JSRAE Annual Conference, Presentation Program (Tentative version)

(1) The available time for presentation is 15 minutes + 5 minutes discussion for general speech.
(2) Symbol (○/◎) shows speakers.
(3) In the case of multiple authors from same institution, the affiliation of the first author from each institution is mentioned. The affiliation(s) of other author(s) is same as the preceding author.

-------- #1 Day -----

Room A 21 October (Wed.)

Organized Session  OS-2
"Technological Development in Heat Exchangers"
Organizers: Masafumi Hirota (Mie Univ.), Norihiro Inoue (Tokyo Univ. Marine Sci. & Tech.), Naoe Sasaki (Nihon Univ.)

10:40 〜 12:00 OS-2(1) [Chairperson:Norihiro Inoue (Tokyo Univ. Marine Sci. & Tech.)]
A111 Hydrophilic characteristics of aluminium foil coated with various material for heat exchangers of Air-conditioner◎HAYASE Gaku ( SAMSUNG ELECTRONICS CO. LTD ) ,YOON Kyung-jin
A112 Effect of the Film Component on the Hydrophilic Property of Aluminium Fin Sheets in the Heat Exchanger◎SEKO Yoshiya ( UACJ Corporation ) ,TOYAMA Tomoaki,UEDA Kaoru
A113 Effect of the Fin Stocks Surface Treatment on Frost and Defrost Characteristics of the Heat Exchanger for the Room Air-conditioner◎OGIHARA Kana (UACJ Corporation ) ,UEDA Kaoru,SASAZAKI Mikine
A114 New surface coating of outdoor unit◎TASHIRO Yusuke (Mitsubishi Electric) ,HAYAMARU Yasuhide

Organized Session  OS-2
"Technological Development in Heat Exchangers"
Organizers: Masafumi Hirota (Mie Univ.), Norihiro Inoue (Tokyo Univ. Marine Sci. & Tech.), Naoe Sasaki (Nihon Univ.)

13:00 〜 15:00 OS-2(2) [Chairperson:Gaku HAYASE (Samsung Electronics)]
A121 Performance Advances of Cryogenic Heat Exchanger by Frost Suppression Method Using Arrowhead-Shaped Obstacle◎SATO Sota (Shizuoka Univ.) ,FUKIBA Katsuyoshi,YOSHIMURA Yusuke
A122 Influence of splitter plate length in a countermeasure against frost formation on a cooled cylinder◎YOSHIMURA Yusuke ( Grad. School of Eng.,Shizuoka Univ.) ,FUKIBA Katsuyoshi,SATOU Souta
A123 Experimental Study on Heat Transfer Performance of Finless Flat Tube Heat Exchanger for Air Conditioner under Frost Condition◎SHIMAMOTO Takahiro (Kanazawa Univ.) ,ONISHI Hajime,TADA Yukio
A124 Experimental research on the mechanism of impurities deposits and sticks to be comprised of water related to three dimensions smart hollow structured◎WANG Kajian (Fujitsu General Institute of Air-Conditioning Technology LTD.) ,Takahashi Toshihiko
A125 Optimization of finned tube heat exchanger for air conditioner with Generic algorithm◎KUNITA Daisuke ( Waseda Univ. ) ,OHNO Keisuke,NAKAMURA Hiroo,TOJO Kenji,SAITO Kiyoshi,TAKAJU Ryotichi ( Hitachi Appliances,Inc.)
A126 Effect of Tube diameter on Void Fraction of One-Component Gas-Liquid Two-Phase Flow◎GOMYO Taisaku (Kobe Univ.) ,ASANO Hitoshi

Workshop WS-4
"Trends in Development of Heat Exchangers"
Moderators: Daisuke Ito (MITSUBISHI ELECTRIC CORPORATION), Hirokazu Fujino (), Hitoshi Asano (Kobe Univ.)

15:20〜17:20 WS-4(0) [Chairperson:Hirokazu FUJINO (DAIKIN Industries)]
A131 [KEYNOTE] Corrosion and its interaction of heat-exchanger◎HOSOGI Tetsuro (Kobelco & Materials Copper Tube LTD,) ,ITO Shinichi
A132 Study of Visualization of Two Phase Flow for Vertical Header Distribution © ONAKA Yoji (Mitsubishi Electric Co.) , MATSUMOTO Takashi (Mitsubishi Electric Co.)

A133 Study of refrigerant retention influence in the multi-type packaged air conditioner © NISHIYAMA Takumi (Mitsubishi Electric)

A134 Development of dehumifier equipped with inverter compressor © NAKAMURA Hiroshi (Mitsubishi Electric Home Appliances Co., Ltd.) , SHIBATA Hideo (Mitsubishi Electric) , FUJITA Yuka (Mitsubishi Electric Home Appliances Co., Ltd.) , ITO Daisuke (Mitsubishi Electric)

Organized Session OS-4
"Performance Evaluation of Air-conditioners, Chillers and Heat Pump Water Heaters"
Organizers: Nobuya Nishimura (Osaka City Univ.), Choyu Watanabe (Chubu Electric Power), Kiyoshi Saito (Waseda Univ.)

10:40 ~ 02:00 OS-4(1) [Chairperson: Nobuya Nishimura (Osaka City Univ.)]

B111 Study on Evaluation of Annual Energy Consumption of Multi-split type EHP Air-conditioner for Buildings. The Influence on APF with the Revision of JIS © MIYAOKA Yoichi (Chubu Electric Power Co., Inc.) , NAGAMATSU Katsuaki , NAMIWO Takashi , KASAHARA Shinichi (DAIKIN INDUSTRIES,LTD) , KOTANI Takuya , HIROTA Masafumi (Mie Univ.) , TERANISHI Yuta

B112 Development of the new VRF system which has the high energy efficiency from the middle load zone to the light load zone. © KASAHARA Shinichi (Daikin Industries,Ltd.) , KOTANI Takuya , HIROTA Masafumi (Mie University) , TERANISHI Yuta , MIYAOKA Yoichi (Chubu Electric Power Co.,Inc) , NAGAMATSU Katsuaki , NAMIWO Takashi

B113 The Influence that an LED Light gives to the Air-Conditioning Load and the Energy Consumption of the Buildings 1st report: An Examination based on BEST © TERANISHI Yuta (Mie Univ.) , KABASHIMA Nobutaka , HIROTA Masafumi , MIYAOKA Yoichi (Chubu Electric Power) , NAGAMATSU Katsuaki , NAGANO Takashi

B114 Study on high-efficiency Ground Source Heat Pump (GSHP) © LIU Hongzhi (Hokkaido University) , NAGANO Katsunori , KATSURA Takao , ZHENG Yu , KUBO Kento

Organized Session OS-4
"Performance Evaluation of Air-conditioners, Chillers and Heat Pump Water Heaters"
Organizers: Nobuya Nishimura (Osaka City Univ.), Choyu Watanabe (Chubu Electric Power), Kiyoshi Saito (Waseda Univ.)
Organized Session OS-4

"Performance Evaluation of Air-conditioners, Chillers and Heat Pump Water Heaters"

Organizers: Nobuya Nishimura (Osaka City Univ.), Choyu Watanabe (Chubu Electric Power), Kiyoshi Saito (Waseda Univ.)

15:00 ~ 16:00 OS-4(3) [Chairperson: Tetsuya WAKUI (Osaka Prefecture University)]

B131 Energy efficiency evaluation for VRF system with unbalanced load operation Part1: Analysis of energy efficiency for actual experimental data ○ YAMAGUCHI Hideki (NILIM), ENTERIA Napoleon (Building Research Institute), MIYATA Masato (NILIM), SAWACHI Takao, KUWASAWA Yasuo (Building Research Institute)

B132 Energy efficiency evaluation for VRF system with unbalanced load operation Part2: Analysis of energy efficiency based on refrigerating cycle ○ ENTERIA Napoleon (Building Research Institute), YAMAGUCHI Hideki (NILIM), MIYATA Masato, SAWACHI Takao, KUWASAWA Yasuo (Building Research Institute)

B133 Energy efficiency evaluation for VRF system with unbalanced load operation Part3: Evaluation of primal energy consumption for building ○ MIYATA Masato (NILIM), ENTERIA Napoleon (Building Research Institute), YAMAGUCHI Hideki (NILIM), SAWACHI Takao, KUWASAWA Yasuo (Building Research Institute)

Organized Session OS-4

"Performance Evaluation of Air-conditioners, Chillers and Heat Pump Water Heaters"

Organizers: Nobuya Nishimura (Osaka City Univ.), Choyu Watanabe (Chubu Electric Power), Kiyoshi Saito (Waseda Univ.)

16:20 ~ 17:40 OS-4(4) [Chairperson: Kiyoshi Saito (Waseda Univ.)]

B143 A study for the energy saving performance of new refrigerant NF-01 ○ KATSUMATA Ikuma (Graduate school of Kanagawa Institute of Technology), NARUMI Tadashi (Kanagawa Institute Of Technology), YADA Nacyuki, OOKUBO Tetsuo (FUJIOX CO., LTD.), MIZUNO Yasunori

B144 Performance Evaluation of Air Conditioner using New Refrigerants TAIRA Shigeharu (DAIKIN INDUSTRIES, LTD.), HAIZAWA Tomoyuki, NUNO Hayato

Room C 21 October (Wed.)

Organized Session OS-7

"Desiccant/Humidity Control/Open Cycle Air Conditioning"

Organizers: Takahiko Miyazaki (Kyushu Univ.), Mitsuhiro Kubota (Nagoya Univ.), Takuya Tsujiguchi (Kanazawa Univ.), Seiichi Yamaguchi (Waseda Univ.)

10:40 ~ 12:00 OS-7(1) [Chair: Mitsuhiro Kubota (Nagoya Univ.)]

C111 Dehumidification Performance of Gas-Liquid Contactor with Ionic Liquid ○ KOBAYASHI Yuto (Waseda Univ.), YAMAGUCHI Seiichi, SAITO Kiyoshi, NAKAYAMA Hiroshi (Chubu Electric Power Co.), MIYAOKA Youichi, WANG Xinming (Evonik Japan Co.)

C112 Visualization of Wetting Characteristic in Gas-Liquid Contactor for Liquid Desiccant System ○ USUZAKA Tadashi (Waseda Univ.), YAMAGUCHI Seiichi, SAITO Kiyoshi, NAKAYAMA Hiroshi (Chubu Electric Power Co.), MIYAOKA Youichi

C113 Dehumidification Characteristics of Thin Honeycomb Unit with Sorbent Material ○ KATSUBA Masafumi (Waseda Univ.), SATO Ryo, SANO Koki

C114 Sorption and Desorption Characteristics with Composite Sorbent Particle in a Fluidized bed ○ KATSUBA Masafumi (Waseda Univ.), SATO Ryo, SANO Koki, YUKI Tomohiro, MARUYAMA Tomohiro

C115 Sorption and Desorption Characteristics with Composite Sorbent Particle in a Fluidized bed ○ KATSUBA Masafumi (Waseda Univ.), SATO Ryo, SANO Koki, YUKI Tomohiro, MARUYAMA Tomohiro
Organized Session OS-7
"Desiccant/Humidity Control/Open Cycle Air Conditioning"
Organizers: Takahiko Miyazaki (Kyushu Univ.), Mitsuhiro Kubota (Nagoya Univ.), Takuya Tsujiguchi (Kanazawa Univ.), Seiichi Yamaguchi (Waseda Univ.)

13:00 ~ 14:20 OS-7(2) [Chair: Seiichi Yamaguchi (Waseda Univ.)]
C121 Dehumidification behavior of air-cooled cross flow heat exchanger type adsorber ◎ HANAOKA Noriko (Nagoya Univ.), KUBOTA Mitsuhiro, MATUSUDA Hitoki, KODAMA Akio (Kanazawa Univ.)

C122 Effect of the Pore Properties on the Dehumidifying Performance of the Adsorbent Desiccant Wheel ◎ TSUJIGUCHI Takuya (Kanazawa Univ.), KITAGAWA Daichi, OSAKA Yugo, KODAMA Akio

C123 Potential assessment of fiber adsorbent desiccant air conditioning system ◎ OSAKA Yugo (Kanazawa Univ.), TSUJIGUCHI Takuya, KODAMA Akio

C124 Evaluation of desiccant air conditioning applicability for agricultural sector of Pakistan ◎ MAHMOOD Muhammad Hamid (Kyushu University), SULTAN Muhammad, MIYAZAKI Takahiko, KOYAMA Shigeru

Organized Session OS-6
"Refrigerators/Heat Pumps based on Absorption, Adsorption or Chemical Reactions"
Organizers: Atsushi Akisawa (Tokyo Univ. of Agriculture and Technology), Nobuya Nishimura (Osaka City Univ.), Kiyoshi Saito (Waseda Univ.), Yoshinori Hamamoto (Kyushu Univ.)

14:40 ~ 16:20 OS-6(1) [Chairperson: Nobuya Nishimura (Osaka City Univ.)]

C132 Analytical Expression of Heat and Mass Transfer Coefficients on a Partially Wetted Horizontal Tube of Falling Film Absorber ◎ NICCOLO Giannetti (Waseda Univ.), YAMAGUCHI Seiichi, SAITO Kiyo, Roccetti Andrea (Florence Univ.)

C133 Characteristics of a Smearing Surface Type Absorber ◎ TOMITA Akifumi (Aisin SEIKI Co., Ltd.), SUBOUCHI Osamu, INADA Takaaki (National Institute of Advanced Industrial Science and Technology), SOMEYA Satoshi, TAKEMURA Fumio, DANG Chaobin (Tokyo Univ.), HIHARA Eiji

C134 Simulation study of a novel vapor absorption refrigeration system combined with the hollow fiber membrane-type generator and solution heat exchanger as an automobile application ◎ HONG Sung Ioo (University of Tokyo), DANG Chaobin, HIHARA Eiji

Organized Session OS-6
"Refrigerators/Heat Pumps based on Absorption, Adsorption or Chemical Reactions"
Organizers: Atsushi Akisawa (Tokyo Univ. of Agriculture and Technology), Nobuya Nishimura (Osaka City Univ.), Kiyoshi Saito (Waseda Univ.), Yoshinori Hamamoto (Kyushu Univ.)

16:40 ~ 18:00 OS-6(2) [Chairperson: Mikio KUMITA (Kanazawa University)]
C141 Sensitivity analysis of the cycle time for the cooling ability of the three-bed tow-stage adsorption refrigerator. ◎ TAKAHASHI Fumiya (Tokyo University of Agriculture and Technology), NAKAYAMA Masayuki, AKISAWA Atsushi

C142 Evaluation of improvement of cooling capacity and COP for an adsorption chiller with an adsorption heat exchanger synthesized film adsorbent on heat transfer plates ◎ OUCHI Takafumi (Kyushu Univ.), HAMAMOTO Yoshinori, MORI Hideo

C143 CFD simulations of heat exchanging adsorber/desorber employing activated carbon-ethanol pair ◎ JRIBI Skander (Kyushu University), MIYAZAKI Takahiko, JERAI Fauzia, SAHA Bidyut, BARAN KOYAMA Shigeru, MAEDA Shinnosuke (Calsonic Kansei Corporation), MARUYAMA Tomohiro

C144 Investigation of alternative adsorbent/refrigerant pairs for cooling application ◎ EL-SHARKAWY Ibrahim I. (Kyushu University), MIYAZAKI Takahiko, SAHA Bidyut, BARAN KOYAMA Shigeru
Organized Session OS-8
"Thermophysical Properties of Refrigerants"
Organizers: Ryo Akasaka (Kyushu Sangyo Univ.), Yohei Kayukawa (AIST)

10:40 ~ 12:00 OS-8(1) [Chairperson: Ryo Akasaka (Kyushu Sangyo Univ.)]

D111 Vapor pressures, saturated densities and critical parameters for new refrigerant R1123 ○HIGASHI Yukihiro (Iwakio Meisei Univ.) ,AKASAKA Ryo (Kyushu Sangyo University)

D112 Measurements for vapor pressures and PVT properties for low-GWP refrigerant, HFO1123, by a magnetic levitation densimeter ○KA YUKAWA Y ohei (AIST) ,KANO Y uya,FUJITA Y oshitaka,HASHIMOTO Mai (AGC) ,FUKUSHIMA Masato

D113 Measurement of Thermal Conductivity and Investigation of the Correlation of Low GWP Refrigerant ◎ISHIDA Hirotaka (Saga Univ.) ,ISLAM M.a.,KARIYA Keishi,MIYARA Akio

D114 Optimization of Hydrocarbon Refrigerant Mixture Composition in Rankine cycle with Generic algorithm ◎OHNO Keisuke (waseda univ.) ,KIMURA Takeru,SAITO Kiyoshi

D115 Thermodynamic properties of R-1243zf, International collaboration on the development of equations of state for Low-GWP refrigerants ○AKASAKA Ryo (Kyushu Sangyo University) ,FUKUSHIMA Masato

D116 Relations between the absolute humidity and the combustion of mildly flammable refrigerants. ○KAWASHIMA Mitsuru (Mitsubishi electric corporation) ,MAEDA Akira,KOMAI Takao

D117 Measurements of vapor pressure and saturated liquid density for HCFO-1233zd(E) and HCFO-1233xf ○TANAKA Katsuyuki (Nihon Univ.)

International Session IS-1
"Advancement in HVAC&R in Asia"

14:20 ~ 15:40 IS-1(1) [Chairperson: Niccolò Giannetti (Waseda Univ.)]

D131 Numerical Study of the Thermo-Hydraulic Field within an Indoor Unit of the Small-Sized Split-Type Air-Conditioner ◎SHIH Yang-cheng (National Taipei University of Technology) ,LAI Jin-da,WU Hua-lin

D132 Numerical simulation of CO2 heat pump for hybrid desiccant air conditioning system ◎ VARELA Richard Jayson (waseda univ.) ,KEISUKE Ohno,YAMAGUCHI Seichi,SAITO Kiyoshi

D133 Numerical simulation of CO2 heat pump for hybrid desiccant air conditioning system with ON/OFF control ◎ VARELA Richard Jayson (waseda univ.) ,OHNO Keiuke,YAMAGUCHI Seichi,SAITO Kiyoshi

D134 Experimental assessment of the performance of electric vehicle air-conditioning system ◎CHUAH Yew-khoy (Department of Energy and Refrigerating Air-Conditioning Engineering, National Taipei University of Technology) ,SHIH Chang-an

General Session GS
Organizers: Seiichi Yamaguchi

16:00~17:20 GS-1(1) [Chairperson:]

D141 Diesel Combustion of Oil and Refrigerant Mixture during Pump Down of Air Conditioners ◎HIGASHI Tomohiro (The University of Tokyo) ,TAMAI Syou,SAITO Shizuo,DANG Chaobin,HIHARA Eiji

D142 Evaluation of R32 refrigerant concentration during its leakage from residential-use split-type and multi-split type air conditioners ◎FUKUOKA Motohiko (DAIKIN INDUSTRIES, LTD.) ,HATTORI Keita,TOMIOKA Keiji,MURATA Katsunori,TAIRA Shigeharu

D143 Experimental investigation on characteristics of shock wave inside ejectors ◎CHEN Zuozhou (The University of Tokyo) ,HIHARA Eiji,DANG Chaobin

D144 Preparation and Thermal Properties Evaluation of Heat Storage Silica Fume for the Application of Concrete Admixture ◎KANG Yujin (Soonsil Univ.) ,JEONG Su-gwang,CHANG Seong Jin,WI Seunghwan,SEO Jungki,KIM Sumin
D145 Utilization of air source heat pump to water-sprinkler snow melting system ○ YAMAGUCHI Keisuke (East Japan Railway Company), FUDA Setsuo, HASEGAWA Seiji (JR East Mechatronics Co., Ltd.), HASHIMOTO Masahide (Mitsubishi Electric Corporation), TOGAWA Kimio (Mitsubishi Electric Building Techno-service Co., Ltd.)

Organized Session OS-5
“Simulation Techniques for Air-conditioners, Chillers and Heat Pump Water Heaters”
Organizers: Kiyoshi Saito (Waseda Univ.) Masayuki Nonaka (Hitachi Appliances)

11:00〜12:00 OS-5(1) [Chairperson: Masayuki Nonaka (Hitachi Appliances)]
E111 Evaluate VRF air-conditioner system by simulation methods and experimental study, Consideration of heating driving ○ MATSUMOTO Kuniyasu (Kansai Electric Power Co. Inc.), OHNO Keisuke (Waseda University), SAIJO Kiyoshi

E112 Simulation of Gas Engine driven compression type heat pump ○ OHNO Keisuke (waseda univ.), NAKAGAWA Yasuaki, SAIJO Kiyoshi, WAKABAYASHI Tsutomu ( osaka gas), HIROTA Kazuma (toho gas), HURUHASHI Yuma (tokyo gas)

E113 The influence of expansion valve characteristics on super heat control in Heat Pump system ○ YOSHIDA Tokitaka (Waseda Univ.), OHNO Keisuke, SAIJO Kiyoshi (Waseda)

Organized Session OS-5
“Simulation Techniques for Air-conditioners, Chillers and Heat Pump Water Heaters”
Organizers: Kiyoshi Saito (Waseda Univ.) Masayuki Nonaka (Hitachi Appliances)

13:00〜14:00 OS-5(2) [Chairperson: Kiyoshi Saito (Waseda Univ.)]
E121 Development of Drop Impact Simulation for Indoor Unit Packing Design ○ KUGA Kazunori (MITSUBISI HEAVY INDUSTRIES, LTD.), KANAMORI Azusa, TAKAHASHI Shinichi, HASHIMOTO Isao, KYUNO Hiroaki

E122 Clearance analytical technique in consideration of transformation at the time of the assembling ○ YOSHIKAWA Genta (Mitsubishi Heavy Industries, Ltd.), TAMAKI Hitoshi, WATANABE Kazuhide (Mitsubishi Heavy Industries Automotive Thermal Systems Co., Ltd.), KUWAHARA Takayuki

E123 CFD simulation on the inner structure of heat exchanger ○ KIMURA Naoki (UACJ Corpration), HAYASHI Hiroaki (UACJ Copper Tube Corporation), HOUFUKU Mamoru (UACJ Corporation)

Workshop WS-2
“Cold storage and cooling by using ice slurry”
Moderators: Koji Matsumoto (Chuo Univ.), Hiroyuki Kumano (Aoyama Gakuin Univ.)

14:20〜17:50 WS-2(0) [Chairperson: Koji Matsumoto (Chuo University), Hiroyuki KUMANO (Aoyama Gakuin University)]
E131 Characteristics of Ice Slurry and Its Manufacturing System ○ UNO Mitsuyo (Nissin Refrigeration & Engineering LTD. Development department)
E132 Examples of the utilization of ice slurry for effective food cooling ○ WATANABE Manabu (Tokyo University of Marine Science and Technology)
E133 What advantage when you use ice slurries Characteristics of ice slurries and potential of industrial use systems ○ SEKI Mitsuo (NATOMICs Corporation)
E134 Advantages of using ice slurry in each application ○ YAMADA Ikuhiro (Shinryo Corporation)
E135 Prospective society ○ MATSUMOTO Koji (Chuo University)
E136 Use of slurry-ice in fisheries ○ OKANO Toshiyuki (Fishing Boat And System Engineering Association of Japan)
E137 The Challenges in the Global Cold Chain Management and the potential use of Ice Slurries’ ○ HARAOKA Tetsuya (BUSINESS DEVELOPMENT & PLANNING DEPT. YUSEN LOGISTICS CO., LTD.)
Organized Session  OS-2
"Technological Development in Heat Exchangers"
Organizers: Masafumi Hirota (Mie Univ.), Norihiro Inoue (Tokyo Univ. Marine Sci. & Tech.), Naoe Sasaki (Nihon Univ.)

09:10〜10:50 OS-2(3) [Chairperson:Naoe Sasaki (Nihon Univ.)]
A211 Liquid-vapor two-phase pressure drop and boiling heat transfer of a refrigerant in a horizontal triangular mini-channel © HIRATA Kento (Kyushu Univ.) ,NAKATURU Takuya (Honda Motor) ,MIYATA Kazushi (Kyushu Univ.) ,MORI Hideo,HAMAMOTO Yoshinori

A212 Flow boiling heat transfer characteristics of ammonia in horizontal small diameter tubes ©HOSOKAWA Yohei (Waseda Univ.),YAMAGUCHI Seiichi,SAITO Kiyoshi,OBATA Kenichi (MAYEKAWA MFG. CO., LTD.) ,KATO Masashi

A213 Vapor-liquid Two-phase Flow Patterns and Effects of Oscillation in Small Rectangular Tube © NAGAYAMA Kunihiro (Tokyo university of agriculture and technology) ,ENOKI Koji (The university of electro-communications) ,ONO Masaharu,AKISAWA Atsuji (Tokyo university of agriculture and technology) ,OKAWA Tomio (The university of electro-communications) ,MIYATA Kazushi (Kyushu University) ,MORI Hideo

A214 Refrigerant Gas-Liquid Flow Distributions in Multi-Pass Channels ©NAKAO Yuuki (Mie University) ,NOMOTO Hidetaka (DENSO CORPORATION) ,EKAWA Akira (Mie University) ,HIROTA Masafumi

A215 Flow Rate Characteristics of CO2 with Inlet Subcooling Condition through an Orifice ©ASANO Hitoshi (Kobe Univ.) ,MIZOTA Daisuke,TSUCHIYA Toshiaki (Fuji Electric) ,ISHIDA Shin,TAKIGUCHI Koji

---#2 Day ---

Room A 22 October (Thu.)

Organized Session  OS-10
"Refrigeration and Freezing of Foods and Biomaterials"
Organizer: higeaki Ueno (Saitama Univ.), Toru Suzuki (Tokyo Univ. of Marine Science and Technology)

09:10〜10:50 OS-10(1) [Chairperson:Tomoaki Hagiwara (Tokyo University of Marine Science and Technology) ]
B211 Effect of the freezing on color of dark colored meat of mackerel ©MATSUBARA Hisashi (Aomori Prefectural Industrial Technology Center) ,TAKEUCHI Megumi,TAKAHASHI Tadashi,KOSAKA Yoshinobu,KUDOH Ken-ichi,SUZUKI Toru (Tokyo University of Marine Science and Technology)

B212 Effect of freezing on death of Anisakis larvae, condition for killing of larvae in mackerel body ©TAKEUCHI Megumi (Aomori Prefectural Industrial Technology Research Center) ,MATSUBARA Hisashi,TAKAHASHI Tadashi,KOSAKA Yoshinobu,KUDOH Ken-ichi,WATANABE Manabu (Tokyo University of Marine Science and Technology) ,SUZUKI Toru

B213 Effect of Frozen Storage Temperature and Period on the Quality of Frozen Chub Mackerel Meat ©
MORIYA Keisuke (Tokyo University of Marine Science and Technology) NAKAZAWA Naho, OSAKO Kazufumi, OKAZAKI Emiko

B214 Analysis of Temperature Response Property of Fresh Produce ○SHIINA Takeo (Chiba University), ORIKASA Takahiro (Iwate University), THAMMAWONG Manasikan (Gifu University), NAKAMURA Nobutaka (National Food Research Institute, NARO)

B215 Moving boundary problem for solid-liquid interface during thawing of food with freezing point depression by freeze concentration ○ARAKI Tetsuya (Tokyo Univ.)

Organized Session OS-10
"Refrigeration and Freezing of Foods and Biomaterials"
Organizer: higeaki Ueno (Saitama Univ.), Toru Suzuki (Tokyo Univ. of Marine Science and Technology)

14:50 ~ 16:50 OS-10(2) [Chairperson: Shigeaki Ueno (Saitama University), Ryu Shirakashi (University of Tokyo)]

B221 [KEYNOTE] Dielectric Spectroscopy of biological water ○SHIRAKASHI Ryo (Institute of Industrial Science, The University of Tokyo)

B222 The feedback of CFD analysis on complicated air flow to the optimally-designed model structure of industrial large scale food freezer ○MASUDA Kazunori (MAYEKAWA MFG. CO., LTD.), SATOH Hiroshi, TSUBATA Kouichi, MAENO Kazuo (NIT, Kisarazu College)

B223 Study on effective food cooling by considering the characteristics of air flow from coolers ○WATANABE Manabu (Tokyo University of Marine Science and Technology), YOTA Baba, SUZUKI Toru

B224 Simultaneous heat and mass transfer during thawing and heating of beef using superheated steam ○ARAKI Tetsuya (Tokyo Univ.)

B225 Acceleration of drying at frozen condition by utilizing temperature fluctuation ○YAMADA Ryosuke (Tokyo University of Marine Science and Technology), SUZUKI Toru, WATANABE Manabu

Room C 22 October (Thu.)

Organized Session OS-7
"Desiccant/Humidity Control/Open Cycle Air Conditioning"
Organizers: Takahiko Miyazaki (Kyushu Univ.), Mitsuhiro Kubota (Nagoya Univ.), Takuya Tsujiguchi (Kanazawa Univ.), Seiichi Yamauchi (Waseda Univ.)

09:30 ~ 10:50 OS-7(3) [Chairperson: Takahiko Miyazaki (Kyushu Univ.)]

C211 Withdrawn

C212 Development of Desiccant Air Conditioning System using Wakkanai Siliceous Shale Part 21: Summer period performance evaluation of a detached house installed with a ground source heat pump and desiccant ventilation unit in a cold region ○CONWAY Stephen (Hokkaido Univ. Faculty and Graduate School of Engineering, Environmental System Research Lab., Human Environmental Systems), NAGANO Katsunori, NAKAMURA Makoto, TOGAWA Junya, OGURA Ryo, SATO Reo, NABESHIMA Yuki (Toyoohashi University of Technology Department of Architecture and Civil Engineering), AKI Chiemi (Frontier Ltd.), NIKI Kohsuke (Sunpot Ltd.), FURUKAWA Osamu

C213 Development of Desiccant Air Conditioning System using Wakkanai Siliceous Shale, Part 22: Experimental Study of The Odor Transfer of the Elements in The Desiccant Ventilation Unit ○AKI Chiemi (Techno Frontier Co., Ltd.), NAKAMURA Makoto (Hokkaido Univ.), NAGANO Katsunori, TOGAWA Junya, KOMAKI Ayumi, NABESHIMA Yuki (Toyoohashi University of Technology)

C214 Development of Desiccant Air Conditioning System using Wakkanai Siliceous Shale, Part 23 Desiccant rotor performance examination based on the effect of a purge zone ○NABESHIMA Yuki (Toyoohashi Univ. of Technology), KOMAKI Ayumi (Hokkaido Univ.), NAKAMURA Makoto, NAGANO Katsunori, KAJIMA Toshimitsu (Techno frontier Co., Ltd.), AKI Chiemi, TOGAWA Jun-ya (Wakkanai green factory Co., Ltd.)
Organized Session OS-7
"Desiccant/Humidity Control/Open Cycle Air Conditioning"
Organizers: Takahiko Miyazaki (Kyushu Univ.), Mitsuhiro Kubota (Nagoya Univ.), Takuya Tsujiguchi (Kanazawa Univ.), Seiichi Yamaguchi (Waseda Univ.)

14:50〜16:10 OS-7(4) [Chairperson: Takuya Tsujiguchi (Kanazawa Univ.)]
C221 Development and Performance Study of -70 °C DP super low dew point dehumidifier ○JIN Weili (SEIBU GIKEN CO., LTD.), IWASAKI Mayu, OKANO Hiroshi
C222 Evaluation of theoretical performances of Maisotsenko cycle air-conditioning systems with dehumidification ○MIYAZAKI Takahiko (Kyushu Univ.), KOYAMA Shigeru, MAISOTSENKO Valeriy S. (Idalex and Coolerado)
C223 The study on Ventilation System equipped with a desiccant, Evaluation of energy-saving and thermal environment ○KAWANAMI Takayuki (Topre corporation), SAWACHI Takao (National Institute for Land and Infrastructure Management), KUWASAWA Yasuo (Building Research Institute), TSUDA Takashi (Topre corporation), MORIMOTO Shimpei
C224 Performance Test of Hybrid Dryer, PARK Seungtae (Air Tech Engineering Co., Ltd.), ○LEE Hyunju, HONG Kyoungsu, KIM Youngil (Seoul National Univ. of Science and Technology), YU Youngwoo

International Session IS-1
"Advancement in HVAC&R in Asia"

14:50〜16:30 IS-1(2) [Chairperson: TAIRA Shigeharu (DAIKIN INDUSTRIES)]
D221 Study of Air-Water Two-Phase Flow in a Plate Heat Exchanger ○MAHMD Mohammad Sultan (Saga Univ.), KAWAZOE Akitoshi, KARIYA Keishi, MIYARA Akio
D222 Adopting the Transient CFD Technique to Simulate the Flow Characteristics of a Blower ○KUAN Yean-der (National Chin-Yi University of Technology), HUANG Jeng-min (KENDA RUBBER Industrial Co. Yuanlin Township), WONG Jia-hong (National Chin-Yi University of Technology), SUNG Min-feng
D223 On the minimization of oxygen concentration and moisture content inside a 450 mm wafer box (front opening unified pod (FOUP)) when FOUP door is in open condition ○LIN Ti (National Taipei University of Technology), HU Shih-cheng, YANG Young-tung, SHIUE Angus
D224 Performance Evaluation of Absorption Chiller Using Solar Energy in Tropical Regions ○ARNAS (Waseda Univ.), KIYOSHI YABASE Hajime, ALHAMID Muhammad (Indonesia Univ.), NASRUDDIN Nasruddin
D225 Performance Analysis of a Single Stage Compressor Air-Source Heat Pump Utilizing a Flash Tank Vapor Injection under Different Operating Conditions ○LUO Win-jet (Dept. of Refrigeration, Air Conditioning Engineering, National Chin-Yi University of Technology), AL Jin-chang, LIN Jia-ming
Organized Session  OS-1
"Present Status and Future Development of Compressor"
Organizers: Mitsuhiro Fukuta (Shizuoka Univ.), Tsutomu Nozaki (Hitachi Ltd.)

09:50 〜 10:50 OS-1(1) [Chairperson: Kazuhiro FURUSHOU (DAIKIN INDUSTRIES)]:
E211 Study of measurement of mechanical loss of linear compressor ○KINO Kyohei (Shizuoka Univ.), FUKUTA Mitsuhiro, MOTOZAWA Masaaki
E212 Hydrodynamic Lubrication Analysis in Sliding Bearing of Refrigeration Compressors ○IKEDA Yoshimi (Mitsubishi Electric Co.), SASAKI Tatsuya, NAKAO Hide, TAKAMURA Yuji
E213 Effect of Surface Texturing on Crank Shaft for Reciprocating Compressors in Refrigerator ○NAGATA Shuhei (Hitachi Ltd.), SEKIYAMA Nobuya, KANOU Masakazu (Hitachi Appliances, Inc.)

Seminar SN-1 “Seminar on compressor technology”
Moderators: Kenji TOJO (TOJO R&D Design office), Takashi Morimoto (Panasonic)

14:50〜16:50 SN-1 [Chairperson:]
E221 ECS STEP2 ○OGATA Gota (DENSO CORPORATION), SUZUKI Tatsuhiro
E222 Hybrid Air-Conditioning System for Data Centers ○UDAGAWA Yosuke (NTT FACILITIES), SEKIJUCHI Keisuke, KOHATA Yuji, NAGAI Masahide, NAITO Yasuhiro (Hitachi Appliances)
E223 Exploitation of Additive Manufacturing and Materials Development. ○KUWABARA Kosuke (Hitachi Ltd.), FUJIEDA Tadashi, KATO Takahiko
E224 Technology status on air conditioning systems for train ○SHIRAISHI Kazuhiro (Mitsubishi Electric Corporation)

Organized Session  OS-2
"Technological Development in Heat Exchangers"
Organizers: Masafumi Hirota (Mie Univ.), Norihiro Inoue (Tokyo Univ. Marine Sci. & Tech.), Naoe Sasaki (Nihon Univ.)

09:20〜11:00 OS-2(4) [Chairperson: Kousaku NISHIDA (Mayekawa Mfg. Co., Ltd.)]:
A311 Effect of Fin Geometry on Condensation Heat Transfer and Flow Mode on Enhanced Surface Tubes ○AKADA Ikuro (Tokyo University of Marine Science and Technology), NOGUCHI Terutaka, JIGE Daisuke, INOUE Norihiro, MATSUMOTO Tomonobu (Kobelco & Materials Copper Tubes Co. LTD.)
A312 Condensation heat transfer of R1234ze(Z) on a vertical finned surface ○FUJUDA Sho (Kyushu Univ.), ZHANG Hongcheng (Kyushu Univ.), TAKATA Nobuo, MATSUMOTO Tatsuya, Kyushu Univ.
A313 Condensation Characteristics of Refrigerant Mixture R245fa/R134a in a Horizontal Smooth Tube ○KURAYAMA Shin (Tokyo University of Marine Science and Technology), WATANABE Kazuhide, JIGE Daisuke, INOUE Norihiro
A314 Condensation Heat Transfer and Pressure Drop of R32 inside an Internally Grooved Small-diameter Tube, Condensation Characteristics in Range of Low Mass Velocities ○HIROSE Masataka (Tokyo University of Marine Science and Technology), FUJIMA Kouhei, JIGE Daisuke, INOUE Norihiro, HABA Tsuneo (Kobelco & Materials Copper Tube Co., LTD.)
A315 Condensing Heat Transfer Characteristic in Quadrilobed tube for Heat Pump ○KAWAGUCHI Taihei (Kobe Univ.), ASANO Hitoshi, TAKEDA Nobuhiro (Noritz), KONDO Masaki, NISHIMURA Kazuhiro
Organized Session  OS-2
"Technological Development in Heat Exchangers"
Organizers: Masafumi Hirota (Mie Univ.), Norihiro Inoue (Tokyo Univ. Marine Sci. & Tech.), Naoe Sasaki (Nihon Univ.)

13:00〜14:40 OS-2(5) [Chairperson: Masafumi Hirota (Mie Univ.)]
A321 Experimental Study on Boiling and Condensation Heat Transfer in a Minichannel ◎NAKAIso Kyosuke (Saga Univ.), KUDo Yasuhiro, KARIYA Keishi, MIYARA Akio

A322 Evaporation Heat Transfer and Pressure Drop of R32 in 4mm OD Microfin Tubes ◎SAGAWA Kentaro (Tokyo University of Marine Science and Technology), JIGE Daisuke, INOUE Norihiro, TAKAHASHI Hiroyuki (Kobelco & Materials Copper Tube Co., Ltd.)

A323 Evaporation Characteristics of Refrigerant Mixture R1245fa/R134a in a Horizontal Smooth Tube ◎WATANABE Kazuhide (Tokyo University of Marine Science and Technology), KURAYAMA Shin, JIGE Daisuke, INOUE Norihiro

A324 Experimental Study on Evaporation of Refrigerant R1234yf in a Horizontal Micro-fin Tube ◎NAKAMURA Shingo (Kyushu Univ.), MISHIMA Fumiya (Kobelco & Materials Copper Tube Ltd.), KONDOU Chieko (Nagasaki Univ.), TAKATA Nobuo (Kyushu Univ.), KOYAMA Shigeru

A325 Enhancement of pool boiling heat transfer of R1234ze(Z) on titanium tubes ◎NAGATA Ryuichi (Kyushu Univ.), TESHIMA Kenichiro, KONDOU Chieko (Nagasaki Univ.), KOYAMA Shigeru (Kyushu Univ.)

General Session  GS
Organizers: Seiichi Yamaguchi

15:00〜16:40 GS-1(3) [Chairperson:]
A331 Application to the new heating medium of low environmental load type ionic liquids with high specific heat capacity ◎KANEKO Kotoro (MIYOSHI OIL & FAT CO., LTD.), KAWAI Koji

A332 Study of condensation liquid jumping phenomena on a superhydrophobic surface YOSHIMURA Shun (The University of Tokyo), DANG Chaobin, HIHARA Eiji

A333 Experimental Study on Influence of Wettability on Liquid Film Thickness of Slug Flow in Small Circular tube ◎YOSHINAGA Yuki (The University of Tokyo), DANG Chaobin, HIHARA Eiji

A334 Study of geothermal heat recovering corrugate thermos-syphon for CO2 refrigerating system for cold climate district. Geometrical effect of corrugate pipe and effect of the ground surface temperature profile on heat pump ◎SUGIURA Akihiko (Waseda Univ.), KATSUTA Masafumi, SATOShou

A335 Effect of Inner Grooved Tube Shape on Performance Characteristics of Heat Exchanger ◎MOROI Tsutomu (UACJ), SANUKI Noriyoshi (UACJ Copper Tube), HOUFUKU Mamoru (UACJ)

Room B 23 October (Fri.)

Organized Session  OS-10
"Refrigeration and Freezing of Foods and Biomaterials"
Organizer: hishigeaki Ueno (Saitama Univ.), Toru Suzuki (Tokyo Univ. of Marine Science and Technology)

09:20〜11:00 OS-10(3) [Chairperson: Rei Saito (JAPAN SUN OIL COMPANY., LTD.)]
B311 Study of quality changes during frozen storage in frozen soy bean gel prepared by supercooled freezing method ◎KOBAYASHI Rika (Tokyo University of Marine Science and Technology), WATANABE Manabu, SUZUKI Toru

B312 Effect of nonthermal treatment on internal structure and food constituent of soybean ◎SASAO Shoji (Graduate School of Agricultural and Life Sciences, The University of Tokyo), ARAKI Tetsuya, IRYO Natsuko (Saitama University), UENO Shigeaki

B313 Study on osmotic dehydrofreezing of fruits ◎KAWAI Kiyoshi (Hiroshima Univ.), NAGAMATSU Ric, KODAMA Airi, HAGURA Yoshio

B314 Study of freezing damage in Lactobacillus delbrueckii subsp.buлагарicus ◎SEKIGUCHI Yuki (Tokyo University of Marine Science and Technology), WATANABE Manabu, SUZUKI Tooru

B315 Quantative Prediction of Changes of Quality in Food during Freezing and Thawing ◎TADA Yukio (Kanazawa Univ.), NAKA Nobuyuki (JFE Steel Corp.), ONISHI Hajime (Kanazawa Univ.)
Organized Session OS-10 "Refrigeration and Freezing of Foods and Biomaterials" Organizer: higeaki Ueno (Saitama Univ.), Toru Suzuki (Tokyo Univ. of Marine Science and Technology)

13:00 〜 14:40 OS-10(4) [Chairperson:Toru Suzuki (Tokyo University of Marine Science and Technology) , Shigeaki Ueno (Saitama University)]

B321 [KEYNOTE] Non-destructive Observation of Ice Structure in Frozen Food by X-ray CT with Synchrotron Radiation ○ SATO Masugu (Japan Synchrotron Radiation Research Institute)

B322 Ice Recrystallization of Suspended aqueous solution ○ KIMIZUKA Norihito (Miyagi Univ)

B323 Measurement of ice crystals within cooked rice during long-term frozen storage ○ YAMAMOTO Reto (College of Bioresource Sciences, Nihon University) , DO Gabsou, SONG Min-seok (CJ Japan Corporation) , KANG Ki-moon (CJ ChilJedang Corporation) , SASE Sadanori (College of Bioresource Sciences, Nihon University)

B324 Study on the Thawing Conditions of Shari in Frozen Nigiri Sushi ○ SUZUKI Toru (Tokyo University of Marine Science and Technology) , MIZUKOSHI Chiho, KOMICHI Yushi

Organized Session OS-10 "Refrigeration and Freezing of Foods and Biomaterials"
Organizer: higeaki Ueno (Saitama Univ.), Toru Suzuki (Tokyo Univ. of Marine Science and Technology)

15:00 〜 16:20 OS-10(5) [Chairperson:Manabu Watanabe (Tokyo University of Marine Science and Technology)]

B331 Effect of Antifreeze polysaccharide on the quality of Refrigeration fish ○ KAWAHARA Hidehisa (Kansai Univ.) , ENOMOTO Karin, MIZOBATA Yukari, SUMITOMO Mariko

B332 Purification of antifreeze protein from Pacific cod Gadus microcephalus caught in Tohoku area sea ○ TAGUCHI Takamaro (Tokyo Univ. Marine Sci. & Technol.) , TAKAHASHI Kouki, SHIBATA Mario, HAGIWARA Tomoaki

B333 Intermediate purification of antifreeze protein from Hippoglossoides dubius Schimidt and Pseudopleuronectes yokohamae caught in Tohoku area sea and their characteristic analysis ○ TAKAHASHI Koki (Tokyo Univ. Marine Sci. & Technol.) , TAGUCHI Takamaro, SHIBATA Mario, HAGIWARA Tomoaki

B334 Effect of freezing storage on high pressure inactivation of E.coli in liquid whole egg with sucrose ○ HAYASHI Mayumi (Niigata University of Pharmacy and Applied Life Sciences (NUPALS)) , IGUCHI Akinori, SHIGEMATSU Toru, UENO Shigeaki (Saitama University)

Organized Session OS-10 "Refrigeration and Freezing of Foods and Biomaterials"
Organizer: higeaki Ueno (Saitama Univ.), Toru Suzuki (Tokyo Univ. of Marine Science and Technology)

16:40 〜 18:00 OS-10(6) [Chairperson:Tetsuya Araki (The University of Tokyo)]

B341 Effect of processing and storage conditions on imidazole dipeptide content in chicken breast ○ NAGATA Kimika (Saitama University) , IRYO Natsuko, SHIMADA Reiko, UENO Shigeaki

B342 Effect of freezing on the quality of octopus, NAGAI Mami (Saitama University) , Aoyama Haruka, UENO Shigeaki

B343 Optimization of thawing method of squid in cooking ○ SHIBATA Naomi (Gifu Univ.) , FUJII Remi, SUZUKI Toru (Tokyo University of Marine Science and Technology)

B344 Study on the changes in the nucleic acid-related substances and amino acids of shellfish by freezing process ○ SOPAJITWATANA Thunyaporn (Tokyo University of Marine Science and Technology) , THANATUKSORN Pariya, SUZUKI Toru
Organized Session OS-6
"Refrigerators/Heat Pumps based on Absorption, Adsorption or Chemical Reactions"
Organizers: Atsushi Akisawa (Tokyo Univ. of Agriculture and Technology), Nobuya Nishimura (Osaka City Univ.), Kiyoshi Saito (Waseda Univ.), Yoshinori Hamamoto (Kyushu Univ.)

09:20 〜 11:00 OS-6(3) [Chairperson: Yoshinori Hamamoto (Kyushu Univ.)]

C311 Effect of Particle Size of Silica-gel on Enhancement of Moisture Adsorption Rate by Sound Wave
◎ MASUDA Yasuyuki (Tokyo Univ. of Agriculture and Technology), OKUBO Kenichi, KOBAYASHI Noriyuki, ESAKI Takehiro, KUWATA Kazuki

C312 Adsorption and Heat Transfer Characteristics of Particle Packed Bed in the HFC-134a/Activated Carbon
◎ MATSUDA Takayuki (Nagoya Univ.), KOBAISHI Noriyuki, ESAKI Takehiro, KUWATA Kazuki

C313 Water vapor adsorption characteristics of a densified mesoporous silica adsorbent
◎ YAMAWAKI Naohiro (Kanazawa Univ.), OYA Takumi, SUWA Yuji, KUMITA Mikio, HIGASHI Hidenori, SETO Takaoki, OTANI Yosio

C314 Study on Adsorption Heat Pump using Natural Mesoporous Material, Part-1 Outline of Research work and Evaluation of Cooling Capacity using Laboratory scale Heat Exchanger with Adsorbent
◎ TOGAWA Junya (Hokkaido Univ.), MORITA Atsushi, LIU Hongzhi, NAKAMURA Makoto, NAGANO Katsunori, KUROISHI Hiroaki (Nihon Netsugen Systems CO., LTD.), HARADA Katsuhiko

◎ MORITA Atsushi (Hokkaido Univ.), TOGAWA Junya, LIU Hongzhi, NAKAMURA Makoto, NAGANO Katsunori

Workshop WS-3
"Smart City with Thermal Energy Network Technologies"
Moderators: Atsushi Akisawa (Tokyo Univ. of Agriculture and Technology), Akio Kodama (Kanazawa Univ.), Kiyoshi Saito (Waseda Univ.), Yuikitaka Kato (Tokyo Institute of Technology)

C321 [KEYNOTE] The future of the smart energy systems
◎ KASHIWAGI Takao (Tokyo Institute of Technology)

C322 The Role of Demand Response in Power System Operation
◎ ASANO Hiroshi (Central Research Institute of Electric Power Industry)

C323 Examples of Smart Energy Networks
◎ SHINJI Takao (Tokyo Gas Co., Ltd.)

C324 Home energy management synchronized with community energy balance
◎ MURAKAMI Tomoyuki (Sekei University)

C325 Thermochemical Energy Storage for efficient heat recovery and utilization
◎ KATO Yukitaka (Tokyo Institute of Technology)

C326 Case Study: Feasibility Study in Honjoh Smart Community Town Concept for the Next Generation Commercial Facility
◎ KATSUTA Masafumi (Waseda University)

Organized Session OS-6
"Refrigerators/Heat Pumps based on Absorption, Adsorption or Chemical Reactions"
Organizers: Atsushi Akisawa (Tokyo Univ. of Agriculture and Technology), Nobuya Nishimura (Osaka City Univ.), Kiyoshi Saito (Waseda Univ.), Yoshinori Hamamoto (Kyushu Univ.)

15:50 〜 17:10 OS-6(4) [Chairperson: Chaobin DANG (The University of Tokyo)]

C331 Effect of Controllability and Refrigerant and Solution Receiver on 10000 m Transport Pipe of Solution Transportation Absorption Chiller Using NH3-H2O: Dynamic Simulation
◎ WATANABE Fumi (Graduate School of Tokyo Univ. of Agriculture and Technology), TANAKA Seigo (TORAY Industries, Inc.), ENOKI Kouji (The Univ. of Electro-Communications), AKISAWA Atsushi (Graduate School of Tokyo Univ. of Agriculture and Technology), TAKEI Toshitaka
C332 Performance evaluation of double-lift absorption heat transformer assumed to generate 180°C vapor ◎SAKAMOTO Takeru (Waseda Univ.) ,YAMAGUCHI Seiichi,SAITO Kiyoshi,INOUE Naoyuki (Waseda Univ. Research Institute)

C333 Characteristic Analysis of Solar-assisted Absorption Air-conditioning System, Comprehensive evaluation of solar energy utilization ◎NAKAGAWA Hiroyuki (Graduate school of Eng. Osaka City Univ.),NISHIMURA Nobuya (Osaka City Univ.) ,TERAO Kazutaka (Osaka Gas Co.Ltd)

C334 Performance of Solar Air-conditioning System in Indonesia ○YABASE Hajime (Waseda University) ,HIRAI Akira (Kawasaki Thermal Engineering) ,SAITO Kiyoshi (Waseda University) ,JEON Jongsoo,OHNO Keisuke,ARNAS Lubis

Organized Session OS-3
"System Performance Improvement of Heat Pumps"
Organizers: Rei Saito (JAPAN SUN OIL COMPANY,LTD.), Masato Yoshimasa (MITSUBISHI ELECTRIC CORPORATION)

13:00〜14:00 OS-3(2) [Chairperson: Masato Yoshimasa (MITSUBISHI ELECTRIC CORPORATION)]
D321 Performance Test of Heat pump Hot-air Dryer, PARK Seungtae (Air Tech Engineering Co., Ltd.) ,LEE Hyunju,HONG Seokgyun,LEE Hojoon (Korea Food Research Institute) ,JEONG Mooncheol

D322 Development of the Evaporator Composed of Refrigerant Tube with 5mm Outer Diameter for CO2 Refrigerant Heat Pump Water Heater ◎WATANABE Michiharu (Hitachi, Ltd., Research & Development Group, Center for Technology Innovation -Mechanical Engineering) ,ISHIZAKI Satoshi (Hitachi Appliances, Inc.) ,KITAMURA Tetsuya

D323 Development of Gas-Liquid Two-Phase Flow Distributor for Improving Energy Efficiency in Air-Conditioners ○AOKI Yasutaka (Mitsubishi Heavy Industries, Ltd.) ,ITO Takahide,ICHIKAWA Gento,ITAMOTO Takao

Workshop WS-1
"Globalization and Internet of Heat Pumps"
Moderators: Toyotaka Hirao (Mitsubishi Heavy Industries) ,Fumino Matsuoka (Heat Pump Inc.)

14:20〜15:20 WS-1(1) [Chairperson: Fumino Matsuoka (Heat Pump Inc.) ]
D331 [KEYNOTE] Automated Demand Response Aggregation and Building Energy Management System ◎NINAGAWA Chuzo (GIFU Univ.)

D332 Development of Low-GWP Alternative Refrigerants ○FUKUSHIMA Masato (ASAHI GLASS)

Workshop WS-1
"Globalization and Internet of Heat Pumps"
Moderators: Toyotaka Hirao (Mitsubishi Heavy Industries) ,Fumino Matsuoka (Heat Pump Inc.)

15:30〜17:00 WS-1(2) [Chairperson: Toyotaka Hirao (Mitsubishi Heavy Industries) ]
D341 Air-conditioning and remote management system ○NAKATA Masanori (Mitsubishi Electric) ,YOSOMIYA Masato,SAKAMOTO Tadaaki
Organized Session OS-5
"Simulation Techniques for Air-conditioners, Chillers and Heat Pump Water Heaters"
Organizers: Kiyoshi Saito (Waseda Univ.)
Masayuki Nonaka (Hitachi Appliances)
09:40〜11:00 OS-5(3) [Chairperson: Masayuki Nonaka (Hitachi Appliances)]
E311 Refrigerant leak simulation of compression type heat pump ○OHNO Keisuke (Waseda Univ.) SAIITO Kiyoshi
E312 Metaphysics simulation of heat pump and thermal environment for vending machine ○FUSHINO Tomoyuki (Waseda Univ.) OHNO Keisuke SAIITO Kiyoshi TSUCHIYA Toshiaki (FUJI ELECTRIC Co.) HORIGUCHI Tsuyoshi
E313 Study on High Efficiency Air Conditioner for Data Centers, Part1: High-precision Mathematical Modeling ○UDAGAWA Yusuke (NTT FACILITIES, Inc.) FUTAWATARI Naoki KOHATA Yuji YANAGI Masahide SAIITO Kiyoshi (WASEDA University) OHNO Keisuke OKUMURA Kenta
E314 Study on High Efficiency Air Conditioner for Data Centers, Part2: Static Characteristic Analysis ○FUTAWATARI Naoki (NTT FACILITIES, Inc.) UDAGAWA Yusuke KOHATA Yuji YANAGI Masahide SAIITO Kiyoshi (WASEDA University) OHNO Keisuke OKUMURA Kenta

Organized Session OS-9
"Heat and Mass Transport Phenomena with Solid-Liquid Phase Change"
Organizers: Yoshikazu Teraoka (Kanazawa Univ.), Tatsunori Asaoka (Shinshu Univ.)
14:20〜15:40 OS-9(1) [Chairperson: Tatsunori Asaoka (Shinshu Univ.)]
E331 Investigation on Rapid Prediction Method of Freezing Process by using Transient Thermal Network Method ○FUKUE Takashi (Iwate Univ.) HIROSE Koichi KONISHI Kenta
E334 Freeze-Concentration by ice making system using metallic belt, Effect on the partition coefficients changing initial concentration and each temperature condition ○TAMURA Akira (Kanazawa Univ.), TERAOKA Yoshikazu, OKA Kunihiro

Organized Session OS-9
"Heat and Mass Transport Phenomena with Solid-Liquid Phase Change"
Organizers: Yoshikazu Teraoka (Kanazawa Univ.), Tatsunori Asaoka (Shinshu Univ.)

16:00～17:20 OS-9(2) [Chairperson: Yoshikazu Teraoka (Kanazawa Univ.)]

E341 Melting Characteristics of Sodium Acetate Trihydrate – Water Mixture ○HIRASAWA Yoshio (Univ. TOYAMA), KOJIMA Hiroki

E342 Influence of submicro-bubble on freezing of supercooled water using ultrasonic waves ○TSUCHIYA Mitsumasa (Tokyo Tech), YAKOU Jun, OKAWA Seiji, HOZUMI Tsutomu

E343 Velocity Profile Measurement of Ice slurry in Pipe Flow using UVP ○SONO Keima (Aoyama Gakuin Univ.), MAKINO Yuki, KUMANO Hiroyuki

E344 Investigation of Operation Method of Absorption Refrigerator for Ice Slurry Formation ○ENDO Yusuke (Shinshu Univ.), HUANG Chengcheng, ASAOKA Tatsunori