

OS12: Complex Thermofluid System

November 6, 2019

CON-2

- OS12-1 **Effect of Plasma-Activated Gas on the Propagation Speed of a Tribrachial Flame in Laminar Non-Premixed Jets** (*Invited*)
14:00-14:20 Tsung-Feng Tsai, Ying-Hao Liao (National Chiao Tung University, Taiwan)
- OS12-2 **Numerical Simulation of Combustion Characteristics of a Helmholtz-type Pulse Combustor with Multiple Tailpipes**
14:20-14:35 Xun Zou, Qianhao Shen, Yi Zheng, Ming Zhai (Harbin Institute of Technology, China)
- OS12-3 **Flash Pyrolysis of Birch Sawdust in a Fluidized Bed Reactor for Bio-oil Production**
14:35-14:50 Shuai Jin, Yichi Zhang, Yi Zheng, Ming Zhai (Harbin Institute of Technology, China)
- OS12-4 **System Identification of a Thermoacoustic System using its Noise-Induced Dynamics**
14:50-15:05 Minwoo Lee (The Hong Kong University of Science and Technology, Hong Kong, China / Korea Advanced Institute of Science and Technology, Korea), Yu Guan (The Hong Kong University of Science and Technology, Hong Kong, China), Vikrant Gupta (Southern University of Science and Technology, China), Larry K. B. Li (The Hong Kong University of Science and Technology, Hong Kong, China)
- OS12-5 **Thermodynamic Analysis of Partially Evaporating Cycle for Low Temperature Waste Heat Recovery Using R245fa as the Working Fluid**
15:05-15:20 Yu-Tang Lee (National Chiao Tung University, Taiwan), Kai-Yuan Lai (Industrial Research Institute, Taiwan), Yao-Hsien Liu (National Chiao Tung University, Taiwan)
- OS12-6 **Improvement 2D-Axisymmetric Simulation of Direct Simulation Monte Carlo Method** (*Invited*)
15:40-16:00 Ming-Chung Lo (National Defense University / National Chiao Tung University, Taiwan), Chung-Chun Hsieh (National Defense University, Taiwan), Jong-Shinn Wu (National Chiao Tung University, Taiwan)
- OS12-7 **An Adaptive Time Stepping Scheme for Aeroacoustic Computations** (*Invited*)
16:00-16:20 ChungGang Li, HsuehJui Lu, Makoto Tsubokura (Kobe University / RIKEN Center for Computational Science, Japan)
- OS12-8 **The Simulation of Flow and Acoustics for Human Phonation System Using Implicit Compressible Flow Solver**
16:20-16:35 HsuehJui Lu, ChungGang Li, Makoto Tsubokura (Kobe University, Japan)
- OS12-9 **Numerical Simulation of Drag Reduction on the Biomimetic Modified Surfaces**
16:35-16:50 Huang Ting Hsuan, Yao-Hsien Liu (National Chiao Tung University, Taiwan)

- OS12-10 **Numerical Performance Analysis of a Water Tank with Oscillating Wall for Wave Energy Harvesting**
16:50-17:05 Wai Keat Koh, Chun-Yii Liu, Tian-Shiang Yang (National Cheng Kung University, Taiwan)
- OS12-11 **Experimental Study on Taylor-Couette Filter for Platelet Concentrate Preparation**
17:20-17:40 *(Invited)*
Yu Chang, Sheng-Ju Chen (National Taiwan University, Taiwan), Cheng-Sheng Liang (Sangtech Inc., Taiwan), Yen-Wen Lu (National Taiwan University, Taiwan)
- OS12-12 **On the Viscosity of Magnetic Nanofluids** *(Invited)*
17:40-18:00 You-Hsuan Yen, Ming-Hsuan Chang, Shih-Kai Chou, Yu-En Liu, U Lei (National Taiwan University, Taiwan)
- OS12-13 **Experimental Investigation of Fluid Temperature Distribution in a Heated Flow Channel using Dual-Wavelength Self-Calibrated Temperature Sensitive Tracer Particle**
18:00-18:15 Wen Miu, Sung-Yang Lin, Liang-Yih Chen, Wei-Hsin Tien (National Taiwan University of Science and Technology, Taiwan)
- OS12-14 **Boiling Heat Transfer of Refrigerant HFO-1234yf in Mix Chevron Angle Plate Heat Exchangers**
18:15-18:30 Kuan-Ting Chen, Chien-Yuh Yang, Yun-Ting Kuo (National Central University, Taiwan)

November 7, 2019

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- OS12-15 **A Natural Control of Miscible Radial Viscous Fingering** *(Invited)*
9:00-9:20 Vandita Sharma, Sada Nand (Indian Institute of Technology Ropar, India), Satyajit Pramanik (University of Oxford, UK), Ching-Yao Chen (National Chiao Tung University, Taiwan), Manoranjan Mishra (Indian Institute of Technology Ropar, India)
- OS12-16 **Deviation from Capillary Number Scaling of Nonlinear Viscous Fingering Formed by the Injection of Newtonian Surfactant Solution**
9:20-9:35 Ryohei Tanaka, Reiko Tsuzuki (Tokyo University of Agriculture and Technology, Japan), Takahiko Ban (Osaka University, Japan), Yuichiro Nagatsu (Tokyo University of Agriculture and Technology, Japan)
- OS12-17 **Investigation on Confined Chemical Garden Pattern by Interfacial Rheology**
9:35-9:50 Taro Maeda, Yuichiro Nagatsu (Tokyo University of Agriculture and Technology, Japan)
- OS12-18 **Experiment of Immiscible Viscous Fingering via Alternating Injection**
9:50-10:05 Wei-Cheng Huang, Chi-Chian Chou, Ching-Yao Chen (National Chiao Tung University, Taiwan)

- OS12-19 **Stabilization of Viscous Fingering in a Partially Miscible System**
 10:05-10:20 Shoji Seya, Ryuta X. Suzuki (Tokyo University of Agriculture and Technology, Japan), Takahiko Ban (Osaka University, Japan), Manoranjan Mishra (Indian Institute of Technology Ropar, India), Yuichiro Nagatsu (Tokyo University of Agriculture and Technology, Japan)
- OS12-20 **Numerical Insights into Radial Fingering Instability induced by a Precipitation Reaction**
 10:40-11:00 Vandita Sharma (Indian Institute of Technology Ropar, India), Satyajit Pramanik (University of Oxford, UK), Ching-Yao Chen (National Chiao Tung University, Taiwan), Manoranjan Mishra (Indian Institute of Technology Ropar, India)
- OS12-21 **Investigation on Influence of Flow Rate on Reactive Viscous Fingering with Gel Production Based on Interfacial Rheology**
 11:00-11:15 Shingo Kadowaki, Yuichiro Nagatsu (Tokyo University of Agriculture and Technology, Japan)
- OS12-22 **Effects of Hydrodynamic Conditions on Temporal Increase in Viscoelasticity in a Reacting Polymer Solution Flow**
 11:15-11:30 Sae Hirano (Tokyo University of Agriculture and Technology, Japan), Jun Iijima (Nihon University, Japan), Toshimasa Ueki, Yuichiro Nagatsu (Tokyo University of Agriculture and Technology, Japan)
- OS12-23 **Rosensweig Instability on a Hydrophobic Surface**
 11:30-11:45 Cheng-Yu Chuang, Ching-Yao Chen (National Chiao Tung University, Taiwan)
- OS12-24 **Numerical Simulation of Internal Two-Phase Flow with Heat Transport in a Heat Pipe**
 11:45-12:00 Yuki Nakamura, Kazuya Suzuki, Takashi Yamada, Naoki Ono (Shibaura Institute of Technology, Japan)
- OS12-25 **Plasma Modeling and It Application to Thermal and Nonthermal Plasma** (*Invited*)
 13:10-13:30 Shiu-Wu Chau (National Taiwan University, Taiwan)
- OS12-26 **Development of a Plasma Fluid Model for Atmospheric Pressure Air Dielectric Barrier Discharges** (*Invited*)
 13:30-13:50 Kun-Mo Lin, Yi-Hsun Huang, Wen-Yu Guo, Yao-Sheng Chang (National Chung Cheng University, Taiwan)
- OS12-27 **Flow Characterization of an Annular Plasma Actuator**
 13:50-14:05 Jun-Lin Chen, Ying-Hao Liao (National Chiao Tung University, Taiwan)
- OS12-28 **Thermal Characterization of an Atmospheric Pressure Helium Dielectric Barrier Discharge Reactor**
 14:05-14:20 Shun-Yu Zhuang, Kun-Mo Lin, Yao-Sheng Chang (National Chung Cheng University, Taiwan)
- OS12-29 **Flow Analysis and Particle Tracking Simulation for Electrochemical Machining** (*Invited*)
 14:50-15:10 San-Yih Lin, Chia-Chi Chen, Liang-Rong Chen (National Cheng Kung University, Taiwan)

- OS12-30 **2D CFD Investigation into Oxygen Transport in Deoxygenated Flow via a Mini-oxygenator**
15:10-15:25 Sheng-Yao Chou, Kuang C. Lin (National Tsing Hua University, Taiwan)
- OS12-31 **Flow Simulation of Tilted Propellers over a Wing**
15:25-15:40 Jyun-Han Shih, Shih-Jie Wang, Ching-Yao Chen, Kim-Boom Lua (National Chiao Tung University, Taiwan)
- OS12-32 **Thermofluids Performance of a Cryptocurrency Mining Machine**
15:40-15:55 Yao-Wen Chang, Wen-Xiao Chu, Yi-Yu Hu, Chi-Chuan Wang (National Chiao Tung University, Taiwan)
- OS12-33 **Simulation on Vortex Induced Vibration of Circular Cylinder**
15:55-16:10 Ta-Jui Chang, Kim-Boon Lua (National Chiao Tung University, Taiwan)
- OS12-34 **Simulation of Heat and Fluid Flow in a Compressor**
16:30-16:45 Ding-Cheng Jiang, Gang-Li Lin, Ching-Yao Chen (National Chiao Tung University, Taiwan)
- OS12-35 **Modeling and Analysis of Composite Material Bonding by Laser Heating**
16:45-17:00 Chao-Ting Cheng, Tian-Shiang Yang (National Cheng Kung University, Taiwan), Chang-Chou Li (Industrial Technology Research Institute, Taiwan)
- OS12-36 **The Model Development for Converter with Top-bottom Blowing Process**
17:00-17:15 Yu-Wen Chen, Hsin-Hao Chen, Sheng-Yen Hsu (National Sun Yat-Sen University, Taiwan), Chien-Hsiung Tsai (National Pingtung University of Science and Technology, Taiwan), Yung-Chang Liu (China Steel Corporation, Taiwan)
- OS12-37 **The Interior Structure Design of a Hybrid Sounding Rocket**
17:15-17:30 Chia-Hao Yeh, Meng-Che Li, Alfred Lai, Shi-Sin Wei, Jong-Shinn Wu, Wen-Yea Jang (National Chiao Tung University, Taiwan)