

# Program

## Aug. 8 (Sun.)

13:10–13:20 Welcoming Remarks

13:20–14:00 Invited Lecture (IL-1)  
Hirohisa Yoshida (Tokyo Metropolitan University, Japan)

14:00–14:40 Invited Lecture (IL-2)  
Jean-Pierre Grolier (Blaise Pascal University, France)

14:40–15:00 Coffee Break

15:00–15:40 Invited Lecture (IL-3)  
Manuel E. Minas da Piedade (University of Lisbon, Portugal)

15:40–16:20 Invited Lecture (IL-4)  
Boris Sedunov (Russian New University, Russia)

16:20–18:00 Mixer (Poster can be mounted.)

## Aug. 9 (Mon.)

9:10–9:30 Oral Presentation (O-1)  
Shipra Baluja (Saurashtra University, India)

9:30–10:00 Oral Presentation (O-2)  
Hiroshi Kobayashi (Advanced Industrial Science and Technology, Japan)

10:00–10:20 Oral Presentation (O-3)  
Daisuke Takajo (Osaka University, Japan)

10:20–10:40 Coffee Break

10:40–11:00 Invited Lecture (IL-5)

Michael Frenkel (National Institute of Standards and Technology, USA)

11:00–11:20 Oral Presentation (O-4)

Hal Suzuki (Osaka University, Japan)

11:20–11:40 Oral Presentation (O-5)

Kouhei Ueda (Tokyo Institute of Technology, Japan)

11:40–12:00 Oral Presentation (O-6)

Keisuke Watanabe (Fukuoka University, Japan)

12:00–13:30 Lunch

13:30–15:00 Poster Session (with Refreshments)

15:00–15:40 Invited Lecture (IL-6)

Satoru Nakashima (Osaka University, Japan)

15:40–16:00 Oral Presentation (O-7)

Norio Kitadai (Osaka University, Japan)

16:00–16:30 Invited Lecture (IL-7)

Yuko Hosokoshi (Osaka Prefecture University, Japan)

16:30–17:00 Invited Lecture (IL-8)

Motohiro Nakano (Osaka University, Japan)

18:00–20:00 Banquet (at Senri Hankyu Hotel)

## **Aug. 10 (Tue.)**

9:10–9:30 Oral Presentation (O-8)

Satoshi Yamashita (RIKEN, Japan)

9:30–9:50 Oral Presentation (O-9)

Natalia Górska (Osaka University, Japan)

9:50–10:10 Oral Presentation (O-10)

Xiao-Zheng Lan (Shandong Agricultural University, China)

10:10–10:30 Coffee Break

10:30–10:50 Oral Presentation (O-11)

Atsushi Nagoe (Tokyo Institute of Technology, Japan)

10:50–11:10 Oral Presentation (O-12)

Yuji Miyazaki (Osaka University, Japan)

11:10–11:30 Oral Presentation (O-13)

Yasuhiro Nakazawa (Osaka University, Japan)

11:30–11:40 Closing Remarks

# Invited Lectures

## IL-1

### **Arraignment Control of Hexagonally Packed Nano-Cylinder of Block Copolymer and Its Application as Nano-Reactors**

T. Shiraishi, K. Takahashi, and H. Yoshida (Tokyo Metropolitan University)

## IL-2

### **Thermodynamic Control of the Effects of Gas Pressure on the Isotropic Transition of Amphiphilic Liquid Crystalline Diblock Copolymers**

T. Yamada, S. A. E. Boyer, H. Yoshida, and J.-P. E. Grolier (The University of Tokyo, MINES, Tokyo Metropolitan University, and Blaise Pascal University)

## IL-3

### **Polymorphism and Solvatomorphism in 4'-Hydroxyacetophenone: Structure and Energetics**

M. E. Minas da Piedade, C. E. Bernardes, and M. F. M. Piedade (Universidade de Lisboa and Instituto Superior Técnico)

## IL-4

### **The Equilibrium Structure of Real Gases**

B. Sedunov (Russian New University)

## IL-5

### **Using State-Of-The-Art QSPR Methodology for Reliable Prediction of Critical Constants**

M. Frenkel, A. Kazakov, C. D. Muzny, V. Diky, and R. D. Chirico (National Institute of Standards and Technology)

## IL-6

### **Structures and Thermodynamic Properties of Interfacial Waters and Their Roles in Water-Rock-Organic Interactions on the Earth's Surface**

S. Nakashima, N. Kitadai, T. Yokoyama, and M. Maeda (Osaka University and TA Instruments Japan)

## **IL-7**

### **Specific Heat Study of an Organic Triradical BIPNNBNO Having $S = 1$ and $S = 1/2$**

Y. Hosokoshi, T. Imazawa, C. R. Rotundu, T. Kanzawa, B. Andraka, and Y. Takano (Osaka Prefecture University, Lawrence Berkeley National Laboratory, and University of Florida)

## **IL-8**

### **Heat Capacity Calorimetry as a Spectroscopy — A Case of Spin Cluster and Kambe Coupling Scheme —**

M. Nakano (Osaka University)

## **Oral Presentations**

## **O-1**

### **Direct Determination of Third Derivative of Gibb's Energy in Aqueous 2-Butoxyethanol and 1-Propanol Systems**

S. Baluja, K. Yoshida, A. Inaba, K. Tozaki, and Y. Koga (Osaka University, Saurashtra University, Chiba University, and The University of British Columbia)

## **O-2**

### **A Pressure-Driven Dispersion on the Sound Velocities of a Polymer Liquid**

H. Kobayashi and Y. Fujita (AIST)

## **O-3**

### **Phase Behavior and Morphology of Liquid Crystalline Material BBOA**

D. Takajo, A. Inaba, E. Juszyńska, and M. Massalska-Arodź (Osaka University and Polish Academy of Sciences)

## **O-4**

### **Excess Rotational Entropy of Partially Deuterated Methyl Groups in Molecular Solids**

H. Suzuki and A. Inaba (Osaka University)

## **O-5**

### **Evidence for Proton Tunneling in Four-Oxygen Hydrogen-Bond Ring**

K. Ueda and M. Oguni (Tokyo Institute of Technology)

## **O-6**

### **Thermal Behaviors of the Water Confined within Silica Pores: The Effects of the Pore Size and Morphology**

K. Watanabe and M. Oguni (Fukuoka University and Tokyo Institute of Technology)

## **O-7**

### **Dehydration-Polymerization of Amino Acids Promoted by Hydration of Anhydrous Salts for the Chemical Evolution of Life**

N. Kitadai, S. Nakashima, and T. Yokoyama (Osaka University)

## **O-8**

### **The Deuteration Effect on Thermodynamic Behavior of Spin-Liquid States**

S. Yamashita, T. Yamamoto, and Y. Nakazawa (RIKEN and Osaka University)

## **O-9**

### **Phase Behavior of $[\text{Al}(\text{DMSO})_6](\text{NO}_3)_3$ and $[\text{Sr}(\text{DMSO})_4](\text{NO}_3)_2$ Studied by DSC and FT-MIR Methods**

N. Górska, A. Inaba, and A. Migdał-Mikuli (Osaka University and Jagiellonian University)

## **O-10**

### **Phase Behavior of Organic Liquids Confined in Nanochannels of MCM-41, SBA-15 and PMOs**

X.-Z. Lan and H.-R. Pei (Shandong Agricultural University)

## **O-11**

### **Second-Component-Doping Effect on the Thermal Behavior of Low-Temperature Water**

A. Nagoe, Y Kanke, and M. Oguni (Tokyo Institute of Technology)

## **O-12**

### **Size Effect and Concentration Dependence of Magnetic Behavior of Ni(OH)<sub>2</sub> Monolayer Nanocluster in Amorphous SiO<sub>2</sub>**

Y. Miyazaki, T. Maruoka, Y. Ichiyanagi, H. Kawaji, T. Atake, and A. Inaba (Osaka University, Yokohama National University, and Tokyo Institute of Technology)

## **O-13**

### **Low-Temperature Thermodynamic Properties of 2D Kagome Lattice in Volborthite**

Y. Nakazawa, S. Yamashita, T. Moriura, H. Yoshida, Y. Okamoto, and Z. Hiroi (Osaka University, National Institute for Materials Science, and The University of Tokyo)

## **Poster Presentations**

### **P-1**

#### **Gas-Like and Liquid-Like Structures in Supercritical Fluids**

B. Sedunov (Russian New University)

### **P-2**

#### **Pair Interaction Parameters Dependence on the Molecular Structure**

B. Sedunov (Russian New University)

### **P-3**

#### **Structure-Energetics Relationship in Hydrocarbon Molecules: Contribution to the Recent Debate on a (Very) Old Problem**

R. M. Borges dos Santos, R. C. Santos, and J. A. Martinho Simões (Universidade de Lisboa, Universidade Nova de Lisboa, and Universidade do Algarve)

### **P-4**

#### **A New Method to Derive Structural Properties of Homogenous Mixtures from the Excess Gibbs Energy and Equilibrium Composition**

R. Pajarre and P. Koukkari (VTT Technical Research Centre of Finland)

## **P-5**

### **Dynamical Evolutions and Thermodynamic Properties of an Evaporation Process in $N$ -Body Systems with Long-Range Attractive Potentials**

N. Komatsu, T. Kiwata, and S. Kimura (Kanazawa University)

## **P-6**

### **Low-Temperature Heat Capacity of Networked System of $[\text{Mn}_4]$ Single-Molecule Magnets**

S. Yamashita, T. Fujisaki, Y. Nakazawa, M. Oguni, K. Nakata, M. Yamashita, and H. Miyasaka (RIKEN, Tokyo Institute of Technology, Tohoku University, and CREST-JST)

## **P-7**

### **Thermodynamic Investigation of Coordination-Networked System of $[\text{Mn}_4]$ Single Molecule Magnets**

O. Kubota, S. Fukuoka, Y. Nakazawa, K. Nakata, M. Yamashita, and H. Miyasaka (Osaka University and Tohoku University)

## **P-8**

### **Construction of Relaxation Calorimetry Systems Equipped with Two Different Types of Dilution Refrigerators**

S. Fukuoka, Y. Muraoka, S. Yamashita, T. Yamamoto, and Y. Nakazawa (Osaka University and Institute for Molecular Science)

## **P-9**

### **Calorimetric Study on Phase Change of Quasi-1D Molecule-Based Magnets $[\text{XBzPy}][\text{Ni}(\text{mnt})_2]$ ( $\text{X} = \text{F}, \text{Cl}, \text{Br}, \text{I}$ )**

X.-Z. Lan, Y. Miyazaki, C.-G. Yang, X.-J. Ji, C.-X. Cheng, and A. Inaba (Shandong Agricultural University and Osaka University)

## **P-10**

### **Successive Magnetic Phase Transitions of the Organic-Inorganic Composite Magnets $\text{NNTOT}^+\cdot\text{MCl}_4^-$ ( $\text{M} = \text{Fe}, \text{Ga}$ )**

Y. Miyazaki, X.-Z. Lan, M. Kuratsu, S. Suzuki, M. Kozaki, K. Okada, and A. Inaba (Osaka University, Shandong Agricultural University, and Osaka City University)

## **P-11**

### **Structure and Thermal Behavior of $[\text{Co}(\text{NH}_3)_6](\text{BF}_4)_3$**

N. Górska, A. Inaba, and E. Mikuli (Osaka University and Jagiellonian University)

## **P-12**

### **Thermodynamic Properties of Liquid Crystalline Material 6O2OCB**

H. Suzuki, A. Inaba, P. M. Zieliński, J. Ściesiński, and M. Massalska-Arodź (Osaka University and Polish Academy of Sciences)

## **P-13**

### **Development of an Ultramicro Cell for Adiabatic Microcalorimeter**

S. Arai, Y. Miyazaki, and A. Inaba (Osaka University)

## **P-14**

### **Hydration Characteristics of Surrounding Ions in Aqueous Solution of Sodium Acetate by 1P-Probing Methodology**

T. Kondo, A. Inaba, Y. Miyazaki, and Y. Koga (Osaka University and The University of British Columbia)

## **P-15**

### **Experimental Determination of Third Derivative of $G$ : Partial Molar Entropy-Volume Cross Fluctuation Density**

K. Yoshida, S. Baluja, A. Inaba, K. Tozaki, and Y. Koga (Osaka University, Saurashtra University, Chiba University, and The University of British Columbia)