

OS5: Advanced Applications of Multi-functional Fluids

November 18, 2024

EX-3-A

- OS5-1 **Effects of Cavitation Intensity on Synthesis of Carbon Nanoparticles and Their Catalytic Performance**
13:10-13:30 Hayato Ota, Nozomi Takeuchi, Manabu Kodama (Tokyo Institute of Technology, Japan), Hidemasa Takana (Tohoku University, Japan), Oi Lun Li (Pusan National University, Korea)
- OS5-2 **Study on Optimization of The $\text{H}_2\text{O}_2/\text{O}_3$ Supply Rate for the Decomposition of Persistent Organic Compounds**
13:30-13:50 Anouphab Xonelatha, Ryusei Sakamoto (Tokyo Institute of Technology, Japan), Tsutomu Hirakawa (National Institute of Advanced Industrial Science and Technology, Japan), Nozomi Takeuchi (Tokyo Institute of Technology, Japan)
- OS5-3 **Scale-up and Application Prospects of Plasma Decomposition of PFOS**
13:50-14:10 Shanshan Qing (Tokyo Institute of Technology, Japan), Yubin He (Harbin Institute of Technology, China), Douyan Wang, Takao Namihira (Kumamoto University, Japan), Nozomi Takeuchi (Tokyo Institute of Technology, Japan)
- OS5-4 **Enhanced Cell Membrane Fragility Induced by Reactive Oxygen Species Transport Through Plasma Jet Irradiation into Cell Suspension**
14:10-14:30 Tetsuya Yano, Riku Goda, Koki Kudo (Hirosaki University, Japan)
- OS5-5 **Data Assimilation for Determination of EHD Force and Heating Fields Based on Velocity and Density Field Measurements**
14:50-15:10 Yutaka Kaneko (Tohoku University, Japan), Akinori Yamanaka, Hiroyuki Nishida (Tokyo University of Agriculture and Technology, Japan)
- OS5-6 **Conversion of Methane and Carbon Dioxide Using Triple Thermal Plasma**
15:10-15:30 Hyeyoung Ko, Yonghee Lee, Jeonghwan Oh, Sooseok Choi (Jeju National University, Korea)
- OS5-7 **Numerical Simulation of Methane Pyrolysis Process Using Triple Thermal Plasma**
15:30-15:50 Yong Hee Lee, Jeong-Hwan Oh, Sooseok Choi (Jeju National University, Korea)
- OS5-8 **Numerical and Experimental Analysis of Hollow Electrode Plasma Torch with Reverse Polarity Discharge Structure**
15:50-16:10 Nam-Gi Lee, Sang-Yun Baek, Dong-Hyun Lee, Sun-Woo Kim, Hae-Won Park, Jun-Ho Seo (Jeonbuk National University, Korea)
- OS5-9 **Numerical Investigation on Flow Loss of a Linear MHD Channel with Arc Electrodes**
16:30-16:50 Lingzhi Zhao (Chinese Academy of Sciences / University of Chinese Academy of Sciences, China), Liang Li (Beijing Power Machinery Institute, China), Xiaoqiang Chen, Feng Wang, Ran Li (Chinese Academy of Sciences, China), Aiwu Peng (Chinese Academy of Sciences / University of Chinese Academy of Sciences, China)

- OS5-10 **2D3V Particle-in-cell Plasma Simulation of Charge Separation and Particle Acceleration Dynamics in a Magnetic Nozzle**
 16:50-17:10 Hiroyuki Suzuki, Masayuki Takahashi (Tohoku University, Japan)
- OS5-11 **Effects of Channel Geometry on MHD Taylor-Couette Flow with End Walls**
 17:10-17:30 Takahiro Hasebe, Takayasu Fujino (University of Tsukuba, Japan), Hidemasa Takana (Tohoku University, Japan), Hiromichi Kobayashi (Keio University, Japan)

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EX-3-A

- OS5-12 **Reagentless Synthesis of Macroscopic Nanocellulose Filaments Decorated with Ag Nanoparticles (*Invited*)**
 9:20-9:50 Anthony B. Dichiara (University of Washington, USA), Wakana Hira, Hidemasa Takana (Tohoku University, Japan)
- OS5-13 **pH Measurements Using Triple-Barreled Glass Microelectrodes for Biological Tissue-like Environments**
 9:50-10:10 Tatsunori Kishimoto, Shoto Nagayasu, Kentaro Doi (Toyohashi University of Technology, Japan)
- OS5-14 **Particle Velocity Control by Drag and Electrical Forces in Micro- and Nanofluidic Channels**
 10:10-10:30 Kyotaro Aichi, Itsuki Saito, Mai Sakaiya, Sojiro Ochi, Tatsunori Kishimoto, Kentaro Doi (Toyohashi University of Technology, Japan)
- OS5-15 **Collapse Process of Gas Pore from a Rotating Metal Liquid Droplet**
 10:40-11:00 Joe Yoshikawa, Keisuke Itoh (Industrial Technology Institute, Miyagi Prefectural Government, Japan), Hidemasa Takana (Tohoku University, Japan)
- OS5-16 **Developing Green, Anti-Wear Additives for Lubricating Oils: Adsorption and Structure at Steel Surfaces from Molecular Dynamics Simulations**
 11:00-11:20 Patrick A. Bonnaud, Tomoyuki Kinjo, Norikazu Sato, Mamoru Tohyama (Toyota Central R&D Labs., Inc., Japan)
- OS5-17 **Experimental Evaluation of Heat Transfer and Flow Resistance of Viscoelastic Drag-reduced Flow by Adding CNT or CNF**
 11:20-11:40 Yuta Hayashi, Masaaki Motozawa, Mituhiro Fukuta, Wannarat Rakpakdee (Shizuoka University, Japan)
- OS5-18 **Efficient Thermal Management Through Heat Transfer Optimization in an Enclosure**
 11:40-12:00 Shabbir Ahmad (Muhammad Nawaz Sharif University of Engineering and Technology, Pakistan / Federal University of Rio Grande (FURG), Brazil), Hidemasa Takana (Tohoku University, Japan)