

OS5: Advanced Applications of Multi-functional Fluids

October 30, 2020

ROOM2 (Zoom Webinar)

- OS5-1 **A Transferred/Non-transferred Hybrid Plasma Torch**
9:30-9:50 Sang-Min Jeong, Min-Gyu Choi, Darian Figuera, Dong-Hyun Lee, Junseok Nam, Shi-Young Yang, Jun-Ho Seo (Chonbuk National University, Korea)
- OS5-2 **Identification of Light Emitting Elements near Electrode During TIG Welding**
9:50-10:10 Keigo Tanaka, Masaya Shigeta, Manabu Tanaka (Osaka University, Japan), Anthony B. Murphy (CSIRO Manufacturing, Australia)
- OS5-3 **Triple DC Plasma Torch System for Nanomaterial Synthesis**
10:10-10:30 Sooseok Choi, Jeong-Hwan Oh, Seung-Hyun Hong, Yong Hee Lee (Jeju National University, Korea), Minseok Kim (University of California, Riverside, USA), Tae-Hee Kim (Wonkwang University, Korea)
- OS5-4 **Modeling of Argon-Steam Thermal Plasma Flow for Abatement of Fluorinated Compounds** (*Invited*)
10:30-10:50 Jiří Jeništa (Institute of Plasma Physics AS CR, Czech Republic), Shiu-Wu Chau (National Taiwan University, Taiwan), Hidemasa Takana, Hideya Nishiyama (Tohoku University, Japan), Milada Bartlová, Vladimír Aubrecht (Brno University of Technology, Czech Republic), Anthony B. Murphy (CSIRO Materials Science and Engineering, Australia)
- OS5-5 **Numerical Study of Pre-ionized Inert Gas Plasma MHD Power Generator under Various Working Gases**
11:10-11:30 Kimsor Ork, Yoshihiro Okuno (Tokyo Institute of Technology, Japan)
- OS5-6 **Kinetics of Metastable N₂ (A³Σ_u⁺,v) Molecules in High-Pressure Nonequilibrium Plasmas** (*Invited*)
11:30-11:50 Elijah R. Jans, Sai Raskar (Ohio State University, USA), Xin Yang (Ohio State University, USA / Xi'an Jiaotong University, China), Igor V. Adamovich (Ohio State University, USA)
- OS5-7 **Cavitation Flow to Generate Plasma in Organic Solvent for Carbon Particle Synthesis**
11:50-12:10 Nozomi Takeuchi, Shoya Yamazaki, Sota Imaizumi (Tokyo Institute of Technology, Japan), Hidemasa Takana (Tohoku University, Japan)
- OS5-8 **Exhaust Gas and Wastewater Treatment Using Wet-type Nonthermal Plasma Reactor**
12:10-12:30 Tomoyuki Kuroki, Shunto Nomura, Haruhiko Yamasaki, Masaaki Okubo (Osaka Prefecture University, Japan)
- OS5-9 **Study on MHD Annular Flows Driven by Rotating Co-axial Cylinder**
13:30-13:50 Ryo Sasaki, Takayasu Fujino (University of Tsukuba, Japan), Hidemasa Takana (Tohoku University, Japan), Hiromichi Kobayashi (Keio University, Japan)

- OS5-10 **Thermal Flow of Temperature-Sensitive Magnetic Fluid around Heating
Circular Cylinders**
13:50-14:10 Yuhiro Iwamoto, Keita Odai, Genta Ichinose, Yasushi Ido (Nagoya Institute
of Technology, Japan)
- OS5-11 **Property Investigation of Imidazolium-Acetate Based Ionic Liquids Using
Experimental Measurements and Machine Learning**
14:10-14:30 Miku Okura (The University of Electro-Communications, Japan), Hidemasa
Takana (Tohoku University, Japan), Xinyue Wang, Yue Huang, Fumio S.
Ohuchi (University of Washington, USA), Rei Furukawa (The University of
Electro-Communications, Japan)
- OS5-12 **Ionic Current Analysis of Tiny Particles Using Micro- and Nanofluidic
Channels**
15:20-15:40 Kentaro Doi (Toyohashi University of Technology, Japan), Satoyuki Kawano
(Osaka University, Japan)
- OS5-13 **Aligned Conductive Composite Filaments using Field Assisted Flow
Focusing System**
15:40-16:00 Heather Wise (University of Washington, USA), Hidemasa Takana (Tohoku
University, Japan), Anthony Dichiara (University of Washington, USA)
- OS5-14 **Theoretical Analysis of Orientation Order Profile in Nanocellulose
Mono-fiber Creation Using Flow Focusing**
16:00-16:20 Yukitaka Ishimoto, Aki Oooka (Akita Prefectural University, Japan)
- OS5-15 **Numerical Simulation on Orientation Control of Cellulose Nano Fibril by
Electric Field during Flow Focusing**
16:20-16:40 Hidemasa Takana, Ryo Sato (Tohoku University, Japan)