Sep. 26 (Mon)						
	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
17:00-18:00	**IOC meeting**					

Sep. 27 (Tue)						
	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
9:00-9:10	**Opening remarks**					
9:10-10:10	**Plenary 1** **Dr. Jürgen Brillo** "Thermophysical properties of multicomponent liquid alloys and their measurement at elevated temperature"					
10:10-11:10	**Plenary 2** **Professor Xiulin Ruan** "Ultra-efficient Radiative Cooling Paints: Materials, Energy Savings, and Climate Crisis Mitigation"					
11:10-12:10	**Plenary 3** **Professor Koji Takahashi** "Nanomaterials for phase change heat transfer"					
12:10-13:30	**Lunch**					
13:30-14:00	**ATPC Awards ceremony**					
14:00-14:30	**2022 Ared Cezairliyan Best Paper Award ceremony**					
14:30-15:00	Coffee break					
15:00-17:00						**Poster**

Sep. 28 (Wed)						
2022.9.28	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
9:00-10:30	**OS4-1** MEMS Devices for Properties Sensing (90 min)	**OS2-1** Properties of composites, polymers, and organic assemblies (90 min)	**OS3-1** Instrumentation and Measurement Techniques (90 min)	**OS1-1** Materials Informatics, Database and Standards (90 min)	**OS12-1** Properties for Materials Science at High Temperatures (90 min)	
10:30-10:50	Coffee break					
10:50-12:20	**OS4-2** MEMS Devices for Properties Sensing (100 min)	**OS2-2** Properties of composites, polymers, and organic assemblies (90 min)	**OS3-2** Instrumentation and Measurement Techniques (70 min)	**OS15-1** Thermophysical Properties and Heat Transfer of Multi Phase, Phase Change (90 min)	**OS12-2** Properties for Materials Science at High Temperatures (100 min)	
12:20-14:00	Lunch					
14:00-15:50	**OS10-1** Thermal Radiative Properties (90 min)	**OS2-3** Properties of composites, polymers, and organic assemblies (90 min)	**OS3-3** Instrumentation and Measurement Techniques (100min)	**OS15-2** Thermophysical Properties and Heat Transfer of Multi Phase, Phase Change (110 min)	**OS12-3** Properties for Materials Science at High Temperatures (90 min)	
15:50-16:10	Coffee break					
16:10-18:00	**OS10-2** Thermal Radiative Properties (70 min)	**OS2-4** Properties of composites, polymers, and organic assemblies (80 min)	**OS13-1** Thermophysical Properties of Solids (60 min)	**OS15-3** Thermophysical Properties and Heat Transfer of Multi Phase, Phase Change (110 min)	**OS12-4** Properties for Materials Science at High Temperatures (90 min)	

Sep. 29 (Thu)						
2022.9.29	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
9:00-10:30	**OS10-3** Thermal Radiative Properties (70 min)	**OS5-1** Nano/Micro-scale Thermophysical Properties (90 min)	**OS13-2** Thermophysical Properties of Solids (60 min)	**OS16-1** Thermophysical Properties of Space Materials (90 min)	**OS12-5** Properties for Materials Science at High Temperatures (80 min)	
10:30-10:50	Coffee break					
10:50-12:20		**OS5-2** Nano/Micro-scale Thermophysical Properties (90 min)	**OS6-1** Properties for Energy Resources (100 min)	**OS16-2** Thermophysical Properties of Space Materials (100 min)	**OS14-1** Thermophysical Properties of Fluids (90 min)	
12:20-14:00	Lunch					
14:00-15:50	**OS17-1** Thermophysical Properties of Working Fluids and Low GWP Refrigerants (90 min)	**OS5-3** Nano/Micro-scale Thermophysical Properties (110 min)	**OS6-2** Properties for Energy Resources (90 min)	**OS7-1** Properties of Biomaterials (70 min)	**OS14-2** Thermophysical Properties of Fluids (100 min)	
15:50-16:10	Coffee break					
16:10-18:00	**OS17-2** Thermophysical Properties of Working Fluids and Low GWP Refrigerants (90 min)		**OS6-3** Properties for Energy Resources (110 min)	**OS7-2** Properties of Biomaterials (60 min)	**OS14-3** Thermophysical Properties of Fluids (60 min)	

Sep. 30 (Fri)						
2022.9.30	Room 1	Room 2	Room 3	Room 4	Room 5	Room P
9:00-10:30	**OS17-3** Thermophysical Properties of Working Fluids and Low GWP Refrigerants (90 min)	**OS11-1** Properties of Thermoelectric Materials (90 min)	**OS8-1** Properties for Sustainable Buildings and Renewable Energy Systems (100 min)	**OS9-1** Thermal Design of Electric Device (60 min)	**OS14-4** Thermophysical Properties of Fluids (80 min)	
10:30-10:50	Coffee break					
10:50-12:20	**OS17-4** Thermophysical Properties of Working Fluids and Low GWP Refrigerants (90 min)	**OS11-2** Properties of Thermoelectric Materials (70 min)	**OS8-2** Properties for Sustainable Buildings and Renewable Energy Systems (90 min)	**OS9-2** Thermal Design of Electric Device (60 min)	**OS14-5** Thermophysical Properties of Fluids (80 min)	
12:30-13:00	**Closing ceremony**					

Sep. 28 (Wed), Room 1			
Time		Speaker	Title of paper
OS4-1, MEMS Devices for Properties Sensing			
9:00-9:30	Keynote	Osamu Nakabeppu	MEMS heat flux and ion sensors for an IC engine research
9:30-9:50		Makoto Kamata	Measurement of wall heat flux in an optical engine using MEMS sensor on piston top
9:50-10:10		Taku Tanabe	Measurement of anisotropic thermal conductivity of High-Tc REBCO superconductivity thin films under low temperature and magnetic field
10:10-10:30		Yusei Kumagai	3D Bioprocessing in Collagen Hydrogel Based on Multiphoton Ablation and Cavitation
OS4-2, MEMS Devices for Properties Sensing			
10:50-11:20	Invited	Tomohide Yabuki	MEMS sensor measurements of boiling and evaporative heat transfer
11:20-11:50	Invited	Yoko Tomo	Principle and application of the micro-beam MEMS sensor
11:50-12:10		Masaaki Hashimoto	4D printing of electrothermal bimorph microactuator
12:10-12:30		Yu Yamashita	Development of additive and subtractive manufactured 3D thermally driven microactuators
OS10-1, Thermal Radiative Properties			
14:00-14:30	Invited	Taishi Nishihara	Distinct thermo-optical properties of one-dimensional system enabled by exciton
14:30-14:50		Daisuke Sato	Effect of optical-luminescent properties on solar collection performance of a hybrid concentrator photovoltaic module
14:50-15:10		Kazuki Yamaga	Non-equilibrium light emission simulation of quantum materials using fluctuational electromagnetics
15:10-15:30		Koya Misaki	Light emission measurement of graphene FETs for application to high-efficiency infrared emitters
OS10-2, Thermal Radiative Properties			
16:10-16:40	Invited	Satoshi Ishii	Daytime radiative cooling for energy harvesting in day and night
16:40-17:00		Hiroki Gonome	Black coating with variable reflectance depending on temperature
17:00-17:20		Toshiharu Chono	Prediction on thermal radiative properties of TiC/TiN superlattices using first-principles calculations

Sep. 28 (Wed), Room 2			
Time		Speaker	Title of paper
OS2-1, Properties of composites, polymers, and organic assemblies			
9:00-9:30	Invited	Tengfei Luo	Structure-Property Relation Governing Thermal Transport in Polymers
9:30-9:50		Takamasa Saito	Molecular Dynamics Study of Interfacial Affinity between Surface-Modified Inorganic Solid and Polymer
9:50-10:10		Masatoshi Tokita	Thermal Conductivity Enhancement of Liquid Crystal Polymer Composites by Grafting a Liquid Crystal Polymer onto Filler Surfaces
10:10-10:30		Masaki Hamada	Out-of-plane Thermal Diffusivity Mapping for Composite material Using Lock-in Thermography
OS2-2, Properties of composites, polymers, and organic assemblies			
10:50-11:20	Invited	Sanjay Misra	Thermally Conductivity Interface Materials - Properties and Measurements
11:20-11:40		Ryohei Fujita	Effective thermal diffusivity of CFRP based on laser-periodic-heating method using lock-in thermography: Application to quantification of early-stage fatigue damage.
11:40-12:00		Kaiwen Li	Bottom-up exploration of interaction parameters in reactive DPD simulation for epoxy polymers
12:00-12:20		Ryosuke Takehara	The Correlation between Intermolecular Interactions and Thermal Transport Properties Investigated Using Organic Single Crystals
OS2-3, Properties of composites, polymers, and organic assemblies			
14:00-14:30	Keynote	Takanori Fukushima	Organic Materials Design for Interfacial Thermal Management
14:30-14:50		Abdulkareem Alasli	Thermal imaging measurements for mapping out-plane thermal conductivity and heat capacity of composites
14:50-15:10		Yinbo Zhao	Unveiling the relationship between thermal conductivity and the structure of crosslinked epoxy resin
15:10-15:30		Wenkai Liu	Thermal conductivity of carbon nanotube-geopolymer nanocomposites by molecular dynamics simulation
OS2-4, Properties of composites, polymers, and organic assemblies			
16:10-16:30		Meguya Ryu	Microscale measurement of thermal diffusivity for soft materials by using cantilever thermocouple nanoprobes
16:30-16:50		Bertrand Garnier	In plane and out of plane thermal conductivities of natural rubber strips under stretching - Elastocaloric effect for the generation of solid-state cooling
16:50-17:10		Xiaohan Wang	Thermophysical characterization of water adsorption to covalent organic framework for thermal energy storage
17:10-17:30		Stephen Wu	Design of high thermal conductivity liquid-crystalline polyimides based on interplay of expert knowledge and machine learning

Sep. 28 (Wed), Room 3			
Time		Speaker	Title of paper
OS3-1, Instrumentation and Measurement Techniques			
9:00-9:30	Keynote	Bong Jae Lee	Measurements of Near-Field Thermal Radiation between Two Surfaces
9:30-9:50		Jianli Wang	Characterization of thermoelectric properties of individual microwires
9:50-10:10		Seiichiro Sando	Development of a method for evaluation of detector for radiation thermometer through comparison of infrared thermopile sensors and InSb photovoltaic detectors
10:10-10:30		Bahareh Khosravi	A new facility for viscosity and density measurements
OS3-2, Instrumentation and Measurement Techniques			
10:50-11:20	Invited	Jinhui Liu	Measurement of thermal transport properties of nanostructures
11:20-11:40		Sofia Mylona	A novel Thermal Conductivity Instrument for Measurements of Solids and Liquids using two Primary Transient Techniques
11:40-12:00		R S Veeraraahavan	Millisecond Pulse heating technique for specific heat measurement
OS3-3, Instrumentation and Measurement Techniques			
14:00-14:30	Invited	Minori Shirota	Frustrated Total Internal Reflection Imaging: Principle and Application to Drop Impact Study
14:30-15:00	Invited	Qin-Yi Li	In-situ thermal measurement with electron microscopy
15:00-15:20		Misaki Sakuma	Development of Fusion Spliced Near-Field Fiber Probe Using Polarization-Maintaining Fiber
15:20-15:40		Guang Yang	A 3-sensor 3ω-2ω Method for Simultaneous Measurement of Thermal Conductivity of Film & Substrate and Thermal Boundary Resistance in Solid Heterostructures
OS13-1, Thermophysical Properties of Solids			
16:10-16:40	Keynote	Bruno Hay	Recent developments at LNE in thermophysical properties metrology of solids at ultra-high temperatures
16:40-17:10	Invited	Hiromichi Watanabe	Measurements of standard enthalpy and hemispherical total emissivity on tantalum at high temperatures by multi-stepwise pulse calorimetry

Sep. 28 (Wed), Room 4			
Time		Speaker	Title of paper
OS1-1, Materials Informatics, Database and Standards			
9:00-9:30	Keynote	Yukari Katsura	Starrydata: an open literature-based experimental material property database
9:30-9:50		Xiang Huang	Screening of High Thermal Conductivity Polymers via High-throughput Molecular Dynamics Simulation and Interpretable Machine Learning
9:50-10:10		Yuanbin Liu	Graph Attention Neural Networks for Accurate Prediction of Material Properties
10:10-10:30		Vladimir Diky	Protocols for evaluating thermodynamic models in "The Properties of Gases and Liquids" 6th Ed.
OS15-1, Thermophysical Properties and Heat Transfer of Multi Phase, Phase Change			
10:50-11:20	Keynote	Peng Zhang	Thermal energy storage and retrieval performances of a packed bed with encapsulated PCM
11:20-11:40		Maurizio Grigiante	Production and characterization of novel EPDM/NBR panels with paraffin for potential thermal energy storage applications
11:40-12:00		Kenta Ando	Consideration on Shear Stress of Mixtures by Addition of cationic surfactant to Test Plate under Voltage Application
12:00-12:20		Ryozaburo Nanba	Influences of concentration of amphoteric surfactant mixture on supercooling in the cationic region applied by voltage
OS15-2, Thermophysical Properties and Heat Transfer of Multi Phase, Phase Change			
14:00-14:30	Invited	Hiroshi Suzuki	Hard-Shell Microcapsules Containing Phase Change Materials for Latent Heat Transportation
14:30-14:50		Danai Velliadou	Accurate Measurements of the Thermal Conductivity of Hexadecan-1-ol and Octadecan-1-ol in the Solid and Liquid Phases
14:50-15:10		Xudong Tang	X-ray diffraction and Fourier-transform infrared analysis on the polymorphism of D-mannitol-zeolite composite PCM
15:10-15:30		Naoki Kobayashi	Dehydration/hydration reactivity of Mg(OH)2 with low amount of Li-additives for chemical heat storage system
15:30-15:50		Soma Kizuka	Characteristics of generated ice containing ozone micro bubbles from tap water with added surfactant to use continuous ice making system
OS15-3, Thermophysical Properties and Heat Transfer of Multi Phase, Phase Change			
16:10-16:40	Invited	Naoto Haruki	Flow Drag and Heat Transfer Characteristics of Gelatin Capsule Slurry Contain-ing Latent Heat Storage Material on The Straight Pipe Test Section
16:40-17:00		Toshiya Oguma	Flow model of slurry with transition of flow pattern
17:00-17:20		Takuma Oue	Crystal growth suppression and crystal diameter control of erythritol slurry
17:20-17:40		Zhengyin Yuan	Experimental study of evaluation on latent heat utilization of a microencapsulated phase change material slurry in spraying process
17:40-18:00		Kyosuke Okuno	Synthesis and characterization of encapsulated microcapsule with silica shell and the effect of surface modification by silane coupling agents

Sep. 28 (Wed), Room 5			
Time		Speaker	Title of paper
OS12-1, Properties for Materials Science at High Temperatures			
9:00-9:30	Invited	Sergey V. Ushakov	Structure and thermodynamics of ceramics above 2000 C
9:30-9:50		Hidekazu Kobatake	Emissivity-free temperature measurement for electromagnetically levitated liquid metals using a dual-wavelength reflectance-ratio method
9:50-10:10		Manabu Watanabe	Thermophysical property measurements of Ti melt using EML with a static magnetic field
10:10-10:30		Jannatun Nawer	A comparison of thermophysical properties of CMSX-4 Plus in terrestrial and microgravity environments
OS12-2, Properties for Materials Science at High Temperatures			
10:50-11:10		Yifan Sun	Density measurement using the ‘drop-method’ with aerodynamic levitation
11:10-11:30		Huizhen Yao	An oscillating cup viscometer for molten metals at high temperatures
11:30-11:50		Masayoshi Adachi	Surface tension measurement of copper matte melts using an aerodynamic levitation technique
11:50-12:10		Shingo Ishihara	Development of a correction method for surface tension measured by aerodynamic levitation
12:10-12:30		Yoshiaki Abe	Effects of surface temperature on stability of aerodynamic levitation technique
OS12-3, Properties for Materials Science at High Temperatures			
14:00-14:30	Invited	Osamu Takeda	Viscosity measurement of high temperature melts in wide viscosity range
14:30-14:50		Kento Nakanishi	Viscoelasticity Evaluation of Suspensions with High Solid Fraction by Oscillating Concentric Cylinder Method
14:50-15:10		Kento Nakanishi	Viscosity Measurement of Liquid-Vapor Coexisting Molten Oxide
15:10-15:30		Sohei Sukenaga	Viscosity of silicate melts containing transition metal cations
OS12-4, Properties for Materials Science at High Temperatures			
16:10-16:40	Keynote	Pierre Florian	Aluminium Local Environment and Dynamics in Aluminosilicate Melts: a High-Temperature Nuclear Magnetic Resonance Approach
16:40-17:00		Toshiki Kondo	Thermophysical property of molten (Fe2O3)0.95-(SiO2)0.05 by aerodynamic levitation
17:00-17:20		Masahito Watanabe	Temperature dependence of thermophysical properties of multicomponent molten oxides used for welding flux by electrostatic levitation furnace in International Space Station
17:20-17:40		Hirohisa Oda	Thermophysical property measurement of refractory oxides melts by Electrostatic Levitation Furnace on the International Space Station

Sep. 29 (Thu), Room 1			
Time		Speaker	Title of paper
OS10-3, Thermal Radiative Properties			
9:00-9:30	Keynote	Bo Zhao	Nonreciprocal Thermal Radiation Control and Its Applications in Solar Energy Harvesting
9:30-9:50		Ken Araki	Epitaxial growth of vanadium dioxide for thermochromic coatings
9:50-10:10		Kazuma Isobe	Switching of broadband thermal emissivity utilizing the phase transition of vanadium dioxide
OS17-1, Thermophysical Properties of Working Fluids and Low GWP Refrigerants			
14:00-14:30	Invited	Monika Thol	Equations of State for the Calculation of Thermodynamic Properties of Pure Fluids and Mixtures
14:30-14:50		Sho Fukuda	Application of the universal ECS model to property calculations for R1130E
14:50-15:10		Yuya Kano	Speed of sound and dielectric permittivity measurements for R1336mzz(Z) and R1336mzz(E) in the vapor phases
15:10-15:30		Xiayao Peng	Experimental Speed of Sound for cis-1,3,3,3-Tetrafluoropropene (R1234ze(Z)) and Hexafluoropropene (R1216) in Gaseous Phase
OS17-2, Thermophysical Properties of Working Fluids and Low GWP Refrigerants			
16:10-16:40	Invited	L. Fedele	Thermophysical properties and applications of low GWP refrigerants: an update
16:40-17:00		Giulia Lombardo	Isothermal (vapour + liquid) equilibrium measurements and correlation of the binary mixture {3,3,3-trifluoropropene (HFO-1243zf) + 2,3,3,3-tetrafluoropropene (HFO-1234yf)} at temperatures from 283.15 to 333.15 K.
17:00-17:20		Kentaro Kitabatake	Vapor-Liquid Equilibrium Measurement of HFO1123 + CF3I and HFC125+CF3I
17:20-17:40		Shuzhou Peng	Vapor-liquid equilibrium measurements and predictions for the ternary mixture of R1234yf + R32 + CO2

Sep. 29 (Thu), Room 2			
Time		Speaker	Title of paper
OS5-1, Nano/Micro-scale Thermophysical Properties			
9:00-9:30	Keynote	Austin Minnich	Atomic tunneling and ultralow thermal conductivity of BaTiS3
9:30-9:50		Lei Yang	Significant anharmonicity of thermal transport in amorphous silica at high temperature
9:50-10:10		Takuma Shiga	Lattice dynamics study on the impacts of surface phonons and small-size air-hole on heat conduction in a two-dimensional phononic structure
10:10-10:30		Yen-Ju Wu	Asymmetric interfacial thermal resistance at metal/nonmetal interfaces under bidirectional heat fluxes
OS5-2, Nano/Micro-scale Thermophysical Properties			
10:50-11:20	Invited	Aoran Fan	In situ measurement of interface effect on supported graphene with different layers
11:20-11:40		Jing Zhou	Systematic investigations on the efficiency of graphene in thermal management
11:40-12:00		Rodrigo Olaya	Axial and radial thermal conductivities of carbon fibers and first tests highlighting the effect of the thermal contact resistance between fibers
12:00-12:20		Atsushi Takahagi	Increasing the sensitivity of lock-in thermoreflectance using thermochromic liquid crystal
OS5-3, Nano/Micro-scale Thermophysical Properties			
14:00-14:30	Invited	Donatas Surblys	Estimating Interface Thermal Conductance via Molecular Dynamics regardless of Surface Morphology
14:30-14:50		Zhiqiang Li	Thermal transport across copper-water interface from deep potential molecular dynamics
14:50-15:10		Takaki Imaizumi	Evaluation of Interfacial Thermal Resistance between Gold and Water using Tripodal Triptycene SAMs with Various Surface Functional Groups
15:10-15:30		Haiyi Sun	Investigation into interfacial heat transfer between paraffin and diverse silica walls
15:30-15:50		Yuanying Zhang	Effect of Paraffin Wax Added Carbon Nanotubes on Melting Latent Heat under different pressure: a Molecular Research

Sep. 29 (Thu), Room 3			
Time		Speaker	Title of paper
OS13-2, Thermophysical Properties of Solids			
9:00-9:20		Megumi Akoshima	Thermal diffusivity of thermal insulation composite made of carbon nanoparticle and flat carbon particle by the laser flash method
9:20-9:40		Mu Li	Development of Quartz Glass as a Certified Reference Material for Thermal Diffusivity Measurements
9:40-10:00		Megumi Akoshima	In-plane and cross-plane thermal diffusivities of plasma-sprayed thermal barrier coatings
OS6-1, Properties for Energy Resources			
10:50-11:20	Keynote	Eric F. May	Predicting Solid Formation in Energy Production Systems
11:20-11:50	Invited	Amadeu K. Sum	Clathrate Hydrates as Enabling Materials for Energy Solutions
11:50-12:10		Jiwoong Seol	Incorporating Oxirane (epoxy) Promoters in Methane Hydrates: Structural and Thermodynamic Investigation
12:10-12:30		Paul Edward Brumby	Gas hydrates as a medium for energy storage and carbon capture from Gibbs ensemble Monte Carlo simulations
OS6-2, Properties for Energy Resources			
14:00-14:30	Invited	Jiangtao Wu	Thermophysical Properties of Long-Chain Alkanes with Dissolved Carbon Dioxide involved in Fischer-Tropsch Synthesis
14:30-14:50		Masashi Sato	Study on thermal conductivity measurement of TBA+ class semiclathrate hydrates by transient hot-wire method
14:50-15:10		Tao YANG	Interfacial Tension for Mixtures of Hydrogencarbons with Dissolved Carbon Dioxide: Insight from the Molecular Simulation Study
15:10-15:30		Satoki Ishiai	New Approach for Classification of Water, Ice, and Clathrate Hydrate structure by Graph Neural Networks
OS6-3, Properties for Energy Resources			
16:10-16:40	Invited	Naoya Sakoda	PVTx Property Measurement of a Hydrogen Binary Mixture by an Isochoric Method and Application of the Method to Other Properties
16:40-17:00		Yuui Ono	Structure and behavior of water and alcohol molecules in Janus charged carbon nanotubes
17:00-17:20		Kiyoshiro Okada	A Resource-Utilizing Random Number Generation Method for Simulation
17:20-17:40		Manuel Kerscher	Thermophysical properties of bicyclic hydrocarbon liquid organic hydrogen carriers
17:40-18:00		Ximei Liang	Density and Viscosity measurements of n-hexadecane, 2,2,4,4,6,8,8- heptamethylnonane, and squalene at temperatures from (298 to 548) K and pressures up to 10 MPa

Sep. 29 (Thu), Room 4			
Time		Speaker	Title of paper
OS16-1, Thermophysical Properties of Space Materials			
9:00-9:30	Keynote	Masahito Tagawa	Perspective on Atomic Oxygen Reaction with Thermal Control Materials in Space
9:30-9:50		Horimoto Sasuga	A research on degradation of thermal control material of spacecraft in sub-Low Earth Orbit
9:50-10:10		Azusa Sudo	Directional Control of Emissivity/Reflectivity using Metasurfaces for Spacecraft Radiators
10:10-10:30		Keisuke Ezaki	Performance change by atomic oxygen irradiation on field emission cathode
OS16-2, Thermophysical Properties of Space Materials			
10:50-11:20	Invited	Takuya Ishizaki	Measurement of Microscopic Thermal Diffusivity Distribution for Ryugu Sample by IR Lock-in Periodic Heating Method
11:20-11:50	Invited	Naoko Iwata	Effect of thermophysical properties of working fluid on performance of pulsating heat pipes
11:50-12:10		Yuto Saisho	Estimation of Total Hemispherical Emittance at Cryogenic Temperatures by Measurement of Directional Reflectance
12:10-12:30		Shoma Taira	Development of Atmospheric Density Measurement System for Sounding Rocket S-520 Flight 32
OS7-1, Properties of Biomaterials			
14:00-14:30	Keynote	Kohki Okabe	Temperature Mapping in a Single Living Biological Cell
14:30-14:50		Ren Umeno	Development of single-cell bio-calorimeter with free-standing microchannel structure
14:50-15:10		Kang Hu	Electric field alignment dominates the water rotation dynamics in protein solutions
OS7-2, Properties of Biomaterials			
16:10-16:40	Invited	Lin Qiu	Skin water content measurement using conformal sensor-based harmonic wave technique
16:40-17:00		Arup Kar	Characterization of Physical, Structural, Morphological, Thermal and Mechanical Properties of NaOH Treated Calamus tenuis fibers

Sep. 29 (Thu), Room 5			
Time		Speaker	Title of paper
OS12-5, Properties for Materials Science at High Temperatures			
9:00-9:20		Keisuke Niino	Cs release behavior from Pb-Bi ADS target
9:20-9:40		Yang Mingyang	Anti-sintering mechanism and enhanced thermal stability of silica aerogels under very-high temperature
9:40-10:00		Rie Endo	Relation between non-stoichiometry and thermal effusivity in Fe1-xO scale
10:00-10:20		Frolov Alexander	Composition of carbon vapor in the close vicinity of its triple
OS14-1, Thermophysical Properties of Fluids			
10:50-11:20	Keynote	Lin Chen	Thermophysical Properties of Supercritical Fluid: Crossing Critical and Pseudo-Critical Phenomena
11:20-11:40		Xiong Xiao	Measurement and modelling of the thermodynamic properties of CO2 + difluoromethane (R32): density, vapour-liquid equilibrium, and heat capacity
11:40-12:00		Kosei Oguchi	Verification of the Effect of Hydrogen Bonds in Ordinary Water Substance based on the Revised Release on the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use
12:00-12:20		Juan Wang	Compressed liquid densities of propionic acid and formamide at temperatures from (283 to 363) K and pressures up to 100 MPa
OS14-2, Thermophysical Properties of Fluids			
14:00-14:20		Liu Xu	The reliable prediction of high-temperature thermodynamic properties for nonpolar, polar and quantum fluids.
14:20-14:40		Aaron J. Rowane	Speed of Sound Measurements of Sixteen HFC + HFC Refrigerant Blends
14:40-15:00		Ziwen Zhang	Measurement and correlation of isobaric molar heat capacities of deep eutectic solvents (choline chloride + triethylene glycol)
15:00-15:20		Ryosuke Yamaguchi	Microscopic liquid thermometry by fluorescence polarization analysis
15:20-15:40		Souta Koreeda	Microwave makes faster light speed in aqueous solution
OS14-3, Thermophysical Properties of Fluids			
16:10-16:30		Alexander Marsteller	Monte Carlo Uncertainty Study of a Spinning Rotor Gauge Viscometer
16:30-16:50		Lin Chen	Effects of Boundary and Bulk Viscosity Variations on the Development of Dynamic Waves in Fluid at Near-Critical State
16:50-17:10		Thomas Manfred Koller	Characterization of Multiphase Systems in Chemical and Energy Engineering
17:10-17:30		Tobias Klein	Viscosity and Interfacial Tension of Long Linear or Branched Alkanes, Alcohols, and their Mixtures with Dissolved Gases

Sep. 30 (Fri), Room 1			
Time		Speaker	Title of paper
OS17-3, Thermophysical Properties of Working Fluids and Low GWP Refrigerants			
9:00-9:30	Keynote	Ian Bell	Binary mixture models for some mixtures containing halogenated hydrocarbons
9:30-9:50		Monjur Morshed	Application of extended corresponding state modeling technique for prediction of viscosity of novel low GWP working fluids
9:50-10:10		Kosei Oguchi	An Experimental Study of the pVTx Properties for Aqueous Solutions of Ammonia Second Report, Experimental Data Sets and Their Reliability
OS17-4, Thermophysical Properties of Working Fluids and Low GWP Refrigerants			
10:50-11:20	Invited	Peng Hu	Study on Vapor-Liquid Equilibrium Properties and Critical Properties of Mixtures Containing Hydrofluoroolefins
11:20-11:40		Rui Sun	Measurement and Correlation on Critical Properties of CO2-Based Binary Mixture Working Fluid
11:40-12:00		Kyaw Thu	An isochoric setup for PvT properties from low to medium temperature range
12:00-12:20		Vaclav Vins	Properties of hydrofluoroethers ¬– Experimental data for surface tension and density at 0.1 MPa and modeling with Peng-Robinson and PC-SAFT equations of state

Sep. 30 (Fri), Room 2			
Time		Speaker	Title of paper
OS11-1, Properties of Thermoelectric Materials			
9:00-9:30	Invited	Xin Qian	Harvesting Low Grade Heat with Ionic Themoelectrics
9:30-9:50		Yifei Li	Enhancing thermoelectric properties of SnSe film by vacancy effect
9:50-10:10		Yinan Nie	Computational study on the thermoelectric properties of single ZnO nanowire
10:10-10:30		André Siewe Kamegni	Nonlinear in space temperature distribution and thermo-E.M.F. in a bipolar semiconductor
OS11-2, Properties of Thermoelectric Materials			
10:50-11:20	Invited	Ivana Savic	Thermoelectric properties of PbTe: Structural phase transition and high valley degeneracy
11:20-11:40		Koji Miyazaki	Interfacial Thermal resistance between Bi2Te3 and CsSnI3
11:40-12:00		Xinlei Duan	Electron mobility in ordered β-(AlxGa1-x)2O3 alloys from first-principles

Sep. 30 (Fri), Room 3			
Time		Speaker	Title of paper
OS8-1, Properties for Sustainable Buildings and Renewable Energy Systems			
9:00-9:20		Alberto Muscio	An experimental method to accelerate the study of biofouling process on building surfaces
9:20-9:40		Yuya Takahashi	Study on measurement method of thermal conductivity using a compact sensor
9:40-10:00		Hajime Sawada	Simple measurement method of thermal conductivity of thermal insulation under low temperature range
10:00-10:20		Shuto Tsuchida	Effect of ground reflection property on power generation performance of bifacial photovoltaic array
10:20-10:40		Shinichi Kinoshita	Numerical Analysis of the Effect of Internal Structure and Additive Particles on Thermal Performance of Vacuum Insulation Panel
OS8-2, Properties for Sustainable Buildings and Renewable Energy Systems			
10:50-11:20	Keynote	Youhei Numata	Perovskite solar cells; Basic mechanisms and fundamental characteristics related with thermal properties
11:20-11:50	Invited	Salim Newaz Kazi	Synthesis and application of high performance metal, carbon structured and composite heat exchanger fluids
11:50-12:20	Invited	Suresh Sivan	Thermophysical properties of solid-solid PCM and application to renewable energy systems

Sep. 30 (Fri), Room 4			
Time		Speaker	Title of paper
OS9-1, Thermal Design of Electric Device			
9:00-9:30	Keynote	Tetsuro Ogushi	Steady-State Modified Heat Flow Method and Modified Temperature Profile Method for Longitudinal Thermal Conductivity Measurement Without Using Thermal Insulation Around Rods and Specimen
9:30-10:00	Invited	Kazuaki Sanada	Standardization of measurement procedures for thermal conductivity of polymer composites in electronic devices
OS9-2, Thermal Design of Electric Device			
10:50-11:10		Tianzhuo Zhan	Thermal Boundary Resistance of Ruthenium Interconnects in Next Generation VLSI
11:10-11:30		Masaaki Baba	Relationship between thermophysical properties of solid-solid phase change materials and temperature leveling performance
11:30-11:50		Yang Shen	Effective Spreading Thermal Conductivity of Wide Bandgap Semiconductors in Ballistic-Diffusive Regime

Sep. 30 (Fri), Room 5			
Time		Speaker	Title of paper
OS14-4, Thermophysical Properties of Fluids			
9:00-9:20		Frances Daggett Lenahan	Characterization of Mutual Diffusion in Liquids with Dissolved Gases
9:20-9:40		Takumi Ijichi	Analysis of thermophysical property and gas-liquid coexistence characteristic in oxygen-hydrogen mixture system using molecular simulation
9:40-10:00		Shoutarou Torii	Measurement of Thermophysical Properties of Liquids with Temperature Dependence by Photoacoustic Method
10:00-10:20		Vaclav Vins	Surface tension of binary aqueous mixtures with ethylene glycol and sodium chloride including metastable supercooled state
OS14-5, Thermophysical Properties of Fluids			
10:50-11:10		Alexander A. Pribylov	Regularities and universal lines in behavior of the isobaric expansivity of pure liquids and mixtures under high pressures
11:10-11:30		Tomoya Tsuji	Solid-liquid Equilibria for Ethanol – Water - 4-Aminoantipyrine and the constituent binaries
11:30-11:50		Tomohiko Yamaguchi	Measurement of dew point pressure for ammonia+water mixture in low water content
11:50-12:10		Fengyi Li	Prediction of the thermal conductivity of H2/CO2/CO/CH4/H2O mixtures at high temperatures and high pressures based on the extended corresponding states principle

Poster Session

Paper ID	Presenter	Affiliation	Paper title
5013-2	Souta Koreeda	University of Hyogo	Refractive index of NaCl aqueous solution during microwave irradiation
5013-3	Yusuke Watanabe	University of Hyogo	Refractive index of water during two-stage microwave irradiation
5013-4	Takahiro Takai	University of Hyogo	Stability of molecular cluster in solution through refractive index during microwave irradiation
5013-5	Ryohei Yakata	University of Hyogo	Prevention for microwave local heating using dimensionless numbers with thermal property
5014-1	Satoaki Ikeuchi	ADVANCE RIKO Inc.	Development of evaluation instrument in low thermal resistance device by flow calorimeter
5023-1	Yurina Wakita	Kansai University	Low-temperature operatable electric power supply for CubeSats using VO2-based phase change material
5027-1	Sanehiro Muromachi	National Institute of Advanced Industrial Science and Technology (AIST)	High pressure DSC measurements of gas hydrates by a novel method
5029-1	Dong-Wook Oh	Chosun University	Sensitivity Analysis of H2 ConcentrationMeasurement by Using the 3 Omega Method
5064-1	Yojong Choi	Korea Basic Science Institute	Analysis of the Behavior of Heat Generated by AC Loss of a Superconducting Magnet under Liquid Helium Cooling
5066-1	Gang Wang	Beijing University of Civil Engineering and Architecture	Experimental and numerical investigation of vapor-liquid equilibrium for ammonia-water-lithium bromide ternary working fluid
5072-1	Riko Hirata	Aoyama Gakuin University	Electrical and thermal character changes for Gd thin film by Gaschromic method using a H2/Ar mixed Gas
5083-1	Yang Hu	Xi'an Jiaotong University	Synthesis of SiO2 aerogel composite for thermal insulation via ambient-freezed drying method with great formability
5091-1	Kosuke Ikeda	Toyama Prefectural University	Gas Separation of CH_4/CO_2 Mixed Gas by Semiclathrate Hydrates
5094-1	Salal Hasan Khudaida	National Taipei University of Technology	Measurement of dissociation condition and induction time for carbon dioxide hydrate with additive
5094-2	Salal Hasan Khudaida	National Taipei University of Technology	Experimental cocrystal screening and characterization for an anticancer drug, p-toluenesulfonamide
5104-1	Ryo Ishiwata	Gakushuin University	Normal spectral emissivity determination of multi-component molten oxide for measurement of temperature dependence of thermophysical properties by ELFs in ISS
5105-1	Hiroki Yagi	Aoyama Gakuin University	Contribution of free electrons to thermal conductivity change of Pd-catalyzed Ni-Mg alloy films by hydrogenation reaction
5107-1	Chenbo He	School of Energy and Power Engineering, Xi'an Jiaotong University	Temperature-dependent elastic modulus prediction based on thermal conductivity for silica aerogels
5113-1	Riku Shimaura	Aoyama gakuin University	Heat transport properties for amorphous and polycrystalline WO3 films
5117-1	Naoki Noda	Aoyama Gakuin University	The effect of film structure on the thermal conductivity for Al2O3 thin films prepared by sputtering method
5130-1	Kosuke Sugimoto	Aoyama gakuin University	Thermal and structural Characteristics for Y-Mg alloys thin film in hydrogenation and dehydrogenation states
5131-1	Taketo Onishi	Keio University	Development of Optical Viscosity Sensor for in-situ Tear Viscometry
5177-1	Zhan Zhu	Huazhong University of Science and Technology	Topological design and implementation of anisotropic thermal conductivity
5179-1	Fang Xie	China University Of Petroleum - Beijing	Experimental study of shale thermal conductivity anisotropy
5187-1	Lu Jin	North China Electric Power University	Molecular dynamics study on thermal diffusivities of nanoscale thin water films
5188-1	Takashi Unno	Yamagata University	Analysis for the Effect of Dust Attachment on Radiative Properties in Spacecraft Surface
5192-1	Ayumi Mio	Chiba Institute of Technology	Surface tension of molten zircalloy measured by oscillating droplet method using electromagnetic levitation
5199-1	Hongyu Pan	Harbin Institute of Technology	Effect of morphology and configuration of nanoparticles on the radiation characteristics of the semitransparent composite coating
5235-1	Ziad Maksassi	Nantes University	Thermal characterization of mussels around an umbilical cable: Application to offshore wind turbine