

Asian International Symposium

International Symposium on Molecular Science - Physical Chemistry / Theoretical Chemistry, Chemoinformatics, Computational Chemistry - Cosponsored by Japan Society for Molecular Science

Date : March 18 (09:00-17:30)

Program

09:00- Opening Remarks (RIKEN) Tahara, Tahei

Chair: Ohshima, Yasuhiro

09:10- **Invited Lecture:** Frequency and time-domain study on cold gas-phase functional molecules (Hiroshima Univ.) Ebata, Takayuki

09:50- **Asia Special Lecture:** Conformation-specific circular dichroism spectroscopy of jet-cooled molecules and clusters (Chungbuk National Univ.) Kim, Nam Joon

Chair: Fujii, Masaaki

10:40- **Asia Special Lecture:** Photoisomerization of biochromophores in the gas phase (Univ. of Melbourne) Bieske, Evan J.

11:20- **Invited Lecture:** Crown ether complexes studied by cold, gas-phase spectroscopy: relationship between structures and functions (Hiroshima Univ.) Inokuchi, Yoshiya

11:40- **Invited Lecture:** Ultrafast time-domain vibrational spectroscopy of complex molecular systems (RIKEN; PRESTO, JST) Kuramochi, Hikaru

Chair: Tachikawa, Masanori

13:00- **Asia Special Lecture:** Learning vibrational coupling in protonated species from the dark (Academia Sinica) Kuo, Jer-Lai

13:40- **Invited Lecture:** Promotion of homogeneous ice nucleation by soluble molecules (Shinshu Univ.) Mochizuki, Kenji

14:00- **Invited Lecture:** Ab initio molecular dynamics study of hydration structure of trimethylamine N-oxide and urea (Osaka Univ.) Ohto, Tatsuhiko

Chair: Hishikawa, Akiyoshi

14:30- **Keynote Lecture:** Ultrafast radiation chemistry: Femtosecond electronic relaxation and coherent vibrational dynamics of ionized aqueous solutions (Nanyang Technological Univ.) Loh, Zhi-Heng

15:10- **Invited Lecture:** Probing ultrafast dynamics during and after passing through conical intersections (Kyoto Univ.) Adachi, Shunsuke

15:30- **Invited Lecture:** Water migration dynamics in hydrated clusters --Real-time observation by time-resolved IR spectroscopy-- (Tokyo Inst. of Technology) Miyazaki, Mitsuhiko

Chair: Saito, Shinji

16:00- **Asia Special Lecture:** Nonadiabatic Molecular Dynamics Theory and Simulations: Azobenzene Photoisomerization Mechanisms on Multi-state Potential Energy Surfaces (National Chiao Tung Univ.) Zhu, Chaoyuan

16:40- **Invited Lecture:** Ultrafast internal conversion cascade and subsequent photofragmentation of XUV excited caffeine molecule (Tohoku Univ.) Yamazaki, Kaoru

17:00- **Invited Lecture:** Exploring potential crossings: Understanding nonadiabatic decay processes (Hokkaido Univ.) Saita, Kenichiro

17:20- Closing Remarks (Shizuoka Univ.) Torii, Hajime

Asian International Symposium - Photochemistry -

Date : March 18 (13:00-17:10)

Program

Chair: Kobayashi, Yoichi

13:00- Opening Remarks (Ritsumeikan Univ.) Kobayashi, Yoichi

13:10- **Keynote Lecture:** Multimodal Biophotonics of Semiconducting Polymer Nanoparticles (Nanyang Technological Univ.) Pu, Kanyi

13:40- **Invited Lecture:** Long-Lived Emission from Organic Molecules (Kyushu Univ.) Kabe, Ryota

14:00- **Invited Lecture:** Eliciting Unique Optical and Electronic Properties from Simple π -Systems (National Inst. for Materials Science) Takai, Atsuro

14:20- **Invited Lecture:** Fluorescent Flapping Mechanophore: Activation Accompanied by Void Collapse in a Crystalline Phase (Kyoto Univ.) Yamakado, Takuya

14:40- **Invited Lecture:** Highly Luminescent and Thermo-Sensitive Seven-Coordinate Tb(III) Complexes (Hokkaido Univ.) Rosa Pedro Paulo, Ferreira da

Chair: Hatano, Sayaka

15:10- **Keynote Lecture:** Photo and Electro-Responsive Supramolecular System from the Ionic Assembly of Polyoxometalates and Cationic Molecules (Jilin Univ.) Li, Wen

15:40- **Invited Lecture:** Continuous Mechanical Motion of Layered Self-Assembly of Azobenzene Derivatives under Photo Stationary State (Hokkaido Univ.) Kageyama, Yoshiyuki

Chair: Nishi, Hiroyasu

16:10- **Keynote Lecture:** Peptide Encoded Gigantic Chirality Evolution in 3D Plasmonic Helicoids (Pohang Univ. of Science and Technology) Rho, Junsuk

16:40- **Invited Lecture:** Organization of Silver Nanoplates on a Substrate for Sensing Applications (Kyushu Univ.) Takahashi, Yukina

Chair: Fukuhara, Gaku

17:00- Closing Remarks (Tokyo Inst. of Technology) Fukuhara, Gaku

Asian International Symposium - Coordination Chemistry and Organometallic Chemistry -

Date : March 18 (13:00-17:00)

Program

Chair: Xu, Qiang

13:00- **Keynote Lecture:** Metal-organic Framework Derived Nanostructures for Electrochemical Energy Storage and Conversion (Peking Univ.) Zou, Ru-qiang

13:30- **Invited Lecture:** D-A Based Metal AIEgens: Designing, Synthesis and Applications (Banaras Hindu Univ.) Pandey, Daya Shankar

Chair: Matsuzaka, Hiroyuki

14:10- **Keynote Lecture:** New Explorations on s-Block Metal Catalysts (Nankai Univ.) Guan, Bing-Tao

14:40- **Invited Lecture:** Ruthenium-Induced Alkyne Cycloisomerization: Construction of Functional Metalated Heterocycles and Revelation of Unconventional Reaction Pathways (City Univ. of Hong Kong) Wong, Chun-Yuen

15:00- **Invited Lecture:** Chiral Half-sandwich Rare-earth Catalysts for Asymmetric Transformations (RIKEN) Lou, Shao-Jie

15:20- **Invited Lecture:** Chemoselective Olefin/Ketone Hydrosilylation Catalyzed by Fe or Co Complexes Bearing an Iminobipyridine Ligand (Osaka City Univ.) Kobayashi, Katsuaki

Chair: Ohba, Masaaki

15:50- **Keynote Lecture:** Flexible Crystals: Stretching the Boundaries of a Single Crystal (The Univ. of Queensland) Clegg, Jack Kay

16:20- **Invited Lecture:** Fluorescent Porous Materials for Chemical Sensing: From Molecular Design to Device Fabrication (National Univ. of Singapore) Zhao, Dan

16:40- **Invited Lecture:** Structural Dynamics of 1D and 2D Cyanide-bridged Coordination Polymers: Thermal Expansion and Melting (Kyushu Univ.) Ohtani, Ryo

Asian International Symposium - Organic and Green Chemistry -

Date : March 18 (13:00-17:30)

Program

13:00- Opening Remarks (Kyushu Univ.) Tomooka, Katsuhiko

Chair: Ito, Hajime

13:10- **Keynote Lecture:** Cobalt-Catalyzed Asymmetric Borylative Functionalization of Unsaturated Organic Molecules

(National Univ. of Singapore) Ge, Shaozhong

13:40- **Invited Lecture:** Design of Organic Bases for Enantioselective Catalysis (Kyoto Univ.) Asano, Keisuke

14:00- **Keynote Lecture:** Axial Chirality Chemistry: Asymmetric Catalysis and Applications (Southern Univ. of Science and Technology of China) Tan, Bin

Chair: Shing, Tony

14:40- **Invited Lecture:** Development of Chiral Supramolecular Catalysts for Multiselective Diels-Alder Reaction (Nagoya Univ.) Hatano, Manabu

15:00- **Keynote Lecture:** Ynamide coupling reagent: discovery and application (Jiangxi Normal Univ.) Zhao, Junfeng

15:30- **Invited Lecture:** Stereocontrolled construction of highly functionalized core in natural product synthesis (Keio Univ.) Saikawa, Yoko

Chair: Takashi Ohshima

16:00- **Keynote Lecture:** Palladium-Catalyzed Three-Component Cross-Coupling Reactions for Accessing Polycyclic Arenes (The Chinese Univ. of Hong Kong) Kwong, Fuk Yee

16:30- **Invited Lecture:** Rhodium-catalyzed Synthesis of Unsymmetric Di(heteroaryl) Compounds Using Heteroaryl Exchange Reactions (Tohoku Univ.) Arisawa, Mieko

16:50- **Asia Special Lecture:** Enantioselective Carbon-Carbon Bond Formation Catalyzed by Camphorsulfonamide-hydroxyProline Coupled Catalyst (National Tsing Hua Univ.) Uang, Biing-Jiun

17:20- Closing Remarks (Nagoya Univ.) Ishihara, Kazuaki

Asian International Symposium - Natural Products Chemistry, Chemical Biology / Biofunctional Chemistry and Biotechnology

- Cosponsored by JSPS A3 Foresight Program, Asian Chemical Probe Research Hub

Date : March 18 (13:30-17:30)

Program

13:30- Opening Remarks (Tohoku Univ.) Nagatsugi, Fumi

Chair: Sando, Shinsuke

13:40- **Invited Lecture:** Synthesis and biological potential of modified cyclic dinucleotides (Tokushima Univ.) Saito-Tarashima, Noriko

Chair: Morii, Takashi

14:00- **Keynote Lecture:** Chemical-assisted Sequencing of Epigenetic Nucleic Acid Modifications (Peking Univ.) Yi, Chengqi

Chair: Kojima, Takahiko

14:30- **Invited Lecture:** Development of fluorescent probes for monitoring labile Fe(II) ion in living cells (Gifu Pharmaceutical Univ.) Hirayama, Tasuku

Chair: Ohkanda, Junko

14:50- **Keynote Lecture:** Cell-based Phenomics Study using Chemical Probe For Discrimination of Influenza Virus Subtypes (Korea Inst. of Science & Technology) Lee, Jun-Seok

Chair: Kikuchi, Kazuya

15:30- **Invited Lecture:** AkaBLI: An all-engineered bioluminescence system for highly sensitive in vivo imaging (RIKEN) Iwano, Satoshi

Chair: Ueda, Minoru

15:50- **Keynote Lecture:** Chemical Profiling of Protein O-Glycosylation (Peking Univ.) Xing, Chen

Chair: Chida, Noritaka

16:20- **Invited Lecture:** Synthesis and function study of glycoconjugate vaccine for efficient cancer immunotherapy (Osaka Univ.) Manabe, Yoshiyuki

Chair: Oikawa, Hideaki

16:50- **Keynote Lecture:** Oxidative rearrangement steps in chartreusin biosynthesis (Nanjing Univ.) Ge, Hui Ming

17:20- Closing Remarks (Tohoku Univ.) Arimoto, Hirokazu

Asian International Symposium - Electrochemistry -

Date : March 18 (13:00-17:30)

Program

13:00- Opening Remarks (Tottori Univ.) Nokami, Toshiki

Chair: Ooyama, Yosuke

13:10- **Invited Lecture:** Synthesis of Heterothienoacenes via Construction and Cyclization of Chalcogen-Bridged Thiophene Derivatives and Their Properties (Okayama Univ.) Mitsudo, Koichi

13:30- **Invited Lecture:** Unique response systems based on redox-active hydrocarbons with hyper covalent bond or strained double bond

(Hokkaido Univ.) Ishigaki, Yusuke

13:50- **Invited Lecture:** Functional polymeric materials based on charge-transfer interaction
(Hiroshima Univ.) Imato, Keiichi

Chair: Inagi, Shinsuke

14:20- **Invited Lecture:** Bioinspired Catalyst beyond Vitamin B12 Enzyme Function (Kyushu Univ.) Shimakoshi, Hisashi

14:40- **Invited Lecture:** Highly efficient Z-scheme water splitting on printable photocatalyst sheets for solar hydrogen production
(TOTO LTD.) Tokudome, Hiromasa

15:00- **Keynote Lecture:** Carbon-Carbon Bond Activation by Light Absorption, Charge Transfer, and Redox Catalysis
(Nanyang Technological Univ.) Soo, Han Sen

Chair: Shimizu, Akihiro

15:40- **Invited Lecture:** Electron-Catalyzed Cross-Coupling Reactions (Kwansei Gakuin Univ.) Shirakawa, Eiji

16:10- **Invited Lecture:** Flavin-iodine-catalyzed oxidative transformations driven by molecular oxygen (Shimane Univ.) Iida, Hiroki

16:30- **Invited Lecture:** Cathodic reduction on boron-doped diamond electrode (Univ. of Tsukuba) Saitoh, Tsuyoshi

Chair: Amaya, Toru

16:50- **Asia Special Lecture:** Photo-redox and Electrochemical-Oxidation Induced C-H Activation and Updating the Oxidative Cross-Coupling with Hydrogen Evolution (Wuhan Univ.) Lei, Aiwen

17:20- Closing Remarks (Tokyo Univ. of Agriculture and Technology) Chiba, Kazuhiro

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| Asian International Symposium - Polymer - |
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Date : March 18 (13:00-17:30)

Program

Chair: Kadokawa, Jun-ichi

13:00- **Invited Lecture:** Design of hydrogels for biomedical application (The Univ. of Tokyo) Sakai, Takamasa

13:20- **Invited Lecture:** Development of low-toxic cellulose solvents and their medical application as an Asian researcher (Kanazawa Univ.) Kuroda, Kosuke

13:40- **Keynote Lecture:** Preservation and separation of bio-molecules using green solvent systems (Central Salt and Marine Chemicals Research Inst.) Prasad, Kamalesh

Chair: Naka, Kensuke

14:20- **Invited Lecture:** Protonic conduction in europium(III)-based metallo-supramolecular polymers (NIMS) Yemini, S. L. V. Narayana

14:40- **Invited Lecture:** Development of hybrid polymer nanosheets (Tohoku Univ.) Yamamoto, Shunsuke

Chair: Ihara, Eiji

15:00- **Invited Lecture:** Ion Conductive Polymer Nanofibers: Fabrication, Characterization, and Application (Tokyo Metropolitan Univ.) Tanaka, Manabu

15:20- **Keynote Lecture:** Installing/uninstalling functional groups by postpolymerization modification (Korea Advanced Inst. of Science and Technology) Seo, Myungeun

Chair: Hashizume, Akihito

16:00- **Invited Lecture:** Cationic Terpolymerization of Vinyl, Cyclic, and Carbonyl Monomers via Selective Crossover Reactions (Osaka Univ.) Kanazawa, Arihiro

16:20- **Invited Lecture:** Designed Monomers for Polymers Leading Backbone Destruction and Reconstruction Reactions (Shinshu Univ.) Kohsaka, Yasuhiro

Chair: Satoh, Kotaro

16:40- **Invited Lecture:** Controlled Self-Assembly of Amphiphilic Copolymers for Functional Nanomaterials (Kyoto Univ.) Terashima, Takaya

17:00- **Keynote Lecture:** Sequence-regulated Polymers Based on Maleimide Chemistry (Soochow Univ.) Zhang, Zhengbiao