

## Symposium T4S6: Multifunctional Coatings for Energy and Environmental Applications

**Wednesday 7/25/2018**

<b>Session 1</b>	<b>Aerosol Deposition Process I</b>
<b>8.30-10.00 am</b>	<b>Meeting Room: 303</b> <b>Session Chair: Satoshi Kitaoka</b>
9- 9.30 am	Room Temperature Impact Consolidation (RTIC) of Fine Ceramic Particles as a Strategic Phenomenon for Advanced Ceramic Coating Keynote Speaker: Jun Akedo
9.30 – 9.45 am	Development of Hard-ceramic Coating on Polymer Substrate with Aerosol Deposition Process Oral Contribution Speaker: Jun Akedo
9.45 – 10.00 am	One Step Process to Fabricate Ag-doped SnO <sub>2</sub> Gas Sensor Using Kinetically Sprayed Process Oral Contribution Speaker: Caroline Sunyong Lee
10.00-10.20 am	Break
<b>Session 2</b>	<b>Aerosol Deposition Process II</b>
<b>10.20-11.55am</b>	<b>Meeting Room: 303</b> <b>Session Chair: Kentaro Shinoda</b>
10.20-10.45 am	Ceramic Coating by Aerosol Deposition for Energy Storage Device Applications Invited Speaker: Jae-Hyuk Park
10.45-11.00 am	Polarization Properties of Grain-oriented Bismuth Titanate Ceramic Films Prepared by AD Method Oral Contribution Speaker: Muneyasu Suzuki
11.00-11.25 am	Ceramic Film Based Humidity Sensor and Dental Bracket Applications via Aerosol Deposition Invited Speakers: Jong-Min Oh, Cong Wang and Nam-Young Kim
11.25-11.40 am	Insulating Properties of Aerosol Deposited Al <sub>2</sub> O <sub>3</sub> Thick Film for High Power Devices Oral Contribution Speaker: Rintaro Aoyagi
11.40-11.55 am	Recent Progress in Manufacturing Process of Composite Electrode for Oxide Type Solid State Lithium Ion Battery Oral Contribution Speakers: Hiroshi Nagata and Junji Akimoto
11.55-1.30 pm	Break
<b>Session 3</b>	<b>Thermal/Environmental Barrier Coatings</b>
<b>1.30-2.50 pm</b>	<b>Meeting Room: 303</b> <b>Session Chair: Frank Gaertner</b>
1.30-1.55 pm	Mass-transfer in Multilayered EBC under Oxygen Potential Gradients at High Temperature Invited Speaker: Satoshi Kitaoka
1.55-2.20 pm	Thermo-Corrosive Properties of RE-doped Silicate Environmental Barrier Coatings Invited Speakers: Byung-Koog Jang
2.20-2.35 pm	Manufacturing of Silica Added Yttria Stabilized Zirconia Coatings with Low Thermal Conductivity by Suspension Plasma Spray

	Oral Contribution Speaker: Yoonsuk Oh
2.35-2.50 pm	Process for Plasma Sprayed Ceramic Coatings with Suspension and Fine Feedstock Oral Contribution Speaker: Masato Suzuki
2.50-3.20 pm	Break
<b>Session 4</b>	<b>Additive and Novel Spray Coatings</b>
<b>3.20-4.15 pm</b>	<b>Meeting Room: 303</b> <b>Session Chair: Masato Suzuki</b>
3.20-3.45 pm	Cold Spraying for Additive Manufacturing and Repair Invited Speaker: Frank Gärtner
3.45-4.00 pm	Engineering of a New Glass of Plasma Spray for Fine Ceramics Deposition Oral Contribution Speakers: Mohammed Shahien and Masato Suzuki
4.00-4.15 pm	Deposition Mechanism of Ceramic Coatings by Fine Solid Particle Spray with the Assistance of Mesoplasma Flow Oral Contribution Speaker: Kentaro Shinoda
<b>Thursday 7/26/2018</b>	
<b>Session 5</b>	<b>Functional Material Coatings I</b>
<b>8.30-10.00 am</b>	<b>Meeting Room: 303</b> <b>Session Chair: Anke Kruger</b>
8.30-8.55 am	2D Oxide Nanosheets: A New Platform for Ceramic Nanocoating Invited Speaker: Minoru Osada
8.55 – 9.10 am	Development of Flexible Resistor Thin Film by Using Photo-reaction of Hybrid Solution Process (PRHS) Oral Contribution Speaker: Tetsuo Tsuchiya
9.10 – 9.35 am	High Hall Mobility Transparent Conductive Oxide Films Deposited by Ion Plating with DC Arc Discharge Invited Speaker: Tetsuya Yamamoto
9.35-10.00 am	Preparation of Transparent CuCrO <sub>2</sub> Thin Film by Electrospinning Invited Speaker: Te-Wei Chiu
10.00-10.20 am	Break
<b>Session 6</b>	<b>Functional Material Coatings II</b>
<b>10.20-11.50 am</b>	<b>Meeting Room: 303</b> <b>Session Chair: Anke Kruger</b>
10.20-10.45 am	Surface functionalized diamond materials for energy storage and catalysis Invited Speaker: Anke Krueger
10.45-11.00 am	Development of Chemically Modified Nanodiamond Particles for Magnetic Resonance Imaging (MRI) Contrast Agents Oral Contribution Speaker: Takako Nakamura
11.00-11.25 am	Boosting the Magnetoelectric Coupling Effect in Film Heterostructures by Photon Associated Thermal Treatment Invited Speaker: Jungho Ryu
11.25-11.50 am	Magnetic Correlation at Room Temperature for Polar Charge Ordered Material RFe <sub>2</sub> O <sub>4</sub> Invited Speaker: Naoshi Ikeda