

TACHIBANA, Conference Bldg.										
9:00-9:20 Opening Address										
9:20-12:00 Plenary Lectures										
9:20-10:10 "Fast and Efficient Underwater Propulsion Inspired by Biology" <i>Alexander J. Smits</i> Chair: Yiguang Ju										
10:15-11:05 "Recent Progress on the Airflow Management of Data Centers" <i>Chi-Chuan Wang</i> Chair: Ching-Yao Chen										
11:10-12:00 "Nanomaterials in Energy Generation and Storage" <i>Meyya Meyyappan</i> Chair: Seiji Samukawa										
12:00-13:00 Scientific Committee Meeting @ CON-8, Conference Bldg.										
EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-TACHIBANA	CON-HAGI	CON-SAKURA 2	CON-SHIRAKASHI 1	CON-SHIRAKASHI 2
OS11: Complex Thermofluid System Experimental and numerical study of fluids <i>Chair: C.G. Li</i>	OS1: The Sixth International Symposium on Innovative Energy Research I: =Advanced Materials and its Energy Application=	OS13: Porous Media Geological study <i>Chair: A. Suzuki</i>	GSI: General Session Numerical Simulation 1 <i>Chair: M. Hirota</i>	OS3: The Sixth International Symposium on Innovative Energy Research III: Multiphase Energy Science and Technology Related to FSI Coupled Problems (Combination of Monozukuri-Fluid Science/Engineering) <i>Chair: J. Ishimoto</i>	OS7: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: M. Nakano</i>	OS17: Perspectives for multi-lateral joint research through IFS Lyon Center	OS2: [ICCEU14] Special Session I <i>Chair: H. G. Im</i>	OS18: The 14th International Students / Young Birds Seminar on Multi-scale Flow Dynamics	OS2: [ICCEU14] <i>Chair: D. Knyazkov</i>	OS2: [ICCEU14] <i>Chair: V. Gubernov</i>
14:00-14:20 OS11-1 <i>Invited</i> An Experimental Investigation on Streamwise Distance and Density Ratio Effects on Double-Jet Film-Cooling <i>J. Yao, J. Wu, J. He, J. Lei, Y. Fang</i>	14:00-14:15 OS1-1 Energy-Material Project in World Leading Research Center <i>S. Orimo, S. Samukawa</i> 14:15-15:00 OS1-2 <i>Invited Talk</i> Hydrogen Energy Applications Developed in Taiwan <i>D.-R. Huang</i>	14:00-14:30 OS13-1 <i>Invited</i> Fluid Flow Modelling in Multiscale Porous Media – Needs, Challenges and Solutions <i>J. Ma, C. Jin, V. G. Cortes, J. Zhu</i> 14:30-14:50 OS13-2 A New Flow Model Based on Pore-Scale Network Method for Supercritical CO ₂ Fracturing <i>B. Liu, A. Suzuki, T. Ito</i>	14:00-14:20 GSI-1 Tsunami Suppression by Floating Breakwater <i>R. Durand, K. Fukudome, H. Manori, M. Yamamoto</i> 14:20-14:40 GSI-2 Development of Direct Forcing Immersed Boundary Flow Solver with Improved Divergence-Free Compensated Framework <i>P.-H. Chiu, H.J. Poh</i>	14:00-14:25 OS3-1 <i>Invited</i> Near-limit Instabilities of Opposed Flame Spread over Thick Solid Combustibles <i>T. Matsuoka</i> 14:25-14:50 OS3-2 <i>Invited</i> Flickering of Diffusion Flame <i>K. Kuwana</i>	14:00-14:30 OS7-1 <i>Invited</i> A Novel AC Electroosmotic Micropump Using T-Shaped Electrode Array <i>K. Yoshida, K. Asai, S.I. Eom, J.-W. Kim</i> 14:30-14:50 OS7-2 Thermally Affected Characteristics of EHD Pump with Fluorinated Liquid <i>M. Nishikawara, Y. Shinagawa, H. Yanada, R. Yoneda, T. Miyakita, K. Sawada</i>	Part I: Toward Establishment of Japan-US-French partnership 14:00-14:10 Introduction of IFS Lyon Center <i>T. Uchimoto</i> 14:10-14:30 Multiscale and Multiphysics Modeling for Aircraft Design <i>S. Obayashi</i> 14:30-14:50 UW's Roles and Implementation Plan for "Research Integration" and "Strategic Network" in the Core-to-Core Program <i>E.S. Ohuchi</i>	14:00-14:10 Opening <i>H.G. Im</i> 14:10-15:00 OS2-1 <i>Invited Keynote</i> Detachment Mechanisms of Non-Premixed Turbulent Jet Flames at Elevated Pressures <i>T.F. Guiberti, W.R. Boyette, W.L. Roberts</i> 15:00-15:30 OS2-2 <i>Invited Topical</i> Evolution of Flame Speeds in Turbulence at Different Pressures <i>H. Dave, S. Chaudhuri</i>	14:30 - (15:40) OS18-1 - OS18-33 <i>Short Oral Presentation</i>	14:00-14:20 OS2-8 Temperature Distribution Reconstruction Basing on Proper Orthogonal Decomposition <i>S. Sun, S. Liu, F. Guo, M. Wang</i> 14:20-14:40 OS2-9 Image Data Fusion under a Bayesian Approach for Tomography Measurement <i>M. Wang, S. Liu, J. Liu, S. Sun</i>	14:00-14:20 OS2-20 Experimental and Numerical Study of Flame Propagation in Heptane-Based Foamed Emulsion <i>B. Kichatov, A. Korshunov, A. Kiverin, I. Yakovenko</i> 14:20-14:40 OS2-21 Influence of Heat Conductivity and Pore Size of Porous Materials on the Efficiency of Cylindrical Radiative Burners <i>E. Dats, T. Miroshnichenko, S. Minaev, K. Maruta</i>

14:55-15:10 OS11-4 Motion of Ferrofluid Drop in a Rotational Magnetic Field <i>W.-Z. Peng, J.-Y. Lu, C.-J. Teng, C.-Y. Chen</i>	15:00-15:30 OS1-3 <i>Invited Talk</i> Thermal Conductivity of Silicon Nanowire Using Landauer Approach for Thermoelectric Applications <i>M.-Y. Lee, Y. Li, S. Samukawa</i>	14:50-15:10 OS13-3 Dry-out Phenomenon and Flow Behavior in Rocks for CO ₂ Geological Storage <i>H.T.T. Nguyen, A. Suzuki, S. Uehara, T. Hashida</i>	14:40-15:00 GS1-3 Simulation of Unsteady Flows through Multi-stage Stator-rotor Full-annulus Blade Rows in LP Steam Turbine <i>H. Miyazawa, T. Furusawa, S. Yamamoto</i>	14:50-15:10 OS3-3 Experiment and Simulation of a Rotating Hollow Cylinder in Flight <i>Y. Naito, H. Tanigawa, M. Nakano, K. Hirata</i>	14:50-15:10 OS7-3 Theoretical Estimation of Dielectric Constant of Electroactive Polymers <i>A. Suzuki, M. Miyano, R. Miura</i>	14:50-15:10 Smart Titanium alloys: composites made thanks to a new elaboration route coupling additive manufacturing and sintering <i>D. Faburegue</i>			14:40-15:00 OS2-10 Inverse Problem of Finding the Parameters of the Combustion Model <i>G.V. Grenkin, A.Y. Chebotarev, V.I. Babushok, S.S. Minaev</i>	14:40-15:00 OS2-22 Effects of Transverse DC Electric Fields on the Dynamics of a Laminar Premixed Bunsen Flame <i>M. Belhi, B.J. Lee, M.S. Cha, H.G. Im</i>
15:10-15:25 OS11-5 Trajectory of a Non-magnetic Particle Transported by a Rotating Magnetic Particle Chain <i>C.-R. Lin, W.-Y. Lo, C.-Y. Lu, C.-Y. Chen</i>		15:10-15:30 OS13-4 Analysis of Rock Fracture Pattern and Fluid Flow by Persistent Homology <i>M. Miyazawa, A. Suzuki, A. Okamoto, H. Shimizu, I. Obayashi, Y. Hiraoka, T. Ito</i>	15:00-15:20 GS1-4 Data Compression for High-Performance Flow Simulations <i>D. Kolomenskiy, R. Onishi, H. Uehara</i>	15:10-15:30 OS3-4 Multi-Phase Constitutive Modeling of Shock Compression of Reactive Materials <i>A. Resnyansky</i>	15:10-15:30 OS7-4 Fabrication of High Aspect Ratio EA Micro-pillar Array <i>K. Itoh, M. Ishida, Y. Kakimura, H. Anzai, K. Sakurai</i>	15:10-15:30 OS17-1 / CRF-R5 Fiber- and Paper-Based Composites Comprising Nanocellulose and Carbon Nanotubes for Multifunctional Sensing Applications <i>A. B. Dichiaro, J. Chung, H. Takana, F.S. Ohuchi</i>		15:00-15:20 OS2-11 Optimized Acid Gas Combustion for Optimum Sulfur Recovery and Reduced Natural Gas Consumption <i>R. Rahman, S. Ibrahim, A. Raj</i>	15:00-15:20 OS2-23 An Experimental Study on Flame spread Over Various Diameter of Electrical Wire with Applied AC Electric Fields <i>S.H. Park, J. Park, S.H. Chung</i>	

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EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-TACHIBANA	CON-HAGI	CON-SAKURA 2	CON-SHIRAKASHI 1	CON-SHIRAKASHI 2
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OS11: Complex Thermofluid System Computational Fluid Dynamics (I) <i>Chair: W.-H. Wang</i>	OS1: The Sixth International Symposium on Innovative Energy Research I: =Advanced Materials and its Energy Application=	OS13: Porous Media Transport properties <i>Chair: H. Anzai</i>	GS1: General Session Numerical Simulation 2 <i>Chair: K. Shimoyama</i>	OS6: New Dimensions of Magnetic Suspension and Balance System <i>Chair: K. Asai</i>	OS7: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: W. H. Li</i>	OS17: Perspectives for multi-lateral joint research through IFS Lyon Center	OS2: [ICCEU14] Special Session I <i>Chair: V. Raman</i>	OS18: The 14th International Students / Young Birds Seminar on Multi-scale Flow Dynamics	OS2: [ICCEU14] <i>Chair: P. P. Panda</i>	OS2: [ICCEU14] <i>Chair: J. Sun</i>
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15:40-16:00 OS11-6 <i>Invited</i> A CFD Investigation for Heat Convection Around a Rotating Cylinder <i>C.-C. Lin, K.C. Lin</i>	15:40-16:10 OS1-4 <i>Invited Talk</i> Hydrogen Energy Supply System and Supply Chain Model by using Renewable Energy <i>T. Kono</i>	15:40-16:00 OS13-5 Water-expulsion Porosimetry: A Tool for Measuring Size Distribution of Transport Pores and Predicting Permeability <i>N. Nishiyama, T. Yokoyama</i>	15:40-16:00 GS1-5 Study of a Collision Model for IBM—FEM Coupling Simulation of Shot Peening Process <i>T. Kubota, Y. Mizuno, S. Takahashi, K. Fukuda</i>	15:40-16:10 OS6-1 <i>Invited</i> Static and Dynamic Testing of Blunt Bodies in a Subsonic Magnetic Suspension Wind Tunnel <i>M. Schoenenberger, C. Finke, C. Britcher, D.Cox, T. Schott</i>	15:40-16:10 OS7-5 <i>Invited</i> Micro-Channel Flow Evaluation of Electro-rheological Nano-Suspensions <i>K. Tanaka, M. Takasaki, H. Kobayashi, M. Nakano, C. Sato</i>	15:40-16:10 OS17-2 / CRF-R6 International Joint Project for Risk Management of Piping Systems Based on Monitoring and Predicting Wall Thinning during Decommissioning of Fukushima Daiichi Nuclear Power Plant <i>T. Takagi, T. Uchimoto, Y. Watanabe, P. Guy, C. Reboud, P. Calmon, N. Mary, C. Boller</i>	15:40-16:10 OS2-3 <i>Invited Topical</i> High Pressure Soot Formation in Laminar Diffusion Flames of C ₂ -C ₄ Olefins <i>E.A. Griffitt, Ö.L. Gülder</i>	(15:40-17:30) OS18-1 - OS18-33 <i>Poster Presentation</i>	15:40-16:00 OS2-12 Kinetic Effects of <i>n</i> - Heptane Addition on Low and High Temperature Oxidation of Methane in a Jet-stirred Reactor <i>Z. Zhang, L. Cao, H. Zhao, G. Li, Y. Ju</i>	15:40-16:00 OS2-24 Plasma-Chemical Support for the Ignition and Combustion of Powder Systems Forming Condensed Reaction Products <i>A. Kirdyashkin, R. Gabbasov</i>
16:00-16:20 OS11-7 <i>Invited</i> A User Friendly Framework for Multiscale Fluid Simulation <i>C.G. Li, M. Tsubokura</i>	16:00-16:40 OS1-5 <i>Invited Talk</i> Large Scale Molecular Simulations of Mass Transport Phenomena in PEFC <i>T. Tokumasu, T. Mabuchi</i>	16:00-16:20 OS13-6 Estimation of crack width in porous media by nano/micro particles <i>J. Cui, A. Suzuki, S. Uehara, K. Shirasu, T. Ito</i>	16:00-16:20 GS1-6 Prediction of Rubber Friction on Wet and Dry Rough Surfaces Using Flow Structure Coupling Simulation <i>T. Kubota, Y. Mizuno, S. Takahashi</i>	16:10-16:30 OS6-2 Feasibility of Dynamic Stability Measurements Using 1-m Magnetic Suspension and Balance System <i>S. Oyama, H. Okuzumi, Y. Konishi, H. Sawada, S. Obayashi</i>	16:10-16:30 OS7-6 Miniature Cubic Micro-Motor Consisting of EAP Composite Rotors and Dielectric Liquid <i>M. Nakano, A. Totsuka, C. Sato, M. Zrinyi</i>		16:10-16:40 OS2-4 <i>Invited Topical</i> The Impact of Spark Gap and Differential Diffusion on Turbulent Premixed Ignition: Turbulent Facilitated Ignition versus Minimum Ignition Energy Transition <i>S. Shy, M.-T. Nguyen, S.-Y. Huang</i>		16:00-16:20 OS2-13 A Reduced Chemical Kinetic Mechanism for Combustion of Dimethyl Ether <i>T. Bolshova, V. Shvartsberg, A. Dmitriev, N. Abyanova, D. Knyazkov</i>	16:00-16:20 OS2-25 Direct Measurements of Branching Ratios of O(¹ D) Reactions with Alcohols <i>H. Zhong, C.C. Teng, C. Yan, T. Chen, A. Rousso, G. Wysocki, Y. Ju</i>

16:20-16:35 OS11-8 Numerical Investigation of the Enhancement in Thermal Performance by Modifying the Cooling Plate Flow Field designs of Polymer Electrolyte Membrane Fuel Cells <u>K. Chandramouli</u> , <u>A. Prakash K</u>	16:40-17:10 OS1-6 <i>Invited Talk</i> Lithium Ion Battery and Solar Cell Materials Synthesis via Supercritical Fluid Processes <u>T. Tomai</u> , <u>I. Honma</u>	16:20-16:40 OS13-7 Transport Properties Of Fluid Mixtures In Micro- And Mesoporous Kerogen Membranes <u>P. A. Bonnaud</u> , <u>F. Oulebsir</u> , <u>R. Vermorel</u> , <u>J. Collell</u> , <u>G. Galliero</u>	16:20-16:40 GS1-7 P-CG (Particle-Cartesian Grid, Disaggregate-Aggregate) Model for Attraction/Repulsion <u>J. Imamura</u> 16:40-17:00 GS1-8 DNS of A Turbulent Pipe Flow by MPI+OpenMP for Multithread Computing <u>J. Uchiyama</u> , <u>T. Kumugi</u> , <u>S. Satake</u>	16:30-16:50 OS6-3 Investigation of the Effect of Angle of Attack on the Flow Separation of a Prolate Spheroid by Using the 0.3-m MSBS <u>T. Ambo</u> , <u>T. Ochiai</u> , <u>T. Nonomura</u> , <u>K. Asai</u> 16:50-17:10 OS6-4 Free-Flight Experiments for Aerodynamic Instability of Reentry Capsules <u>H. Tanno</u>	16:30-16:50 OS7-7 Polymer Composites for Magneto-Mechanical Energy Conversion: Experimental Comparison of Several Magneto-Rheological Elastomers <u>G. Sebald</u> , <u>M. Nakano</u> , <u>M. Lallart</u> , <u>G. Digu</u> , <u>J.-Y. Cavaille</u> 16:50-17:10 OS7-8 Effect of the Magnetic Saturation on the Magnetic Induction Variation in MRE Under Pure Strain <u>G. Digu</u> , <u>J.-Y. Cavaille</u> , <u>G. Sebald</u> , <u>M. Nakano</u> , <u>M. Lallart</u>	16:10-16:30 OS17-3 / CRF-92 Magnetic Hysteresis Models for the Interpretation of Non-Destructive Testing Techniques based on Magnetic Incremental Permeability <u>B. Gupta</u> , <u>B. Ducharme</u> , <u>G. Sebald</u> , <u>T. Uchimoto</u> , <u>T. Takagi</u> 16:30-16:50 OS17-4 / CRF-93 Coupled analysis of high-density hydrogen safety management <u>J. Ishimoto</u> , <u>A. Combescu</u> 16:50-17:10 OS17-5 / CRF-94 Mathematical Modeling and Simulations of Soft-elastic Materials under Large Strain <u>H. Koibuchi</u> , <u>C. Bernard</u> , <u>J.-M. Chenal</u> , <u>G. Digu</u> , <u>J.-Y. Cavaille</u> , <u>G. Sebald</u> , <u>T. Takagi</u> , <u>L. Chazeau</u>	16:40-17:10 OS2-5 <i>Invited Topical</i> Uncertainty Quantification in Turbulent Combustion Simulations using Subspace Methods <u>Z. Ren</u> , <u>W. Ji</u>	16:20-16:40 OS2-14 Effects of Molecular Structure of Pentane Isomers on Stabilized Multiple Weak Flames in Micro Flow Reactor with a Controlled Temperature Profile <u>R. Nakada</u> , <u>H. Nakamura</u> , <u>S. Hasegawa</u> , <u>T. Tezuka</u> , <u>K. Maruta</u> 16:40-17:00 OS2-15 Auto-ignition of Methane – TRF Mixtures Behind the Reflected Shock Waves <u>W. Dai</u> , <u>G. Li</u> , <u>Z. Zhang</u> , <u>J. Liang</u>	16:20-16:40 OS2-26 Methane Pyrolysis with N ₂ /Ar/He Dilution in a Repetively-pulsed Nanosecond Discharge <u>X. Mao</u> , <u>Q. Chen</u> , <u>C. Guo</u> 16:40-17:00 OS2-27 An Application of Plasma-Activated Gas to Laminar Lifted Non-Premixed Jet Flames <u>Y.-H. Liao</u> , <u>H.-T. Kuo</u>
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OS11: Complex Thermofluid System Computational Fluid Dynamics (II) <i>Chair: J. Lei</i>	OS1: The Sixth International Symposium on Innovative Energy Research I: =Advanced Materials and its Energy Application=	OS13: Porous Media Heat transfer <i>Chair: S. Tupin</i>	GS1: General Session Flowdynamics <i>Chair: H. Takana</i>	OS6: New Dimensions of Magnetic Suspension and Balance System <i>Chair: T. Nonomura</i>	OS7: Smart Fluids & Soft Matters and Their Advanced Applications <i>Chair: G. Sebald</i>	OS17: Perspectives for multi-lateral joint research through IFS Lyon Center	OS2: [ICCEU14] Special Session I <i>Chair: Z. Ren</i>	OS18: The 14th International Students / Young Birds Seminar on Multi-scale Flow Dynamics	OS2: [ICCEU14] <i>Chair: Z. Zhang</i>	OS2: [ICCEU14] <i>Chair: Y.-H. Liao</i>
17:20-17:40 OS11-11 The Numerical Work of IC Engine Simulation by Fully Compressible Flow Solver in Hierarchical Cartesian Mesh System <u>W.-H. Wang</u> , <u>C.-G. Li</u> , <u>M. Tsubokura</u>	17:20-17:50 OS1-7 <i>Invited Talk</i> Acoustic Phonon Thermal Transport in Corrugated Silicon Nanowires <u>J. Hattori</u> , <u>V. Poborchii</u> , <u>T. Tada</u>	17:20-17:40 OS13-9 Two-Phase Constitutive Analysis and Experiments on Shock Heating of Inorganic Powders <u>A. Resnyansky</u> , <u>S. Weckert</u> , <u>T. Dalby</u>	17:20-17:40 GS1-9 Fluid Dynamical Consideration on Signal Propagation in Creature Crowd with Molecular Kinetic Model <u>S. Sultana</u> , <u>M. Hasan</u> , <u>D. Kang</u> , <u>H. Hirahara</u>	17:20-17:40 OS6-5 Further Development of an Electromagnetic Position Sensor for a Wind Tunnel MSBS <u>C. Britcher</u> , <u>M. Weinmann</u> , <u>T. Schott</u> , <u>M. Schoenenberger</u>	17:20-17:50 OS7-9 <i>Invited</i> Applying Magnetorheology to Cure Hypertension <u>R. Tao</u> , <u>E. Du</u> , <u>K. Tawhid-Al-Islam</u> , <u>X. Xu</u> , <u>M.V. Autieri</u>	17:20-17:40 OS17-6 / CRF-95 Investigation of the Flow Field Dynamics during Cold-Spray of Polymers <u>C. A. Bernard</u> , <u>H. Takana</u> , <u>K. Ravi</u> , <u>O. Lame</u> , <u>K. Ogawa</u> , <u>J.-Y. Cavaille</u>	17:20-17:50 OS2-6 <i>Invited Topical</i> High-fidelity Simulations of Rotating Detonation Engines <u>T. Sato</u> , <u>V. Raman</u>	(15:40-17:30) OS18-1 - OS18-33 <i>Poster Presentation</i>	17:20-17:40 OS2-16 On Two-stage Oxidation of CH ₂ F ₂ (R32)/air Weak Flame in a Micro Flow Reactor with a Controlled Temperature Profile <u>S. Takahashi</u> , <u>H. Nakamura</u> , <u>T. Tezuka</u> , <u>S. Hasegawa</u> , <u>K. Maruta</u>	17:20-17:40 OS2-28 Kinetics Effects of Excited States on AC Plasma Assisted Methane Pyrolysis and Oxidation <u>J. Sun</u> , <u>Q. Chen</u> , <u>J. Xu</u>

<p>17:40-17:55 OS11-12 Flow Simulation over a Single Rotating Propeller and Cowling <u>S.-C. Wang</u>, <i>C.-Y. Chen, K.-B. Lua</i></p> <p>17:55-18:10 OS11-13 Simulation of Blast Waves Inside a Nozzle Tube <u>S.-I. Huang</u>, <i>Y.-Y. Niu</i></p>	<p>17:50-18:20 OS1-8 <i>Invited Talk</i> Electricity Generation by Water Flow on Nitrogen-doped Graphene <u>T. Okada</u>, <i>G. Kalita, M. Tanemura, I. Yamashita, M. Meyyappan, S. Samukawa</i></p>	<p>17:40-18:00 OS13-10 Effects of Compression and Channel on Pool Boiling Heat Transfer of Metal Foam <u>T. Li</u>, <i>X. Wu, Q. Ma, X. Zhang</i></p>	<p>17:40-18:00 GS1-10 Investigation of The Effect of Vegetable Oils in MQL System On the Milling of Hard Materials <u>B. Kursuncu</u>, <i>Y.E. Biyik, H. Camci</i></p> <p>18:00-18:20 GS1-11 Temporal Instability of Charged Conical Liquid Sheet under an Axial Electric Field <u>H. Li</u>, <i>L. Qin, L. Yang</i></p>	<p>17:40-18:00 OS6-6 A New Model Position Sensing Method for a Small Fineness Ratio Bluff Body at the IFS <u>M. Kuwata</u>, <i>S. Obayashi</i></p> <p>18:00-18:20 OS6-7 Study of Aerodynamic Characteristics of Axial Circular Cylinders with Low Fineness Ratio by Using the 1.0-m MSBS <u>K. Shinji</u>, <i>H. Nagaïke, T. Nonomura, K. Asai, H. Sawada, Y. Konishi, H. Okuzumi</i></p> <p>18:20-18:40 OS6-8 Near-Field Pressure Measurement of a model Suspended by Magnetic Force in Supersonic Wind Tunnel <u>T. Kawagoshi</u>, <i>H. Sawada, S. Obayashi</i></p> <p>18:40-19:00 OS6-9 Visualization of the Flow Field around a Circular Cylinder in the 0.3-m MSBS <u>T. Ochiai</u>, <i>T. Ambo, Y. Ozawa, T. Nonomura, K. Asai</i></p>	<p>17:50-18:10 OS7-10 Magnetorheological Technology for Enhancing Conductivity and Mechanical Properties of Electrolytes <i>G. Peng, J. Ding, T. Tian, W. Li</i></p> <p>18:10-18:30 OS7-11 Particle Size Effects on MR Effects of MR Elastomers <u>T. Tian</u>, <i>M. Nakano, W. Li</i></p> <p>18:30-18:50 OS7-12 Experimental Testing of a Novel Magnetorheological Fluid Rotary Damper with Variable Stiffness and Damping Capability <u>L. Deng</u>, <i>S. Sun, W. Li</i></p>	<p>17:40-18:00 OS17-7 Effect of Phase Separation Structure on Interfacial Shear Strength between Carbon Fiber and Polymer Blend <u>H. Kosukegawa</u>, <i>F. Dalmas, J.-Y. Cavaillé, T. Takagi</i></p>	<p>17:50-18:20 OS2-7 <i>Invited Topical</i> High Pressure Effects in Real Fluid Based Counterflow Diffusion Flame <i>Y.M. Park, B.J. Lee, P.E. Lapenna, P.P. Ciottoli, F. Creta, M. Valorani</i></p>		<p>17:40-18:00 OS2-17 Chemiluminescence and Soot Measurements in an Under-ventilated Buoyant Turbulent Fire <u>P.P. Panda</u>, <i>D. Zeng, Y. Wang</i></p> <p>18:00-18:20 OS2-18 Study on the Soot formation of Bio-oil Droplet combustion using the micro-Schlieren <u>S. Yang</u>, <i>Y. Lin, M. Wu</i></p> <p>18:20-18:40 OS2-19 Study on Operating Characteristics of a Reciprocating Free Piston Linear Engine with Glow Plug Assisted Compression Ignition <u>F. Huang</u>, <u>W. Kong</u></p>	<p>17:40-18:00 OS2-29 Emissions of NOx and CO Suppression and Flammability Enhancement by Non-Thermal Plasma in a Swirl Lean Premixed Flame <u>G.T. Kim</u>, <i>C.S. Yoo, J. Park, D.M. Kim, H.S. You, J.S. Lee, S.H. Chung</i></p> <p>18:00-18:20 OS2-30 Effects of Molecular Excitation on Dry Reforming of Methane in a Low Temperature Discharge <u>Q. Chen</u>, <i>Y. Guo, J. Sun</i></p>
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19:00-20:00 Students / Young Birds Friendship Night @ CON-SAKURA 2, Conference Building.

9:00

9:00

EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-TACHIBANA	CON-HAGI	CON-SAKURA 2	CON-SHIRAKASHI 1	CON-SHIRAKASHI 2
<p>OS11: Complex Thermofluid System</p> <p>Plasma Physics and Numerical Methods Chair: K.-M. Lin</p>	<p>OS14: Turbulence: from Fundamentals to Applications</p> <p>Heat Transfer & Applications Chair: Y. Hattori</p>	<p>OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 10th Edition</p> <p>Combustion Instability Chairs: T. Shimada & T. Morita</p>	<p>GS1: General Session</p> <p>Materials Chair: H. Kosukegawa</p>	<p>OS5: Advanced Applications of Multi-functional Fluids</p> <p>Complex Flow Chair: H. Takana</p>	<p>OS12: Flow Realization, Measurement and Visualization</p> <p>Chair: T. Yamagata</p>	<p>OS19: IFS Collaborative Research Forum (AFI-2018)</p>	<p>OS2: [ICCEU14]</p> <p>Chair: E. C. Okafor</p>	<p>OS18: The 14th International Students / Young Birds Seminar on Multi-scale Flow Dynamics</p>	<p>OS2: [ICCEU14]</p> <p>Chair: A. S. Maznoy</p>	<p>OS2: [ICCEU14]</p> <p>Chair: H. Y. Li</p>
<p>9:00-9:20 OS11-14 <i>Invited</i> Recent Progress on the Development and Application of a Parallel Computational Platform: Rigorous Advanced Plasma Integration Testbed (RAPIT) Y.-M. Lee, M.-H. Hu, K.-L. Chen, J.-S. Wu</p>	<p>9:00-9:20 OS14-1 Turbulent Thermal Transport Over Sinusoidal Textured Superhydrophobic Surfaces P.A. Fuaad, K. Arul Prakash</p> <p>9:20-9:40 OS14-2 An Experimental Investigation on Film Cooling Performance X. Tan, Y. Shan, X. Zhu</p> <p>9:40-10:00 OS14-3 Very-Large Eddy Simulation of Convective Heat Transfer X. Han, Z. Xia, J. Mao, Z. He</p> <p>10:00-10:20 OS14-4 Influence and Improvement of Inlet Shape of Sirocco Fan J. Lee, J. Lee, J.-G. Bak, H. Lee, J. Cho</p>	<p>9:00-10:00 OS4-1 <i>Invited</i> Dynamic Behavior of High Frequency Pressure and Heat Release Fluctuations in Hybrid Rocket H. Choi, S.H. Kang, C. Lee</p> <p>10:00-10:20 OS4-2 Verification of CFD Modeling of Hybrid Rocket Combustion Instability with Experimental Results G. Karthikeyan, T. Shimada</p>	<p>9:00-9:20 GS1-12 Composite Gel-Polymer Electrolytes for Rechargeable Li-ion Batteries V. DeBiase, J. Ahn</p> <p>9:20-9:40 GS1-13 Dissolution Of Pb And Zn From Zinc Extraction Residual Using Chloride Salts A. Yaras, H. Arslanoglu</p> <p>9:40-10:00 GS1-14 Cr (VI) Removal from Aqueous Solution by Iron (III) Hydroxide-Loaded Paper Mill Sludge A. Yaras, H. Arslanoglu</p> <p>10:00-10:20 GS1-15 Low Temperature Magnetocaloric Materials for Cryogenic Gas Liquefaction by Magnetic Cooling Technique S. Taskaev, K. Skokov, V. Khovaylo, M. Ulyanov, D. Bataev, A. Dyakonov, D. Zherebtsov</p>	<p>9:00-9:20 OS5-1 Fuel Drop Impact on Heated Surfaces M. Bhat, S. Deivandren</p> <p>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</p> <p>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</p> <p>10:00-10:30 OS5-4 <i>Key note</i> Quantum Turbulence in Superfluid⁴He and Neutrino Turbulence in Supernovae H. Kobayashi</p>	<p>9:00-9:20 OS12-1 Time Lapse Observation of PDMS-Curing Process using SMT R. Iwao, Y. Matsuda, H. Yamaguchi, T. Niimi</p> <p>9:20-9:40 OS12-2 Experimental and Numerical Study on Plume Velocity Measurement Using TDLAS Technique A. Song, J. Li, N. Wang, Z. Qin, M. Li, Y. Yang</p> <p>9:40-10:00 OS12-3 Application of PIV to an Abrasive Jet Issuing from a Fan Jet Nozzle Y. Oguma, G. Peng, S. Shimizu</p> <p>10:00-10:20 OS12-4 Charge Flow Investigation of Un-Fueled Prechamber for the Gasoline Engine G. Nyamsuren, Y. Ogami, H. Asada</p>	<p>9:00-10:30 CRF-1 - CRF-32, CRF-R1 <i>Oral Presentation</i></p>	<p>9:00-9:20 OS2-31 Retrieval of Aerosol Size Distribution by Different Optical Measurement Methods Z. He, J. Mao</p> <p>9:20-9:40 OS2-32 Flame Front Structure of Ammonia/air Turbulent Premixed Flames in Swirling Flows under Various Pressures A. Hayakawa, M. Tsukamoto, K.D.K.A. Somarathne, T. Kudo, H. Kobayashi</p> <p>9:40-10:00 OS2-33 Computed NOx Formation of Opposed-Jet CH₄/NH₃ and H₂/NH₃ Diffusion Flames Y.-H. Lin, H.-Y. Shih</p> <p>10:00-10:20 OS2-34 Experimental Study of Turbulent Flame Propagation of Ammonia/Air Mixture in a Fan-Stirred Closed Vessel R. Ichimura, K. Hadi, N. Hashimoto, A. Hayakawa, H. Kobayashi, O. Fujita</p>	<p>9:00 - (10:10) OS18-34 - OS18-66 <i>Short Oral Presentation</i></p> <p>(10:10 - 12:00) OS18-34 - OS18-66 <i>Poster Presentation</i></p>	<p>9:00-9:20 OS2-46 Effects of Inlet Parameters on the Characteristics of Combustion and Heat Loss for CH₄/Air Mixture in Micro Channels Y. Zhang, J. Pan, Q. Lu, Y. Liu, Y. Zhu, S. Bani</p> <p>9:20-9:40 OS2-47 Innovative Designs of Micro Combustors for Portable Power Applications. B. Aravind, S. Kumar</p> <p>9:40-10:00 OS2-48 Numerical Simulations of Methane-oxygen Diffusion Flame-streets in a 3-D Narrow Channel X. Kang, Y. Wang</p> <p>10:00-10:20 OS2-49 Critical Stretch for the Flame Jet Propagating in Microchannel with Narrowing T. Miroshnichenko, G. Uruipin, S. Minaev</p>	<p>9:00-9:20 OS2-66 Effect of Injection Condition on the Propagation Characteristics of Rotating Detonation Wave in Plane-radial Combustor Z. Xia, H. Ma, C. Zhuo, C. Zhou</p> <p>9:20-9:40 OS2-67 Numerical Simulations of Flame Acceleration and Deflagration-to-Detonation Transition of Hydrogen-Air Mixtures in a Particle-laden Obstructed Channel H. Zhang, M. Zhao</p> <p>9:40-10:00 OS2-68 Three-dimensional Numerical Simulation of Continuous Rotating Detonation Ramjet Flowfields G. Ge, H. Ma, Y. Ma, Z. Xia, C. Zhou</p> <p>10:00-10:20 OS2-69 Deflagration-to-Detonation Transition in Foamed Emulsion Bubbled with Hydrogen-Oxygen Mixture A. Kiverin, B. Kichatov, A. Korshunov, I. Yakovenko</p>
<p>BREAK</p>										

10:30

10:30

EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-TACHIBANA	CON-HAGI	CON-SAKURA 2	CON-SHIRAKASHI 1	CON-SHIRAKASHI 2
<p>OS11: Complex Thermo-fluid System</p> <p>Multiphase flow Chair: W.-H. Tien</p>	<p>OS14: Turbulence: from Fundamentals to Applications</p> <p>Turbulence structure Chair: Y. Tsuji</p>	<p>OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 10th Edition</p> <p>Propellant and Engine Characteristics (1) Chair: K. Kitagawa</p>	<p>GS1: General Session</p> <p>Energy Chair: T. Okada</p>	<p>OS5: Advanced Applications of Multi-functional Fluids</p> <p>Complex Flow Chair: K. Doi Thermal Plasma Chair: M. Tanaka</p>	<p>OS12: Flow Realization, Measurement and Visualization</p> <p>Chair: Y. Oguma</p>	<p>OS19: IFS Collaborative Research Forum (AFI-2018)</p>	<p>OS2: [ICCEU14]</p> <p>Chair: A. Hayakawa</p>	<p>OS18: The 14th International Students / Young Birds Seminar on Multi-scale Flow Dynamics</p>	<p>OS2: [ICCEU14]</p> <p>Chair: X. Kang</p>	<p>OS2: [ICCEU14]</p> <p>Chair: H. Zhang</p>
<p>10:40-11:00 OS11-19 <i>Invited</i> Quantum Chemical Inspection on the Liquid Sodium-Water Reaction <u>A. Suzuki</u>, M. Miyano, R. Miura, J. Saito, K. Ara</p> <p>11:00-11:20 OS11-20 <i>Invited</i> A Microfluidic Chip with Controlled Temperature Gradient for DNA Melting Analysis F.-W. Liu, Y.-W. Lu, H.-F. Liao, S.-P. Lin</p> <p>11:20-11:40 OS11-21 <i>Invited</i> Investigation of Air-Water Mist Flow in a Square Channel with V-shaped Ribs K.-T. Huang, Y.-H. Liu</p> <p>11:40-12:00 OS11-22 Effect of Force acts on Axisymmetric Electrochemistry Machining Model With Oscillation Tool S.-Y. Lin, V.-P. Mai, C.-C. Chen</p>	<p>10:40-11:20 OS14-5 <i>Invited</i> The Large-Scale Anisotropic Structure of Small-Scale Turbulence <u>G. E. Elsinga</u>, T. Ishihara, M.V. Goudar, C.B. da Silva, J.C.R. Hunt</p> <p>11:20-11:40 OS14-6 Hierarchy of Vortices in Wall-bounded Turbulence <u>Y. Motoori</u>, S. Goto</p> <p>11:40-12:00 OS14-7 Three-dimensional Global Stability and Coherent Structure of Turbulent Shear Flow <u>A. Yakeno</u></p>	<p>10:40-11:00 OS4-3 Fuel Regression Behavior of Swirling-Injection End-Burning Hybrid Rocket Engine <u>T. Sakurai</u>, Y. Oishige, K. Saito</p> <p>11:00-11:20 OS4-4 Experimental Paraffin-Based Hybrid Rocket Motor <u>Y. Wu</u>, X. Yu, S. Li, Z. Wang, X. Liu, N. Wang</p> <p>11:20-11:40 OS4-5 Fuel Regression Rate Augmentation Produced by a Radiant Heat Flux <u>T. Morita</u>, K. Aono, S. Yamaguchi</p> <p>11:40-12:00 OS4-6 Study of Hypersonic Hybrid Rocket Using Hydrogen Peroxide as Oxidizer C.-R. Lu, Y.-C. Chao, C.-A. Chen, H.-W. Hsu</p>	<p>10:40-11:00 GS1-16 Assessment of Temperature Effect on Performance of PV-V-Trough and CPC Systems <u>A. Ustaoglu</u>, U. Ozbey</p> <p>11:00-11:20 GS1-17 An Experimental Evaluation of Temperature Effect on Performance of PV-CPC Systems <u>A. Ustaoglu</u>, U. Ozbey, C. Kandilli</p> <p>11:20-11:40 GS1-18 Full-Spectrum Light Capture by Compound Nanostructures for Solar Energy L. Yang, C. Li</p> <p>11:40-12:00 GS1-19 Performance Evaluation of a Cooling System for Lithium-Ion Battery Utilizing Phase Change Material with Enhanced Thermal Conductivity <u>H. Hata</u>, T. Kouno, T. Yamada, N. Ono</p>	<p>10:40-11:00 OS5-5 CO₂ Absorption Separation Using Acetate-based Ionic Liquids <u>T. Makino</u>, Y. Kohno, M. Kanakubo, N. Hara, H. Takana</p> <p>11:00-11:20 OS5-6 Fundamental Study of Water Electrolysis in Magnetic Nanofluids <u>Y. Iwamoto</u>, K. Chimura, H. Miyao, Y. Ido, S. Takagi</p> <p>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 <u>E.Z. Ettayebi</u>, Y. Michishita, Y. Noda, Y. Ando, H. Nishiyama</p> <p>11:40-12:00 OS5-8 Oxide Film Deposition by APS Using Vortex Air Plasma Jet <u>Y. Ando</u>, E.Z. Ettayebi, K.O. Alabi, Y. Noda, H. Nishiyama</p>	<p>10:40-11:00 OS12-5 Numerical Simulation of Mixing Performance in a Blade Free Planetary Mixer <u>T. Yamagata</u>, N. Fujisawa</p> <p>11:00-11:20 OS12-6 Flow Visualization of Stirred Tank Reactor with Rotating Jet <u>M.T. Azam</u>, D. Kang, H. Hirahara, K. Murata, Y. Shimoji</p> <p>11:20-11:40 OS12-7 Visualization of Particle Motion in Microchannels with Different Filter Structure <u>T. Nishimura</u>, A. Kitagawa, P. Denissenko, Y. Hagiwara</p> <p>11:40-12:00 OS12-8 Flow Visualization of Secondary Instability and Breakdown of a Two-Dimensional Water Sheet Emitted into the Air <u>D. Imada</u>, T. Ito, M. Matsubara</p>	<p>10:40-12:10 CRF-33 - CRF-61, CRF-R2, CRF-R3 <i>Oral Presentation</i></p>	<p>10:40-11:00 OS2-35 Emission Characteristics and the Structure of Ammonia-Air Flames in a Micro Gas Turbine Swirl Combustor <u>E.C. Okafor</u>, R. Rattanasupapornsak, K.D.K.A. Somarathne, A. Hayakawa, T. Kudo, O. Kurata, N. Iki, H. Kobayashi</p> <p>11:00-11:20 OS2-36 Effect of Wall Heat Transfer on Emission Characteristics of Ammonia/air Swirling Flames in a Gas Turbine-like Combustor <u>K.D.K.A. Somarathne</u>, A. Hayakawa, H. Kobayashi</p> <p>11:20-11:40 OS2-37 Study on Chemical Structure of Ammonia/N₂O Weak flames in a Micro Flow Reactor with a Controlled Temperature Profile <u>M. Shindo</u>, O. Mathieu, E.L. Petersen, T. Tezuka, H. Nakamura</p>	<p>(10:10 - 12:00) OS18-34 - OS18-66 <i>Poster Presentation</i></p>	<p>10:40-11:00 OS2-50 Hetero-/Homogeneous Combustion Characteristics of Premixed Hydrogen-Air Mixture in a Planar Catalytic Micro-Combustor <u>O. Lu</u>, J. Pan, J. Pan, Y. Zhang, J. Zhu, Y. Wang</p> <p>11:00-11:20 OS2-51 Differential Diffusion Effects of Lean Premixed Flames Stabilized on a Mesoscale Bluff-body <u>Y.J. Kim</u>, B.J. Lee, H.G. Im</p> <p>11:20-11:40 OS2-52 Effect of Bluff Bodies on Combustion Characteristics of Hydrogen/Air in Micro Combustor <u>Y. Zhang</u>, J. Pan, J. Zhu, C. Zhang, J. Li</p> <p>11:40-12:00 OS2-53 Gas-Fired Luminous Radiant Heater Based on Cylindrical Ni-Al Burner <u>A. Maznoy</u>, A. Kiryashkin, S. Minaev, N. Pichugin</p>	<p>10:40-11:00 OS2-70 Acceleration of the Deflagration to Detonation Transition in Microchannels through Ozone Addition to Lean C₂H₂/O₂ Mixtures <u>J. Sepulveda</u>, A. Rouso, H. Ha. T. Chen, V. Cheng, W. Kong, Y. Ju</p> <p>11:00-11:20 OS2-71 Effect of Hydrogen Added on the Detonation Performance of Methane/Oxygen at Different Equivalent Ratios <u>J. Li</u>, J. Pan, Z. Pan, C. Jiang, J. Ni, W. Chen</p> <p>11:20-11:40 OS2-72 Development of a Novel Flash Ignitor for Propulsion Using Nitrocellulose-Based Energetic Superthermite <u>H.-Y. Li</u>, Y.-C. Chao, J.-Y. Yu, Y.-P. Chan, H.-W. Hsu</p> <p>11:40-12:00 OS2-73 Combustion and NOx Formation of Opposed-jet Oxygen Enriched Syngas Diffusion Flames with CO₂ Dilution <u>S.-R. Yao</u>, H.-Y. Shih</p>

					12:00-12:20 OS12-9 A New Microfluidic Droplet Generating System for Use in On-chip Production of Microgels <i>H. Shieh, M. Saadatmand, M. Eskandari, D. Bastani, A. K. Jahromi</i>		11:40-12:00 OS2-38 Study of Ammonium Perchlorate Decomposition in the Condensed Phase using Detailed Chemical Kinetics <i>H. Panchal, A. Chowdhury, N. Kumbhakarna</i>					
12:10	LUNCH					12:10-13:10 CRF-1 - CRF-61, CRF-R1, CRF-R2, CRF-R3 <i>Poster Session</i>	LUNCH					12:10
13:10	EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-TACHIBANA	CON-HAGI	CON-SAKURA 2	CON-SHIRAKASHI 1	CON-SHIRAKASHI 2	13:10
		OS14: Turbulence: from Fundamentals to Applications High Reynolds number turbulence <i>Chair: T. Ishihara</i>	OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 10th Edition Mixture-Ratio-Controlled Throttling <i>Chair: T. Sakurai</i>	OS16: Liaison Office Session <i>Chair: M. Ohta</i>	OS5: Advanced Applications of Multi-functional Fluids Thermal Plasma <i>Chair: J. Jeništa</i>	OS12: Flow Realization, Measurement and Visualization <i>Chair: N. Fujisawa</i>	OS19: IFS Collaborative Research Forum (AFI-2018)	OS2: [ICCEU14] Special Session II <i>Chair: P. Dagaut</i>	OS18: The 14th International Students / Young Birds Seminar on Multi-scale Flow Dynamics	OS2: [ICCEU14] <i>Chair: J. Okajima</i>	OS2: [ICCEU14] <i>Chair: N. I. Kim</i>	
	13:10-13:50 OS14-8 <i>Invited</i> Discussion on High-Reynolds Number Limit in a Fully-Developed Channel Flow <i>Y. Yamamoto, Y. Tsuji</i> 13:50-14:30 OS14-9 <i>Invited</i> Wall Modeling in Large-Eddy Simulation: A Path to Predicting High Reynolds Number Flows <i>S. Kawai</i>	13:10-13:30 OS4-7 Error Propagation Analysis in Mixture-Ratio-Controlled Throttling in Hybrid Rocket <i>T. Shimada</i> 13:30-13:50 OS4-8 O/F Ratio Measurement for Hybrid Rocket Engine Feedback Control <i>J. Messineo, K. Kitagawa, T. Shimada</i> 13:50-14:10 OS4-9 Experimental study of O/F Control of A-SOFT Hybrid Rocket <i>D. Kishizato, Y. Koinuma, I. Nakagawa, K. Kitagawa, N. Kimura, T. Shimada</i>	Synergistic effect between Liaison Office and Joint Laboratory <i>T. Hayasaka, M. P. Favre, F. Ohuchi, J. Wu, A. Vasiliev, J. Ahn, X. Ke, J. Qiu, T. Takagi, T. Uchimoto, T. Tokumasu, A. Komiya</i>	13:10-13:30 OS5-9 <i>Invited</i> Conceptual design of a plasma torch system for volume reduction of low and intermediate level radioactive waste <i>I.-M. Lee, M.-G. Choi, J. Nam, M.-Y. Lee, J.-S. Kim, J.-H. Seo, S.-Y. Yang</i> 13:30-13:50 OS5-10 Visualization of Metal Evaporation from Tungsten-based Cathode in Ar-N ₂ DC Arc <i>N. Sakurai, M. Yoshida, M. Tanaka, T. Watanabe</i>	13:10-13:50 OS12-10 <i>Invited</i> Flow Realization in the High Enthalpy Shock Tunnel HIEST <i>K. Ito</i> 13:50-14:10 OS12-11 Measurements on the Wake and Aerodynamic Characteristics of a Flat Plate Moving near Stationary Ground and the Fluid Force <i>K. Yamaguchi, T. Inoue, Y. Seki, I. Miura, K. Hirata</i> 14:10-14:30 OS12-12 High Lift Wing in Ground Effect with Gurney Flap <i>G.S. Pallha, S.D. Sharma</i>	13:10-14:40 CRF-62 - CRF-91, CRF-R4, CRF-J1, CRF-J2 <i>Oral Presentation</i>	13:10-13:20 Opening <i>P. Dagaut</i> 13:20-14:10 OS2-39 <i>Invited Keynote</i> Cool Flames and Warm Flames: Dynamics and Chemistry <i>Y. Ju, C.B. Reuter, O.R. Yehia</i> 14:10-14:40 OS2-40 <i>Invited Topical</i> Initiation and Propagation of a Premixed Cool Flame <i>Z. Chen</i>	13:00 - (14:10) OS18-67 - OS18-97 <i>Short Oral Presentation</i> (14:10 - 16:00) OS18-67 - OS18-97 <i>Poster Presentation</i>	13:10-13:30 OS2-54 A New Device for Recovering Liquid Pressure Energy with High Efficiency <i>Z. Liu, N. Liu, Y. Li</i> 13:30-13:50 OS2-55 Optimization of Flow Rate and Irradiation for Honeycomb Receiver with Concentrated Radiation <i>I. Tsuchida, M. Nakakura, K. Matsubara, T. Kodama, N. Gokon, S. Bellan</i> 13:50-14:10 OS2-56 A Study on Steady-Flow-Type Particle Receiver for High-Temperature Solar Utilization <i>Y. Suzuki, K. Matsubara, T. Kodama, A. Sakurai, S. Bellan, N. Gokon, Y. Matsudaira</i>	13:10-13:30 OS2-74 Numerical Study of Counterflow Flames in Asymmetric Flows <i>R. Fursenko, S. Minaev</i> 13:30-13:50 OS2-75 Analysis of Diffusive-Thermal Instabilities of Hydrogen Flames, a Way to Verify the Reaction Mechanism <i>V. Gubernov, V. Bykov, U. Maas</i> 13:50-14:10 OS2-76 Hydrogen Flame Propagation Regimes in a Thin Layer Compartment <i>M. Kuznetsov, J. Grune</i>		

		14:10-14:30 OS4-10 Proposal of Flight Demonstration of A-SOFT Hybrid Rocket Using Sounding Rocket <u>K. Kitagawa</u> , <u>T. Shimada</u>		13:50-14:10 OS5-11 High-Speed Visualization of Metal Oxide Precursor in Thermal Plasma Flow during Nanoparticle Formation <u>M. Tanaka</u> , <u>Y. Saito</u> , <u>Y. Nawata</u> , <u>T. Watanabe</u> 14:10-14:30 OS5-12 Study on Arc Jets Generated by a Low-power Direct-current Plasma Torch with a Permanent Magnet <u>T. Fujino</u> , <u>H. Matsumoto</u> , <u>K. Maeshima</u> , <u>H. Saito</u>					14:10-14:30 OS2-57 Performance of Selective Hydrogenation of Highly Concentrated Acetylene to Ethylene <u>Q. Zheng</u> , <u>X. Shi</u> , <u>D. Wu</u> , <u>Y. Wang</u>	14:10-14:30 OS2-77 Destabilization of Weakly Stretched Counterflow Flames at Low Lewis Number under Microgravity <u>T. Akiba</u> , <u>T. Okuno</u> , <u>S. Hasegawa</u> , <u>H. Nakamura</u> , <u>R. Fursenko</u> , <u>S. Minaev</u> , <u>M. Kikuchi</u> , <u>K. Maruta</u>	
14:40	BREAK										14:40
	EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-TACHIBANA	CON-HAGI	CON-SAKURA 2	CON-SHIRAKASHI 1	CON-SHIRAKASHI 2
14:50		OS14: Turbulence: from Fundamentals to Applications Jet and pipe flows <i>Chair: A. Yakeno</i>	OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 10th Edition System Development <i>Chair: J. Messineo</i>	GS1: General Session Film <i>Chair: A. Komiya</i>	OS5: Advanced Applications of Multi-functional Fluids Thermal Plasma <i>Chair: J-H. Seo</i> Non-equilibrium Plasma <i>Chair: T. Fujino</i>	OS12: Flow Realization, Measurement and Visualization <i>Chair: M. Matsubara</i>	OS19: IFS Collaborative Research Forum (AFI-2018)	OS2: [ICCEU14] Special Session II <i>Chair: Z. Chen</i>	OS18: The 14th International Students / Young Birds Seminar on Multi-scale Flow Dynamics	OS2: [ICCEU14] <i>Chair: T. Tokumasu</i>	OS2: [ICCEU14] <i>Chair: R. V. Fursenko</i>
	14:50-15:10 OS14-10 Entrainment and Diffusion Mechanism in a Round Jet Modified by Vortex Generators <u>Y. Ito</u> , <u>K. Naganawa</u> , <u>Y. Sakai</u> , <u>K. Iwano</u> 15:10-15:30 OS14-11 Influence of Compressibility on Turbulent/non-turbulent Interface in Supersonic Planar Jet <u>R. Nagata</u> , <u>T. Watanabe</u> , <u>K. Nagata</u>	14:50-15:10 OS4-11 Hybrid Propulsion for Low-cost Access to Space <u>M. Kobald</u> , <u>C. Schmierer</u> 15:10-15:30 OS4-12 Preliminary Flow System Design of an Apogee Kick Motor Using N2O/C2H4 <u>L. Kamps</u> , <u>P. Biswas</u> , <u>K. Sakurai</u> , <u>E. Uchiyama</u> , <u>H. Nagata</u>	14:50-15:10 GS1-20 Characteristics of Liquid Film Formed with Liquid Column Oscillation in Pulsating Heat Pipe (Observation by Using Forced Oscillation System) <u>M. Miura</u> , <u>H. Arai</u> , <u>T. Ogura</u> , <u>H. Ito</u> 15:10-15:30 GS1-21 Molecular Dynamics Simulation of the Bubble Growth Under Various Wall Conditions <u>S. Kakamu</u> , <u>T. Tsuneyoshi</u> , <u>T. Ito</u> , <u>Y. Tsuji</u>	14:50-15:10 OS5-13 Modelling of Diffusion of Plasma Species in Argon-Steam Arc Discharge for Subsonic to Supersonic Flow Regimes <u>J. Jeništa</u> , <u>H. Takana</u> , <u>H. Nishiyama</u> , <u>M. Bartlová</u> , <u>V. Aurbrecht</u> , <u>A. B. Murphy</u> 15:10-15:30 OS5-14 Dynamic Simulation Model of Molten Bridge in a Hybrid DC Circuit Breaker <u>M. Chen</u> , <u>N. Takeuchi</u> , <u>K. Yasuoka</u>	14:50-15:10 OS12-13 Fundamental Evaluation of a Pulse Wave Measurement System Mimicking Pulse Diagnosis Using a Wrist Pulsatile Blood Flow Model <u>T. Tsuboi</u> , <u>A. Shirai</u> , <u>S. Miyauchi</u> , <u>T. Hayase</u> 15:10-15:30 OS12-14 Fundamental study of Three-Dimensional Ultrasonic-Measurement-Integrated Blood Flow Analysis System : Blood Vessel Shape Extraction <u>H. Kudo</u> , <u>S. Miyauchi</u> , <u>T. Hayase</u> , <u>K. Inoue</u>	14:50-16:20 CRF-62 - CRF-91, CRF-R4, CRF-J1, CRF-J2 <i>Poster Session</i>	14:50-15:20 OS2-41 <i>Invited Topical</i> Wall Chemical Effect on Cool Flame <u>Y. Suzuki</u> , <u>M. Lee</u> , <u>S. Wan</u> , <u>Y. Fan</u> 15:20-15:50 OS2-42 <i>Invited Topical</i> Kinetics of SI Engine Knock <u>A. Miyoshi</u>	(14:10 - 16:00) OS18-67 - OS18-97 <i>Poster Presentation</i>	14:50-15:10 OS2-58 Oxygen Transport Membranes for Oxy-Fuel Combustion and Carbon Capture Purposes <u>R. Falkenstein-Smith</u> , <u>V. DeBiase</u> , <u>H. Nagashima</u> , <u>T. Tokumasu</u> , <u>J. Ahn</u> 15:10-15:30 OS2-59 Thermal Transpiration Based Pumping and Power Generation <u>J. Wongwiwat</u> , <u>P. Bhuripanyo</u> , <u>T. Welles</u> , <u>V. DeBiase</u> , <u>J. Ahn</u> , <u>P. Ronney</u>	14:50-15:10 OS2-78 Modeling of Transition from "Flame Ball" to the Flat Flame <u>S. Minaev</u> , <u>R. Fursenko</u> , <u>A. Chebotarev</u> 15:10-15:30 OS2-79 Cellular Structures and Flame Propagation Velocities of DME Air-premixed Flames in a Narrow-gap-disk-burner (NGDB) <u>H.J. Jang</u> , <u>N.I. Kim</u>	

	15:30-15:50 OS14-12 Influence of Swirl on Coaxial Jets <i>P. Kadu, Y. Sakai, Y. Ito, K. Iwano, M. Sugino, T. Katagiri, T. Hayase</i>	15:30-15:50 OS4-13 Effect of Baffle Plate on Combustion Characteristics of Aluminized Solid Fuel for Hybrid Rocket <i>Y. Kanbayashi, Y. Yamazaki, H. Wachi, Y. Murakami, A. Takahashi, K. Takahashi</i>	15:30-15:50 GS1-22 Parametric Study with Theoretical Models on a Drying Process of Liquid Thin Film by Airflow <i>C.T. Gueye, D. Suzuki, H. Watanabe, N. Ono</i>	15:30-15:50 OS5-15 Power Generation Experiments of Seed-free Disk-shaped MHD Generator <i>K. Uehigashi, T. Nakane, T. Iwamoto, Y. Okuno</i>	15:30-15:50 OS12-15 Observation of Screech Tone in Underexpanded Supersonic Jet by High-speed Schlieren Imaging <i>K. Ozawa, K. Fujisawa, T. Yamagata, N. Fujisawa</i>		15:50-16:10 OS2-43 <i>Invited Topical</i> Experimental Study on Ignition Characteristics of Bio-blended Gasoline under Lean Burn Conditions <i>K. Tanaka, T. Funabashi, S. Sakaida, M. Konno</i>		15:30-15:50 OS2-60 Novel Piston Engine and Electrochemical Hybrid System for Unmanned Aerial Systems <i>T.S. Welles, J. Ahn</i>	15:30-15:50 OS2-80 Length of Laminar Non-premixed Methane Flames under Elevated Pressures <i>J. Lee, G. Gil, H.Y. Kim, N.I. Kim</i>
	15:50-16:10 OS14-13 A Correction Method Based on Probability Density Function and Measurement Volume for Turbulence Intensity Profile Measured by LDV in Turbulent Pipe Flow <i>Y. Wada, N. Furuichi, E. Kusano, Y. Tsuji</i>	15:50-16:10 OS4-14 Quantitative Evaluation of Blast Safety Distance for Hybrid Rocket Propellants <i>A. Takahashi, K. Kitagawa, T. Shimada</i>	15:50-16:10 GS1-23 Gravity-driven Flow of a Weakly Viscoelastic Film down a Heated Inclined Plane <i>T. Hu, Q.-F. Fu, L.-J. Yang</i>	15:50-16:10 OS5-16 Characterization of Ozone Densities in the Atmospheric-Pressure Helium/Oxygen Dielectric-Barrier Discharges <i>R.-J. Zhan, K.-M. Lin, C.-Y. Lee, C.-F. Wong</i>	15:50-16:10 OS12-16 Experimental Study on a Flow Deflector for Diffuser <i>J. Yoshida, T. Ozaki, K. Hirata</i>			15:50-16:10 OS2-61 Micro-tubular Flame-assisted Fuel Cells (mT-FFCs) for Rich-burn, Quick-mix, Lean-burn (RQL) Furnace <i>R.J. Milcarek, M. Chu, J. Ahn</i>	15:50-16:10 OS2-81 An Analytical Study on the Transversely Forced Flame Transfer Function <i>T. Liu, J. Li, L. Yang</i>	

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EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-TACHIBANA	CON-HAGI	CON-SAKURA 2	CON-SHIRAKASHI 1	CON-SHIRAKASHI 2
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	OS14: Turbulence: from Fundamentals to Applications Turbulence, sound & modelling <i>Chair: G. Elsinga</i>	OS4: Flow Dynamics and Combustion Technology of Hybrid Rocket Propulsion, 10th Edition Wrap-up <i>Chair: K. Sawada</i>	GS1: General Session Jet <i>Chair: N. Ochiai</i>	OS5: Advanced Applications of Multi-functional Fluids Non-equilibrium Plasma <i>Chair: N. Takeuchi</i>	OS12: Flow Realization, Measurement and Visualization <i>Chair: T. Hayase</i>	OS19: Fluids Science Research Award Lecturers	OS2: [ICCEU14] Special Session II <i>Chair: K. Tanaka</i>		OS2: [ICCEU14] <i>Chair: Y. Morii</i>	OS2: [ICCEU14] <i>Chair: N. I. Kim</i>
	16:30-16:50 OS14-14 Enhancing Jet Turbulence and Acoustics via a Coupled LES - Stochastic Model <i>J. Blake, A. Sescu, D. Thompson, Y. Hattori</i>	16:30-16:50 Wrap-up <i>T. Shimada</i>	16:30-16:50 GS1-24 Study on Structure of Supersonic Microjets (Measurements by Twyman-Green Interferometers) <i>S. Sugawara, S. Nakao, Y. Miyazato, Y. Ishino</i>	16:30-16:50 OS5-17 Evaluation of Nanoparticle Removal and Exhaust Gas Cleaning Using a Wet-type Nonthermal Plasma Reactor <i>T. Kuroki, S. Nishii, M. Okubo</i>	16:30-16:50 OS12-17 Numerical Visualization of Reynolds Stress Destruction in a Plane Jet <i>M. Takahashi, K. Iwano, Y. Sakai, Y. Ito</i>	17:20-17:50 FRA-1 Development of Advanced Capabilities for Wind Tunnel Testing <i>K. Asai</i>	16:30-17:00 OS2-44 <i>Invited Topical</i> Mechanism Validation for Ammonia Combustion using Flame Chromatography and Mass Spectrometry (FC/MS) <i>H. Nakamura</i>		16:30-16:50 OS2-62 On the Communication of Acoustic Wave, Entropy Wave and Vorticity Wave in an Annular Combustor <i>S. Zhu, J. Li, L. Yang</i>	16:30-16:50 OS2-82 Experimental Study of Flow Field and Premixed Gas Combustion in Planar Counterflow Reactor <i>S. Mokrin, R. Fursenko, E. Odintsov, D. Sharaborin, G. Uriupin, D. Tanygina, A. Chernov, V. Dulin, S. Minaev</i>

<p>16:50-17:10 OS14-15 Vortex Structure and Aerodynamic Sound behind the Self-excited Vibrating Slit Flow <u>S. Kosako</u>, <u>T. Tsuneyoshi</u>, <u>T. Ito</u>, <u>Y. Tsuji</u></p> <p>17:10-17:30 OS14-16 Relationships between Small-Scale Motions and Inertial Particle Clustering in Turbulence: Comparison between Incompressible and Compressible Turbulence <u>Y. Sakurai</u>, <u>T. Ishihara</u></p> <p>17:30-17:50 OS14-17 Turbulence Closure Theory based on the Double-Lagrangian Formalism <u>T. Ariki</u></p>			<p>16:50-17:10 GS1-25 Effects of Unrelaxed Tension on the Spatial Linear Instability of Viscoelastic Jets <u>L. Xie</u>, <u>L.-J. Yang</u>, <u>Q.-F. Fu</u></p> <p>17:10-17:30 GS1-26 Instability of an Elliptic Liquid Jet <u>X. Cui</u>, <u>L.-J. Yang</u>, <u>Q.-F. Fu</u></p>	<p>16:50-17:10 OS5-18 <i>Invited</i> Electric Field Measurements in Nanosecond Pulse Discharges in Air and in Hydrogen Flame <u>M. S. Simeni</u>, <u>Y. Tang</u>, <u>K. Frederickson</u>, <u>I. Adamovich</u></p> <p>17:10-17:30 OS5-19 <i>Invited</i> Propagation of Ionization Waves in Nanosecond-Pulse Discharge in Atmospheric Air <u>C. Zhang</u>, <u>J. Qiu</u></p> <p>17:30-17:50 OS5-20 <i>Invited</i> Numerical Simulation of Non-equilibrium Plasma with Nanosecond Pulse Discharge <u>F. Ma</u>, <u>Y. Yang</u>, <u>G. Lou</u></p>	<p>16:50-17:10 OS12-18 Measuring Nucleate Boiling in Impacting Drops using a Combined Total-Internal-Reflection and Back-Lighting Imaging <u>M. Shirota</u>, <u>M. Kato</u>, <u>T. Kawasaki</u>, <u>Y. Konno</u>, <u>S. Fujii</u>, <u>T. Okabe</u>, <u>T. Inamura</u></p> <p>17:10-17:30 OS12-19 An Investigation of Measuring Flow Angularity in the Tri-sonic Wind Tunnel with a Rake of 5-Hole Pressure Probes on AGARD Model <u>H.-Y. Chou</u>, <u>J.-K. Ouyang</u>, <u>J.-N. Hsu</u></p> <p>17:30-17:50 OS12-20 Quantization of intermittency factor in two dimensional channel flow of polymer additive water <u>Y. Endo</u>, <u>S. Yimprasert</u>, <u>T. Tsumura</u>, <u>M. Matsubara</u></p>		<p>17:00-17:30 OS2-45 <i>Invited Topical</i> New Insights into Oxygenated Biofuels Oxidation: Experimental and Kinetic Modeling Studies. <u>P. Dagaut</u>, <u>G. Dayma</u>, <u>M. Lailliau</u>, <u>Z. Serinyel</u>, <u>S. Thion</u>, <u>C. Togbé</u></p>		<p>16:50-17:10 OS2-63 Theoretical Analysis of Thermoacoustic Instabilities in Annular Combustors with Linear Mean Temperature Gradient and Mean Flow <u>J. Nan</u>, <u>J. Li</u>, <u>L. Yang</u></p> <p>17:10-17:30 OS2-64 Effect of Fuel Composition on OH Distribution of Bio-syngas/Air Inverse Diffusion Flame <u>Q. Zhou</u>, <u>C.S. Cheung</u>, <u>C.W. Leung</u>, <u>Z. Huang</u></p> <p>17:30-17:50 OS2-65 Composition Effects on Combustion and Ignition Properties of Multi-components Syngas/Air Mixtures Derived from In-cylinder Fuel Reforming <u>Y. Murakami</u>, <u>H. Nakamura</u>, <u>T. Tezuka</u>, <u>S. Hasegawa</u>, <u>G. Asai</u>, <u>K. Maruta</u></p>	<p>16:50-17:10 OS2-83 The Influence of Pressure Rise Rate on Laminar Flame Speed <u>Y. Wang</u>, <u>Z. Chen</u></p> <p>17:10-17:30 OS2-84 Laminar Burning Velocity Measurements of CH₃OCHO + Air Mixtures at Elevated Temperatures <u>R. Kumar</u>, <u>A. Katoch</u>, <u>S. Kumar</u></p> <p>17:30-17:50 OS2-85 Annular-Stepwise-Diverging-Tube (ASDT) for Flame Propagation Velocities of Methane Air-premixed Flames <u>G. Gil</u>, <u>H.Y. Kim</u>, <u>J. Lee</u>, <u>N.I. Kim</u></p>
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BANQUET @ SAKURA, Conference Bldg.

EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-HAGI	CON-SHIRAKASHI 1
<p>OS15: Vortex Motion Aerodynamic Sound <i>Chair: S.G. Llewellyn Smith</i></p>	<p>OS14: Turbulence: from Fundamentals to Applications Turbulent flows <i>Chair: T. Ariki</i></p>	<p>OS10: Biomolecular Dynamics <i>Chairs: M. Ohta & Y. Mukai</i></p>	<p>GS1: General Session Heat Transfer 1 <i>Chair: J. Okajima</i></p>	<p>GS1: General Session Aerodynamics 1 <i>Chair: K. Fujita</i></p>	<p>OS8: Advanced Physical Stimuli and Biological Responses <i>Chair: R. Shirakashi</i></p>	<p>OS2: [ICCEU14] <i>Chair: H. K. Ma</i></p>	<p>OS2: [ICCEU14] <i>Chair: G. Lou</i></p>
<p>9:00-9:20 OS15-1 Numerical Study on a Flue Organ Pipe with Compressible LES Focusing on the Role of the Foot Chamber <i>S. Tateishi, S. Iwagami, G. Tsutsumi, T. Kobayashi, T. Takami, K. Takahashi</i></p> <p>9:20-9:40 OS15-2 Mode Jump of Edge Tone Captured by Direct Numerical Simulation <i>S. Iwagami, T. Kobayashi, K. Takahashi, Y. Hattori</i></p> <p>9:40-10:00 OS15-3 Numerical Simulation of Porous Wing and Flap: Aerodynamic Performance and Noise Reduction <i>T. Watarai, Y. Hattori</i></p> <p>10:00-10:20 OS15-4 Modeling of Porous Materials for Numerical Study of Aeroacoustic Noise Reduction <i>Y. Sato, Y. Hattori</i></p>	<p>9:00-9:20 OS14-18 Studies on Unsteady Turbulence Characteristics During Flow Transition Under Simulated Low Pressure Turbine Conditions Based on High-order LES Model <i>D. Biswas</i></p> <p>9:20-9:40 OS14-19 On Secondary Instability of Coherent Structure Artificially Excited in Two Dimensional Turbulent Channel Flow <i>J. Takahashi, T. Mizuno, M. Matsubara</i></p> <p>9:40-10:00 OS14-20 Numerical Investigations into Diurnal Wind Characteristics <i>Y. Song, L. Tian, N. Zhao</i></p> <p>10:00-10:20 OS14-21 Aerodynamic Effects of Offset between S-Duct Inlet and Flat Plate <i>J. Lee, S. Baeg, J. Cho</i></p>	<p>9:00-9:25 OS10-1 <i>Invited</i> Engineered Nanopores for Fundamental and Applied Biotechnology <i>L. Moveleanu</i></p> <p>9:25-9:50 OS10-2 <i>Invited</i> Modeling of Alveolar Microcirculation for Passage of Neutrophils <i>A. Shirai</i></p> <p>9:50-10:15 OS10-3 <i>Invited</i> A Multiphysics Approach to Map Drug Mechano-Sensitivity in Tumour Spheroids <i>A. Carlotta, H. Mertani, H. Delanoë-Ayari, C. Rivière, T. Dehoux, J.-P. Rieu</i></p> <p>10:15-10:30 OS10-4 <i>Invited</i> Quantum Chemical Inspection on the DNA Backbone Bias caused by 8oxoG <i>A. Suzuki, M. Miyano, R. Miura, A. Sassa, M. Yasui, M. Honma</i></p>	<p>9:00-9:20 GS1-27 CFD Analysis of Swirling Induction Type Displacement HVAC System in a Large Factory Space <i>K. Hirose, W. Yamazaki, N.D.B. Thanh, H. Koga, Y. Toda</i></p> <p>9:20-9:40 GS1-28 Coupling Effect Analysis of Transmembrane Heat and Moisture Transfer <i>J. Duan, Z. Shen, J. Min</i></p> <p>9:40-10:00 GS1-29 Pressure Loss Prediction of Heat Exchanger under Frosting Condition <i>S. Takachi, K. Fukiba, S. Han</i></p>	<p>9:00-9:20 GS1-30 Numerical Study on Aerodynamic Characteristics of Reusable Vehicle-eXperiment Rocket with Body-flap during Gliding <i>Y. Nishikawa, N. Tuboi, T. Ito, S. Nonaka</i></p> <p>9:20-9:40 GS1-31 Simulation and Control of Flexible Aero-Structures using Nonlinear Reduced-Order Models <i>Y. Wang, K. Otsuka, K. Fujita, H. Nagai, K. Makiyara</i></p> <p>9:40-10:00 GS1-32 Investigation on Pseudo Enthalpy Generation in Airplane CFD <i>K. Matsushima, R. Shimizu, K. Goshima</i></p> <p>10:00-10:20 GS1-33 Automatic Optimization of Aerodynamic Noise of a Vehicle Based on Multi-parameters <i>L. Qin, B. Lv, C. Lai, Z. Fu, Y. Zhou</i></p>	<p>9:10-9:15 Opening <i>T. Sato, T. Ohashi</i></p> <p>9:15-10:00 OS8-1 <i>Keynote</i> The Role of Small Organic Osmolytes in the Volume Regulation and Migration of Cancer Cells <i>Y.L. Sukhorukov, D. Sisario, R. Shirakashi, S. Memmel, C.S. Djuzenova</i></p> <p>10:00-10:30 OS8-2 <i>Invited</i> Venomics Project Reveals the Evolution and Molecular Mechanism to Produce Highly Divergent Venom Proteins. <i>T. Ogawa</i></p>	<p>9:00-9:20 OS2-86 Internal Combustion (IC) Engines: A High-efficiency Zero-emissions Power System in Future <i>H. Liu, Y. Wang, X. Fang, Q. Tang, M. Yao</i></p> <p>9:20-9:40 OS2-87 Chemical Properties of PM of a Diesel Engine Fueled with Diesel/Biodiesel/Ethanol (DBE) in Blended and Fumigation Modes <i>M. Ahmadi Ghadikolaie, K.-F. Yung, C.S. Cheung</i></p> <p>9:40-10:00 OS2-88 Combustion Characteristics and Particulate Emissions of a Diesel Engine Fueled with Diesel/Biodiesel/Alcohol Mixtures <i>D. Mao, M. Ahmadi Ghadikolaie, C.S. Cheung</i></p> <p>10:00-10:20 OS2-89 Gaseous Fuel Injection Timing Effects on a Novel Natural Gas-Diesel Rotary Engine Performance <i>W. Chen, J. Pan, B. Fan, Y. Lu, Y. Zhang</i></p>	<p>9:00-9:20 OS2-103 Cancelled</p> <p>9:20-9:40 OS2-104 Investigation of Flow and Flame Dynamics in a Methane-air Premixed Swirling Combustor <i>Z. Rao, B. Zhang, B. Wang</i></p> <p>9:40-10:00 OS2-105 Characteristics Study on A New Type Advanced Vortex Combustor <i>J. Xie, Y. Zhu, J. Li, J. Pan</i></p> <p>10:00-10:20 OS2-106 LES/Flamelet Study of Vortex-Flame Interaction in a Turbulent Nonpremixed Swirl Burner <i>Z. Lu, A. M. Elbaz, F.E. Hernandez Perez, W.L. Roberts, H.G. Im</i></p>
<p>BREAK</p>							

EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-HAGI	CON-SHIRAKASHI 1
<p>OS15: Vortex Motion Stability and Control <i>Chair: S. Le Dizès</i></p>	<p>OS14: Turbulence: from Fundamentals to Applications LES & DNS <i>Chair: T. Ishihara</i></p>	<p>OS9: Biomedical Flow Dynamics Biomedical Flow (1) <i>Chair: M. Ohta</i></p>	<p>GS1: General Session Heat Transfer 2 <i>Chair: G. Kikugawa</i></p>	<p>GS1: General Session Aerodynamics 2 <i>Chair: A. Yakeno</i></p>	<p>OS8: Advanced Physical Stimuli and Biological Responses <i>Chair: S. Kawano</i></p>	<p>OS2: [ICCEU14] <i>Chair: C. S. Cheung</i></p>	<p>OS2: [ICCEU14] <i>Chair: J. Pan</i></p>
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EX-1	EX-2	EX-3	EX-4	CON-1	CON-2	CON-HAGI	CON-SHIRAKASHI 1
<p>OS15: Vortex Motion</p> <p>Vortex Dynamics Chair: Y. Fukumoto</p>		<p>OS9: Biomedical Flow Dynamics</p> <p>Biomedical Flow (2) Chair: H. Anzai</p>	<p>GS1: General Session</p> <p>Thruster Chair: A. Hayakawa</p>	<p>GS1: General Session</p> <p>Flows in Machines Chair: Y. Iga</p>	<p>OS8: Advanced Physical Stimuli and Biological Responses</p> <p>Chair: T. Sato</p>	<p>OS2: [ICCEU14]</p> <p>Special Session III Chair: K. Maruta</p>	<p>OS2: [ICCEU14]</p> <p>Chair: K. D. K. A. Somarathne</p>
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<p>OS15: Vortex Motion</p> <p>Helical Vortex <i>Chair: Y. Hattori</i></p>		<p>OS9: Biomedical Flow Dynamics</p> <p>Biomedical Flow (3) <i>Chair: K. Yu</i></p>	<p>GS1: General Session</p> <p>Shock Wave <i>Chair: K. Ohtani</i></p>		<p>OS8: Advanced Physical Stimuli and Biological Responses</p> <p><i>Chair: T. Ohashi</i></p>	<p>OS2: [ICCEU14]</p> <p>Special Session III <i>Chair: H. Terashima</i></p>	
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<p>BREAK</p>							

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- OS18-18: **Hybrid-wettability Ratchet Accelerates the Propulsion of Leidenfrost Drops**
Y. Konno, M. Kato, M. Shiota, T. Okabe, T. Inamura
- OS18-19: **Optical Switching by Graphene-based Metamaterials**
H. Okada, K. Yada, A. Sakurai
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D. Tsuchida, R. Watanabe, H. Kobayashi, T. Kudo
- OS18-21: **Study on the Effect of Sink Condition on Temperature Oscillation in a Loop Heat Pipe**
T. Adachi, K. Fujita, H. Nagai
- OS18-22: **Observation of Cavitating Flow on a Heated Hydrofoil**
M. Ito, J. Okajima, H. Sasaki, T. Nomura, Y. Iga
- OS18-23: **Influence of Electron Excitation State on Relaxation Phenomena of Nitrogen Molecules Behind Strong Shock Wave**
M. Kajino, H. Harada, G. Yamada
- OS18-24: **Burning Velocity and Flame Structure of Ammonia/Hydrogen/Air Turbulent Premixed Flames at Elevated Pressures**
A. Ichikawa, T. Kudo, A. Hayakawa, T. Kudo, H. Kobayashi

- OS18-25: **Quantitative Temperature Measurement of NO/N₂ Mixtures in Non-Combustion Field Using LITGS**
K. Kohama, A. Hayakawa, T. Yamagami, T. Kudo, S. Hochgreb
- OS18-26: **Trial Computations on Flames with Repetitive Extinction and Ignition in a Micro Flow Reactor with a Controlled Temperature Profile toward Data Assimilation**
K. Akita, Y. Morii, H. Nakamura, T. Tezuka, K. Maruta
- OS18-27: **Uncertainty Quantification in Re-entry Trajectory Analysis for Safety Assessment**
A. Tokunaga, A. Sotoguchi, K. Shimoyama, K. Fujimoto
- OS18-28: **Formation of C₂ Hydrocarbons at Low Temperature from Fuel-rich CH₄/air Mixture in a Micro Flow Reactor with a Controlled Temperature Profile**
K. Kanayama, T. Tezuka, S. Hasegawa, H. Nakamura, K. Maruta
- OS18-29: **Effect of Shear Flow Turbulence on Premixed Flame**
H. Sasaki, Y. Fukui, T. Kudo, A. Hayakawa, H. Kobayashi
- OS18-30: **Burnt Gas Characteristics of Swirl Stabilized Ammonia/air Turbulent Premixed Flames for Various Mixture Inlet Velocity**
M. Tsukamoto, A. Hayakawa, K.D.K. A. Somarathne, T. Kudo, H. Kobayashi
- OS18-31: **Fundamental Study of Melting Behavior of Ice Slurry aimed at Rapid Cooling for Biological Tissue**
H. Nishikawa, T. Okabe, T. Miyagawa, M. Shiota, T. Inamura, K. Fumoto
- OS18-32: **Attempts to Improve the Startup Characteristics with the Aim of the High-reliability of Oscillating Heat Pipe for Space Application**
N. Inoue, H. Nagai, M. Andoh, R. Matsutomo, A. Okamoto, H. Sugita
- OS18-33: **Solar-selective Absorber based on Dielectric Multi-layers**
Y. Huang, H. Okada, A. Sakurai
- OS18-34: **An Experimental Study on Suppression of Rotating Cavitation in Rocket Turbopump Inducer with Slit**
Y. Kamikura, M. Kanamaru, S. Kawasaki, T. Shimura, Y. Iga
- OS18-35: **Cellulose Nano Fibril Alignment Controlled by Electric Field in Elongational Flow for Innovative Single Fiber Fabrication**
M. Kiuchi, Y. Takeda, H. Takana
- OS18-36: **Motion Analysis of Flexible Folding Wing with a Hinge Joint Loaded by Gust**
S. Onuki, K. Otsuka, T. Suzaki, H. Nagai, K. Fujita, K. Makihara
- OS18-37: **Performance Test of Co-axial Rotor of Mars Helicopter for Vertical Hole Exploration on Mars**
K. Kano, K. Fujita, H. Nagai

- OS18-38: **A Molecular Dynamics Study for Scattering Properties of Gas Molecules on Water Adsorbed Surfaces**
N. Uene, H. Takeuchi, Y. Hayamizu, T. Tokumasu
- OS18-39: **Numerical Flow Analysis around a Flapping Wing Object Using an Immersed Boundary Method**
Y. Ichige, W. Yamazaki, S. Takahashi
- OS18-40: **Efficient Aerodynamic Shape Optimization Using Proper Orthogonal Decomposition**
N. Buyanbaatar, W. Yamazaki
- OS18-41: **Study on Gaseous Cavitation around a Hydrofoil in Oil Flow**
S. Takahashi, T. Usui, Y. Iga
- OS18-42: **An Investigation of the Effect of Vortex Stretching Between Multi-scale Vortices in Isotropic Homogeneous Turbulence**
K. Yamamoto, K. Nakayama
- OS18-43: **Visualization of Wing Surface Flow in Propeller Slipstream at Low Reynolds Number**
T. Ikami, K. Kanou, K. Fujita, H. Nagai
- OS18-44: **Investigation of Supersonic Micro Flow**
C.Y. Hsiao, C.Y. Ye, C.Y. Huang
- OS18-45: **Effects of a Secondary Injection in a Convergent-Divergent Nozzle on Thrust Vectoring**
J.L. Chen, Y.H. Liao, J.S. Wu
- OS18-46: **Dynamic Characteristics of Underwater DC Biased Pulsed Capillary Discharge for High Efficiency Water Purification**
S. Kawaharada, S. Uehara, H. Takana, H. Nishiyama
- OS18-47: **Uncertainty Quantification for Robust Design Optimization of Supersonic Biplane Airfoil**
M. Kasai, S. Tabata, W. Yamazaki
- OS18-48: **Effect of Flow Interaction Between Blade Airfoils on Optimal Airfoil Shapes of Small Vertical Axis Wind Turbine**
S. Imai, N. Ban, W. Yamazaki
- OS18-49: **Prediction and Evaluation of Flowfield in Larval Fish Rearing Tanks**
T. Kato, W. Yamazaki, T. Sumida, Y. Sakakura
- OS18-50: **Relationships of Vortex Generation in Multi-scale Flows in Isotropic Homogeneous Turbulence**
S. Saeki, D. Aoyama, K. Nakayama

- OS18-51: **Aerodynamic Characteristics of Wings with Large Dihedral Angles at Low Reynolds Number**
A. Mori, M. Okamoto
- OS18-52: **Numerical Investigation of Geometrical Corrugation Influence to Vortex Flowfields at low-Reynolds Number**
Y. Yamaguchi, D. Sasaki, M. Okamoto, K. Shimoyama, S. Obayashi
- OS18-53: **Velocity Field Measurement of DBD Plasma Flow Using PIV**
J.H. Sohn, N. Kim, K. Kim, M.A. Furudate
- OS18-54: **Aerodynamics Effects of Leading-Edge Shapes for Delta Wing at Low Reynolds Number**
H. Maruoka, M. Okamoto
- OS18-55: **Optimum Design of Nonplanar Wings for Minimum Induced Drag at Low Reynolds Number**
K. Tokura, S. Morizawa, H. Kawazoe, S. Obayashi
- OS18-56: **Effect of Electric Field on Breakup of a Liquid Ligament**
H. Mayusumi, Y. Saito, Y. Matsushita, H. Aoki
- OS18-57: **Topological Characteristics of Vortex Transition in Isotropic Homogeneous Turbulence**
D. Aoyama, K. Nakayama
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R. Sato, M. Guo, H. Takana
- OS18-59: **Robust Characteristic of Eigen-Vortical-Axis Line as a Vortical Axis in Isotropic Homogeneous Turbulence**
K. Doi, H. Hori, K. Nakayama
- OS18-60: **Vortical Flow Symmetry Violation at Extinction of Vortex in Terms of Local Topology in Isotropic Homogeneous Turbulence**
K. Nagaya, K. Nakayama
- OS18-61: **An Investigation of Relationships between Eigen-Vortical-Axis Line and Maximum Region of Swirlity**
H. Hori, K. Nakayama
- OS18-62: **Estimation of Local Particle Deposition by Wall Stokes Number in Idealized Airways**
S. Fujii, M. Shirota, T. Monori, Y. Kasamatsu, T. Okabe, T. Inamura, S. Tasaka
- OS18-63: **Mars Aerial Exploration for Terrestrial and Tropospheric Environment Observation –Aerodynamic Design of Mars Airplane–**
I. Mamiya, H. Tanaka, H. Kiritani, T. Tonai, H. Nagasawa, T. Hirata, K. Fujita, H. Nagai

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C.J.C. Otic, S. Yonemura
- OS18-65: **Effect of Geometrical Parameters on Knudsen Thermal Force Exerted on Solid Body**
S.E.M. Kamal, S. Yonemura
- OS18-66: **A Feasibility Study of Vortex Forecast with Invariant Key Flow of Vortex Generation in Isotropic Homogeneous Turbulence**
Y. Fukatsu, K. Nakayama
- OS18-67: **Computational Simulation of SLD Impingement**
Z. Chengxiang, Z. Chunling, W. Zhengzhi
- OS18-68: **Evaluation of PSP Characteristics under High-Pressure Environment**
H. Taniguchi, D. Numata
- OS18-69: **A Study on Experimental Apparatus for Applying Electromagnetic Effect to Thin Metal Plate Processing**
K. Akitsu, K. Tuchiya, N. Ono
- OS18-70: **Surface Tension Measurement of Aqueous Solution Exposed to Alcohol Vapor**
D. Kobayashi, S. Miura, T. Kaneko, T. Yamada, T. Ishibashi, H. Matsuo, K. Watanabe, N. Ono
- OS18-71: **Transition of Dynamic Elasto-plastic Contact Behavior of Pure Cu Powder**
S. Takeda, H. Miki, J. Fontaine, M. Guibert, N. Nakayama, H. Takeishi, T. Takagi
- OS18-72: **Evaluation of Water Uptake in Anti-Corrosion Polymer Coating by Capacitance Measurement**
L. Ollivier-Lamarque, T. Uchimoto, N. Mary, S. Livi
- OS18-73: **Investigation of Structure and Electromagnetic Properties of Cobalt-containing DLC for Magnetic Device Application**
Z. Diao, H. Kosukegawa, H. Miki, T. Takagi
- OS18-74: **Evaluation of Creep-Fatigue Degradation of Cu-alloy for Rocket Engine Combustion Chamber using NDT Method Based on Eddy Current**
H. Furuya, T. Uchimoto, T. Takagi, M. Hashimoto, E. Sato, M. Takegoshi
- OS18-75: **Rapid Deposition of Porous Photo-Catalytic TiO₂ Film for DSSC by 1kW class Atmospheric Plasma Spray Equipment using Ar/N₂ working gas**
K.O. Alabi, Z.A. Ettayabi, Y. Ando, Y. Noda
- OS18-76: **Semi-Active Vibration Suppression Using Predictive Theory**
M. Ueno, I. Takamoto, K. Otsuka, K. Makihara

- OS18-77: **Non-Destructive Evaluation of Detectability of Eddy Current Probe for Fiber Misalignment of CFRP**
Y. Kiso, H. Kosukegawa, R. Urayama, M. Hashimoto, T. Takagi, L. Udpa
- OS18-78: **Effect of Elastic Strain on Ionic Conductivity of Solid Electrolytes**
Y. Miyoshi, F. Iguchi
- OS18-79: **Numerical Analysis of Current Density Distribution in Magnetic Stimulation Coil with Magnetic Core**
H. Mori, T. Takagi, S. Izumi, H. Kagaya, K. Yashima, T. Abe
- OS18-80: **The Relationship between Residual Strain and Electrical Conductivity in the Oxide Composites**
R. Kuwabara, T. Abe, K. Yashiro, F. Iguchi
- OS18-81: **Effect of Compression Shearing Method at Room Temperature Consolidation Process of Pure Cu Powder on Grain Refinement and Mechanical Properties**
S. Nagai, S. Takeda, H. Miki, T. Miyazaki, H. Kosukegawa, T. Takagi
- OS18-82: **Managing Shear Stress in a Microchannel for Microorganism Biofilm Cultures**
J. Wang, P. Bodenès, H. Wang
- OS18-83: **Distribution of Electric Potential Around a Spherical Bubble Considering Electric Double Layer**
H. Mi, Y. Iwamoto, Y. Ido, H. Takana
- OS18-84: **The Development of Pressure Sensors with PDMS Microchannel Devices**
Y. Chang, W. Chen, C. Haung
- OS18-85: **Switch Control with Adaptive Threshold for Effective Vibration Energy Harvesting**
Y. Hara, K. Saito, K. Makihara
- OS18-86: **Application of Artificial Neural Network to Defect Detection Using Eddy Current Testing**
X. Zhou, R. Urayama, H. Kosukegawa, T. Uchimoto, T. Takagi
- OS18-87: **Development of Point Focusing Electromagnetic Acoustic Transducer Aiming at the Local Pipe Wall Thinning Measurement**
A. Tezuka, H. Sun, R. Urayama, T. Uchimoto, T. Takagi
- OS18-88: **Droplet Spreading and Oscillation on Different Wettability Surfaces at Low Weber Number**
X. Liu, X. Zhang, J. Min
- OS18-89: **Experiment on Droplet Impacting on a Spherical Surface**
X. Liu, X. Zhang, J. Min, X. Wu

- OS18-90: **Characterization of Phase Transition of Hydrogen Charged Austenitic Stainless Steels under Tensile Test Condition Using Eddy Current Testing**
H. Yamamoto, T. Uchimoto, T. Takagi, H. Enoki, T. Iijima
- OS18-91: **Dynamic Behavior of Arc Jet Using Ar-N₂ Mixture Gas in a Few kW DC Plasma Torch**
K. Maeshima, H. Matsumoto, H. Saito, T. Fujino
- OS18-92: **Fluid Dynamical Characteristics of Ionic Liquid Electrospray for Efficient CO₂ Absorption**
N. Hara, K. Yamamoto, H. Takana, T. Makino, M. Kanakubo
- OS18-93: **Simultaneous Measurement of Wetting and Spreading Behavior of Impacting Drops**
T. Kawasaki, M. Shiota, Y. Akiyama, T. Okabe, T. Inamura
- OS18-94: **Effects of the Carrier Gas on Properties of Plasma-Activated Water**
C. Lai, Y. Deng, Y. Liao
- OS18-95: **Treatments of Non-thermal Aspheric Pressure Plasma Affects Cellular Uptake of Molecules**
C. Chen, Y. Cheng, Y. Cheng
- OS18-96: **Breast Cancer Cell Migration under Controlled Oxygen Tensions**
R. Koens, Y. Tabata, D. Yoshino, K. Funamoto
- OS18-97: **Influence of Hypoxic Environment on Vascular Endothelial Cell Migration**
Y. Tabata, D. Yoshino, K. Funamoto, R. Koens, K. Funamoto

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IFS Collaborative Research Forum**

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L. R. Zuhail, G. A. Faza, K. Zakaria, P. S. Palar, K. Shimoyama
- CRF-2: **A Data Assimilation Application to Computational Crowd Dynamics Simulation**
F. Togashi, T. Misaka, R. Löhner, S. Obayashi
- CRF-3: **Characteristics of Centreline Shock Reflection in Stunted Busemann Intakes**
H. Ogawa, B. Shoesmith, S. Mölder, E. Timofeev, G. Shoen, K. Ohtani
- CRF-4: **Collaborative Optimization of Vehicle Low Aerodynamic Drag and Noise Reduction**
C. Lai, H. Zhang, B. Zhao, Y. Zhou, S. Obayashi
- CRF-5: **Flowfield reconstruction from surface pressure using data assimilation method**
J. Cho, T. Misaka, S. Obayashi, K. Yee, S. Jeong
- CRF-6: **Comparison of Data Assimilation Methods in Fluid Problems**
T. Misaka, S. Obayashi
- CRF-7: **Aerodynamic drag reduction using a coating material in flapping wing**
T. Ishide, M. Kimura, R. Fujii, T. Kaeriyama, K. Shimoyama, S. Obayashi
- CRF-8: **Feasibility Study on a V/S-TOL Aircraft with Upper Surface Blowing**
S. Nishimura, T. Okumura, K. Sakamoto, S. Morizawa, H. Kawazoe, S. Obayashi
- CRF-9: **CFD Study on a Wing Grid for Improvement of Aerodynamic Characteristics**
S. Morizawa, K. Tokura, H. Kawazoe, S. Obayashi
- CRF-10: **Experimental Validation of Natural Convection Flow in a Cavity with Time-varying Thermal Boundary Conditions**
L. Zhou, S. Armfield, N. Williamson, M. Kirkpatrick, W. Lin, A. Komiya, T. Kogawa
- CRF-11: **Experimental and Numerical Investigation of Flow Phenomena Associated with Low-Reynolds Number Flow**
D. Sasaki, T. Miwa, Y. Yamaguchi, Y. Natsume, T. Iwafune, R. Fujii, T. Akasaka, M. Okamoto, S. Takahashi, T. Misaka, S. Obayashi, K. Shimoyama

- CRF-12: **Fully Automatic Design Optimization System for Flyback Booster Considered From Subsonic to Hypersonic Range**
T. Sumimoto, K. Chiba, M. Kanazaki, T. Fujikawa, K. Yonemoto, S. Obayashi
- CRF-13: **Concept of Hollow Cylindrical Tether under Space Debris Impact**
Y. Uwamino, M. Fujiwara, K. Ohtani, K. Makihara
- CRF-14: **Aerodynamic Evaluation of Ski Jumping Suit Fabric - Effect of Different Air Permeability on Aerodynamic Performances -**
R. Maeta, T. Takahashi, H. Hasegawa, K. Seo, S. Obayashi
- CRF-15: **PSP Measurements for a Badminton Shuttlecock Model**
Y. Fujisawa, M. Kobayashi, H. Hasegawa, H. Nagai
- CRF-16: **Numerical Prediction of Flow Characteristics around Moving Objects in Multiphase Flow**
Y. Mizuno, Y. Kawamoto, S. Takahashi, K. Fukuda, S. Obayashi
- CRF-17: **Dynamic Simulation of Deployable Wing Mars Airplane**
K. Otsuka, Y. Wang, K. Fujita, H. Nagai, K. Makihara
- CRF-18: **Aerodynamic Performance Investigations Around Control Surfaces of Mars Airplane Balloon Experiment Two**
M. Kanazaki, K. Tomisawa, H. Kittaka, K. Fujita, A. Oyama, H. Nagai
- CRF-19: **Design of Control Surface for Mars Exploration Airplane**
S. Jeong, B. Won, K. Park, K. You, H. Nagai, K. Fujita
- CRF-20: **Research and development co-axial rotor to realize Mars helicopter**
H. Nagai, K. Kanou, T. Ikami, K. Fujita, K. Yonezawa
- CRF-21: **Heat transfer investigation of hydrophobic organo-metallic slippery surfaces**
R. Gulfam, P. Zhang, H. Nagai
- CRF-22: **Application of Two-phase thermo-fluid Simulation for Accurate Design of Oscillating Heat Pipe**
K. Takemura, S. Takahashi, K. Sato, H. Nagai, T. Adachi
- CRF-23: **Micro-combustion of Natural Gas for Solid Oxide Fuel Cells**
R. J. Milcarek, M. Chu, H. Nakamura, K. Maruta, J. Ahn
- CRF-24: **Effects of negative temperature coefficient of reactivity on end-gas autoignition and pressure wave development during knocking combustion**
H. Terashima, H. Nakamura

- CRF-25: **Development of Light-driven Microactuators for Microfluidic Devices**
N. Yamada, V. V. Thai, J. Okajima, A. Komiya
- CRF-26: **Development of accurate temperature method by infrared camera**
T. Kogawa, J. Okajima, A. Komiya, S. Maruyama
- CRF-27: **Transition of Pumping-up Flow Patterns with High Viscosity in a Centrifugal Force Field by Rotating Cones**
J. Kanamori, T. Adachi, J. Okajima
- CRF-28: **Effect of Ambient Pressure on Superheated Water Jet from a Fan Spray Injector**
R. Watanabe, D. Tsuchida, T. Kudo, H. Kobayashi
- CRF-29: **The Effects of Heat Loss on the Dynamics of Hydrogen-Air Premixed Flames**
S. Kadowaki, T. Uchiyama, T. Katsumi, H. Kobayashi
- CRF-30: **Corrosion Characterization for Pipe Wall by Ultrasound Reflection**
H. Nakamoto, P. Guy, T. Takagi
- CRF-31: **Influence of Mechanical Damage on Electromagnetic NDT Signals**
Z. Chen, S. Xie, M. He, H.-E. Chen, T. Uchimoto, T. Takagi
- CRF-32: **Estimation of Fracture Permeability by Integrating Microseismic Observational Data and reservoir engineering modeling**
Y. Mukuhira, J. H. Norbeck, J. L. Rubinstein
- CRF-R1: **Link between tracer and microseismic analysis to comprehensive understanding of hydraulic feature of fractured geothermal reservoir**
A. Suzuki, Y. Mukuhira, R. N. Horne, M.C. Fehler, P. K. Kang
- CRF-33: **Study on the function of Me-DLC nano-composite coatings acting as thermo-sensor in the sliding interface**
M. Goto, T. Takagi, K. Ito, H. Miki, H. Kosukegawa
- CRF-34: **Nondestructive evaluation for carbon fiber composite parts fabricated by prepreg with high moldability**
T. Ishibashi, K. Mizukami, H. Kosukegawa, T. Takagi
- CRF-35: **Nano-particle dispersion effects on the mechanical properties of carbon fiber reinforced plastics**
T. Takayama, H. Kosukegawa, T. Takagi
- CRF-36: **Seminar for Advanced Maintenance Technology of Fiber Reinforced Composites**
T. Hisada, K. Ura, N. Sato, H. Kosukegawa, T. Takagi

- CRF-37: **Magnetic and Electric Properties of Diamond Like Carbon-Magnetic Metal Nano-composite Films**
Y. Zhang, H. Kosukegawa, H. Miki, T. Takagi
- CRF-38: **Internal defect of plastic-fabricated Carbon Fiber Reinforced Thermo Plastics**
Y. Kodaira, T. Takagi, H. Miki, H. Kosukegawa, N. Nakayama
- CRF-39: **Experimental Study on Tensile Strength and Fracture Behavior of Single Abaca Fiber**
Z. Fuadi, S. Sabri, S. Rizal, H. Homma, T. Takagi, H. Miki, H. Kosukegawa
- CRF-40: **Methodology for Multifunctional Coating Formation by Plasma Electrolytic Oxidation**
A. A. Gladkova, V. V. Khovaylo, A. G. Rakoch, N. A. Predein, H. Kosukegawa, H. Miki, T. Takagi
- CRF-41: **Fluid flow analysis of an atmospheric-pressure micro-plasma ejected from a narrow nozzle**
H. Yoshiki, K. Otsuka, T. Sato, T. Nakajima, S. Uehara
- CRF-42: **Development of Low-Temperature Plasma Process for Nitride and Oxide Functional Films Formation**
K. Takenaka, G. Uchida, Y. Setsuhara, T. Okada
- CRF-43: **Electric Field Measurements in Nanosecond Pulse Discharges in Air and in Hydrogen Flame**
M. S. Simeni, Y. Tang, K. Frederickson, I. Adamovich, H. Takana, H. Nishiyama
- CRF-44: **Numerical Modeling on Enhancement of CO₂ Absorption by Ionic Liquid Electrospray**
H. Takana, K. Kawatani, T. Fujino
- CRF-45: **Artificial Cage-shaped Proteins for Nano-process**
I. Yamashita, N. Okamoto, S. Samukawa
- CRF-46: **Optical properties of Si nanopillar / Si_{0.7}Ge_{0.3} composite film fabricated by using a neutral beam etching technique**
N. Matsuda, T. Nakamura, D. Ohori, S. Samukawa, T. Ikari, A. Fukuyama
- CRF-47: **Neutral beam treatment improved contact electrification for dramatically enhancing triboelectric performance**
W. Kim, H.-W. Park, H. J. Hwang, K.-B. Chung, T. Okada, S. Samukawa, D. Choi
- CRF-48: **Multilevel Memory Characteristics of Ta/Ta₂O_{5-s} ReRAM for the Application of Neural Network**
Y. Li, A. Tsurumaki-Fukuchi, M. Arita, Y. Takahashi, H. Andoh, T. Morie, S. Samukawa
- CRF-49: **Analog Memory Devices for Time-domain Weighted-sum Calculation Circuits**
K. Yamashita, M. Harada, T. Morie, A. Tsurumaki-Fukuchi, M. Arita, Y. Takahashi, S. Samukawa

- CRF-50: **Nitrogen Doping to Narrow Holes by Atmospheric-Pressure Plasma Jet with Flow Induction**
R. Ichiki, K. Toda, S. Akamine, S. Kanazawa, T. Okada
- CRF-51: **Electronic Structure of Semiconductor Nanostructure Array for Thermoelectric Applications**
M.-Y. Lee, Y. Li, S. Samukawa
- CRF-52: **Molecular dynamics simulation of a nano droplet in a nm-order channel**
A. Fukushima, N. Fillot, T. Tokumasu, P. Vergne
- CRF-53: **Analysis of transport phenomena of oxygen ion in dual-phase electrolyte material**
H. Nagashima, R. Falkenstein-Smith, J. Ahn, T. Tokumasu
- CRF-54: **Molecular Dynamics Simulation of Oxygen Diffusion on Ionomer Surface**
M. Nakauchi, T. Mabuchi, Y. Yoshimoto, T. Kaneko, I. Kinefuchi, H. Takeuchi, T. Tokumasu
- CRF-55: **Thermodynamic Property Gradients in Near-Surface Water Thin Film**
M. Gupta, A. Zou, T. Tokumasu, S. C. Maroo
- CRF-56: **In-Plane relation between Epitaxial Magnesium Oxide Film and Silicon Substrate**
S. Kaneko, R. Sudo, S. Yasuhara, T. Endo, M. Yasui, M. Kurouchi, M. Can, S. Shawuti, Y. Nakamaru, C. Kokubun, K. Konda, T. Tokumasu
- CRF-57: **Solid Oxide Fuel Cells Replacement of a Traditional Catalytic Converter**
T. S. Welles, J. Ahn, H. Nakamura
- CRF-58: **Statistical mechanical evaluation of thermophysical properties of oxygen-hydrogen mixture system based on the differential hierarchy of a complete thermodynamic function**
R. Takahashi, N. Tsuboi, T. Tokumasu, S. Tsuda
- CRF-59: **Probabilistic Tsunami Inundation Hazard Map via Uncertainty Quantification Approaches**
W. Yamazaki, T. Kato, K. Shimoyama, S. Obayashi
- CRF-60: **Molecular Dynamics Simulation on Dispersion of hBN Nano Particles in TMP Ester Based Bio-lubricants**
R. Ruliandini, Nasruddin, T. Tokumasu
- CRF-61: **Mechanism of Thermal Energy Transfer in Nanoscale Solid-Liquid Systems**
M. Shibahara, G. Kikugawa, T. Ohara
- CRF-R2: **Modeling of inhomogeneous plasma-species mixing in atmospheric-pressure argon-steam arc discharge for broad range of currents and argon mass flow rates**
J. Jeništa, H. Takana, H. Nishiyama, M. Bartlová, V. Aubrecht, A. B. Murphy

- CRF-R3: **Microchannel Burners for Energy Production on the Basis of Microcombustion**
S. Minaev, K. Maruta, R. Fursenko, A. Kirdyashkin, V. Gubernov
- CRF-62: **The Role of Signal-anchor Region of Type II Transmembrane Protein in Subcellular Localization**
K. Etchuya, T. Kikegawa, M. Ohta, Y. Mukai
- CRF-63: **Planning Flow-Diversion Treatment for Intracranial Aneurysms: What Role Could Fluid Dynamics Play?**
M. Ohta, Y. Qian, Y. Li, M. Zhang
- CRF-64: **Numerical and experimental studies on non-Newtonian rheology of a suspension**
M. Kawaguchi, T. Fukui, K. Funamoto, S. Miyauchi, T. Hayase
- CRF-65: **The Effects of Atmospheric-pressure Cold Plasma Generated Short-life Species on A549 Cells**
H. H. S. Helal, C.-Y. Chang, P.-C. Chien, C.-H. Chang, J.-S. Wu, T. Sato, Y.-C. Cheng
- CRF-66: **Investigation of bioheat transfer characteristics of skin tumor during non-invasive measurement of thermal conductivity**
T. Okabe, T. Fujimura, J. Okajima, S. Maruyama
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