# CONFERENCE SCHEDULE AT A GLANCE

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<tr>
<th>September 21st (Wednesday)</th>
<th>Time</th>
<th>Room A (318A)</th>
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<td>10:50-12:10</td>
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<td>002, 031, 044, 150</td>
<td>016, 033, 099, 130</td>
<td>005, 039, 077, 142</td>
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<td>047, 048, 056, 066, 090</td>
<td>022, 041, 046, 062, 126</td>
<td>083, 087, 121, 133, 141</td>
<td>011, 012, 019, 025, 035</td>
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<td>15:20-16:00</td>
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<td>Poster session-1 (001, 040, 042, 061, 088, 089, 092, 094, 095, 097, 102, 103, 110, 113, 188) at Room E (321A)</td>
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<td>067, 068, 071, 131, 210</td>
<td>013, 021, 026, 038, 078</td>
<td>015, 028, 123, 191, 196</td>
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<td>9:00-9:40</td>
<td><strong>Keynote Lecture-3</strong>&lt;br&gt;Prof. Sung Jin KIM</td>
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<td>10:00-11:30</td>
<td>Heat and Mass Transfer-4&lt;br&gt;Bioengineering and Bio-thermal Fluid Dynamics-1&lt;br&gt;Turbulence and Flow Instabilities&lt;br&gt;Experimental/Computational Fluid Dynamics-4</td>
<td>023, 043, 064, 076, 106</td>
<td>093, 098, 101, 104, 132</td>
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<td><strong>Keynote Lecture-4</strong>&lt;br&gt;Prof. Chien-Yuh YANG</td>
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<td>Heat and Mass Transfer-5&lt;br&gt;Bioengineering and Bio-thermal Fluid Dynamics-2&lt;br&gt;Electronics Packaging and Thermal Management-1&lt;br&gt;Experimental/Computational Fluid Dynamics-5</td>
<td>114, 116, 119, 127, 147</td>
<td>137, 146, 151, 170</td>
<td>020, 070, 105, 140, 175</td>
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<td>Poster-2 (125, 128, 135, 136, 138, 169, 172, 173, 174, 185, 186, 190, 198, 204, 214) at Room E (321A)</td>
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<td>19:30-21:30</td>
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<td>10:10-11:40 (12:00)</td>
<td>Fuel Cells and Battery Technology-1&lt;br&gt;Manufacturing and Materials Processing&lt;br&gt;Boiling and Multi-Phase Flow-3&lt;br&gt;Experimental/Computational Fluid Dynamics-7</td>
<td>017, 069, 100, 118, 139&lt;br&gt;014, 032, 052, 079, 096, 180&lt;br&gt;167, 192, 201, 205, 206&lt;br&gt;165, 183, 189, 200, 213</td>
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<td>14:30-15:25 (15:45)</td>
<td>Visualization/Imaging Techniques-2&lt;br&gt;Sustainable &amp; Renewable Energy</td>
<td>157, 158, 160&lt;br&gt;037, 080, 082, 049</td>
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TECHNICAL PROGRAM

Wednesday, September 21st, 2016

Room A & B (318A & B)

8:40 – 9:00  Opening Ceremony

Room A & B (318A & B)

9:00 – 9:40  KEYNOTE LECTURE-1

[Memorial Session of Re-celebrating the 2012 Max Jakob Awards]

ISTP27-KN1  TRANSPORT PHENOMENA IN INFORMATION PROCESSING SYSTEMS: IMPACTS OF SYSTEM-LEVEL SCALING ON THERMAL MANAGEMENT

Wataru NAKAYAMA (Tokyo Institute of Technology, Japan)

Room C (319A)

9:50 – 10:30  KEYNOTE LECTURE-2

ISTP27-KN2  SIMULATIONS OF FLOW BOILING IN SURFACE ENHANCED MICROGAPS

Yogendra JOSHI (Georgia Institute of Technology, USA)

Room A (318A)

10:50 – 12:10  Heat and Mass Transfer-1

ISTP27-002  THERMAL CONDUCTIVITY OF FROST ACCUMULATED ON PARALLEL PLATE CHANNELS: EXPERIMENTAL ANALYSIS AND FRACTAL MODELLING

S. NEGRELLI, V. S. NASCIMENTO Jr., R. P. CARDOSO, and C. J. L. HERMES

ISTP27-031  THERMAL AND SOLUTAL MARANGONI FLOWS IN INKJET DROPLETS DURING SOLID FILM FORMATION

H. ISHIZUKA, T. TANIGAWA and J. FUKAI

ISTP27-044  A HETEROGENEOUS DROP-WISE CONDENSATION MODEL CONSIDERING THE EFFECTS OF CONTACT ANGLE

G. R. JIN, Y. C. YOON and K. S. LEE

ISTP27-150  BASIC STUDY ON SOLID-LIQUID PHASE CHANGE PROBLEM OF ICE AROUND HEAT TRANSFER TUBES – PREDICTION OF BRIDGING TIME AROUND TWO ELLIPTICAL
Transport in Porous Media

ISTP27-016 EXPERIMENTAL INVESTIGATION AND ANALYTICAL MODELING OF AEROGEL BLANKET DEFORMATION AND THERMAL PERFORMANCE VARIATION UNDER COMPRESSION
A. HOSEINI, A. MALEKIAN, M. BAHRAMI

ISTP27-033 DEVELOPMENT OF COMB-SHAPED MINIATURE ELECTRODE FOR CONTACT IRREVERSIBLE ELECTROPORATION
S. YOSHIMATSU, M. YOSHIDA, K. KURATA, T. FUKUNAGA and H. TAKAMATSU

ISTP27-099 EFFECT BY SIZE OF SPECIMEN IN MEASUREMENT OF THERMAL CONDUCTIVITY OF VACUUM INSULATION PANEL
T. OHMURA, T. FUJIMOTO AND T. YAZAKI

ISTP27-130 ION EXCHANGING BEHAVIOR OF COMPOSITE MATERIALS FOR THERMAL ENERGY STORAGE
D. MEITNER and H. RAUPENSTRAUCH

Boiling and Multi-Phase Flow-1

ISTP27-005 EXPERIMENTAL STUDY ON TWO-PHASE PRESSURE DROP THROUGH SUDDEN EXPANSION AND SUDDEN CONTRACTION IN HORIZONTAL RECTANGULAR MINICHANNEL
A. SANTOSO, D. GOTO, T. TAKEHIRA, A. KAWAHARA and M. SADATOMI

ISTP27-039 NUMERICAL INVESTIGATION OF FORMATION AND BREAK UP OF ROUND LIQUID COLUMNS WITH A ROTARY ATOMIZER
T. SOMA, Y. SAITO, Y. MATSUSHITA, H. AOKI, T. INAMURA, M. DAIKOKU, and J. FUKUNO

ISTP27-077 HEAT FLUX MEASUREMENT USING LASER INTERFEROMETRY AROUND A SPHERICAL GROWING BUBBLE DOMINATED BY LIQUID PHASE HEAT TRANSFER
K. DEJIMA and O. NAKABEPPU
ISTP27-142 TEMPERATURE AND VELOCITY MEASUREMENTS OF LAMINAR NATURAL CONVECTION FROM AN INCLINED HEATED PLATE IN WATER WITH BUBBLE INJECTION
S. KUMOKAWA, A. KITAGAWA and Y. MURAI

Room D (319B)
10:50 – 11:50 Experimental/Computational Fluid Dynamics-1

ISTP27-007 A STUDY ON MECHANICAL EXTRACTION DISPLACEMENT VENTILATION IN A REDUCED-SCALE MODEL
Y. J. P. LIN and J. Y. WU

ISTP27-008 EFFECTS OF UPSTREAM JET INJECTION ON FLOW OF A SQUARE CYLINDER IN CROSSFLOW
R. F. HUANG and C. M. HSU

ISTP27-009 A NUMERICAL STUDY ON THE PERFORMANCE CHARACTERISTICS OF A SHELL AND TUBE HEAT EXCHANGER BY FLOW DISTRIBUTORS IN THE TUBE-INLET CHAMBER

Room A (318A)

ISTP27-047 THE COMPARISON OF PIN-FIN GEOMETRY AND BONDING METHOD FOR THE COOLING OF POWER MODULE
K. MATSUOKA AND M. KATSUTA

ISTP27-048 ESTIMATION OF HEAT TRANSMISSION THROUGH WINDOW FOR CFD SIMULATION OF INDOOR ENVIRONMENT USING VARIATIONAL CONTINUOUS ASSIMILATION METHOD
T. MATSUO, A. KONDO, H. SHIMADERA, A. KOMATSU and S. SHIOCHI

ISTP27-056 EFFECT OF INTERNAL AND EXTERNAL WETTING ON THE GLOBAL TRANSFER COEFFICIENTS INSIDE HIGH TEMPERATURE ABSORBERS
N. GIANNETTI, S. YAMAGUCHI and K. SAITO

ISTP27-066 ICE SLURRY IMPINGMENT JET COOLING
S. TAKADA, K. FUMOTO, T. KAWANAMI and T. INAMURA

ISTP27-090 A COUPLED TEMPERATURE SOLUTE MODEL FOR RAPID SOLIDIFICATION IN AN ALLOY DROPLET DEPOSITION PROCESS
V. RAMANUJ and A.Y. TONG

Room B (318B)

13:20 – 14:50  Heat Exchangers

ISTP27-022 HEAT TRANSFER AND FLUID FLOW CHARACTERISTICS OF AIR-WATER HEAT EXCHANGER
T. TAKEDA

ISTP27-041 HEAT TRANSFER CHARACTERISTICS OF PLATE HEAT EXCHANGER USING COATED-ALUMINUM PLATE FOR AMMONIA BOILING
H. ARIMA, R. INADOMI and K. KOYAMA

ISTP27-046 OPERATION OF A ONCE-THROUGH STEAM GENERATOR CONSIDERING PERFORMANCE DEGRADATION
H. S. HAN, H.-O. KANG, J. YOON, Y. I. KIM, J. S. SONG and K. K. KIM

ISTP27-062 STUDY ON FLOW CHARACTERISTICS IN A MULTI-TUBULAR HEAT EXCHANGER WITH DISK-AND-DOUGHNUT BAFFLES
M. MIZUNO and K. FUJIWARA

ISTP27-126 HEAT TRANSFER PERFORMANCE OF POROUS COPPER PIPE WITH UNIFORMLY-DISTRIBUTED HOLES FABRICATED BY EXPLOSIVE WELDING TECHNIQUE
K. YUKI, Y. SATO, R. KIBUSHI, N. UNNO, K. SUZUKI, T. TOMIMURA and K. HOKAMOTO

Room C (319A)

13:20 – 14:50  Boiling and Multi-Phase Flow-2

ISTP27-083 DOMINANT FACTORS FOR QUASI TWO DIMENSIONAL BOILING
K. OGAWA, Y. YASUMOTO and M. MATSUMOTO

ISTP27-087 CHARACTERISTICS OF CONDENSING CHARACTERISTICS OF CONDENSING VAPOUR BUBBLES IN SUBCOOLED POOL WATER
H. JO and D. JO

ISTP27-121 EFFECT OF THE JET INDUCTION TUBE LENGTH ON A COOLING PERFORMANCE OF A JEST-TYPE LOOP THERMOSYPHON
A. SUZUKI, K. SATO, Y. KOITO and T. TOMIMURA
ISTP27-133 EXPERIMENTAL AND NUMERICAL INVESTIGATIONS OF OIL JET PATTERN FOR PISTON COOLING IN AUTOMOTIVE ENGINES
A. NAKASHIMA, J. WEN, Y. OGATA, K. NISHIDA, H. HONGOU and H. YOKOHATA

ISTP27-141 MOTION CHARACTERISTICS OF WALL-SLIDING BUBBLES OBSERVED WITH DIFFERENT SURFACE WETTABILITABILITY
S. KAWAKAMI, M. GOTO, A KITAGAWA and Y. MURAI

Room D (319B)
13:20 – 14:50 Experimental/Computational Fluid Dynamics-2

ISTP27-011 ENERGY-SAVING LIFTING OF SEABED RESOURCES USING BUBBLE-JET-TYPE AIR-LIFT-PUMP
T. TAJIRI, E. SHONO, M. SADATOMI and A. KAWAHARA

ISTP27-012 VORTEX STRUCTURE DEPENDING ON DISK ACCELERATION TIME IN CYLINDRICAL CASING
H. FURUKAWA, A. WADA and T. WATANABE

ISTP27-019 SECONDARY FLOW CHARACTERISTICS OF PULSATILE FLOW IN S-SHAPED EXHAUST PIPE OF AUTOMOTIVE ENGINE
J. OKI, M. IKEGUCHI, Y. OGATA, K. NISHIDA, R. YAMAMOTO, K. NAKAMURA, H. YANAGIDA and H. YOKOHATA

ISTP27-025 CHANGES OF FLOW FIELDS WITH FLOWRATE IN TWO KINDS OF PROPELLER FANS
N. SHIOMI, Y. KINOUE and T. SETOGUCHI

ISTP27-035 A NOVEL METHOD TO MEASURE PASSIVE SCALAR- AND VELOCITY FIELDS SIMULTANEOUSLY BY MEANS OF PIV IN A DENSITY STRATIFIED PLANAR TURBULENT MIXING LAYER
B. KROHN, N.A. WOLFF and H.-M. PRASSER

Room E (321A)
15:20 – 16:00 Poster Session-1

ISTP27-001 LAMINAR FORCED CONVECTION HEAT TRANSFER CHARACTERISTICS OF WATER-BASED NANO-PCM EMULSION FLOW THROUGH A CIRCULAR TUBE
C. J. HO and C.-Y. LEE
MELTING AND FLOW PHENOMENA IN FILLING-TRENCH PROCESS
S. HIRASAWA, Y. AOKI, T. KAWANAMI and K. SHIRAI

FABRICATION OF UNI-DIRECTIONAL POROUS ALUMINIUM USING EXPLOSIVE COMPACTION
K. SHIMOMIYA, M. NISHI, L. KRSTULOVIĆ-Opara, M. VESENJAK, Z. REN and K. HOKAMOTO

U-RANS SIMULATION OF TRIPLE ELBOW FLOW WITH A 1/7 SCALE EXPERIMENTAL LOOP SIMULATING COLD-LEG PIPING OF AN ADVANCED LOOP-TYPE SODIUM-COOLED FAST REACTOR
H. YAMANO, M. TANAKA, S. EBARA and H. HASHIZUME

EXPERIMENTAL STUDY OF CONDENSATION HEAT TRANSFER ON TITANIUM TUBE WITH SUPER-HYDROPHOBIC SURFACE
K.-Y. LEE, D.-Y. JI and H.-G. PARK

MOLECULAR DYNAMICS STUDY OF INFLUENCE OF NANOPARTICLE LAYER ON THERMAL RESISTANCE AT SOLID-LIQUID INTERFACE
Y. MIYAZAKI, M. SHIBAHARA and Y. UEKI

DEVELOPMENT OF SELF-WATER MANAGEMENT SEPARATOR FOR PEFC USING WATER CONCENTRATION DIFFUSION
N. TAKAHASHI, K. SUGIURA and T. KAMIMURA

EFFECTS OF AIR FLOW RATE ON HEAT AND FLOW CHARACTERISTICS OF WATER IN POLYETHYLENE TUBE PLACED OVER METAL RODS SETS
T. KOBAYASHI, K. TORIYAMA, J.N. NGANGA and S. FUNATANI

RESPONSE OF WALL-STAGNATING LEAN METHANE-AIR PREMIXED FLAME TO EQUIVALENCE RATIO OSCILLATION
Y. SUENAGA, T. KIKUCHI, H. YANAOKA and M. KIKUCHI

EXPERIMENTAL STUDY OF THE NANO-FLUID SPRAY COOLING ON THE HEATING FILM
S. SAITO and M. IWAMOTO

DEVELOPMENT OF HIGH FUNCTIONAL DIRECT CARBON FUEL CELL
K. UESUGI and K. SUGIURA

CLARIFICATION OF HEAT TRANSFER MECHANISM IN THERMAL INSULATION FOR
ENE-FARM

K. UCHIDA, K. SUGIURA, N. OYA, M. TANIZAWA, Y. IMAE and K. IMAE

ISTP27-110 EVALUATION OF MEASUREMENT ACCURACY OF UNDERGROUND THERMOMETERS USING STEEL-PIPE PILES
K. ANDO, T. KAKIZAKI and M. OGUMA

ISTP27-113 SEARCH FOR MICROORGANISM OF OPTIMAL ELECTRON TRANSPORT PROPERTY
K. MORITA, M. NISHIOKA and K. SUGIURA

ISTP27-188 EFFECT OF UV ILLUMINATION ON THE PRESSURE DROP MEASUREMENT IN A PEBBLE BED REACTOR COATED WITH TIO2
M. KUNIYASU, N. UNNO, * S. SATAKE, K. YUKI and Y. SEKI

Room A (318A)

16:20 – 17:50 Heat and Mass Transfer-3

ISTP27-067 OPTIMIZATION OF COOLING STRUCTURE OF OPEN TYPE AIR COOLED INDUCTION MOTOR WITH THERMAL CIRCUIT ANALYSIS
C. KIM, S.-J. PARK and K.-S. LEE

ISTP27-068 FEASIBILITY STUDY OF EFFECTIVE MASS-FLOW FRACTION IN A REFRIGERATION CYCLE
J. LEE and K.-S. LEE

ISTP27-071 NON-HOMOGENEOUS RADIATION PROPERTIES OF SLAG PARTICLE CLOUD
Y. ITAYA, H. NAGATA, H. MONTAZERI NAJAFABADI, N. KOBAYASHI and H. SHIMA

ISTP27-131 ACCELERATION OF THE EVAPORATION RATE OF A WATER DROPLET BY USING A NANOPATTERNED TRANSPARENT FILM
N. UNNO, M. ASANO, Y. MATSUDA, K. YUKI, S. SATAKE and J. TANIGUCHI

ISTP27-210 TWO PHASE FLOW AND LOCAL HEAT TRANSFER CHARACTERISTICS IN A PLATE HEAT EXCHANGER CHANNEL
A. MIYARA, K. KARIYA and K. SONODA

Room B (318B)

16:20 – 17:50 Combustion and Reacting Flows-1
ISTP27-013 DEVELOPMENT OF A PILOT PLANT FOR REDUCTION Hg EMISSION FROM LARGE POWER PLANT
L. PILAR, Z. VLCEK, Z. ZSELIGA and V. VESELY

ISTP27-021 AC IMPEDANCE SPECTROSCOPY ANALYSIS TO ENERGY STORAGE PRESERVATION LIFETIME
T. SAKAMOTO and K. KURODA

ISTP27-026 OBSERVATION OF FLOW DEVELOPMENT IN NATURAL GAS INTERFERENTIAL UNSTEADY JETS ISSUED FROM A GROUP-HOLE NOZZLE
C. KONDO and Y. OKAMOTO

ISTP27-038 DRGEP-BASED MECHANISM REDUCTION WITH LARGE TEMPERATURE VARIATION BY CONSIDERING TIME DEPENDENCY OF REACTION RATE
Y. MATSUKAWA, Y. SAITO, Y. MATSUSHITA and H. AOKI

ISTP27-078 THERMAL DIFFUSION PHENOMENA IN COAXIAL FREE JET FORMED WITH CONCENTRIC ANNULAR NOZZLE
S. TORII

Room C (319A)
16:20 – 17:50 Micro- and Nano-Scale Transport

ISTP27-015 MOLECULAR DYNAMICS STUDY ON INFLUENCES OF NANOSTRUCTURED SURFACE ON HETEROGENEOUS NUCLEATION OF LIQUID DROPLETS
G. UNO, M. SHIBAHARA and Y. UEKI

ISTP27-028 EXPERIMENTAL INVESTIGATION OF GAS AND NON-NEWTONIAN LIQUID TWO-PHASE FLOWS IN HORIZONTAL CIRCULAR MICRO-CHANNEL
A. MORI, A. KAWAHARA, M. H. MANSOUR, Y. YONEMOTO and M. SADATOMI

ISTP27-123 RESEARCHES ON THE EFFECT OF TUBE DIAMETER ON FLOW PHENOMENA OF GAS-LIQUID TWO-PHASE FLOW IN MICROCHANNEL
H. IDE, E. KINOSHITA, R. KUROSHIMA and M. KAWAJI

ISTP27-191 INTERACTION-INDUCED FLICKERING BEHAVIOR OF JET-DIFFUSION FLAMES
Y. NAKAMURA, K. MOCHIZUKI and T. MATSUOKA

ISTP27-196 SCALE EFFECT OF BOUNDARY CONDITION AT SOLID–LIQUID INTERFACE
G. NAGAYAMA, T. MATSUMOTO, K. FUKUSHIMA and T. TSURUTA

Room D (319B)
16:20 – 17:50 Experimental/Computational Fluid Dynamics-3

ISTP27-036 AN INVESTIGATION OF THE EFFECTS OF RADIAL INFLOW AND OUTFLOW ON THE PERFORMANCE OF HALF-DUCTED AXIAL FLOW FAN
A. KAJI, Y. KINOUÉ, N. SHIOMI and T. SETOGUCHI

ISTP27-051 ESTIMATION OF SOURCE LOCATION OF OUTDOOR POLLUTION BY USING VARIATIONAL CONTINUOUS ASSIMILATION METHOD
A. KONDO, T. MATSUMOTO, T. MATSUO, H. SHIMADERA, A. KOMATSU and S. SHIOCHI

ISTP27-055 EXPERIMENTAL STUDY ON GAS-LIQUID TWO-PHASE FLOW THROUGH HORIZONTAL RECTANGULAR MINI-CHANNEL WITH Y-BRANCH
Y. TABATA, R. NAGAI, M. SADATOMI and A. KAWAHARA

ISTP27-057 SURFACE WETTABILITY EFFECTS ON FLOW CHARACTERISTICS IN TWO-PHASE FLOW THROUGH MINI-CHANNEL
K. MITSUYASU, T. TAKEHIRA, A. KAWAHARA, Y. YONEMOTO, M. SADATOMI

ISTP27-058 INFLUENCE OF INLET GUIDE VANES ON PERFORMANCE CHARACTERISTICS OF AN AXIAL-FLOW FAN WITH AN OBSTACLE
Y. ARAI, Y. KASAI, S. NAKAMURA, K. SATO, H. OHTAKE, and K. NISHIBE

Thursday, September 22nd, 2016

Room A (318A)
9:00 – 9:40 KEYNOTE LECTURE-3

ISTP27-KN3 RECENT ADVANCES IN MICRO PULSATING HEAT PIPES
Sung Jin KIM (Korea Advanced Institute of Science and Technology, Korea)

Room A (318A)
10:00 – 11:30 Heat and Mass Transfer-4

ISTP27-023 TEMPERATURE-DEPENDENCY OF CORRECT ICE ADHESION FORCE TO COPPER MEASURED IN NANO-SCALE BY SPM
K. MINAMIYA, K. MATSUMOTO, H. KUBOTA, K. SEKINE and S. YAMANAKA

ISTP27-043 STUDY ON HEAT TRANSFER OF IMPINGING JET INTERFERING WITH COUETTE FLOW
J. KITAYAMA and T. KUBO

ISTP27-064 STUDY ON REDUCTION OF AIR-CONDITIONING LOAD BY WOODY CLADDING WITH ROOM-SIZED MODEL STRUCTURE
A. YOSHIDA, S. KINOSHITA and S. SHOHO

ISTP27-076 DESIGN OF HEAT SINKS USING TOPOLOGY OPTIMIZATION IN NATURAL CONVECTION
Y. JOO and S. J. KIM

ISTP27-106 EXPERIMENTAL INVESTIGATION OF BED-TO-SURFACE HEAT TRANSFER IN A BFBC
J. HRDLICKA and J. OPATRIL

Room B (318B)

10:00 – 11:30 Bioengineering and Bio-thermal Fluid Dynamics-1

ISTP27-093 INVESTIGATION OF PARTICLE BEHAVIOR IN A STIRRED TANK FOR OPTIMIZATION OF SUSPENSION CULTURE OF iPS CELL
M. YANO, T. YAMAMOTO, Y. OKANO, T. KANAMORI and M. KINO-OKA

ISTP27-098 ADVANTAGES OF FLUID DYNAMIC CHARACTERISTICS OF MARINE ORGANISM’S SHAPE FOR DESIGNING UNDERWATER ROBOTS
T. SHIMIZU, W. SATOH, K. OBATA, K. SATOH, T. FUKUE, and T. MIYOSHI

ISTP27-101 FLOW BOILING AND CRITICAL HEAT FLUX FOR SUBCOOLED WATER IN VERTICAL TUBE DUE TO EXPONENTIALLY INCREASING HEAT INPUTS
M. SHIBAHLARA, K. FUKUDA, Q.S. LIU, K. HATA, S. WATANABE, Y. NAKAMURA and T. MUROGA

ISTP27-104 DECREASE EFFECT ON LEAF DAMAGE UNDER LOW TEMPERATURE DUE TO ELECTRIC CURRENT LOAD
K. YAMASHITA, T. NINAGAWA, A. NARUMI and T. KONISHI

ISTP27-132 THE AERODYNAMIC EFFECTS OF PHASE LAG BETWEEN FOREWING AND HINDWING ON ODONATA
C.-Y. CHANNG and J.-T. YANG

Room C (319A)
Turbulence and Flow Instabilities

ISTP27-024 UNSTEADY FLOW CHARACTERISTICS IN RETURN CHANNEL OF COMPACT MULTI-STAGE CENTRIFUGAL BLOWER
W. KATAHIRA, K. NODA, K. NISHIBE, M. TAKAHASHI, H. OHUE, and K. SATO

ISTP27-053 INVESTIGATION OF FLOW CHARACTERISTIC OF SYNTHETIC JET ON CIRCULAR CYLINDER
Y. ISHIKAWA, Y. NOMURA, T. SAYAMA, K. NISHIBE, H. OHUE and K. SATO

ISTP27-177 LDV MEASUREMENT OF NEAR-WALL VELOCITY DISTRIBUTION IN TURBULENT CHANNEL FLOW FOR CALCULATING WALL SHEAR STRESS
H. YOSHINAGA, K. IWAMOTO and A. MURATA

ISTP27-178 DEPENDENCE OF CROSS-SECTIONAL SHAPE OF SINUSOIDAL RIBLETON DRAG-REDUCTION EFFECT IN TURBULENT CHANNEL FLOW BY DIRECT NUMERICAL SIMULATION
M. SERIZAWA, K. IWAMOTO and A. MURATA

ISTP27-212 EFFECTS OF ORBITAL MOTION ON THE VELOCITY FIELD OF BOUNDARY LAYER FLOW OVER A ROTATING DISK
T. UTATSUM, M. MUNEKATA, H. YOSHIKAWA and Y. OKUMURA

Experimental/Computational Fluid Dynamics-4

ISTP27-074 EFFECT OF HELICAL TWISTED SPIRAL PIPE ON GENERATING SWIRL FLOW FOR IRON SAND SLURRIES
YANUAR, K. T. WASKITO, D. SAPJAH and S. MAU

ISTP27-084 EXPERIMENTAL STUDY ON THE COALESCENCE OF INTERFACIAL NANOBUBBLES
H. TESHIMA, T. NISHIYAMA and K. TAKAHASHI

ISTP27-107 NUMERICAL SIMULATION OF TILT-ROTOR PLANE USING MULTI AXES SLIDING MESH APPROACH
M. YAMAKAWA, S. CHIKAGUCHI and S. ASA0

ISTP27-112 EXTENSIONAL VISCOSITY OF LOW VISCOSOUS POLYMER SOLUTIONS MEASURED BY PRESSURE DROPS IN ABRUPT CONTRACTION FLOWS
ISTP27-120  EFFECT OF HETEROGENEOUS CONDENSATION ON ANNULAR SWIRLING FLOW IN A SUPERSONIC NOZZLE  
Y. FUKUSHIMA, S. MATSUO, N. SHIOMI and T. SETOGUCHI

Room A (318A)
13:00 – 13:40  KEYNOTE LECTURE-4

ISTP27-KN4  BOILING AND CONDENSATION HEAT TRANSFER OF REFRIGERANT HFO-1234YF IN SMALL TUBE  
Chien-Yuh YANG (National Central University, Taiwan)

Room A (318A)
14:00 – 15:30  Heat and Mass Transfer-5

ISTP27-114  LOW-TEMPERATURE LATENT HEAT TRANSPORTATION MEDIA WITH TBAB/CO2 HIBRID HYDRATES  
H. SUZUKI, T. SENDA, R. HIDEMA, Y. KOMODA, T. KUSABE, H. TOBAYAMA and T. IWATA

ISTP27-116  NUMERICAL INVESTIGATION OF ABLATION EFFECT ON AERODYNAMIC HEATING FOR HIGH VELOCITY REENTRY CAPSULE  
M. MATSUNAGA, T. SASAKI, Y.TAKAHASHI and N. OSHIMA

ISTP27-119  IMPROVING THE TRANSIENT PLANE SOURCE METHOD FOR MEASURING THERMAL CONDUCTIVITY OF THIN FILMS BY DECONVOLUTING THERMAL CONTACT RESISTANCE WITH APPLICATIONS IN FUEL CELL TECHNOLOGY  
M. AHADI, M. ANDISHEH-TADBIR, M. TAM and M. BAHRAMI

ISTP27-127  VISUALIZATION OF TRANSIENT MASS TRANSFER DURING METHANE HYDRATE DISSOCIATION USING HIGH-SPEED PHASE-SHIFTING INTERFEROMETER  
Y. KANDA, E. SHOJI, J. OKAJIMA, A. KOMIYA, L. CHEN, H. YAMADA and S. MARUYAMA

ISTP27-147  THERMAL TRANSPORT IN MULTI-WALLED CARBON NANOTUBE AND CARBON NANOFIBER DEFECTED BY FOCUSED ION BEAM  
M. NARASAKI, J. MIYAWAKI3 T. IKUTA, T. NISHIYAMA and K. TAKAHASHI

Room B (318B)
14:00 – 15:30  Bioengineering and Bio-thermal Fluid Dynamics-2
ISTP27-137 QUANTITATIVE PREDICTION OF FREEZE--THAW DAMAGE IN FOOD BY USING MICORSSCALE HEAT AND MASS TRANSFER MODEL
Y. TADA, N. NAKA and H. ONISHI

ISTP27-146 DESIGN OF A NOVEL OPPOSITE PHASE VIBRATION DEVICE FOR ENDOSCOPIC SURGERY
M. MORITA, J. YANG and Z. JIANG

ISTP27-151 CONTROL OF A ROBOTIC BUTTERFLY WITH ABDOMINAL MOTIONS
Y.C. WANG, Y.H.J. FEI and J.T. YANG

ISTP27-170 A STUDY ON EFFECT OF FAT TISSUE BY OPPOSITE PHASE VIBRATION DEVICE
R. MAEDA, M. MORITA and Z. JIANG

Room C (319A)

14:00 – 15:30 Electronics Packaging and Thermal Management-1

ISTP27-020 MODELING AND ANALYSIS OF A BI-LAYER THERMAL COMPONENT FOR MOBILE ELECTRONICS PLATFORMS
N.T. TRIFALE and K. YAZAWA

ISTP27-070 DIAGNOSIS OF COOLING PERFORMANCE FOR COMPUTER BASED ON MULTIPoint TEMPERATURE MEASUREMENT
T. SUZUKI and T. TAKAMATSU

ISTP27-105 BOILING HEAT TRANSFER –Be EFFECTIVE FOR COOLING TECHNOLOGY IN POWER ELECTRONICS ?
K. SUZUKI, K. YUKI, T. FURUSHO, S. YEN, N. UNNO and R. KIBUSI

ISTP27-140 MEASUREMENT OF EFFECTIVE THERMAL CONDUCTIVITY OF A HEAT PIPE WICK STRUCTURE (SINTERED COPPER POWDER FILLED WITH WATER)
Y. KOITO, R. YAMAGUCHI and T. TOMIMURA

ISTP27-175 BASIC STUDY ON MODELING METHOD OF FAN PERFORMANCE FOR DEVELOPING 1-DIMENSIONAL THERMAL DESIGN TECHNIQUE
T. FUKUE, K. HIROSE, T. HATAKEYAMA, M. ISHIZUKA and K. KOIZUMI

Room D (319B)
14:00 – 15:30  Experimental/Computational Fluid Dynamics-5

ISTP27-122  FLUID-STRUCTURE INTERACTION ANALYSIS FOR SUPPORTING WATER STOPPAGE IN PIPING  
Y. FUKUSHIGE, H. KAWABATA, O. WATANABE and Y. HIJIOKA

ISTP27-124  MICHELSON INTERFEROMETRIC MEASUREMENTS AND NUMERICAL CALCULATIONS FOR AXISYMMETRIC SUPERSONIC MICROJETS  
T. MURANAKA, D. ONO, S. NAKAO and Y. MIYAZATO

ISTP27-145  EXPERIMENTAL INVESTIGATION ON NATURAL CONVECTION IN VERTICAL AIR LAYERS WITH PIV  
N. HONDA, H. SADAMOTO, K. INOUE and T. MASUOKA

ISTP27-149  VISUALIZATION OF HIGHLY VISCOUS FLUID FOR VISCOSITY EVALUATION  
M. YAMAMOTO, I. SYUDO, Y. SUWA and A. KAGAWA

ISTP27-154  BOUNDARY LAYER RESPONSE FOR SUDDENLY DECELERATED FLOW IN TUBE  
S. YOSHIZAKI and H. HIRAHARA

Room E (321A)

15:50 – 16:30  Poster Session-2

ISTP27-125  EXPERIMENTAL STUDY ON MASS TRANSFER ACROSS GAS-LIQUID INTERFACE  
S. SOMA and T. KUNUGI

ISTP27-128  DEVELOPMENT OF MICROACTUATORS UTILIZING THE FLOW OF LIQUID CRYSTAL INDUCED BY ELECTRIC FIELDS  
S. CHONO and T. TSUJI

ISTP27-135  MEASUREMENT OF WATER VAPOR ADSORPTION RATE OF FILM LAYER COATED WITH SILICA-GEL MICRO PARTICLES USING QCM METHOD  
Y. HAMAMOTO, T. NAKAMORI and H. MORI

ISTP27-136  PREDICTION OF LOCAL HEAT TRANSFER COEFFICIENT FOR LAMINAR FLOW IN A CIRCULAR TUBE WITH DISTRIBUTIONS OF HEAT FLUX NEAR THE ENTRANCE REGION  
Y. HAMAMOTO, K. TESHIMA and H. MORI

ISTP27-138  EFFECTS OF LUBRICATING OIL ON FLOW BOILING HEAT TRANSFER OF
LOW-GLOBAL-WARMING-POTENTIAL REFRIGERANT IN MINI-CHANNEL MULTI-POR-T TUBES
S. SAITO, C. DANG and E. HIHARA

ISTP27-169 NANOPARTICLE SYNTHESIS FROM TIN WIRE IN WATER USING MICROWAVE PLASMA AND HIGH-VOLTAGE PULSE DISCHARGE
S. MUKASA, Y. SUMOTO, E. KIMURA, H. TOYOTA and S. NOMURA

ISTP27-172 EXPERIMENTAL STUDY OF CURRENT DISTRIBUTION VISUALIZATION IN POLYMER ELECTROLYTE MEMBRANE FUEL CELL
S.G. KIM, J.H. LEE, Y.J. SOHN and M. J. KIM

ISTP27-173 THERMAL PERFORMANCE OF FLAT MICRO HEAT PIPE WITH ENHANCING CAPILLARY FORCE
S. GYOTOKU, G. NAGAYAMA, Y. NAGASHIMA and T. TSURUTA

ISTP27-174 A STUDY OF SUPERCritical TRANSITIONAL STRUCTURES OF A BOUNDARY LAYER TRIPPED BY FINITE HEIGHT OBSTACLES PERIODICALLY ARRAYED IN SPAN
S.TAKAHASHI, I.JIMBO, Y.INOUE and H.MAEKAWA

ISTP27-185 MECHANISM OF NANOBUBBLE IN ULTRA-PURE WATER
K. ARITA, G. NAGAYAMA and T. TSURUTA

ISTP27-186 NUMERICAL STUDY OF GLOBAL INSTABILITY OF A ROTATING DISK
K. LEE, Y. NISHIO, S. IZAWA and Y. FUKUNISHI

ISTP27-190 NUMERICAL SIMULATION OF THE BOUNDARY LAYER TRANSITION CAUSED BY A SHORT DURATION JET
J. YOSHIKAWA, Y. NISHIO, S. IZAWA and Y. FUKUNISHI

ISTP27-198 DEFOEMABLE MICROFILTER FOR SEPARATING TARGET SUBSTANCE IN FULID
Y. NAKASHIMA, K. NAKATAKE, H. CHIKAWA, Y. KITAMURA, K. YASUDA, M. IWAT SUKI, H. BABA, T. IHARA and Y. NAKANISHI

ISTP27-204 EXPERIMENTAL INVESTIGATION OF WATER DROPLET IMPINGEMENT ON SOLID SURFACES
Y. YONEMOTO, S. NAGASE, Y. SHIMOTO and T. KUNUGI

ISTP27-214 CCS TECHNOLOGIES FOR APPLICATION IN CZECH REPUBLIC
L. PILAR, Z. VLCEK, J. HRDLICKA and M. VITVAROVA

Room A (318A)

16:50 – 18:20 Visualization/Imaging Techniques-1

ISTP27-065 VISUALIZATION MEASUREMENT OF NANOPARTICLE DIFFUSION IN A PDMS LAYER DURING CURING PROCESS
R. IWAO, Y. MATSUDA, H. YAMAGUCHI and T. NIIMI

ISTP27-081 BEHAVIOUR OF LUBRICATING OIL DROPLETS IN CYLINDER ON ABNORMAL COMBUSTION OF BOOSTED SI ENGINE
T. TAKITA and J. TANAKA

ISTP27-085 OBSERVATION OF POWDER FLOW STRUCTURES IN VIBRO-FLUIDIZED BED USING PEPT
A. KOGANE, K. KUWAGI, T. KINUGASA, Y. MAWATARI, T. W. LEADBEATER, J. GARGIULI, D. J. PARKER and J. P. K. SEVILLE

ISTP27-086 INVESTIGATION OF SUPERSONIC MIXING ENHANCED BY CAVITY-INDUCED OSCILLATORY FLOW USING AA-PSP
T. OKA, T. HANDA, Y. MATSUDA, Y. EGAMI, F. AKAGI, S. YAMAGUCHI, K. YAMABE and Y. MASUDA

ISTP27-155 PRELIMINARY EXPERIMENTS ON QUANTITATIVE VISUALIZATION OF SHOCK TRAINS BY RAINBOW SCHLIEREN DEFLECTOMETRY
A. MATSUYAMA, H. TAKANO, D. ONO, S. NAKAO and Y. MIYAZATO

Room B (318B)

16:50 – 18:00 Thermal Hydraulics of Energy Reactor

ISTP27-034 THE EFFECTS OF MIXING VANE ATTACHED TO GRID SPACER ON GAS-LIQUID TWO-PHASE ANNULAR FLOW IN A BWR SIMULATED CHANNEL
D. NISHIOKA, W. TAKAKI, M. ENDO, A. KAWAHARA and M. SADATOMI

ISTP27-045 NONCONDENSABLE GAS EFFECT ON THE THERMAL SIZING OF AN AIR-COOLED HEAT EXCHANGER FOR AN INTEGRAL REACTOR

ISTP27-054 MODEL DEVELOPMENT FOR ONSET OF ENTRAINMENT WITH TWO-DIMENSIONAL FILM FLOW EXPERIMENTS
ISTP27-108  THE EXPERIMENTAL STUDY ON THE STEAM CONDENSATION WITHIN THE PASSIVE SAFETY INJECTION TANK
S. U. Ryu, W. J. Jeon, H. S. Park and S. J. Yi

Room C (319A)
16:50 – 18:00  Electronics Packaging and Thermal Management-2

ISTP27-187  EFFECT OF ELECTRICAL CURRENT FROM NEIGHBORING DEVICE ON PREDICTED TEMPERATURE OF POWER SI MOSFET IN ELECTRO-THERMAL ANALYSIS
R. Kibushi, T. Hatakeyama, K. Yuki and M. Ishizuka

ISTP27-202  A MICRO LOOP HEAT PIPE WITH A THIN EVAPORATOR STRUCTURE
H. Nagano, K. Fukushima, T. Shioga and T. Abe

ISTP27-203  FUNDAMENTAL EXPERIMENTS OF A POLYMER-BASED VAPOR CHAMBER (OPERATIONAL CHARACTERISTICS IN DIFFERENT ORIENTATIONS)
F. Hideyama, S. Nonoshita, Y. Koito and T. Tomimura

ISTP27-209  BASIC STUDY OF HEAT FLOW THROUGH CONTACTING SOLIDS UNDER LOW CONTACT PRESSURE WITH ROUGHNESS AND WAVINESS
T. Do, T. Tomimura and Y. Koito

Room D (319B)
16:50 – 18:20  Experimental/Computational Fluid Dynamics-6
Chairperson: Yukari Fukushige (IHI Co.)

ISTP27-156  MEASUREMENTS OF SHOCK TRAIN OSCILLATIONS BY HIGH-SPEED MACH-ZEHNDER INTERFEROMETERS
S. Goto, K. Kitamura, D. Ono, S. Nakao, and Y. Miyazato

ISTP27-159  APPLICATION OF RAINBOW SCHLIEREN DEFLECTRY FOR SLIGHTLY UNDEREXPANDED SUPERSONIC JETS FROM AXISYMMETRIC LAVAL NOZZLES
H. Maeda, H. Fukuda, D. Ono, S. Nakao and Y. Miyazato

ISTP27-161  THREE-DIMENSIONAL VORTEX STRUCTURE ON THE MONOFIN PROPULSION
T. Haniu, H. Hasegawa and H. Takagi
ISTP27-164 MEASUREMENT OF OSCILLATING SHOCK TRAIN BY LASER SCHLIEREN METHODS  
K. KITAMURA, S. GOTO, D. ONO, S. NAKAO and Y. MIYAZATO

ISTP27-168 NUMERICAL SIMULATION OF AIRCRAFT MODEL TOWARDS DIGITAL FLIGHT BASED ON UNSTRUCTURED MOVING COMPUTATIONAL DOMAIN METHOD  
M. NISHIMURA, R. SAKASHITA, M. YAMAKAWA, K. MATSUNO and S. ASAO

Friday, September 23rd, 2016

Room A (318A)
9:10 – 9:50 Keynote Lecture-5

ISTP27-KN5 EXPERIMENTAL AND COMPUTATIONAL THERMAL AND RELIABILITY CONSIDERATIONS IN DATA CENTERS  
Dereje AGONAFER (University of Texas, USA)

Room A (318A)
10:10 – 11:40 Fuel Cells and Battery Technology-1

ISTP27-017 COMPRESSION OF PEM FUEL CELL GAS DIFFUSION LAYERS: ANALYTICAL MODEL AND EXPERIMENTAL VALIDATION  
A. MALEKIAN, C. McCAGUE, S. SALARI, N. DJILALI and M. BAHRAMI

ISTP27-069 CAPILLARY PRESSURE BOUNDARY CONDITION FOR THE WATER TRANSPORT IN PEM FUEL CELL  
E. KURIHARA, R. SHIMORI, H. HAMAKAWA, G. WU and N. OSHIMA

ISTP27-100 DISTRIBUTION ANALYSIS OF CROSSOVER GAS TRANSPORT PROPERTIES IN PEFC MEMBRANE  
S. ITO, M. KATO and K. FUSHINOBU

ISTP27-118 THERMAL CONDUCTIVITY OF THE CATALYST LAYER OF POLYMER ELECTROLYTE MEMBRANE FUEL CELLS: MODELING AND EXPERIMENT  
M. AHADI, M. TAM, M. SAHA, J. STUMPER and M. BAHRAMI

ISTP27-139 LI-ION BATTERY TEMPERATURE PHENOMENA OF ELECTRIC VEHICLES  
T. SAKAMOTO and M. MORITA
Room B (318B)

10:10 – 12:00  Manufacturing and Materials Processing

ISTP27-014  A PNEUMATIC NON-CONTACT HOLDER BY A DIFFUSER EFFECT  
T. MORISAWA, R. MORINAGA, T. TSUKIJI and S. KIYAMA

ISTP27-032  NANOSECOND PULSE LASER SCRIBING OF TRANSPARENT CONDUCTIVE OXIDE THIN FILM USING BESSEL BEAM  
B. KIM, R. IIDA, H.D. DOAN and K. FUSHINOBU

ISTP27-052  A STUDY OF THE INFLUENCE OF TEMPERATURE HISTORY AND ENVIRONMENTAL TEMPERATURE ON THE STRENGTH OF ADHESIVE JOINTS  
G. HOTTA, K. OTA, Y. OHBUCHI and H. SAKAMOTO

ISTP27-079  PULP SUSPENSION FLOW IN THE DISPERSION SECTION OF A MODELED PAPERMAKING MACHINE HEADBOX  
M. SUMIDA and T. FUJIMOTO

ISTP27-096  THE EFFECT OF ATOMIC CARBON DIFFUSION INTO METAL SUBSTRATES ON THE DIAMOND GROWTH OF IN-LIQUID PLASMA CVD  
P. GAUTAMA, S. NOMURA, H. TOYOTA and S. MUKASA

ISTP27-180  INFLUENCE OF SPATIAL BEAM PROFILES ON LASER--SCRIBING OF THIN FILM SILICON SOLAR CELLS  
R. IIDA, B. KIM, DH. DOAN and K. FUSHINOBU

Room C (319A)

10:10 – 11:40  Boiling and Multi-Phase Flow-3

ISTP27-167  EXPERIMENTAL INVESTIGATION OF SUBCOOLED FLOW BOILING IN MICRO-SLIT-CHANNEL ENHANCED BY EHD AND DIAMOND COATED BOILING SURFACE  
I. KANO, N. OKAMOTO and M. YANO

ISTP27-192  HEAT TRANSFER CHARACTERISTICS OF A MICRO PULSATING HEAT PIPE  
A. YOON and S.J. KIM

ISTP27-201  THE EFFECT OF ULTRASONIC WAVE APPLICATION FOR THE RAPID COOL-DOWN PROCESS OF HIGH-TEMPERATURE SOLIDS SUBMERGED IN LIQUID  
K. TSUTSUI
ISTP27-205  POOL BOILING CRITICAL HEAT FLUX ENHANCEMENT USING CHEMICALLY OXIDIZED SPRAYED COATINGS
   T. YABUKI, T. TANAKA, M. EGAMI and K. MIYAZAKI

ISTP27-206  THE VISUALIZATION OF PHASE CHANGE PHENOMENA IN HERRINGBONE TYPE PLATE HEAT EXCHANGER USING 3D-PRINTER
   M. NAKAMURA, Y. KAWABATA, T. YASUNAGA and Y. IKEGAMI

Room D (319B)
10:10 – 11:40  Experimental/Computational Fluid Dynamics-7

ISTP27-165  EFFECTS OF CONVECTION HEAT TRANSFER ON SUNAGOKE MOSS GREEN ROOF
   M. AMIR A. K., Y. KATOH, H. KATSURAYAMA and M. KOGANEI

ISTP27-183  PROGRESSIVE DEVELOPMENT OF SLIDING MESH APPROACH FOR SIMULATIONS OF A FLOW AROUND MOVING BODY
   S. ASAO, M. YAMAKAWA, K. MATSUNO and S. ISHIHARA

ISTP27-189  SIMULATION OF A SUPERCritical FLOW WITH LARGE TEMPERATURE DIFFERENCE USING THE METHOD FOR INCOMPRESSIBLE FLOW COMPUTATIONS
   S. KOMURASAKI

ISTP27-200  PHASE SEPARATION OF TWO-PHASE FLOW OF R410A IN T-SHAPED JUNCTION
   R. NAGAO, S. YAMAGUCHI, K. SAITO, S. IKEDA and N. TAKENAKA

ISTP27-213  CHARACTERISTICS OF AIR FLOW IN A HEMISPHERIC HEAD CYCLONE SEPARATOR
   A. NARITA, K. MACHIDA, S. EGAWA, M. MUNEKATA, K. ONO, T. WATANABE, H. YOSHIKAWA

Room A (318A)
12:40 – 13:50  Fuel Cells and Battery Technology-2/MEMS

ISTP27-091  THIN FILM SENSOR ON METAL SUBSTRATE FOR MEASURING HEAT FLUX OF ENGINE INNER WALL
   O. NAKABEPPU, K. NAGASAKA, Y. NAKAMURA, T. TSUCHIYA and K. DEJIMA

ISTP27-153  A PROTON-CONDUCTING SOLID OXIDE FUEL CELL WITH AN YTTRIUM AND TIN CO-DOPED BARIUM ZIRCONATE ELECTROLYTE
   M. CHANTHANUMATAPORN, T. NAGASAWA, M. KANIE and K. HANAMURA
ISTP27-199 2 OMEGA AND 3 OMEGA THERMAL CONDUCTIVITY MEASUREMENTS FOR THIN DIELECTRIC FILMS
S. IKEUCHI, K. SHIMADA, S. TANAKA, T. YABUKI and K. MIYAZAKI

ISTP27-211 THROUGH PLANE GAS DIFFUSION OF CATALYST LAYER OF PEMFC: BIMODAL UNIT CELL MODELING
S. SALARI, J. STUMPER and M. BAHRAMI

Room B (318B)
12:40 – 14:10 Combustion and Reacting Flows-2

ISTP27-111 QUENCHING EVALUATION OF FLAME ARRESTERS FOR A DAMAGE MITIGATION SYSTEM AGAINST HYDROGEN EXPLOSIONS IN NUCLEAR POWER PLANTS
H. SAITO, T. OTSUKA and N. YOSHIKAWA

ISTP27-115 NUMERICAL ANALYSIS ON END-GAS AUTO-IGNITION ATTENDED WITH FLAME PROPAGATION AFFECTED BY PRESSURE WAVE
K. YOSHIDA, S. YOKOI and T. AOKI

ISTP27-129 A SYSTEMATIC PARAMETRIC STUDY OF POROUS MEDIA COMBUSTION-BASED THERMOPHOTOVOLTAIC ENERGY CONVERSION
P. GENTILLON, R.A. TAYLOR, Q.N. CHAN, G. CONIBEER and M. TOLEDO

ISTP27-144 INVESTIGATIONS ON FLAME-WALL INTERACTIONS OF LEAN PREMIXED FLAMES WITH HIGH EGR RATE IN A CONSTANT VOLUME VESSEL
B. YENERDAG, Y. MINAMOTO, M. SHIMURA and M. TANAHASHI

ISTP27-193 EXTINGUISHMENT OF A JET DIFFUSION FLAME WITH COMBUSTED-GAS VORTEX RING
H. TORIKAI, S. KENMOTSU and A. ITO

Room C (319A)
12:40 – 14:10 Heat and Mass Transfer-6

ISTP27-006 CFD STUDY ON THE COOLING PERFORMANCE OF SMALL FIN HEAT SINKS IN COMBINED NATURAL AND FORCED CONVECTION FLOWS
K. KOIZUMI, T. HATAKEYAMA, T. FUKUE and M. ISHIZUKA

ISTP27-176 ISOThERMAL ADSORPTION AND DESORPTION CHARACTERISTICS OF A
DESICCANT-COATED HEAT EXCHANGER
T. HIGASHI, L. ZHANG, M. SAIKAWA, M. YAMAGUCHI, C. DANG and E. HIHARA

ISTP27-179 HEAT TRANSFER THROUGH COMPLEX FLOW BETWEEN OUTER AND SLOTTED INNER CYLINDER IN AN ELECTRICAL ROTATING MACHINE
T. YUASA, M. YAMAMOTO, Y. HONMA, S. HIRANO, M. EJIRI, T. KANAGAWA, A. KANEKO and Y. ABE

ISTP27-197 RISK ASSESSMENT STUDY ABOUT FIRE OUTBREAKS OF HYDROGEN REFUELING STATION WITH GAS STATION
T. KUROKI, N. SAKODA, K. SHINZATO, M. KOHNO, M. MONDE and Y. TAKATA

ISTP27-208 BEHAVIOR OF A PULSATING DUCT FLOW WITH INTERMITTENT FLOW RATE FLUCTUATION
H. SAITOH

Room D (319B)
12:40 – 14:10 Thermal-Fluids Machinery/Noise and Vibration in Fluid

ISTP27-029 BIO-INSPIRED SHAFT SEAL IN COOLANT PUMP FOR FUEL CELL AND HYBRID VEHICLES
Y. NAKANISHI, T. HONDA, K. KASAMURA, Y. NAKASHIMA and H. HIGAKI

ISTP27-073 PERFORMANCE ANALYSIS OF MAGNETOCALORIC HEAT PUMP WITH A MULTI-MATERIAL ACTIVE MAGNETIC REGENERATOR
K. MATSUDA, T. KAWANAMI, A. TORII, Y. NIHAYAMA, K. SHIRAI and S. HIRASAWA

ISTP27-134 STABILITY OF HYDRAULIC OPERATION STABILIZING SYSTEM FOR CIRCUIT BREAKER
T. YAMASHITA, T. KITANO and Y. HIRANO

ISTP27-171 UNIFORM THERMAL DISTRIBUTION CONTROL FOR LOW-TEMPERATURE FOOD DRYER WITH DESICCANT DEHUMIDIFIER
I. KANO

ISTP27-181 FREQUENCY AND PRESSURE FLUCTUATION CAUSED BY SELF-INDUCED FLOW OSCILLATION IN SUPERSONIC IMPINGING JET
T. YASUNOBU, K. NAKAO and Y. OTOBE

Room A (318A)
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14:30 – 15:25 Visualization/Imaging Techniques-2

ISTP27-157 INSTANTANEOUS MEASUREMENT OF TEMPERATURE DISTRIBUTION USING THERMO-CHROMIC LIQUID CRYSTALS BASED ON SPECTRAL INTENSITY IN NARROW BAND WAVELENGTHS
J. N. NGANGA, K. TORIYAMA, S. TADA, S. FUNATANI and T. KOBAYASHI

ISTP27-158 RAINBOW SCHLIEREN MEASUREMENTS IN UNDEREXPANDED JETS FROM AXISYMMETRIC SUPersonic MICRO NOZZLES
H. FUKUDA, H. MAEDA, D. ONO, S. NAKAO, Y. MIYAZATO and Y. ISHINO

ISTP27-160 UNSTEADY CHARACTERISTICS OF TURBULENT HEAT TRANSFER IN A CIRCULAR PIPE AT SUDDEN ACCELERATION AND DECELERATION OF FLOW
N. SHIBARA, H. NAKAMURA and S. YAMADA

Room B (318B)
14:30 – 15:45 Sustainable & Renewable Energy

ISTP27-037 THE ROLE OF GLYCEROL AND CARBOXYL GROUP IN JATROPHA OIL COMBUSTION
I. N. G. WARDANA

ISTP27-080 EFFECT OF MINERAL ADDITION IN CONTINUOUSLY REGENERATING TYPE PM REMOVAL DEVICE USING FLUIDIZED BED
T. YAMAMOTO, A. KUSU and J. TATEBAYASHI

ISTP27-082 STATISTICAL EVALUATION OF AN EMULSIFIED FUEL DROPLET ON ATOMIZATION TIMING
Y. KUSAKA and J. TANAKA

ISTP27-049 FLOW STRUCTURE INVESTIGATION OF TRIPLE ELBOW PIPING WITH SWIRLING INLET CONDITIONS
S. EBARA, J. MIZUTANI, H. HASHIJUME, H. YAMANO