The 9th Japan-China Joint Symposium on Functional Supramolecular Architectures
24-26 February, 2016 at IMS, Okazaki, Japan

Funded by
Institute for Molecular Science (IMS)
Ritsumeikan University
Kyoto University

Organization Committee Members
Hiromitsu MAEDA (Ritsumeikan University, Japan)
Shu SEKI (Kyoto University, Japan)
Donglin JIANG (IMS & Japan Advanced Institute of Advanced Science and Technology, Japan)
Zhishan BO (Beijing Normal University, P. R. China)
The 9th Japan-China Joint Symposium on Functional Supramolecular Architectures

Program

February 23 (Tuesday)
14:00-17:30 Registration at the Hall of Okazaki Conference Center
18:00-20:00 Welcome Reception at Okazaki Conference Center

February 24 (Wednesday)

8:55 Opening Remark by Donglin Jiang
Chairperson: Hiromitsu Maeda (9:00 ~ 10:30)

9:00 ~ 9:30 Xincheng Wang (Fuzhou University)
Photocatalytic Water Splitting by Graphitic Carbon Nitride Polymers

9:30 ~ 10:00 Masato Ikeda (Gifu University)
Biomolecule Responsive Supramolecular Hydrogel-Enzyme Hybrids

10:00 ~ 10:30 Zhishan Bo (Beijing Normal University)
Highly Efficient Planar Perovskite Solar Cells via Modification of c-TiO2 Surface with Self-Assembled Fullerene Derivative Monolayer

10:30 ~ 10:50 Coffee Break

Chairperson: Zhishan Bo (10:50 ~ 12:20)

10:50 ~ 11:20 Tomoki Ogoshi (Kanazawa University)
Pillar[n]arene-Based Supramolecular Assemblies in Bulk State

11:20 ~ 11:50 Bien Tan (Huazhong University of Science and Technology)
Soluble Hypercrosslinked Polymers from Single Polymer Folding

11:50 ~ 12:20 Yoshinori Takashima (Osaka University)
Stimuli Responsive Supramolecular Materials Formed from Host and Guest Polymers

12:20 ~ 13:30 Photo and Lunch
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Chairperson: **Tomoki Ogoshi** (13:30 ~ 15:30)

13:30 ~ 14:00 **Shuichi Hiraoka** (The University of Tokyo)
*Self-Assembly Process of Coordination Capsules and Cages*

14:00 ~ 14:30 **Mingjie Liu** (Beihang University)
*Bioinspired Functional Hydrogels Embedded with Semiconducting Nanosheets*

14:30 ~ 15:00 **Huanli Dong** (Institute of Chemistry, CAS)
*High Mobility Emissive Organic Semiconductor: Design, Synthesis and Device Applications*

15:00 ~ 15:30 **Yuanzhi Tan** (Xiamen University)
*Molecular Carbon Nano-materials*

15:30 ~ 15:50 **Coffee Break**

Chairperson: **Bien Tan** (15:30 ~ 18:20)

15:50 ~ 16:20 **Itaru Osaka** (Riken)
*Control of Electronic and Ordering Structures in \( \pi \)-Conjugated Polymers for High-Performance Organic Electronic Devices*

16:20 ~ 16:50 **Weiwei Li** (Institute of Chemistry, CAS)
*Semi-crystalline Diketopyrrolopyrrole Polymers for Field-Effect Transistors and Polymer Solar Cells*

16:50 ~ 17:20 **Gaku Fukuhara** (Osaka University)
*Supramolecular Allosteric Amplification-Sensing with Polymer Hosts*

17:20 ~ 17:50 **Wenke Zhang** (Jilin University)
*The Study of Polymer Interactions in Supramolecular Assemblies Using Single-molecule Force Spectroscopy*

17:50 ~ 18:20 **Shiki Yagai** (Chiba University)
*Metastable Molecular Assemblies: an Entrance to Dynamic Materials*

18:40 ~ 20:30 **Dinner and Poster Session**
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February 25 (Thursday)

Chairperson: Shuichi Hiraoka (9:00 ~ 10:30)

9:00 ~ 9:30 Donglin Jiang (JAIST)
Structural Diversity of Covalent Organic Frameworks

9:30 ~ 10:00 Cuihong Li (Beijing Normal University)
Non-fullerene Electron Acceptors for Wide Band Gap Polymer Organic Solar Cells

10:00 ~ 10:30 Zhen Li (Wuhan University)
The Modification of the Functionality of π-Molecules through the Structural Adjustment

10:30 ~ 10:50 Coffee Break

Chairperson: Zhen Li (10:50 ~ 12:20)

10:50 ~ 11:20 Atsushi Wakamiya (Kyoto University)
Molecular Design for p-Type Buffer Materials toward Highly Efficient Perovskite Solar Cells

11:20 ~ 11:50 Jia Guo (Fudan University)
Polymer Frameworks Constructing Functional Composite Microspheres

11:50 ~ 12:20 Tsuyohiko Fujigaya (Kyushu University)
Bottom-up Functionalization of Carbon Nanotube for Highly Durable Electrocatalyst

12:20 ~ 13:30 Lunch and Poster Session

Chairperson: Atsushi Wakamiya (13:30 ~ 15:30)

13:30 ~ 14:00 Hiromitsu Maeda (Ritsumeikan University)
π-Electronic Ion-Pairing Supramolecular Assemblies

14:00 ~ 14:30 Wenhua Li (Beijing Normal University)
Colloidal Synthesis of Functional Nanomaterials and Their Optoelectronic Application
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<td>Yanhong Xu (Jilin Normal University)</td>
<td>Designed Synthesis and Multifunctional Application Studies of Conjugated Microporous Polymers</td>
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<td>15:00 ~ 15:30</td>
<td>Yulan Chen (Tianjin University)</td>
<td>Bischler-Napieralski Cyclization towards 1,10-phenanthroline-analogous S,N-heteroacenes</td>
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<td>15:50 ~ 16:20</td>
<td>Yasuhiro Ishida (Riken)</td>
<td>Single-crystal-like Soft Materials: Magnetic Orientation of Three-dimensional Polymer Networks</td>
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<td>16:20 ~ 16:50</td>
<td>Shijie Ren (Sichuan University)</td>
<td>Functional Conjugated Microporous Polymers: Preparation and Application</td>
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<td>16:50 ~ 17:20</td>
<td>Shigehisa Akine (Kanazawa University)</td>
<td>Helix Inversion of Helical Multinuclear Complexes Controlled by Molecular Recognition</td>
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<td>17:20 ~ 17:50</td>
<td>Long Chen (Tianjin University)</td>
<td>Synthesis and Self-Organization of Large Polyaromatic Hydrocarbons</td>
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February 26 (Friday)

Chairperson: Yasuhiro Ishida (9:00 ~ 10:30)

9:00 ~ 9:30 Stefan Kaskel (Technische Universität Dresden)
Supramolecular Assembly of Highly Porous Materials

9:30 ~ 10:00 Feng Shi (Beijing University of Chemical Technology)
Precise Macroscopic Supramolecular Assembly and Applications

10:00 ~ 10:30 Wenping Hu (Institute of Chemistry, CAS)
Topochemical Polymerized High Quality Micro- & Nanocrystals: An Ideal Platform for Examining and Using Intrachain Charge Transport

10:30 ~ 10:50 Coffee Break

Chairperson: Wenke Zhang (10:50 ~ 12:20)

10:50 ~ 11:20 Tsuneaki Sakurai (Kyoto University)
Noncontact Evaluation of Carrier Transport Property for Designed π-Electronic Molecular Assembly

11:20 ~ 11:50 Dong Wang (Institute of Chemistry, CAS)
On Surface Dynamic Covalent Chemistry

11:50 ~ 12:20 Yuh Hijikata (Nagoya University)
Theoretical Approaches for Dynamic Self-Assembly Materials

Closing Remark Zhishan Bo
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**Poster Section** (Presentation on 24 February 18:00~20:00)

**Poster 1**  
*Ayako Baba*, Tatsuo Kojima, and Shuichi Hiraoka (Graduate School of Arts and Sciences, The University of Tokyo, Japan)  
*Self-assembly Mechanism of Pt(II)-linked Coordination Macrocycles*

**Poster 2**  
Hiromitsu Maeda and *Atsuko Kuno* (College of Pharmaceutical Sciences, Ritsumeikan University, Japan)  
*Synthesis of Amide-Contained Anion-Responsive π-Electronic Molecules*

**Poster 3**  
*Cheng Gu*¹ and Donglin Jiang¹² (¹Institute for Molecular Science, National Institutes of Natural Sciences, Japan and ²Field of Energy and Environment, School of Materials Science, Japan Advanced Institute of Science and Technology)  
*Highly Photofunctional Porous Organic Polymer Films*

**Poster 4**  
*Shumpei Kai*, Tatsuo Kojima, and Shuichi Hiraoka (Department of Basic Science, The University of Tokyo, Japan)  
*The Self-assembly Mechanism of Pd₂L₄ Coordination Cages*

**Poster 5**  
*Enquan Jin*¹² and Donglin Jiang¹³ (¹Institute for Molecular Science, National Institutes of Natural Sciences, Japan; ²Department of Structural Molecular Science, School of Physics, Sokendai, Japan and ³Field of Energy and Environment, School of Materials Science, Japan Advanced Institute of Science and Technology)  
*sp²-Carbon-Based Covalent Organic Framework*

**Poster 6**  
*Masanori Nakagawa*, Tatsuo Kojima, and Shuichi Hiraoka  
(Department of Basic Science, The University of Tokyo, Japan)  
*Self-assembly Process of Pd₂L₄ Cage Complex Constructed from U-shaped Rigid Ditopic Ligand*

**Poster 7**  
*Sasanka Dalapati*¹ and Donglin Jiang¹² (¹Institute for Molecular Science, Japan and ²School of Materials Science, Japan Advanced Institute of Science and Technology)  
*An alternative to the Aggregation Induced Emission*
Poster 8
Naomi Orito, Tsuneaki Sakurai, and Shu Seki (Department of Molecular Engineering, Graduate School of Engineering, Kyoto University, Kyotodaigaku -katsura, Japan)

Development of Electroactive Foldamers Composed of Planar π-Conjugated Systems and Flexible Chains

Poster 9
Ning Huang¹ and Donglin Jiang¹,2* (¹Institute for Molecular Science, National Institutes of Natural Sciences, Japan; ²Field of Energy and Environment, School of Materials Science, Japan Advanced Institute of Science and Technology)

Tailor-Made Pore Surface Engineering in Covalent Organic Frameworks for Performance Screening

Poster 10
Ryohei Yamakado and Hiromitsu Maeda (College of Pharmaceutical Sciences, Ritsumeikan University, Kusatsu, Japan)

Ion-Pairing Assemblies Based on Various Receptor–Anion Complexes

Poster 11
Qing Xu¹,² and Donglin Jiang¹,³* (¹Institute for Molecular Science, National Institutes of Natural Sciences, Japan; ²Department of Structural Molecular Science, School of Physics, Sokendai, Japan and ³Field of Energy and Environment, School of Materials Science, Japan Advanced Institute of Science and Technology)

Carbonized Covalent Organic Frameworks for Oxygen Reduction Reaction

Poster 12
Hiromitsu Maeda and Shunsuke Kaname (College of Pharmaceutical Sciences, Ritsumeikan University, Kusatsu, Japan)

Synthesis of Cyclic Anion-Responsive π-Electronic Molecules and Their Assemblies

Poster 13
Ping Wang¹,² and Donglin Jiang¹,³* (¹Institute for Molecular Science, National Institutes of Natural Sciences, Japan; ²Department of Structural Molecular Science, School of Physics, Sokendai, Japan and ³Field of Energy and Environment, School of Materials Science, Japan Advanced Institute of Science and Technology)

Design and Synthesis of Triangular Covalent Organic Framework
Poster 14
Wakana Naito and Hiromitsu Maeda (College of Pharmaceutical Sciences, Ritsumeikan University, Kusatsu, Japan)

Chirality Induction of $\pi$-Electronic Systems by Inner Modifications

Poster 15
Shanshan Tao$^{1,2}$ and Donglin Jiang$^{1,3}$ (Institute for Molecular Science, National Institutes of Natural Sciences, Japan; $^2$Department of Structural Molecular Science, School of Physics, Sokendai, Japan and $^3$Field of Energy and Environment, School of Materials Science, Japan Advanced Institute of Science and Technology)

Proton Conduction in Crystalline, Mesoporous, Covalent Organic Frameworks

Poster 16
Yohei Haketa, Yuya Bando, and Hiromitsu Maeda (College of Pharmaceutical Sciences, Ritsumeikan University, Kusatsu, Japan)

Ion-Pairing Assemblies Based on $\pi$-Electronic Anions

Poster 17
Lipeng Zhai$^{1,2}$ and Donglin Jiang$^{1,3}$ (Institute for Molecular Science, National Institutes of Natural Sciences, Japan; $^2$Department of Structural Molecular Science, School of Physics, Sokendai, Japan and $^3$Field of Energy and Environment, School of Materials Science, Japan Advanced Institute of Science and Technology)

Covalent Organic Frameworks for Carbon Dioxide Capture

Poster 18
Yuya Matsuta, Daisuke Sakamaki, and Shu Seki (Department of Molecular Engineering, Graduate School of Engineering, Kyoto University, Kyoto daigaku-katsura, Japan)

Synthesis and Electronic Properties of Triphenylamine Derivatives with Small Internal Reorganization Energy Stemming from Nonbonding Character in Frontier Orbitals