

JSPS Core-to-Core/Leverhulme Trust 7th Joint Workshop, Nagoya, 2017
"Organic Electronics of Highly-Correlated Molecular Systems"
20th-22nd November 2017, Nagoya University, Japan

Monday 20th, Nov.

Lecture Hall, Noyori Materials Science Laboratory, Higashiyama Campus,
Nagoya University

8:50 – 9:20 Registration

9:20 – 9:30 Opening Remarks: **Kunio Awaga**

Chair: Hirofumi Yoshikawa (Kwansei Gakuin University)

9:30 – 10:00 **Neil Robertson** (University of Edinburgh)
"Lead-free organic-inorganic iodobismuthates for photovoltaics"

10:00 – 10:30 **Andrey Zibarev** (Institute of Organic Chemistry, Russian Academy of
Sciences, and Department of Physics, National Research University -
Novosibirsk State University)
"General potential of 1,2,5-chalcogenadiazoles and related compounds in
organic materials science"

10:30 – 10:50 **Zhongyue Zhang** (Nagoya University)
"Structurally self-arranged metal organic framework (MOF) guest charge
transfer complexes via a spontaneous crystal-to-crystal encapsulation of
organic electron donor molecules"

10:50 – 11:10 Coffee break

Chair: Kazuyuki Sakamoto (Chiba University)

11:10 – 11:40 **Sandrine Heutz** (Imperial College London)
"Charge transport and spin coupling in molecular nanowires"

11:40 – 12:00 **Nikolay Semenov** (Institute of Organic Chemistry, Russian Academy of
Sciences)
"1,2,5-Chalcogenadiazoles as effective electron acceptors: reduction into

Radical-anions vs. formation of charge transfer complexes”

12:00 – 12:20 **Keitaro Eguchi** (Nagoya University)
“Hysteresis generation in organic thin-film transistors by insertion of ionic liquid layers”

12:20 – 12:40 **Shin-ichiro Kawano** (Nagoya University)
“Self-assembly of metallomacrocycles”

12:40 – 14:10 Lunch

Chair: John Derek Woollins (University of St Andrews)

14:10 – 14:40 **Oleg Rakitin** (N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences)
“Fused chalcogen-nitrogen heterocycles for application in materials chemistry”

14:40 – 15:00 **Rie Suizu** (Chiba University)
“Exotic electronic properties of highly-correlated thiazyl radicals assemblies”

Chair: Yukihiro Takahashi (Hokkaido University)

15:00 – 15:20 **Daphne Lubert-Perque** (Imperial College London)
“Pentacene doped p-terphenyl thin films: optical- and spin-Properties of photoexcited states

15:20 – 15:40 **Soichiro Ogi** (Nagoya University)
“Seed-initiated supramolecular polymerization of organic semiconductors”

15:40 – 16:00 **Kazuya Kubo** (University of Hyogo)
“Development of new electrochromic materials based on unsymmetrical metal-dithiolene complexes”

16:00 – 17:10 **Poster Session* with coffee**
* Presenters and titles are listed in the last two pages.

18:30 Banquet: Hilton Nagoya, 4th floor 'Chikuen'

Tuesday 21st Nov.

Hilton Nagoya, 28th floor 'ONE O Five'

Chair: Peter J Skabara (University of Strathclyde)

- 10:00 – 10:30 **Chris Kay** (The London Centre for Nanotechnology, University College London)
“Nanosecond time-resolved characterization of a pentacene-based room-temperature MASER”
- 10:30 – 10:50 **Kiyonori Takahashi** (Hokkaido University)
“Supramolecular cation structure and molecular flipping of (3-fluoroadamantaneammonium)(dibenzo[18]crown-6) in [Ni(dmit)₂] salt”
- 10:50 – 11:10 **Elena Chulanova** (Novosibirsk State University)
New charge-transfer complexes of some chalcogenadiazoles with TTF
- 11:00 – 11:30 Coffee Break

Chair: Sandrine Heutz (Imperial College London)

- 11:30 – 11:50 **Georgiy V. Girichev** (Ivanovo State University of Chemical Technology)
“Molecular structure and sublimation enthalpy of some metal complexes of porphyrins, phthalocyanine and 1,2,5-thiadiazoloporphyrines by gas-phase electron diffraction, mass spectrometry and DFT calculations”
- 11:50 – 12:10 **Helen Benjamin** (University of Edinburgh)
“Materials for pressure-switchable semiconductors”
- 12:10 – 12:30 **Asato Mizuno** (Nagoya University)
“Crystal structure and physical properties of gold complexes with an asymmetrically substituted dithiolene ligand”
- 12:30 – 12:35 Group photograph of workshop participants
- 12:35 – 14:05 Lunch

Chair: Oleg Rakitin (N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences)

- 14:05 – 14:25 **Oleksandr Kanibolotsky** (University of Strathclyde)
“Organic semiconductors for photonic applications”

14:25 – 14:55 **Kathryn Preuss** (University of Guelph)
“Crystal-to-crystal phase transitions with thiazyls”

Chair: Takayoshi Nakamura (Hokkaido University)

14:55 – 15:15 **Pavel A. Stuzhin** (Ivanovo State University of Chemical Technology)
“Boron(III) complexes of 1,2,5-thiadiazole fused (sub)phthalocyanine analogues”

15:15 – 15:45 **Peter J. Skabara** (University of Strathclyde)
“Novel materials for ternary organic solar cells”

15:45 Closing session
Neil Robertson, Kathryn Preuss and Andrey Zibarev

Poster session (Monday 20th Nov.)

- P-1 **Xin Zheng** (Hokkaido University)
Multiple phase transitions in coordination polymer containing flexible building units
- P-2 **Jiao Chen** (Hokkaido University)
Sandwich-type polyoxometalates containing carbonate-bridged Lanthanoid triangles coordinated by lacunary Keggin polyoxometalates.
- P-3 **Yuki Shirakawa** (Hokkaido University)
One-dimensional columnar structure of dibenzo[24]crown-8 including pyridazinium or pyrazinium cations in [Ni(dmit)₂] salts
- P-4 **Naho Yoneyama** (Hokkaido University)
Development of organic ionic ferroelectric crystals
- P-5 **Kenshiro Ishida** (Hokkaido University)
Carrier injection to crystal surface of organic Mott insulator by contact of molecular crystal
- P-6 **Yuto Kawamura** (Hokkaido University)
Development of ferroelectric organic ionic crystals using rotation of polar molecules
- P-7 **Tsubasa Kondoh** (Hokkaido University)
Crystal and electron structure of the charge-transfer complex showing temperature induced neutral-ionic phase transition
- P-8 **Eri Tanaka** (Hokkaido University)
Crystal structures of charge transfer complexes including TTF and Chloranil
- P-9 **Jun Nitta** (Chiba University)
Photoelectron study of high-quality rubrene single crystal
- P-10 **Daichi Hanamoto** (Chiba University)
Structure-Magnetic Properties Correlations in 1D dithiolene complexes having thiadiazole rings
- P-11 **Nobuyuki Minagawa** (Chiba University)
Direct observation of the electronic states of a DNTT single crystal

- P-12 **Yuki Suda** (Chiba University)
Size-dependent electronic structure of gold nanoparticles
- P-13 **Yoshiaki Shuku** (Nagoya University)
Molecule based honeycomb structures formed by radical anion specie of triptycene trisquinone
- P-14 **Yang Wu** (Nagoya University)
Covalent organic frameworks for electrochemical energy storage
- P-15 **Seiya Yokokura** (Nagoya University)
Photoelectric cells utilizing an organic ferroelectric layer
- P-16 **Takaaki Makino** (Nagoya University)
Synthesis of coil-coil donor acceptor copolymer
- P-17 **Daiki Tonouchi** (Nagoya University)
Negative differential resistance in the Peierls insulating phases of TTF-TCNQ
- P-18 **Syohei Yamamoto** (Nagoya University)
Synthesis of
10,10'-dioxo-10H,10'H-[9,9'-bianthracenylidene]-3,3',6,6'-tetracarboxylic acid

Excursion

Nov. 22nd (Wed): One-day Bus Tour

8:30 Hilton Nagoya

Let's enjoy Japanese autumn at Hikone Castle & Sake Brewery tour/tasting together!

18:00 Hilton Nagoya