5:10 PM
(ICACC-PRECS-010-2014) Research and Product Development Activities at Du-Co Ceramics:
Tuesday, January 28, 2014
Pacific Rim Ceramic Technologies: Trends and Directions II

8:10 AM-12:00 PM
Room: Coquina Salon C
Session Chair(s): Min Wang, Shoko Suyama

8:10 AM
(ICACC-PRECS-012-2014) Bioceramics and Nanocomposites for Human Hard Tissue Repair and Regeneration (Invited Speaker)
Min Wang*, The University of Hong Kong, Hong Kong

8:40 AM
(ICACC-PRECS-013-2014) Two photon polymerization of inorganic-organic hybrid materials (Invited Speaker)
Roger Narayan*, UNC/NCSU Joint Department of Biomedical Engineering, USA

9:00 AM
(ICACC-PRECS-014-2014) Nanoscale structure and modification of Biomaterials (Invited Speaker)
Federico Rosei*, INRS, Univ of Quebec, Canada

9:20 AM
(ICACC-PRECS-015-2014) Progress in Research and Development on MAX Phases and the Perspectives (Invited Speaker)
ZhengMing Sun*, AIST, Japan

9:40 AM
Break

10:00 AM
(ICACC-PRECS-016-2014) Development of Joining Process Technology of Silicon Carbide (Invited Speaker)
Shoko Suyama*, Toshiba Corporation, Japan

10:20 AM
(ICACC-PRECS-017-2014) Prospective and challenges of nanolaminated ternary carbides and nitrides (MAX phases) (Invited Speaker)
Yanchun Zhou*, Aerospace Research Institute of Material & Processing Technology, China

10:40 AM
(ICACC-PRECS-018-2014) Genome Approach for advanced ceramics (Invited Speaker)
Jingyang Wang*, Institute of Metal Research, China

11:00 AM
(ICACC-PRECS-019-2014) High-precision process technology for ceramic ferrules (Invited Speaker)
Soichi Masaki*, Seiji Nakano, Kazuaki Ikegai, Adamant Kogyo Co., Ltd., Japan

11:20 AM
(ICACC-PRECS-020-2014) Erosion Mechanism of Ceramics in the Fluorocarbon plasma and Development of a New Plasma Resistant Materials (Invited Speaker)
SungMin Lee*, Yoon-Suk Oh, Hyung-Tae Kim, Korea Institute of Ceramic Engineering & Technology (KICET), Republic of Korea

11:40 AM
(ICACC-PRECS-021-2014) New functional ceramics in Taiwan (Invited Speaker)
Jow-Lay Huang*, Ching-Huan Lee, National Cheng Kung University, Taiwan
Pacific Rim Ceramic Technologies: Trends and Directions III

1:30 PM-5:30 PM
Room: Coquina Salon C
Session Chair(s): M. Singh, Do Kyung Kim

1:30 PM
(ICACC-PRECS-022-2014) Material Challenges and Opportunities for Commercial Electric Aircraft (Invited Speaker)
Ajay K. Misra*, NASA-Glenn Research Center, USA

2:00 PM
(ICACC-PRECS-023-2014) Nanostructured Dielectrics for High Energy Density Capacitors (Invited Speaker)
Fatih Dogan*, Missouri University of Science and Technology, USA

2:30 PM
Do Kyung Kim*, KAIST, Republic of Korea

3:00 PM
Break

3:20 PM
Sangmok Lee*, Korea Institute of Industrial Technology, Republic of Korea

3:50 PM
(ICACC-PRECS-026-2014) The Role of Regional Institutes in Technology Development, Transfer and Education: The Ohio Aerospace Institute Model (Invited Speaker)
Michael Heil*, Ohio Aerospace Institute, USA

4:10 PM
(ICACC-PRECS-027-2014) UBE’s Future Activity on Ceramics (Invited Speaker)
Toshihiro Ishikawa*, Ube Industries, Ltd., Japan

4:30 PM
(ICACC-PRECS-028-2014) Development of electro-optical single crystals for energy saving (Invited Speaker)
Kiyoshi Shimamura*, Encarnacion Garcia Villora, National Institute for Materials Science, Japan

4:50 PM
Soshu Kirihara*, Osaka University, Japan

5:10 PM
(ICACC-PRECS-030-2014) Development of High-Thermal-Conductivity Silicon Nitride Ceramics for Power Module Applications (Invited Speaker)
You Zhou*, Hideki Hyuga, Yu-ichi Yoshizawa, Tatsuki Ohji, Norimitsu Murayama, Kiyoshi Hirao, National Institute of Advanced Industrial Science and Technology (AIST), Japan

Wednesday, January 29, 2014
Pacific Rim Ceramic Technologies: Trends and Directions IV

8:10 AM-12:10 PM
Room: Coquina Salon C
Session Chair(s): Tatsuki Ohji, Swapan Das

8:10 AM
(ICACC-PRECS-031-2014) Energy Efficiency Challenges Addressed Through the Use of Advanced Refractory Ceramic Materials (Invited Speaker)
James G Hemrick*, Oak Ridge National Laboratory, USA
8:40 AM  
(ICACC-PRECS-032-2014) Research & Developmental activities in the field of Refractory Ceramics in India: An overview (Invited Speaker)  
Swapan Kumar Das*, CSIR-Central Glass & Ceramic Research Institute, India

9:00 AM  
(ICACC-PRECS-033-2014) R&Ds on Energy-Saving Manufacturing Process of Silicon Nitrides (Invited Speaker)  
Tatsuki Ohji*, Hideki Hyuga, You Zhou, Naoki Kondo, Mikinori Hotta, Kiyoshi Hirao, National Institute of Advanced Industrial Science and Technology (AIST), Japan

9:20 AM  
(ICACC-PRECS-034-2014) Convalescing Energy Efficiency of Firing Process in Whiteware Cluster in India (Invited Speaker)  
Lalit Kumar Sharma*, Debiprasad Karmakar, Chandrashekhar Prasad, Central Glass & Ceramic Research Institute, India

9:40 AM  
Break

10:00 AM  
(ICACC-PRECS-035-2014) Hybrid-interface based Future Materials (Invited Speaker)  
Kwang Ho Kim*, Pusan National University, Republic of Korea

10:30 AM  
(ICACC-PRECS-036-2014) Polymer-Derived Ceramics: Fundamentals and Applications (Invited Speaker)  
Linan An*, university of central florida, USA

10:50 AM  
(ICACC-PRECS-037-2014) Ceramic fillers as the key for high performance polymers  
Jens Eichler*, ESK - a 3M company, Germany

11:10 AM  
(ICACC-PRECS-038-2014) High Performance SRBSN (Sintered Reaction Bonded Silicon Nitride) (Invited Speaker)  
Hai-Doo Kim*, KIMS, Republic of Korea

11:30 AM  
(ICACC-PRECS-039-2014) Addressing Water Mark Problem in Porcelain Tile Industries in India (Invited Speaker)  
Chandresh Agarwal*, Imerys ceramics India, India

11:50 AM  
(ICACC-PRECS-040-2014) Microstructure Development and Properties of SnO$_2$-TiO$_2$ Binary Composites via Spinodal Phase Separation (Invited Speaker)  
Tohru Sekino*, Tohoku University, Japan; Takafumi Kusunose, Kagawa University, Japan; Shun-Ichiro Tanaka, Tohoku University, Japan