THE 119TH ICR ANNUAL SYMPOSIUM

SEMINARS

MEETINGS AND SYMPOSIA

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(13 December 2019)

ORAL PRESENTATION

KAWANO, Kenichi (Biofunctional Design-Chemistry)
"Development of a Membrane Curvature-sensing Peptide Based on a Structure–activity Study"

HARUTA, Mitsutaka (Electron Microscopy and Crystal Chemistry)
"High Spatial Resolution Elemental and Electronic Structure Analysis by Electron Microscopy"

SATO, Shinichi (Chemical Biology)
"Live-Cell Imaging of Endogenous Bioorganic Molecules with Short RNAs and Fluorescent Probes"

MURDEY, Richard (Molecular Aggregation Analysis)
"Performance Evaluation of Perovskite Solar Cells for Ambient Light Environments"

TAKENAKA, Mikihito (Polymer Materials Science)
"Strain-induced Density Fluctuations in Glassy Materials"

— ICR Award for Young Scientists —
HERBSCHLEB, Ernst David (Inorganic Photonics Materials)
"Ultra-long Coherence Times Amongst Room-temperature Solid-state Spins"

— ICR Award for Graduate Students —
OKUNO, Takaya (Nanospintronics)
"Spin-transfer Torques for Domain Wall Motion in Antiferromagnetically-coupled Ferrimagnets"

YOSHIKAWA, Genki (Chemical Life Science)
"Medusavirus, a Novel Large DNA Virus Discovered from Hot Spring Water"

— ICR Grants for Promoting Integrated Research —
SARUYAMA, Masaki (Advanced Inorganic Synthesis)
"Synthesis and Carrier Dynamics of Nanoparticle Heterostructure with Narrow Band Gap Semiconductor Toward Effective Usage of Sunlight"

UEDA, Yoshihiro (Synthetic Organic Chemistry)
"Catalytic Kinetic Resolution of Racemic Open-Caged Fullerene Possessing Inherent Chirality"

MORISHITA, Hiroki (Inorganic Photonics Materials)
"Fundamental Study Toward the Realization of Diamond Quantum-spintoronics Devices"

PINCELLA, Francesca (Synthetic Organotransformation)
"Development of Peptide Based Catalysts for Oxidative Lignin Depolymerization"

POSTER PRESENTATIONS

LW : Laboratory Whole Presentation
LT : Laboratory Topic
GE : General Presentation

— Organoelement Chemistry —

LW "Studies on the Synthesis and Properties of Novel Organic Compounds Containing Heavier Elements"

GE JUN-I, Yuta; MIZUHATA, Yoshiyuki; TOKITOH, Norihiro
"Stereoselective Synthesis of Silicon-containing Reactive Species Having Convertible Aryl Groups"

GE TSUJI, Shingo; MIZUHATA, Yoshiyuki; TOKITOH, Norihiro
"Synthetic Studies on Heavy Aryl Anions"

GE OSHIRO, Taku; MIZUHATA, Yoshiyuki; TOKITOH, Norihiro
"Synthetic Studies on 1-Germaazulene"

— Structural Organic Chemistry —

LW "Recent Studies of Structural Organic Chemistry"

GE IDE, Yuki; HASEGAWA, Shota; ADACHI, Ayumi; HASHIKAWA, Yoshifumi; HIROSE, Takashi; MURATA, Yasujiro
"Syntheses of Open-Cage Fullerene C_{60} Derivatives Containing Hydrogen Peroxide and Acetonitrile"

— Synthetic Organic Chemistry —

LW "Recent Research of Laboratory of Synthetic Organic Chemistry"

GE NINOMIYA, Ryo; ARAI, Kenta; MORISAKI, Kazuhiro; UEDA, Yoshihiro; KAWABATA, Takeo
"Dirhodium-catalyzed β-position-selective C(sp^3)-H Amination of Alkylsilanes"

— Advanced Inorganic Synthesis —

LW "Recent Progress of Advanced Inorganic Synthesis"

GE KIM, Jungryang; TRINH, Thang Thuy; SATO, Ryota; TERANISHI, Toshiharu
"Nanoparticle Approach to the Formation of $Sm(Fe_{1-x}Co_x)_{11}Ti$ Particles"

GE MATSUMOTO, Kenshi; SATO, Ryota; TATETSU, Yasutomi; TERANISHI, Toshiharu
"Creation of Mille-Feuille $FePd_3$ Framework Induced by Inter-Element Miscibility"

— Chemistry of Polymer Materials —

LW "Recent Activities in Chemistry of Polymer Materials Laboratory"

GE TORIBUCHI, Taito; SAKAIBARA, Keita; INOUE, Shunsuke; HASHIDA, Masaki; SAKABE, Shuji; TSUJII, Yoshinobu
"Tribological Properties of Concentrated Polymer Brushes on the Surface of Femtosecond Laser Processed Substrates"

— Polymer Controlled Synthesis —

LW "Research Activities in Laboratory of Polymer Controlled Synthesis"

GE JIANG, Yuhan; FAN, Weijia; YAMAGO, Shigeru
"Synthesis of High-molecular-weight Polystyrene and Polyacrylate by Ab-initio Emulsion Controlled Radical Polymerization"

GE IMAMURA, Yuji; YAMAGO, Shigeru
"Dual Control Over Molecular Weight and Stereoregularity of Poly(*N*,*N*-diethylacrylamide) Using TERP in the Presence of Lewis Acid"

GE ONOZUKA, Kota; HASHIMOTO, Sigma; KAYAHARA, Eiichi; KATO, Tatsuhisa; YAMAGO, Shigeru
"Characterization of Twisted-Cycloparaphenylene Derivatives and Their Oxidized Species"

GE SUN, Liansheng; KAYAHARA, Eiichi; YAMAGO, Shigeru
"Synthesis and Characterization of a Doubly Annulated Cycloparaphenylene and Its Dication"

— Inorganic Photonics Materials —

LW "Research Progress at Inorganic Photonic Lab"

— Nanospintronics —

GE ISHIBASHI, Mio
"Large Nonreciprocal Frequency Shift of Propagating Spin Waves in Synthetic Antiferromagnets"

GE LI, Tian
"Snell's Law for Isotropically Propagating Spin Wave"

GE HIRATA, Yushou
"Magnetresistance in α-$RuCl_3$"

— Biofunctional Design-Chemistry —

LT HSU, Wei-Yuan; MASUDA, Toshihiro; SAKAI, Takayuki; FUTAKI, Shiroh
"Interaction with Plasma Membrane and Curvature Inducibility of Branched Oligomeric EpN18"

GE NISHIMURA, Motoki; MASUDA, Toshihiro; AFONIN, Sergii; KAWANO, Kenichi; ULRICH, Anne S.; FUTAKI, Shiroh
"Structural Parameters Contributing to the Ability of Amphipathic Peptides to Induce Membrane Curvature"

— Chemistry of Molecular Biocatalysts —

LW "Research Activities in Laboratory of Chemistry of Molecular Biocatalysts"

— Molecular Biology —

LW "Latest Research Topics in Molecular Biology Laboratory"

— Chemical Biology —

LW "Create New World of Bioactive Synthetic Molecules"

— Molecular Materials Chemistry —

LW "Molecular Materials Chemistry"

GE WADA, Hiromasa; SUZUKI, Katsuaki; KAJI, Hironori
"Development of Blue Thermally Activated Fluorescence Emitters with Benzimidazole Moiety"

GE SAWADA, Ayaka; KAJI, Hironori
"Analysis of Aggregated Structure and Charge Transport Properties for Amorphous Cycloparaphenylene Systems Based on Multiscale Simulation"

— Hydrospheric Environment Analytical Chemistry —

LT TSUCHIYA, Mao; TAKANO, Shotaro; TSUJISAKA, Makoto; IMAI, Shoji; YAMAMOTO, Yuhei; SOHRIN, Yoshiki
"Improved Isotopic Analysis for Ni, Cu, and Zn and Its Application to Natural Water Samples"

GE FUJIWARA, Yuta; TSUJISAKA, Makoto; TAKANO, Shotaro; SOHRIN, Yoshiki
"Determination of Stable Isotope Ratio of Tungsten in Seawater Using TSK-8HQ Resin Column"

— Chemistry for Functionalized Surfaces —

GE YAMAGUCHI, Yuta; SHIMOAKA, Takafumi; SHIOYA, Nobutaka; HASEGAWA, Takeshi
"In-Situ Molecular Orientation Analysis of a π-Gelator at Air–Water Interface by Using Infrared Spectroscopy"

GE FUJII, Masamichi; SHIOYA, Nobutaka; FUJIWARA, Ryoi; TOMITA, Kazutaka; SHIMOAKA, Takafumi; HASEGAWA, Takeshi
"Analysis of Thermal Conversion of a DNTT Precursor Thin Film Using pMAIRS"

— Molecular Microbial Science —

LW "Research Activities in Molecular Microbial Science Laboratory"

GE YUSUF, Yustina; HIROSE, Kazuki; OGAWA, Takuya; KAWAMOTO, Jun; KURIHARA, Tatsuo
"Mechanism of Docosahexaenoic Acid Conversion in Eicosapentaenoic Acid-Producing Bacterium"

— Polymer Materials Science —

LW "Polymer Materials Science"

LT IKEDA, Yuta; TAKENAKA, Mikihito
"A Study of Induced Density Fluctuations of Glassy Materials"

GE HIKAMI, Yuichi; OGAWA, Hiroki; TAKENAKA, Mikihito; TAKAGI, Hideaki; SHIMIZU, Nobutaka; IGARASHI, Noriyuki
"Analyses of Depth Dependence of Order-order Transition in PS-b-P2VP Thin Films by Grazing Incidence Small Angle Scattering with Tender X-ray"

— Molecular Rheology —

LT MATSUMIYA, Yumi; WATANABE, Hiroshi
"Viscoelastic and Dielectric Relaxation of Mono-functionally End-associative Polymers"

— Molecular Aggregation Analysis —

LW "Research Progress in Molecular Aggregation Analysis Laboratory"

— Particle Beam Science —

LW "Research in Particle Beam Science Laboratory"

— Laser Matter Interaction Science —

LW "Research Activities in Laboratory of Laser Matter Science"

GE HOSOKAWA, Chikai; HASHIDA, Masaki; NAGASHIMA, Takeshi; INOUE, Shunsuke; SAKABE, Shuji
"Development of Intense Terahertz Light Source Aiming at Forming Periodic Surface Structures on Material Surface"

GE FURUKAWA, Yuki; HASHIDA, Masaki; INOUE, Shunsuke; SAKABE, Shuji
"Change in the Optical Properties of Titanium Plate Induced by Below-ablation-threshold Femtosecond Laser Irradiation"

GE INOUE, Shunsuke; HIRAHARA, Yusuke; OZAKI, Takaya; NOBUHIRO, Akihide; HOMMA, Kensuke; SAKABE, Shuji; HASHIDA, Masaki; NAKAMIYA, Yoshihide; NEAGU, Liviu; TESILEANU, Ovidiu
"Extension of the Search for Resonance Fields at Sub-eV with Femtosecond Inducing Laser Produced OPA"

GE TANAKA, Yohei; HOSOKAWA, Chikai; HASHIDA, Masaki; ZEN, Heishun; NAGASHIMA, Takeshi; OZAKI, Norimasa; INOUE, Shunsuke; SAKABE, Shuji
"Comparison of Ultrafine LIPSS Formation Thresholds of Various Semiconductors Irradiated by Mid-infrared Free Electron Laser"

— Electron Microscopy and Crystal Chemistry —

LW "Research Activities in Division of Electron Microscopy and Crystal Chemistry"

GE YAMAGUCHI, Atsushi; NEMOTO, Takashi; KURATA, Hiroki
"Analysis of Core-hole Effect on Carbon K-edge ELNES of Copper Phthalocyanine"

— Atomic and Molecular Structures —

LW "Introduction of Atomic and Molecular Structures Laboratory"

— Synthetic Organotransformation —

GE LU, Siming
"Regio- and Stereoselective Synthesis of 1,4-Enynes by Iron-Catalyzed Suzuki–Miyaura Coupling"

GE NAKATANI, Yuya; TAKAYA, Hikaru; HAYASHI, Kazuhiro; NAKATA, Eiji; MORII, Takashi; NAKAMURA, Masaharu
"Development of Lignin-binding Peptide for Selective Depolymerization of Wood Biomass"

GE KAWASAKI, Hiroto
"Nickel-catalyzed C–H Arylation of Arylamines"

— Advanced Solid State Chemistry —

LW "Research Introduction in Advanced Solid State Chemistry Laboratory"

— Organometallic Chemistry —

LW "Activity Report: Organometallic Chemistry Laboratory"

GE ISHIZUKA, Risa; WAKIOKA, Masayuki; OZAWA, Fumiyuki
"Synthesis of Alternating Copolymers of Thiophene Substituted Diketopyrrolopyrrole and Dithienylethene via Highly Selective Direct Arylation Polymerization"

— Nanophotonics —

LW "Recent Research Topics of Nanophotonics Group"

— Chemical Life Science —

LW "Introduction to Research in Chemical Life Science"

— Mathematical Bioinformatics —

LT LIU, Pengyu
"Extracting Boolean Rules from Trained Neural Networks"

— Bio-knowledge Engineering —

LT NGUYEN, Dai Hai; NGUYEN, Hao Canh; MAMITSUKA, Hiroshi
"Adaptive: Learning Data-dependent, Concise Molecular Vectors for Fast, Accurate Metabolite Identification from Mass Spectra"