

OS5 : Advanced Applications of Multi-functional Fluids

CON-1

November 8, 2018

9:00-9:20 OS5-1

Fuel Drop Impact on Heated Surfaces

M. Bhat, S. Deivandren

9:20-9:40 OS5-2

Modeling of Non-Newtonian Flow in Inverted Cone Foam Breaker

G. St-Pierre-Lemieux, E. Askari, D. Groleau, P. Proulx

9:40-10:00 OS5-3

Electrohydrodynamic Liquid Flows Rectified by Cation and Anion Current with a Few Voltage Application

K. Doi, F. Nito, A. Yano, S. Kawano

10:00-10:30 OS5-4

Key note

Quantum Turbulence in Superfluid ^4He and Neutrino Turbulence in Supernovae

H. Kobayashi

10:40-11:00 OS5-5

CO₂ Absorption Separation Using Acetate-based Ionic Liquids

T. Makino, Y. Kohno, M. Kanakubo, N. Hara, H. Takana

11:00-11:20 OS5-6

Fundamental Study of Water Electrolysis in Magnetic Nanofluids

Y. Iwamoto, K. Chimura, H. Miyao, Y. Ido, S. Takagi

11:20-11:40 OS5-7

Effect of Throat Diameter of The Vortex Creation Nozzle on Al₂O₃ Film Deposition Process by APS Using Vortex Plasma Jet

E.Z. Ettayebi, Y. Michishita, Y. Noda, Y. Ando, H. Nishiyama

11:40-12:00 OS5-8

Oxide Film Deposition by APS Using Vortex Air Plasma Jet

Y. Ando, E.Z. Ettayebi, K.O. Alabi, Y. Noda, H. Nishiyama

13:10-13:30 OS5-9

Invited

Conceptual design of a plasma torch system for volume reduction of low and intermediate level radioactive waste

I.-M. Lee, M.-G. Choi, J. Nam, M.-Y. Lee, J.-S. Kim, J.-H. Seo, S.-Y. Yang

13:30-13:50 OS5-10

Visualization of Metal Evaporation from Tungsten-based Cathode in Ar-N₂ DC Arc

N. Sakura, M. Yoshida, M. Tanaka, T. Watanabe

13:50-14:10 OS5-11

High-Speed Visualization of Metal Oxide Precursor in Thermal Plasma Flow during Nanoparticle Formation

M. Tanaka, Y. Saito, Y. Nawata, T. Watanabe

14:10-14:30 OS5-12

Study on Arc Jets Generated by a Low-power Direct-current Plasma Torch with a Permanent Magnet

T. Fujino, H. Matsumoto, K. Maeshima, H. Saito

14:50-15:10 OS5-13

Modelling of Diffusion of Plasma Species in Argon-Steam Arc Discharge for Subsonic to Supersonic Flow Regimes

J. Jeništa, H. Takana, H. Nishiyama, M. Bartlová, V. Aubrecht, A. B. Murphy

15:10-15:30 OS5-14

Dynamic Simulation Model of Molten Bridge in a Hybrid DC Circuit Breaker

M. Chen, N. Takeuchi, K. Yasuoka

15:30-15:50 OS5-15

Power Generation Experiments of Seed-free Disk-shaped MHD Generator

K. Uehigashi, T. Nakane, T. Iwamoto, Y. Okuno

15:50-16:10 OS5-16

Characterization of Ozone Densities in the Atmospheric-Pressure Helium/Oxygen Dielectric-Barrier Discharges

R.-J. Zhan, K.-M. Lin, C.-Y. Lee, C.-F. Wong

16:30-16:50 OS5-17

Evaluation of Nanoparticle Removal and Exhaust Gas Cleaning Using a Wet-type Nonthermal Plasma Reactor

T. Kuroki, S. Nishii, M. Okubo

16:50-17:10 OS5-18

Invited

Electric Field Measurements in Nanosecond Pulse Discharges in Air and in Hydrogen Flame

M. S. Simeni, Y. Tang, K. Frederickson, I. Adamovich

17:10-17:30 OS5-19

Invited

Propagation of Ionization Waves in Nanosecond-Pulse Discharge in Atmospheric Air

C. Zhang, J. Qiu

17:30-17:50 OS5-20

Invited

Numerical Simulation of Non-equilibrium Plasma with Nanosecond Pulse Discharge

F. Ma, Y. Yang, G. Lou