## International Symposium of Structural Thermodynamics for Young Thermodynamicists: ISST-YT

June 8-9, 2018, Osaka University, Osaka, JAPAN Room; Nambu Yoichiro Hall (2nd floor, Building J, Graduate School of Science)

Keynote Lecture: 45 min (40 min talk + 5 min discussion) Oral Presentation: 15 min (10 min talk + 5 min discussion)



## Friday, June 8, 2018

•Opening Remarks: 13:00 – 13:10 Motohiro Nakano (Osaka University)

- Chair: Yasuhiro Nakazawa -

•Keynote Lecture 1: 13:10 – 13:55

Alexander Krivchikov (National Academy of Sciences of Ukraine) A new paradigm of glassy thermal anomaly of molecular solid

*Chair: Yoji Horii*•O1: 13:55 – 14:10
Tetsuya Nomoto (Osaka University)
Low temperature electronic state of organic conductors probed by thermal conductivity measurement

•O2: 14:10 - 14:25Suguru Kitani (Tokyo Institute of Technology) Low-temperature properties of S = 3/2 hyperkagome antiferromagnet Zn<sub>2</sub>Mn<sub>3</sub>O<sub>8</sub>

•O3: 14:25 – 14:40 Kiyonari Takahashi (Hokkaido University) Multiple molecular motion in the [Ni(dmit)<sub>2</sub>] salts of supramolecular rotator

— Coffee Break: 14:40 – 15:00 —

*— Chair: Kiyonori Takahashi* •O4: 15:00 – 15:15
 Shuhei Fukuoka (Hokkaido University)
 Low temperature magnetic state of λ-(BEDT-STF)<sub>2</sub>FeCl<sub>4</sub>

•**O5:** 15:15 – 15:30 Ayaka Aoki (Kindai University) Inclusion of ionic liquid with cyclodextrin in water

•O6: 15:30 – 15:45 Shigesaburo Ogawa (Seikei University) Thermotropic phase behavior of long-chain trehalose fatty acid monoesters

•**O7:** 15:45 – 16:00 Kohei Kanda (Yokohama National University) Production of Fe<sub>3-x</sub>Zn<sub>x</sub>O<sub>4</sub> nanoparticles for agents in hyperthermia treatment and MR imaging

•O8: 16:00 – 16:15
Akito Oshima (Yokohama National University)
Magnetic hyperthermia effect of Co-Zn ferrite nanoparticles modified with PEG

--- Coffee Break: 16:15 -- 16:35 ---

- Chair: Satoshi Yamashita ----

●**O9:** 16:35 – 16:50

Sezonenko Tetiana (Osaka University)

Dehydration, self-association, and phase separation behavior of thermosensitive

polyoxazoline star block-copolymers in aqueous solution

●**O10:** 16:50 - 17:05

Chen Kuang (Osaka University) Micellization and phase separation in aqueous solutions of poly(*N*-isopropylacrylamide)-*b*-poly(*N*-vinyl-2-pyrrolidone) upon heating •O11: 17:05 – 17:20 Yoji Horii (Osaka University) Methodology for construction of a 2D aggregate of molecular rotors

•O12: 17:20 – 17:35 Satoshi Yamashita (Osaka University) Vibrational energy transfer from heme through atomic contacts in proteins

•O13: 17:35 – 17:50 Koki Fujiwara (Yokohama National University) Suppression of Jahn-Teller distortion and medical application of Cu-ferrite nanoparticles

- Reception Party (Cafeteria, La forêt): 18:00 -



Google Map for Cafeteria, La forêt

# Saturday, June 9, 2018

— Chair: Hiroki Akutsu —

•Keynote Lecture 2: 9:30 – 10:15 Lee Martin (Nottingham Trent University) Development of molecular materials which combine multiple physical properties

•O14: 10:15 – 10:30 Shusaku Imajo (The University of Tokyo) Development of high-resolution calorimetry and heat capacity measurement technique

•O15: 10:30 – 10:45 Robert J. Marckwardt (Osaka University) Critical features around the phase boundary between Fermi liquid and spin liquid

#### --- Coffee Break: 10:45 -- 11:05 ---

— Chair: Shuhei Fukuoka —

•O16: 11:05 – 11:20 Yuki Matsumura (Osaka University) Lattice instability and enhancement of electron correlation near the Mott boundary

•O17: 11:20 – 11:35 Masami Nirei (The University of Tokyo) Calorimetric and neutron scattering study on glass transitions of alkylated tetraphenylporphyrins

•**O18:** 11:35 – 11:50

Yoshinori Ato (Osaka University)

Theoretical study of correlations between the coordination structures and catalytic activities in polymer-stabilized Au nanocluster catalysts

•O19: 11:50 - 12:05

Hal Suzuki (Kindai University)

Low-temperature heat capacity of water molecules encapsulated in fullerenes  $C_{60}$ 

**— Lunch Break:** 12:05 – 13:05 —

— Chair: Yuji Miyazaki ———

•Keynote Lecture 3: 13:05 – 13:50 Yuko Ichiyanagi (Yokohama National University & Osaka University)

Heat dissipation of magnetic nanoparticles and biomedical applications

•O20: 13:50 – 14:05 Hiroshi Akiba (The University of Tokyo) Neutron diffraction study on nanoparticles of PdRu-based alloys realized by entropy effects

•O21: 14:05 – 14:20 Atsushi Nagoe (Kokushikan University) Slow dynamics of cross-linked dextran gel Sephadex G-10 of anhydrous or containing water

### --- Coffee Break: 14:20 -- 14:40 ---

- Chair: Atsushi Nagoe -

•**O22:** 14:40 – 14:55 Nobuaki Azuma (Okayama University)

Unexpected increase of glass transition temperature of hexagonal ice caused by surface adsorption of antifreeze protein to ice

•O23: 14:55 – 15:10 Sotaro Fukuchi (Osaka University) Angle resolved magnetic heat capacity in molecular superconductors

•O24: 15:10 – 15:25 Satoshi Yamashita (Osaka University) Thermodynamic study on charge-ordering in organic dimer Mott systems

•O25: 15:25 – 15:40 Marika Yokota (Chiba Institute of Technology) Molecular vibration analysis of amorphous poly(alken)s, poly(ester)s and poly(vinyl)s on heat capacity below glass transition temperature

•Closing Remarks: 15:40 – 15:50 Motohiro Nakano (Osaka University)

