

MONDAY - AUGUST 01, 2016

SESSION I Kuilima <i>Presiding: David P. Remeta and Hitoshi Kawaji</i>	
8:15 – 8:30	Welcoming Remarks / General Announcements: Richard D. Sheardy, Kazuya Saito, and David P. Remeta
8:30 – 9:30	Tooru Atake Award Lecture: Marcelo Jaime THE ADIABATIC PHYSICS OF MAGNETIC MATERIALS IN EXTREME FIELDS BEYOND 100T
9:30 – 10:00	Refreshment Break - Conference Cove
SESSION II Kuilima <i>Presiding: Richard D. Sheardy and Sandro Keller</i>	
10:00 – 11:00	Plenary Lecture - Biomolecular Structure, Function, and Stability: M. Thomas Record SOLUTE INTERACTIONS AND THEIR RELEVANCE FOR BIOPOLYMER SELF-ASSEMBLY
11:00 – 12:00	Plenary Lecture - Colloids and Surfactants: Ronald N. McElhaney EFFECTS OF CHOLESTEROL PRECURSORS ON THE THERMOTROPIC PHASE BEHAVIOR AND ORGANIZATION OF LIPID BILAYER MEMBRANES
12:00 – 13:30	Lunch - Kuilima 1

SESSION III **Parallel Sessions: Kahuku 1 and Kahuku 2**

Kahuku 1 Atake Memorial Symposium : Liquid and Glass <i>Presiding: Yasuhiro Nakazawa</i>			Kahuku 2 Macromolecular Interactions and Solvent Effects <i>Presiding: Richard D. Sheardy</i>		
13:30 - 13:40		Yasuhiro Nakazawa and Hitoshi Kawaji Opening Remarks	13:30 - 14:00	8	Susumu Uchiyama Influence of Stirrer Paddle Shape and Stirring Rate on the Thermodynamic Parameters of Isothermal Titration Calorimetry
13:40 - 14:10	4	Emmerich Wilhelm Compressive Behavior of Dense Fluids and a Modified Tait Equation	14:00 - 14:30	9	José Manuel del Río Isothermal Titration Calorimetry: Thermodynamics of the Titration Process
14:10 - 14:40	5	Christoph Schick New Insights into Polymer Crystallization by Fast Scanning Chip Calorimetry	14:30 - 14:50	10	Kouhei Tsumoto How We Can Improve the Affinity of Antibodies for Targets
14:40 - 15:10	6	Jean-Luc Garden Thermal Effects on The Pvc Glass Transition Studied By Highly Sensitive Ac-Nanocalorimetry	14:50 - 15:10	11	Alex T. Sheardy Towards the Synthesis of a Carbon Quantum Dot-Copper Sulfide Core-Shell Nanoparticle for Photothermal Therapy
15:10 - 15:30	7	Atsuko Uchida Heat Capacity Difference Around Glass Transition Temperature of Ni-Based Metallic Glasses	15:10 - 15:30	12	Venkata Machha Temperature Dependent Transfer Chemical Potentials of Amino Acids from Water to 1M Urea

15:30 – 16:00 **Refreshment Break – Conference Cove**

SESSION IV **Parallel Sessions: Kahuku 1 and Kahuku 2**

Kahuku 1 Atake Memorial Symposium : Nanosystems <i>Presiding: Jean-Luc Garden</i>			Kahuku 2 Characterization of Lipid Bilayers <i>Presiding: Hitoshi Matsuki</i>		
16:00 - 16:30	13	Brian F. Woodfield Heat Capacities, Excess Entropies, and Magnetic Properties of Bulk and Nano Fe₃O₄-Co₃O₄ and Fe₃O₄-Mn₃O₄ Spinel Solid Solutions	16:00 - 16:30	18	Nobutake Tamai Pressure Perturbation Calorimetry for the Volumetric Characterization of Lipid Bilayers
16:30 - 16:50	14	Osamu Yamamuro Thermodynamic and Neutron Scattering Study on Palladium Hydride Nanoparticles	16:30 - 16:50	19	Carolyn Vargas Functional Solubilization of a Membrane Protein into New Lipid/Polymer Nanodiscs
16:50 - 17:20	15	Maksym S. Barabashko Heat Capacity of 1D Chains of Xe, N₂, CH₄	16:50 - 17:20	20	Mafumi Hishida Towards a Systematic Understanding of the Effects of Incorporated Molecules on Phospholipid Bilayers
17:20 - 17:40	16	Tomokazu Komiyama Phase Transition of Water and Organic Molecules Adsorbed in Nanopores of Metal-Organic Frameworks, HKUST-1	17:20 - 17:40	21	Hatsuho Usuda A Rigid Core Part and an Alkyl Chain in <i>n</i>CB Elicit Contrasting Effects on the Phase Behavior of Lipid Bilayers
17:40 - 18:00	17	Atsushi Nagoe Low-Temperature Thermal Behaviors of Liquid Benzene Confined within Silica Nanopores	17:40 - 18:00	22	Hitoshi Matsuki Temperature- and Pressure-Induced Phase Transitions of Diacylphosphatidylethanolamine Bilayers

TUESDAY - AUGUST 02, 2016

SESSION V Kuilima <i>Presiding: David P. Remeta and Carlos A. Montanari</i>	
8:15 – 8:30	General Announcements: Richard D. Sheardy, Kazuya Saito, and David P. Remeta
8:15 – 9:30	Hugh M. Huffman Memorial Award Lecture: John E. Ladbury CALORIMETRIC INPUT TO DRUG DEVELOPMENT - PANACEA OR PIPE(LINE) DREAM
9:30 – 10:00	Refreshment Break - Conference Cove
SESSION VI Kuilima <i>Presiding: Richard D. Sheardy and John Jacquemin</i>	
10:00 – 11:00	Plenary Lecture, Macromolecular Association and Recognition: Vincent F. Hilser THERMODYNAMICS AND DYNAMICS OF COLD ADAPTATION IN ENZYMES
11:00 – 12:00	Plenary Lecture, Thermodynamic Properties of Ionic Liquids: Masayoshi Watanabe IONIC LIQUIDS: BORDER BETWEEN IONIC LIQUIDS AND ELECTROLYTE SOLUTIONS
12:00 – 13:30	Lunch - Kuilima 1

SESSION VII Parallel Sessions: Kahuku 1 and Kahuku 2

Kahuku 1 Atake Memorial Symposium : Materials Science and Applications <i>Presiding: Marcelo Jaime</i>			Kahuku 2 Methodological Approaches to Characterize Macromolecular Interactions <i>Presiding: Conceição A. Minetti</i>		
13:30 - 14:00	26	Minoru Hanaya Development of Dye-Sensitized Solar Cells with Alkoxysilyl Dyes	13:30 - 14:00	30	Verna Frasca Characterization of Epigenetic Protein Interactions with Chromatin Using Isothermal Titration Calorimetry
14:00 - 14:30	27	Yuko Ichiyanagi AC Magnetic Susceptibility and Heat Dissipation by Magnetic Nanoparticles for Hyperthermia Treatment	14:00 - 14:30	31	Juan Sabin New Advances in Isothermal Titration Calorimetry: Going Far Beyond Traditional Analysis with AFFINImeter
14:30 - 15:00	28	Harukazu Yoshino Thermal Conductivity of The Organic Conductors: Phase Transitions and Thermoelectric Figure of Merit	14:30 - 15:00	32	Grzegorz Piszczek Use of ITC Displacement Titrations in Metal Ion Binding Affinity Measurements
15:00 - 15:20	29	Takuya Hashimoto Thermodynamic and Kinetic Analysis of CO ₂ Absorption Reaction of Li ₄ SiO ₄	15:00 - 15:30	33	Huaying Zhao Fluorescence Detection in Analytical Ultracentrifugation Using Photoswitchable Proteins as Time Domain Probes

15:30 - 16:00 Refreshment Break - Conference Cove

SESSION VIII Parallel Sessions: Kahuku 1 and Kahuku 2

Kahuku 1 Atake Memorial Symposium : Solid State Physics <i>Presiding: Harukazu Yoshino</i>			Kahuku 2 Thermodynamic Properties of Ionic Liquids <i>Presiding: Osamu Yamamuro</i>		
16:00 - 16:30	34	Yuko Hosokoshi Thermal Study on Quantum Spin Systems Composed of Organic Radicals	16:00 - 16:30	38	Ryo Kanzaki Thermodynamic Approach on Chemical Reaction in Ionic Liquid
16:30 - 17:00	35	Toshiro Sakakibara Probing the Gap Structures of Heavy-Fermion Superconductors by Heat Capacity Measurements in a Rotating Magnetic Field	16:30 - 17:00	39	Yoshikata Koga Two Dimensional Characterization of Ions: What We Call the 1P Probing Methodology
17:00 - 17:20	36	Suguru Kitani Low-Temperature Lattice Properties of Geometrically Frustrated Pyrochlore Magnets R ₂ Ti ₂ O ₇ (R=Tb, Dy, and Ho)	17:00 - 17:30	40	Christoph Schick Vapor Pressure of Ionic Liquids at Low Temperatures from Fast Scanning and AC-Chip-Calorimetry
17:20 - 17:40	37	Shusaku Imajo Thermodynamic Study of Gap Symmetry of the Organic Superconductor λ -(BETS) ₂ GaCl ₄	17:30 - 18:00	41	Johan Jacquemin New Method for the Estimation of Viscosity of Pure and Mixtures of Ionic Liquids Based on the UNIFAC-VISCO Model

18:00 - 19:30 Calorimetry Tutorial - Verna Frasca (Malvern Instruments) / Juan Sabin (AFFINImeter) - Kuilima

19:30 - 21:00 Poster Reception - Kuilima 1

TUESDAY – AUGUST 02, 2016

Poster Reception - Kuilima 1

42	Hiroyuki Aoki	Thermal Hazard Analysis of Methylcyclohexane in a Dehydrogenation Process
43	Yu-ichiro Izato	A Screening Method for Searching High Performance and Low Melting Point Compositions of ADN Based Deep Eutectic Energetic Ionic Liquid Propellants
44	Christoph Schick	Isothermal and Nonisothermal Crystallization of Polyethylene at Large Undercooling
45	Christoph Schick	Glass Transition and Stable Glass Formation of Tetrachloromethane Revealed from AC-Chip-Calorimetry
46	Kento Shiota	Effects of 1, 2, 4-triazole Derivatives on Solid State Phase Transition of Ammonium Nitrate
47	Takashi Suzuki	Thermodynamic Study of the Oxide-Framework Conversion Reaction of Hydrated Alkali-Metal Molybdenum Bronze at Room Temperature
48	Noriko Yamamuro	Microscopic Dynamics and Phase Diagram of Bioprotective Glycine Betaine Solutions
49	Johan Jacquemin	The Effect of Isomerism on the Isobaric Heat Capacity in Two Ranges of Ionic Liquids
50	Ayako Nitta	Studies of Aqueous Solution of Ionic Liquid [P₄₄₄₄]CF₃COO by 1-Propanol Probing and SAXS
51	Kazuki Yonenaga	Hydrophobicity/Hydrophilicity of Ammonium-Based Ionic Liquid Cations and Its Aggregation State in Dilute Aqueous Solution
52	Michał Wlazło	Activity Coefficients at Infinite Dilution for Organic Solutes and Water in the 1-Benzyl-3-Methylimidazolium Ionic Liquids

Poster Reception - Kuilima 1

53	Michał Wlazło	Separation of Saturated and Unsaturated Hydrocarbons by 1-Allyl-3-Methylimidazolium Ionic Liquids
54	Michał Wlazło	Ionic Liquids in Extraction of Butanol from Water
55	Hidetaka Hayashi	Excess Enthalpies of Amine + Alcohol in Binary and Ternary Solution
56	Yuya Murakami	Correlation Between Orientation Polarization and Thermodynamic Properties for Pentane + Alkanols
57	Magdalena Gizowska	Investigation of Microwave Induced Combustion Synthesis of Nanometric $Y_3Al_5O_{12}$ by Thermal Analysis
58	Milena Zalewska	Influence of Conditions of Gallium Nitride Single Crystal Growth on its Decomposition Temperatures
59	Akiyoshi Tanaka	Calorimetric Analysis of the Growth of <i>Clostridium</i> Microbes under Anaerobic Conditions
60	Akiko Ishii	Tautomeric Proportions of D-Fructose in Aqueous Solution Determined from 1D ^{13}C -NMR Spectra Between 5 and 30 Weight Percent at 25 °C
61	Kazuki Shimotani	Effect of Ionic Liquid on Flexibility of Protein Under High Pressure
62	Tomoya Takahashi	Thermodynamic Analysis of Molecular Recognition between Tea Catechins and Human Serum Albumin
63	Conceição A.S.A. Minetti	Energetics of Metal-Integrin Interactions and Their Role in the Specific Recognition of Collagen Triple Helical Sequences

WEDNESDAY - AUGUST 03, 2016

SESSION IX	Kuilima	<i>Presiding: David P. Remeta and Kazuya Saito</i>
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8:15 – 8:30	General Announcements: Richard D. Sheardy, Kazuya Saito, and David P. Remeta
8:30 – 9:30	James J. Christensen Memorial Award Lecture: Yasuhiro Nakazawa INVESTIGATION OF π -ELECTRON SYSTEMS WITH NOVEL MAGNETIC AND SUPERCONDUCTING FEATURES: A THERMODYNAMIC APPROACH

9:30 – 10:00	Refreshment Break - Conference Cove
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SESSION X	Kuilima	<i>Presiding: Hideo Ogawa</i>
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10:00 – 11:00	Plenary Lecture - Liquid Solutions over Extended Ranges of Temperature and Pressure: Takashi Makino CO ₂ ABSORPTION IN IONIC LIQUIDS OVER WIDE RANGES OF TEMPERATURE AND PRESSURE
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SESSION XI	Parallel Sessions: Kuilima, Kahuku 1, Kahuku 2
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Kuilima Protein Targets in Drug Discovery <i>Presiding: Etsuo Yonemochi</i>			Kahuku 1 Properties of Ionic Liquids <i>Presiding: Osamu Yamamuro</i>			Kahuku 2 Liquid Solutions <i>Presiding: Jean-Pierre E. Grolier</i>		
11:00 - 11:30	66	Carlos A. Montanari Thermodynamic Signatures of Cruzain-Dipeptidyl Nitrile Interactions: The Energetic Basis for Optimization of Cysteine Protease Inhibitors	11:00 - 11:30	68	Ramesh L. Gardas Dominant Effect of Anions on Thermal Stability and Thermophysical Properties of Ionic Liquids	11:00 - 11:30	69	GuoSong Fang Excess Enthalpies of Binary Mixtures over Wide Ranges of Temperature and Pressure Including the Critical Region
11:30 - 12:00	67	Satoru Nagatoishi Calorimetric Characterization of the Interaction Between an Intrinsically Disordered Protein YB-1 and Nucleic Acids				11:30 - 12:00	70	Hideo Ogawa Enthalpies of Mixing for Binary Mixtures of Water + Alkanols or Water + Ketones at High Temperature and Pressure

12:00 – 13:00	Lunch - Kuilima 1
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13:00 – 22:00	Waikiki Excursion
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THURSDAY - AUGUST 04, 2016

SESSION XII Kuilima						<i>Presiding: David P. Remeta and Conceição A. Minetti</i>					
8:15 – 8:30			General Announcements: Richard D. Sheardy, Kazuya Saito, and David P. Remeta								
8:30 – 9:30			Plenary Lecture - Specialized Applications of Calorimetry: Reed M. Izatt THERMODYNAMICS, GREEN CHEMISTRY, AND METAL SEPARATIONS: LOOKING INTO THE 21ST CENTURY								
9:30 – 10:00 Refreshment Break - Conference Cove											
SESSION XIII Kahuku 1 and Kahuku 2											
Kahuku 1 Atake Memorial Symposium : Broader Applications <i>Presiding: Emmerich Wilhelm</i>						Kahuku 2 Protein Folding and Oligomerization <i>Presiding: M. Thomas Record</i>					
10:00 - 10:30	72	Jean-Pierre E. Grolier Thermal Studies for Thermodynamics without Borders in Crude Oil Technology and for Energy Storage Working Bodies				10:00 - 10:30	75	Matthew Auton Unique Access to the Thermodynamics of Denatured State Expansion via Urea-Temperature Phase Diagrams			
10:30 - 10:50	73	Nobuaki Azuma Anomalous Glass Transition Behavior of Hexagonal Ice Caused by Antifreeze Protein III				10:30 - 11:00	76	Steven T. Whitten Quantitative Model of the Protein Conformational Ensemble for Intrinsically Disordered Proteins			
10:50 - 11:10	74	Kazuya Saito Calorimetric Study of a Cell-Quintupling Transition in Bis(<i>Trans</i> -4-Butylcyclohexyl)Methanol				11:00 - 11:30	77	Shun-ichi Kidokoro High-Temperature Reversible Oligomerization of Cytochrome C Observed by DSC and PPC			
11:10 - 11:20		David P. Remeta Closing Remarks				11:30 - 12:00	78	Tadashi Kamiyama Effect of Time and Temperature on Protein Aggregation			
12:00 – 13:30 Lunch – Kuilima 1											

SESSION XIV Parallel Sessions: Kahuku 1 and Kahuku 2

Kahuku 1 Thermodynamic Databases, References, and Standards <i>Presiding: Yoshitaka Shimizu</i>			Kahuku 2 Nucleic Acid Structure and Interactions <i>Presiding: Richard D. Sheardy</i>		
13:30 - 14:00	79	Akihiko Toda Modeling of Melting Kinetics Examined by Differential Scanning Calorimetry	13:30 - 14:00	83	Hidetaka Torigoe Isothermal Titration Calorimetric Analyses of the Specific Binding Between Metal Ions and Mismatched Base Pairs in Duplex DNA
14:00 - 14:30	80	Katsunori Yamaguchi Utilization of Thermodynamic Databases in Extractive Metallurgy	14:00 - 14:30	84	Amanda M. Metz (Giauque) Biophysical Characterization of c-MYC NHE-III ₁ Model for G-Quadruplex and i-Motif Capped with Flanking Duplex Ends
14:30 - 14:50	81	Kazuya Saito Kagaku Benran: A Chemical Handbook by The Chemical Society of Japan Since 1952	14:30 - 15:00	85	Clinton G. Mikek (Giauque) Understanding the Binding Thermodynamics of Ruthenium Complexes with B-DNA: An Investigation of [Ru(II)(L)(phen) ₂] ²⁺ Analog Binding
14:50 - 15:10	82	Yoshitaka Shimizu Application of Thermal Analysis for NMIJ Calibration Service to Purity Assay of High Purity Organic Reference Materials	15:00 - 15:30	86	Richard D. Sheardy Linking pH, Temperature, Ionic Strength and Conformation for the DNA I-Motif

15:30 - 16:00 Refreshment Break - Conference Cove

SESSION XV Parallel Sessions: Kahuku 1 and Kahuku 2

Kahuku 1 Colloids and Surfactants <i>Presiding: Kazuya Saito</i>			Kahuku 2 Drug Delivery, Interactions, and Stability <i>Presiding: Carlos A. Montanari</i>		
16:00 - 16:30	87	Sandro Keller Calorimetric Quantification of Linked Equilibria in Cyclodextrin/ Lipid/Detergent Mixtures For Membrane-Protein Reconstitution	16:00 - 16:30	90	Tamaki Miyazaki Application of Thermal Analysis in the Field of Drug Discovery: Stability Assessment of Amorphous Drugs by DSC and IMC
16:30 - 17:00	88	Koyomi Nakazawa (Giauque) Attempt to Photo-Control Phase Transitions in Phospholipid/Water Systems through Addition of Photo-Reactive Molecule	16:30 - 17:00	91	Hirohito Ikeda Interaction Between Drug and Tea Beverage
17:00 - 17:30	89	Christian Schönbeck Enthalpy-Entropy Compensation and the Link to Hydration Illustrated by Cyclodextrin-Bile Salt Inclusion Complexes	17:00 - 17:20	92	Monica Corea Thermodynamic Evaluation of Polymeric Hydrogels as a Possible Drug Delivery
			17:20 - 17:40	93	Yoshito Hamada Molecular Dynamics of Amorphous Sulfamethazine with Structurally Related Sulfonamide Impurities Evaluated Using Thermal Analysis
			17:40 - 18:00	94	Etsuo Yonemochi Relationship Between Crystallization Tendencies During Cooling From Melt And Isothermal Storage

19:00 - 22:00 Conference Banquet - Kuilima Ballroom

