

THE 110TH ICR ANNUAL SYMPOSIUM

(10 December 2010)

ORAL PRESENTATIONS

NAKAMURA, Yasuyuki (Polymer Controlled Synthesis)
“Living Radical Polymerization Using Organotelluriums: Photo-Polymerization and Control of Polymer Chain End Structure”

NAKAJIMA, Yumiko (Organotransition Metal Chemistry)
“Synthesis and Properties of 3d Metal Complexes Bearing a Bis(phosphaethenyl)pyridine Ligand”

ICHIKAWA, Noriya (Advanced Solid State Chemistry)
“Changes of Structure and Property in Thin Films of Transition Metal Oxides Due to Low-temperature Reduction/Oxidation”

TAKARABE, Masataka et al. (Bioknowledge Systems)
“Network-based Analysis and Characterization of Drug Interactions”

SEIKE, Hirofumi et al. (Organic Main Group Chemistry)
“Nickel-Catalyzed Alkenylative Cross-Coupling Reaction of Alkyl Sulfides”

IMANISHI, Miki (Biofunctional Design-Chemistry)
“Creation of Artificial Transcription Factors towards Control of Biological Activities”

TSUJII, Yoshinobu (Chemistry of Polymer Materials)
“Materials Design by Living Radical Polymerization: New Functions via Structural Control”

– ICR Award for Young Scientists –
MIZUHATA, Yoshiyuki (Organoelement Chemistry)
“1,2-Dialkynyldisilenes: Silicon Analogues of (*E*)-Eneidyne”

– ICR Award for Graduate Students –
HASHIMOTO, Toru (Organic Main Group Chemistry)
“Iron-Catalyzed Suzuki-Miyaura Coupling of Alkyl Halides”

NAKAMURA, Shuji (Nanospintronics)
“Nonequilibrium Fluctuation Relations in a Quantum Coherent Conductor”

POSTER PRESENTATIONS

 : Laboratory Whole Presentation
 : Laboratory Topic
 : General Presentation

— Organoelement Chemistry —

 “Synthesis and Properties of Novel Organic Compounds Containing Heavy Elements”

 SUGAMATA, Koh; SASAMORI, Takahiro; TOKITOH, Norihiro
“Synthesis and Structures of Various Type of Organotellurium Halides”

 SATO, Takahiro; MIZUHATA, Yoshiyuki; TOKITOH, Norihiro
“Syntheses and Properties of Trimethylsilyl- and Phenyl-substituted 1,2-Dialkynyldisilenes”

— Structural Organic Chemistry —

 “Recent Research in Structural Organic Chemistry Laboratory”

 NOBORI, Masahiro; MURATA, Michihisa; MURATA, Yasujiro
“Investigation on Magnetic Properties of Fullerenes with Encapsulated Dihydrogen”

 KATSUYA, Satoshi; MURATA, Michihisa; MURATA, Yasujiro
“Studies on Synthesis of Azafullerene Derivatives Directly Connected to Organic Dyes”

— Synthetic Organic Chemistry —

 HAYASHI, Kazuhiro; MATUBAYASI, Nobuyuki; YOSHIMURA, Tomoyuki; SASAMORI, Takahiro; TOKITOH, Norihiro; KAWABATA, Takeo
“Creation of Chiral Binaphthyl Surrogates with an Intramolecular Hydrogen Bond, and Its Application to Novel Organometallic Catalysis”

 YOSHIDA, Keisuke; FURUTA, Takumi; KAWABATA, Takeo
“Regioselective Monoacylation of 2-amino-1,5-pentanediois by PPY Catalysts with Functional Side Chains”

— Chemistry of Polymer Materials —

 HUANG, Yun; SASANO, Tatsuya; OHNO, Kohji; TSUJII, Yoshinobu
“Well-organized Assemblies of Hybrid Particles Grafted with Concentrated Polymer Brush”

 NAKANISHI, Yohei; KAWANO, Yuko; OHNO, Koji; TSUJII, Yoshinobu; SAGAWA, Takashi; YOSHIKAWA, Susumu; SATO, Takaya
“Development of Dye-sensitized Solar Cells Based on Novel Solid-state Electrolyte”

— **Polymer Controlled Synthesis** —

LW “Research Activity of Polymer Controlled Synthesis Laboratory”

GE MISHIMA, Eri; YAMAGO, Shigeru
“Synthesis of Novel Random and Block Copolymers by Organotellurium-Mediated Controlled / Living Radical Polymerization of (Meth)acrylates and Vinyl Ethers”

GE KONISHI, Shota; KAYAHARA, Eiichi; YAMAGO, Shigeru; NOMURA, Akihiro; GOTO, Atsushi; TSUJII, Yoshinobu
“Synthesis of Concentrated Polymer Brush via Surface-Initiated TERP”

GE IWAMOTO, Takahiro; WATANABE, Yoshiki; YAMAGO, Shigeru
“Synthesis of Cycloparaphenylenes and Their Derivatives from Square-Shaped Tetranuclear Platinum Complexes”

GE KITADA, Yukie; NAKAMURA, Yasuyuki; KOBAYASHI, Yu; RAY, Biswajit; YAMAGO, Shigeru
“Quantitative Analysis of the Effect of AIBN in Organoheteroatom-mediated Living Radical Polymerization”

— **Inorganic Photonics Materials** —

LT NISHIOKA, Satoshi; TOKUDA, Yomei; TAKAHASHI, Masahide; UEDA, Yoshikatu; YOKO, Toshinobu
“Preparation of Organic-inorganic Hybrid Titanophosphate Membranes with Proton Conductivity”

LT YAMAMOTO, Kazuyuki; TOKUDA, Yomei; CRISTIANA, Figus; TONGJIT, Kichob; PLINIO, Innocenzi; TAKAHASHI, Masahide; YOKO, Toshinobu
“Preparation of Organic-inorganic Hybrid Hollow Fiber by Self-organization”

LT YAMAMOTO, Taiga; TOKUDA, Yomei; MASAI, Hirokazu; TAKAHASHI, Masahide; YOKO, Toshinobu
“The Synthesis of Organic-inorganic Hybrid Low-melting Glasses Using Photochemical Reaction”

— **Nanospintronics** —

GE KOYAMA, Tomohiro
“Current-induced Magnetic Domain Wall Motion in Perpendicular Magnetized Nano-wire”

GE NAKANO, Kunihiro
“Real-time Detection of the Vortex Core Resonance Motion”

— **Biofunctional Design-Chemistry** —

LW “Research Topics in Biofunctional Design Chemistry Laboratory”

GE TANAKA, Gen; NAKASE, Ikuhiko; FUKUDA, Yasunori; FUTAKI, Shiroh
“Identification of Potential Receptor that Stimulates the Cellular Uptake of the Arginine-rich Peptides”

— **Chemistry of Molecular Biocatalysts** —

LW “Research Activities of Laboratory of Chemistry of Molecular Biocatalysts”

GE IKEUCHI, Hideyuki; OTOKAWA, Takuya; WATANABE, Bunta; HIRATAKE, Jun
“Synthesis of Asparagine Synthetase Inhibitors -Synthesis of New Therapeutic Agent for ALL-”

— **Molecular Biology** —

LW “Research of the Molecular Biology Laboratory”

— **Chemical Biology** —

LW “Chemical Biology”

— **Molecular Materials Chemistry** —

LT FUKUCHI, Masashi; FUKUSHIMA, Tatsuya; GOTO, Atsushi; KAJI, Hironori
“Analysis of Molecular Orientation in Polyfluorene Films by Solid-state NMR”

GE TOKUDOME, Yasuaki; NAKANISHI, Kazuki; KOSAKA, Sho; KARIYA, Ayuta; HANADA, Teiichi; KAJI, Hironori
“Synthesis of High-silica and Low-silica Zeolite Monoliths with Trimodal Pores”

— **Hydrospheric Environment Analytical Chemistry** —

LW “Recent Research Topics from Hydrospheric Environment-Analytical Chemistry”

GE WATANABE, Kazuya; UMETANI, Shigeo; SOHRIN, Yoshiki
“Cu(II) or Pd(II) Imprinted Adsorbents for the Separation of Metal Ions”

— **Solution and Interface Chemistry** —

LT SHINTANI, Megumi
“NMR-NOE and MD Simulation Study on Intermolecular Interaction and Dynamics of Lipid Membranes with Different Curvature”

GE KIMURA, Hiroshi
“Mechanisms and Kinetics for Hydrothermal Decomposition of Glucose”

— **Molecular Microbial Science** —

LW “Introduction of Molecular Microbial Science Lab.”

— **Polymer Materials Science** —

LW “Recent Research Topics in Polymer Material Science Laboratory”

LT MATSUI, Kazuya
“Phase Separation and Dewetting Process of Polymer Blend Thin Film as Studied by Neutron Reflectivity”

GE MATSUMOTO, Norihiro
“Crystallization of Poly(Butylene-2,6-Naphthalate) through the Mesomorphic Phase”

- GE FUJIWARA, Tetsuaki
“Precursor of Shish-kebab in Isotactic Polystyrene Induced by Shear Flow”

— **Molecular Rheology** —

- LW “Laboratory of Molecular Rheology”

— **Molecular Aggregation Analysis** —

- LT YOSHIDA, Hiroyuki; SATO, Naoki
“Depth Profiling of Energy Levels of Organic Semiconductors by Photoemission Spectroscopy”

- GE ASAMI, Koji
“Dielectric Spectroscopy Reveals Nanoholes of Erythrocyte Membrane Ghosts”

— **Particle Beam Science** —

- LW “Activity of Particle Beam Science Research Laboratory”

- GE TONGU, Hiromu; IWASHITA, Yoshihisa; ICHIKAWA, Masahiro
“Study for Inspections of the Superconducting Cavities”

- GE SOUDA, Hikaru; NAKAO, Masao; HIROMASA, Tatsuya; TONGU, Hiromu; NODA, Akira; JIMBO, Kouichi; OKAMOTO, Hiromi; YU, Peicheng; HE, Zhengqi; GRIESER, Manfred
“Transverse Laser Cooling Experiment at S-LSR”

— **Laser Matter Interaction Science** —

- GE JAHANGIRI, Fazel; HASHIDA, Masaki; NAGASHIMA, Takeshi; HANGYO, Masanori; TOKITA, Shigeki; SAKABE, Shuji
“Directional Circularly Polarized THz Beam Emission from Air Plasma Produced by an Intense Femtosecond Laser Pulse”

- GE INOUE, Shunsuke; TOKITA, Shigeki; NISHOJI, Toshihiko; OTANI, Kazuto; HASHIDA, Masaki; SAKABE, Shuji
“Ultrafast Electric Field Diagnostics for Femtosecond Laser Plasma Using Laser-Produced Electron Pulses and an Electron Imaging System”

- GE NISHOJI, Toshihiko; TOKITA, Shigeki; INOUE, Shunsuke; OTANI, Kazuto; HASHIDA, Masaki; SAKABE, Shuji
“Characteristics of Electrons Emitted from the Interaction of an Intense Laser Pulse with a Thin Foil”

- GE MIYASAKA, Yasuhiro; HASHIDA, Masaki; IKUTA, Yoshinobu; TOKITA, Shigeki; SAKABE, Shuji
“Mechanism of Femtosecond Laser Nano Ablation for Metals ~Measurement for Angular Distribution of Ion Emission~”

— **Electron Microscopy and Crystal Chemistry** —

- LW “Research Activities in Laboratory of Electron Microscopy and Crystal Chemistry”

- GE HARUTA, Mitsutaka
“Study of Distortion in Transition Metal Oxide Using Site-resolved STEM-EELS”

— **Structural Molecular Biology** —

- LW “Research Activities in Laboratory of Structural Molecular Biology”

— **Organic Main Group Chemistry** —

- LT OKADA, Yoshihiro; YOSHIMOTO, Yuya; HATAKEYAMA, Takuji; NAKAMURA, Masaharu
“Iron-Catalyzed Cross-Coupling of Alkyl Halides with Alkynyl-magnesium Reagents”

- GE HASHIMOTO, Sigma; OBA, Tsuyoshi; HATAKEYAMA, Takuji; NAKAMURA, Masaharu
“Synthesis of Novel π -curved Molecules with Phosphorus Junction”

- GE SASANO, Daisuke; OGATA, Kazuki; ISOZAKI, Katsuhiro; SEIKE, Hirofumi; TAKAYA, Hikaru; NAKAMURA, Masaharu
“Controlled Metal Array Formation Based on Novel Metal-lated Amino Acid: Synthesis and Functions of NCN-Pincer Transition-Metal Norvaline Peptides”

- GE ITOH, Takuma; ITO, Shingo; NAKAMURA, Masaharu
“Stereoselective Carbometalation of Oxa- Azabicyclic Alkenes under Iron Catalysis”

— **Advanced Solid State Chemistry** —

- LW “Introduction of the Advanced Solid State Chemistry Laboratory”

- GE TOHYAMA, Takenori; SAITO, Takashi; SHIMAKAWA, Yuichi
“Synthesis and Physical Properties of Novel A-site Ordered Perovskite Oxides with Mn Ion at A Site”

— **Organotransition Metal Chemistry** —

- LW “Activity Report: Organotransition Metal Chemistry Laboratory”

- GE WAKIOKA, Masayuki; WANG, Qifeng; NAKAMURA, Yuki; KIKUZAKI, Yuuta; TAKITA, Ryo; OZAWA, Fumiyuki
“Palladium-Catalyzed Dehydrohalogenative Polycondensation of 2-Bromo-3-alkylthiophene”

— **Photonic Elements Science** —

- LW “Research Topics in Photonic Elements Science Group”

— **Bioknowledge Systems** —

- LT TOKIMATSU, Toshiaki; KOTERA, Masaaki; MORIYA, Yuki; NAKAGAWA, Zen-ichi; YABUZAKI, Junko; HATTORI, Masahiro; KANEHISA, Minoru; GOTO, Susumu
“Development of the GenomeNet Integrated Pharmaceutical and Compound Database”

— **Biological Information Networks** —

- GE POOLSAP, Unyanee
“Using Binding Profiles to Predict RNA Secondary Structures with Binding Sites”

— **Pathway Engineering** —

- SHIGA, Motoki
“Gene Clustering with Multiple Networks”

— **Research Center for Low Temperature and Materials Sciences** —

- TERASHIMA, Takahito; SHISHIDO, Hiroaki; MIZUKAMI, Yuta; SHIBAUCHI, Takasada; MATSUDA, Yuji
“Preparation and Properties of the Artificial Superlattices of Heavy Fermion Superconductors”