



7th JGP Chem&ChemEn International Workshop &
6th JGP Chem&ChemEn International Student Research Workshop



***JGP-Chem Kyoto-Bordeaux Faculty & Student Research Workshop on
Chiral Nanostructures for Photonic Applications***

Date: Thursday, October 26, 2017

Location: Katsura Hall (B Cluster, 1F), Katsura Campus, Kyoto University

Presentation: 30 min (Oral Presentation + Discussion) for Faculty
15 min (Oral Presentation + Discussion) for Student

9:50-10:00 Imahori (Kyoto University) and Oda (University of Bordeaux), Opening Remarks

Faculty Session 1 (*Chairs: Loquet, Sugase*)

F01 10:00-10:30, Antoine Loquet, University of Bordeaux

“New Solid-State NMR Approaches to Solve Atomic Structure of Complex Supramolecular Assemblies”

F02 10:30-11:00, Birgit Habenstein, University of Bordeaux

“Amyloid Self-Assembly and Templating by Solid-State NMR”

F03 11:00-11:30 Kenji Sugase, Kyoto University

“High-Sensitivity Rheo-NMR Spectroscopy for Protein Studies”

F04 11:30-12:00 Brice Kauffmann, University of Bordeaux

“Racemic Crystallography: Advantages and Applications”

12:00-13:00 Lunch

13:00-14:00 **Poster Session and Break** (Katsura Lounge, 3F)

P01-P41 (Odd Number)

Student Session (Chairs: *Martinez, Sonet, Tokunaga, Tsutsui*)

S01 14:00-14:15, Akira Tokunaga (Shirakawa & Sugase Group), Kyoto University
“Structural Basis of LUBAC Complex Formation”

S02 14:15-14:30, Denis Martinez (Loquet Group), University of Bordeaux
“Solid-State NMR Investigation of Remorin Recruitment Mechanism to Membrane Nanodomains”

S03 14:30-14:45, Daiki Terada (Shirakawa & Sugase Group), Kyoto University
“Nanoscale Sensing Using a Surface-Modified Nanodiamond”

S04 14:45-15:00, Dorian Sonet (Bassani Group), University of Bordeaux
“Helicenes and Polyaromatic Compounds: Design of a Switchable Combination”

S05 15:00-15:15, Yusuke Tsutsui (Seki Group), Kyoto University
“Non-Contact Measurement of Charge Carrier Mobility with Microwave Probe”

S06 15:15-15:30, Jie Gao (Oda Group), University of Bordeaux
“Chiral Gold Nanoparticle Superstructures Directed by Silica Nanohelices: Towards Innovative Chiro-Optical Properties”

S07 15:30-15:45, Takahiro Shimosaka (Atomi Group), Kyoto University
“A Novel Inhibition Mechanism Regulates Coenzyme A Biosynthesis in the Hyperthermophilic Bacterium *Thermotoga maritima*”

S08 15:45-16:00, Yutaka Okazaki (Oda Group), University of Bordeaux
“Silica Nanohelices-Incorporated Polymer Film for Circularly Polarized Materials”

16:00-17:00 Poster Session and Break

P01-P41 (Even Number)

Faculty Session 2 (*Chairs: Matsuda, Bassani*)

F05 17:00-17:30, Kenji Matsuda, Kyoto University

“Sophisticated Photoresponsive System Made of Supramolecular Assembly of Photochromic Diarylethene”

F06 17:30-18:00, Dario Bassani, University of Bordeaux

“Exploiting Reversible Covalent Approaches towards Advanced Surface Modification in Carbon-Based Systems”

18:00 Imahori and Oda, Closing Remarks

18:00-20:00 Dinner (Faculty & Student Mixer), Café Arte (B Cluster)

Poster Session

P01, Akira Tokunaga (Shirakawa & Sugase Group)

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P02, Denis Martinez (Loquet Group), University of Bordeaux

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P08, Yutaka Okazaki (Oda Group), University of Bordeaux

“Silica Nanohelices-Incorporated Polymer Film for Circularly Polarized Materials”

P09, Shusaku Asano (Mae Group)

“Detailed Analysis of the Relationship between Mixing and Reaction in a Microchannel”

P10, Naoto Iwakawa (Shirakawa & Sugase Group)

“Elucidation of Fibrillization Mechanism of ALS-Related Protein SOD1 Using Novel NMR Spectroscopy”

P11, Takeshi Sato (Yamamoto Group)

“Multiscale Simulations for Entangled Polymer Melts -Relation between Macroscopic Flows and States of Polymer Chains-“

P12, Hiroshi Takase (Hasebe Group)

“Optimal Structure Synthesis of Ternary Distillation Processes Using a Stepwise VLE Description”

P13, Shun Muroga (Ohshima Group)

“Near-infrared Hyperspectral Imaging Simultaneously Visualizes Chemical Compositions and Size of Additives in Polymer Composites”

P14, Ryohei Kameyama (Nakao Group)

“Reductive Cross-Coupling of Alkynes and Aryl Iodides with Hydrogen by Cooperative Palladium/Copper Catalysis”

P15, Yusuke Hattori (Seki Group)

“Development of Insulated Poly(p-Phenylene Ethynylene)s with Simple Alkylene Strap Structure”

P16, Keiichi Ishida (Imahori Group)

“Synthesis and Properties of Novel Dithienophosphole Derivatives”

P17, Kensho Igarashi (Imahori Group)

“Diastereomer Effects of β -[70]PCBM Acceptors on Device Performances of Polymer Solar Cells”

P18, Atsushi Kumagai (Imahori Group)

“Synthesis and Properties of Expanded Porphyrins with Dithieno[3,4-*b*:3',4'-*d*]thiophene Core”

P19, Yuma Kurumisawa (Imahori Group)

“Photovoltaic Properties of a Novel Porphyrin Sensitizer with a Robust Hydroxamic Acid Anchoring Group”

P20, Yiran Lyu (Imahori Group)

“Effects of Catalyst Structure on Photoelectrochemical Water Oxidation”

P21, Yuki Namura (Imahori Group)

“Hexabenzocoronene Derivatives as Electron Acceptor for High Efficient Polymer Solar Cells”

P22, Shimpei Nimura (Imahori Group)

“Photovoltaic Properties of Porphyrin Sensitized Solar Cells with Robust Silicon-based Anchoring Groups”

P23, Issei Nishimura (Imahori Group)

“Synthesis and Properties of Phosphole-bridged Porphyrin Dimers”

P24, Shogo Takahara (Imahori Group)

“Synthesis of Tethered Fullerene Bis-adducts and Their Application to Organic Photovoltaics”

P25, Hiroki Yamada (Imahori Group)

“Synthesis and Optical Properties of Covalently Functionalized Black Phosphorus with Porphyrin”

P26, Takahiro Touzen (Shirakawa & Sugase Group)

“Molecular Mechanism of Cutting Met1-Linked Polyubiquitin by OTULIN”

P27, Katsuya Ichimura (Shirakawa & Sugase Group)

“Structural Analysis of LSDs-Related Enzyme Cathepsin D Using In-Cell NMR Spectroscopy”

P28, Arina Ono (Shirakawa & Sugase Group)

“Structural and Functional Analysis of Methyl-CpG Binding Domain Proteins in Plants”

P29, Shingo Takashima (Shirakawa & Sugase Group)

“Elucidation of Linkage-Type Specific Conformational Dynamics in Diubiquitin”

P30, Ryotaro Tanabe (Shirakawa & Sugase Group)

“Magnetic Field Sensing Device for Cellular Imaging Using Diamond Quantum Sensor”

P31, Takahiro Fujisaku (Shirakawa & Sugase Group)

“Tracking the 3D Dynamics of TRPA1 Using Nanodiamond”

P32, Taro Imazu (Shirakawa & Sugase Group)

“Measurement of Translational Coefficient of Proteins in Living Cells Using In-Cell Diffusion NMR Method”

P33, Yosuke Shimada (Shirakawa & Sugase Group)

“Elucidation of Fibrillization Mechanism of α -Synuclein Using Rheo-NMR Spectroscopy”

P34, Yuka Tanaka (Shirakawa & Sugase Group)

“Observation of Ubiquitin Cycle Using ^{18}O Isotope Labeling”

P35, Yutaka Mahana (Shirakawa & Sugase Group)

“Structural and Functional Analysis of SETDB2 Binding Protein, SMBP1”

P36, Tomohiro Mizutani (Shirakawa & Sugase Group)

“Activation Mechanism of Parkin in Protein Ubiquitination”

P37, Hiromu Kubo (Matsuda Group)

“Design and Synthesis of Emissive Carbohelicene Derivatives by Controlling the Symmetry and Energy Levels of Their Molecular Orbitals”

P38, Shinya Shimada (Matsuda Group)

“Photoswitching of Diarylethene OFET by Controlling Carrier Mobility and Charge Injection Barrier”

P39, Fumiko Miyata (Suginome Group)

“A New Chiral Amplification System Using Helical Polymer Catalysts Based on the Introduction of Asymmetric Reaction Products to the Side Chains”

P40, Shunsuke Ashikaga (Suginome Group)

“Solvent Vapor Dependence on the Formation of Superstructures of Poly(quinoxaline-2,3-diyl)s Exhibiting Circularly Polarized Selective Reflection”

P41, Yukako Yoshinaga (Suginome Group)

“Chirality-Switchable 2,2'-Bipyridine Ligands Based on Helical Polyquinoxalines for Cu-Catalyzed Asymmetric Cyclopropanation”