Room Ume (梅)

5th Mon

OS24  Scale modeling
Organizer: Yuji Nakamura (Toyohashi University of Technology), and Tamio Ida (Kinki University)

◆Scale modeling on solid combustion
Chair: Yuji Nakamura (Toyohashi University of Technology)

OS-24-1  14:00-14:40  The Effect of Boundary Layer on Blow-Off Extinction in Opposed-Flow Flame Spread: Results of Experiments and Simplified Analysis
Bhattacharjee, S.*, Carmignani, L.*

OS-24-2  14:40-15:00  Study of Relationship between Pore Sizes and Combustion Characteristics about Bio-coke
Mizuno, S.*, Ida, T.*, Fuchihata, M.*, Yoshikuni, K.*

OS-24-3  15:00-15:20  Experimental Study on Flame Spread in Cylindrical and Rectangular Gap of Solid Combustibles
Matsuoka, T.*, Nakashima, K., Yamazaki, T., Nakamura, Y., Noda, S.

15:20-15:50  coffee

◆Scale modeling on heat and mass transfer
Chair: Tsuneyoshi Matsuoka (Toyohashi University of Technology)

OS-24-4  15:50-16:10  Effective Range of Blast Extinguishment with Silver Azide Pellets
Torikai, H., Ito, A.

OS-24-5  16:10-16:30  Flow Induced by a Fire Whirl: Scale-Model Experiment
Suzaki, T., Kuwana, K.*

OS-24-6  16:30-16:50  Scale Modeling of Heat Transfer on Solid Sphere under Vacuum Circumstance
Hirasawa, T.*

OS-24-7  16:50-17:10  Micro-Turbine Flow by 3D Printer System
Kamimura, T.*

6th Tue

◆Bio-coke characteristics
Chair: Tamio Ida (Kinki University)

OS-24-8  9:20-10:00  Preparation of Biocoke from Coffee Grounds
Chaichanawong, J.*, Cherdkeattikul, S., Supachutikul, P.

OS-24-9  10:00-10:20  Effect of Particle Size on the Strength of Palm Fiber Bio-coke
OS23  Thermo-fluid dynamics

Organizer: Kenzo Kitamura (Toyohashi University of Technology), and Takashi Suzuki (Toyohashi University of Technology)

Chair: Kenzo Kitamura (Toyohashi University of Technology)

OS-23-1  11:10-11:30  Pseudo-Laminarization of Dilute Polymer Solutions in Capillary Flows
Ushida, A.*, Ogawa, S., Hasegawa, T., Narumi, T.

OS-23-2  11:30-11:50  The Behavior of a Non-Circular Synthetic Jet Issued into a Turbulent Boundary Layer
Aoshima, Y.*, Hasegawa, H.

OS-23-3  11:50-12:10  Observation of Electrically Induced Flows in Highly Polarized Electrolyte Solution
Nagura, R., Kawashima, K., Doi, K., Kawano, S.*

Mitsuishi, A.*, Kitamura, K.*, Suzuki, T.*

12:30-14:00 Lunch

Chair: Akihiko Mitsuishi (Toyohashi University of Technology)

OS-23-5  14:00-14:20  Flow and Heat Transfer of Petal Shaped Double Tube (Water and Air-Water Bubbly Flows)
Shakouchi, T.*, Ozawa, R., Iwasaki, F., Tsujimoto, K., Ando, T.

OS-23-6  14:20-14:40  Thermo-Fluid Dynamics of Pulsating Heat Pipes for LED Lightings
Yamagami, S.*, Hashimoto, T., Inoue, K.

OS-23-7  14:40-15:00  Development of Binary Refrigeration System Using CO2 Coolant for Freezing Show Case
Yamaguchi, Y.*, Amagai, K.*

OS-23-8  15:00-15:20  A Microfluidic Device for Visualization of Thermophoresis Using In-plane Two Adjacent Plates at Different Temperatures
Kataoka, Y., Tsuji, T., Kawano, S.*

15:20-15:50 coffee
Thermo-fluid dynamics(3)
Chair:Toshihiko Shakouchi(Mie University)

OS-23-9  15:50-16:10  An Experimental Investigation of The Surface-smoothness Effects upon Evaporation of Droplet on Heated Surface
Suzuki,T.*, Fukuda,T., Mitsuishi,A., Kitamura,K.

OS-23-10  16:10-16:30  Time-resolved visualization for bubble nucleation induced by femtosecond pulse laser in water and acetone
Mizushima,Y., Saito,T.*

OS-23-11  16:30-16:50  The Mechanism of Enhancing Pool Boiling Efficiency by Changing Surface Property
Yanagisawa,S., Ogasawara,M., Ito,T., Tsuji,Y., Yamashita,S., Bessho,T., Orihashi,M.

7th Wed

OS21  Shock wave and high-speed gasdynamics
Organizer: Kazuo Maeno (National Institute of Technology, Kisarazu College),
and Masanori Ota (Chiba University)

◆Multiphase Shock Wave
Chair: Kazuo Maeno(National Institute of Technology, Kisarazu College)

OS-21-1  9:40-10:00  Experimental Study on the Behavior of the two Phase Flow Shock Waves occurring in the Ejector Refrigeration Cycle
Nishijima,H.*, Tsuchii,K.*, Nakagawa,M.*

OS-21-2  10:00-10:20  Experimental Study on the Oblique Shock Waves and Expansion Waves in the Supersonic Carbon Dioxide Two-phase Flow
Kawamura,Y.*, Nakagawa,M.

OS-21-3  10:20-10:40  Shock Wave Modulation due to Discharged Plasma using the Shock Tube
Matsuda,A.*, Aoyama,N., Kondo,Y.*

10:40-11:10  coffee

◆Shock Wave & Novel Diagnostics
Chair: Atsushi Matsuda(Meijo University)

OS-21-4  11:10-11:30  The Measurements of the Vibrational and Rotational Temperatures Behind the Hypervelocity Shock Waves by CARS and Comparison of the Temperatures
Niwa,R., Nishiuma,S., Ota,M.*, Maeno,K.

OS-21-5  11:30-11:50  Density Measurement of Cross Flow/Lateral Jet Interaction Field by Colored-Grid Background Oriented Schlieren (CGBOS) Technique
Kurihara,K.*, Arimoto,H., Aki,K., Inage,T., Ota,M., Maeno,K.
OS-22  Experimental method in fluid mechanics
Organizer: Seiichi Sudo (Akita Prefectural University), and Hidemasa Takana (Tohoku University)

◆ Thermal Transport Measurements and Multiphase Flow
Chair: Tatsuro Wakimoto (Osaka City University)

OS-22-1  14:00-14:20 Simultaneous Measurement of Pressure and Temperature Gradient in a Planar Jet
Takahashi, M.*, Iwano, K., Sakai, Y., Ito, Y.

OS-22-2  14:20-14:40 Application of an Outdoor Heating Unit for Frost Protection in a Plum Orchard
Nakata, A.*, Matsuo, C., Ugimiya, K., Yamada, M.

OS-22-3  14:40-15:00 Gas-Liquid Two Phase Flow in a Horizontal Pipe with a Sudden Contraction
Fujimatsu, T.*, Kito, M., Kondo, K.

OS-22-4  15:00-15:20 Dynamic Wetting Behavior of Triple-phase Contact Line Passing over a Wall Defect Having Different Wettability
Katoh, K.*, Wakimoto, T., Yamamoto, Y., Ito, T.

15:20-15:50 coffee

◆ Plasma and Magnetohydrodynamics
Chair: Hidemasa Takana (Institute of Fluid Science, Tohoku University)

OS-22-5  15:50-16:10 Three-dimensional Simulation of a Non-transferred DC Plasma Torch with a Mixture Gas of Carbon Dioxide and Methane
Saito, H.*, Nakane, Y., Fujino, T., Takana, H., Mostaghimi, J.

OS-22-6  16:10-16:30 Low Vacuum Cathodic Arc Plasma during Removal Treatment of Oxide Layer on Cathode Surface
Sugimoto, M.*, Iha, S.

OS-22-7  16:30-16:50 Liquid Surface Oscillations of Ferrofluid Droplet in Static and Alternating Magnetic Fields
Sudo, S.*, Nakanishi, M., Inomata, S., Takana, H., Nishiyama, H.
8th Thu

◆ Fluid Flow and Hydrodynamic Forces
Chair: Kenji Katoh (Osaka City University)

OS-22-8  9:40-10:00  Wavelet Analysis of Vortex Shedding From a Circular Cylinder Supported by End Plates
Inagaki, A.*, Mizobe, R., Yamada, H.

OS-22-9  10:00-10:20  Analysis of Drag Force on a Sphere Influenced by Other Objects Indirectly
Monji, H.*, Kawaguchi, T., Takagi, R., Ueda, S.

Wakimoto, T.*, Araga, K., Katoh, K.

10:40-11:10  coffee

◆ Fluid Machinery and Functional Fluids
Chair: Seiichi Sudo (Akita Prefectural University)

OS-22-11 11:10-11:30  Mechanical Active Noise Control for Multi Blade Fan
Nishihara, K.*, Mori, K.*

OS-22-12 11:30-11:50  Visualization and Analysis on Electrospray Formation with Ionic Liquid
Saegusa, K., Shinoki, S., Takana, H.*

OS-22-13 11:50-12:10  Viscous Property of Magnetic Compound Fluids Containing Needle-like Particles
Ido, Y.*, Yokoyama, H., Nishida, H.