

Time Table

	June 4 (Sun.)	June 5 (Mon.)	June 6 (Tue.)
9:00		Invited Lecture 1 David Nicewicz	Invited Lecture 9 Michael Haley
		Invited Lecture 2 Daniele Leonori	Invited Lecture 10 Manabu Abe
10:00		Invited Lecture S-1 Takashi Koike	Invited Lecture S-5 Ryohei Kishi
		Coffee Break	Coffee Break
		Invited Lecture 3 Burkhard König	Invited Lecture 11 Chunyan Chi
11:00		Invited Lecture 4 Xinyuan Liu	Invited Lecture 12 Takashi Kubo
		Invited Lecture S-2 Corinna Schindler	Invited Lecture S-6 Shingo Ito
12:00		Invited Lecture S-3 Hongli Bao	Invited Lecture S-7 James Blinco
13:00		Lunch	Lunch
		Invited Lecture 5 Steven Bottle	Plenary Lecture 2 Michelle Coote
14:00	Registration	Invited Lecture 6 Derek A. Pratt	
		Invited Lecture S-4 Yang Yang	Invited Lecture S-8 Tetsuro Kusamoto
		Invited Lecture 7 Sungwoo Hong	Invited Lecture S-9 Nobuhiro Yanai
15:00		Invited Lecture 8 Ching-Wen Chiu	Coffee Break
	Opening	Coffee Break	Invited Lecture 13 Aiko Fukazawa
16:00	Plenary Lecture 1 Ilhyong Ryu	Poster	Invited Lecture 14 John Murphy
			Invited Lecture S-10 Chen Zhu
			Invited Lecture S-11 Hideki Yorimitsu
17:00	Welcome Party		Invited Lecture S-12 Louis Fensterbank

June 7 (Wed.)	June 8 (Thu.)	June 9 (Fri.)	
Invited Lecture 15 Armido Studer	Plenary Lecture 3 Corey Stephenson	Invited Lecture 25 Song Lin	9:00
Invited Lecture 16 Samir Zard		Invited Lecture 26 Troels Skrydstrup	
Invited Lecture S-13 Takuji Kawamoto	Invited Lecture S-16 Lei Jiao	Invited Lecture S-5 Jie Wu	10:00
Coffee Break	Coffee Break	Coffee Break	
Invited Lecture 17 Philippe Renaud	Invited Lecture 19 Hirohisa Ohmiya	Invited Lecture 27 Shunsuke Chiba	
Invited Lecture 18 Emmanuel Lacôte	Invited Lecture 20 Guosheng Liu	Invited Lecture 28 Qian Zhang	11:00
Invited Lecture S-14 Yi-Feng Wang	Invited Lecture S-17 Michael James	Closing	
Invited Lecture S-15 Ullrich Jahn	Invited Lecture S-18 Takashi Nishikata		12:00
Lunch	Lunch		13:00
	Invited Lecture 21 Brett Fors		
	Invited Lecture 22 Atsushi Goto		14:00
	Invited Lecture S-19 Antoine Debuigne		
	Invited Lecture S-20 Tomoko Yajima		
	Coffee Break		15:00
	Invited Lecture 23 Cyrille Boyer		
	Invited Lecture 24 Hideyuki Otsuka		16:00
	Invited Lecture S-21 Chi-How Peng		
	Invited Lecture S-22 Takeo Suga		
	Invited Lecture S-23 Didier Gigmes		17:00
	Banquet		

Oral Presentations

June 4 (Sun.)

16:00-16:45 Plenary Lecture 1

Radical Ways for Selective Functionalization of C-H and C=C Bonds

Ilhyong Ryu (Osaka Metropolitan University/ National Yang Ming Chiao Tung University)

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June 5 (Mon.)

9:00-9:25 Invited Lecture 1

New Avenues in Synthesis via Organic Photoredox Catalysis

David Nicewicz (University of North Carolina at Chapel Hill)

9:25-9:50 Invited Lecture 2

Novel Synthetic Methods Using Halogen-Atom Transfer and Photoexcited Nitroarenes

Daniele Leonori (RWTH Aachen University)

9:50-10:10 Invited Lecture S-1

Radical Fluoroalkylation Reactions by Highly Reducing Organic Photocatalysts

Takashi Koike (Nippon Institute of Technology)

10:10-10:40 Coffee Break

10:40-11:05 Invited Lecture 3

Light-induced Radical Polar Cross Over Reactions

Burkhard König (University of Regensburg)

11:05-11:30 Invited Lecture 4

Chiral Anion/Cu-Catalyzed Enantioconvergent Radical Cross-Couplings

Xinyuan Liu (Southern University of Science and Technology)

11:30-11:50 Invited Lecture S-2

New Cycloadditions of Carbonyls and Imines

Corinna Schindler (University of Michigan)

11:50-12:10 Invited Lecture S-3

Asymmetric Outer-Sphere Radical Reactions

Hongli Bao (Fujian Institute of Research on the Structure of Matter, Chinese Academy of Science)

12:10 – 13:30 Lunch

13:30-13:55 Invited Lecture 5

What's Solvent Got to Do with It?

Steven Bottle (Queensland University of Technology)

13:55-14:20 Invited Lecture 6

No HAT Required! Radical-Trapping Antioxidants Can Inhibit Lipid Peroxidation and

Associated Cell Death by Multiple Radical Mechanisms

Derek A. Pratt (University of Ottawa)

14:20-14:40 Invited Lecture S-4

New Strategies for Stereoselective Radical Biocatalysis

Yang Yang (University of California, Santa Barbara)

14:40-15:05 Invited Lecture 7

Site-Selective Pyridine C–H Functionalization under Visible Light Irradiation

Sungwoo Hong (KAIST)

15:05-15:30 Invited Lecture 8

Synthesis and Reactivity of a Di-Substituted Boron Radical Cation

Ching-Wen Chiu (Department of Chemistry, National Taiwan University)

15:30-16:00 Coffee Break

16:00-18:00 Poster Session

June 6 (Tue.)

9:00-9:25 Invited Lecture 9

Tuning Diradical Properties in Diindenoarenes

Michael Haley (University of Oregon)

9:25-9:50 Invited Lecture 10

Is π -Single Bonding (C– π –C) Possible? A Challenge in Organic Chemistry

Manabu Abe (Hiroshima University)

9:50-10:10 Invited Lecture S-5

Theoretical Study on Structures of Unpaired Electrons in Open-Shell Systems

Ryohei Kishi (Osaka University)

10:10-10:40 Coffee Break

10:40-11:05 Invited Lecture 11

Novel Pi-Structures with Open-Shell Singlet Diradical Character

Chunyan Chi (National University of Singapore)

11:05-11:30 Invited Lecture 12

Nature of Electron-Electron Coupling in Carbon-Carbon Contacts Beyond 2 Å

Takashi Kubo (Osaka University)

11:30-11:50 Invited Lecture S-6

Azahomocorannulene and Azadihomocorannulene Radical(oid)s

Shingo Ito (Nanyang Technological University)

11:50-12:10 Invited Lecture S-7

Bipolar Isoindoline Nitroxide Materials for Nonaqueous Redox Flow Batteries

James Blinco (Queensland University of Technology)

12:10 – 13:30 Lunch

13:30-14:20 Plenary Lecture 2

Non-Radicals as Radicals, Radicals as Non-Radicals, and Protons as Initiators

Michelle Coote (College of Science and Engineering, Flinders University)

14:20-14:40 Invited Lecture S-8

Spin-correlated Photoluminescence of Assembled Open-Shell Molecules

Tetsuro Kusamoto (Osaka University)

14:40-15:00 Invited Lecture S-9

Generation and Spin Polarization of Radicals By Photoexcitation

Nobuhiro Yanai (Kyushu University)

15:00-15:30 Coffee Break

15:30-15:55 Invited Lecture 13

Exploring the Cross-Conjugated π -Electron Systems with Robustness toward Multi-Electron Reduction

Aiko Fukazawa (Kyoto University)

15:55-16:20 Invited Lecture 14

Assaying Radical Pathways

John Murphy (University of Strathclyde)

16:20-16:40 Invited Lecture S-10

Late-Stage Modification of Complex Alkenes by Radical Rearrangements

Chen Zhu (Chemical Engineering and Materials Science, Soochow University)

16:40-17:00 Invited Lecture S-11

Reductive Metalation of Unsaturated Bonds by Taming Radical Anions

Hideki Yorimitsu (Kyoto University)

17:00-17:20 Invited Lecture S-12

Organometallic Catalysis under Visible Light

Louis Fensterbank (Sorbonne University)

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June 7 (Wed.) (Dennis Curran Sympo.)

9:00-9:25 Invited Lecture 15

Boron an Emergent Element in Radical Chemistry

Armando Studer (Westfälische Wilhelms-University Münster)

9:25-9:50 Invited Lecture 16

Radical Stability in Aid of Efficiency. Convergent Routes to Organoboron Compounds

Samir Zard (Ecole Polytechnique)

9:50-10:10 Invited Lecture S-13

Radical Reactions for Introducing 1,1,2,2,3,3-Hexafluoropropylamide Groups

Takuji Kawamoto (Yamaguchi University)

10:10-10:40 Coffee Break

10:40-11:05 Invited Lecture 17

Radical Chain and Photocatalyzed Reactions

Philippe Renaud (University of Bern)

11:05-11:30 Invited Lecture 18

Visible-Light Radical Photopolymerizations Initiated by NHC-Boryl Radicals

Emmanuel Lacôte (CNRS - Université Claude Bernard Lyon 1)

11:30-11:50 Invited Lecture S-14

Boryl Radicals Enabled Selective Activation of Carbon-Heteroatom Bonds

Yi-Feng Wang (University of Science and Technology of China)

11:50-12:10 Invited Lecture S-15

From Phenolics to Alkaloids – Bioinspired Radical Total Syntheses

Ullrich Jahn (Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences)

12:10 – 13:30 Lunch

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June 8 (Thu)

9:00-9:50 Plenary Lecture 3

Redox Catalysis Strategies for Complex Molecules

Corey Stephenson (University of Michigan)

9:50-10:10 Invited Lecture S-16

N-Boryl Pyridyl Anion and Its Application in Radical Chemistry

Lei Jiao (Tsinghua University)

10:10-10:40 Coffee Break

10:40-11:05 Invited Lecture 19

Radical N-Heterocyclic Carbene Catalysis

Hirohisa Ohmiya (Kyoto University)

11:05-11:30 Invited Lecture 20

Site- and Enantioselective sp³ C-H Functionalizations via Copper-Catalyzed Radical Relay

Guosheng Liu (Shanghai Institute of Organic Chemistry, CAS)

11:30-11:50 Invited Lecture S-17

Electron-catalysed Nucleophilic Hydroxylation Through Reagent Design

Michael James (The University of Manchester)

11:50-12:10 Invited Lecture S-18

Chemoselective Borylation at Sterically Congested Position by a Photoredox Catalyst

Takashi Nishikata (Yamaguchi University)

12:10 – 13:30 Lunch

13:30-13:55 Invited Lecture 21

On Demand Switching of Polymerization Mechanism

Brett Fors (Cornell University)

13:55-14:20 Invited Lecture 22

Control in Radical Polymerization via Halogen Bonding

Atsushi Goto (Nanyang Technological University)

14:20-14:40 Invited Lecture S-19

Radical Polymerization of Methylene Heterocyclic Compounds Towards Novel Functional and Responsive Polymers

Antoine Debuigne (Liege University)

14:40-15:00 Invited Lecture S-20

Photoinduced Synthesis of Fluorine-Containing Organic Compounds

Tomoko Yajima (Ochanomizu University)

15:00-15:30 Coffee Break

15:30-15:55 Invited Lecture 23

Nanostructure Control in 3D Printing through Polymerization Self-Assembly Process

Cyrille Boyer (UNSW Sydney)

15:55-16:20 Invited Lecture 24

Radical-type Mechanochemical Dynamic Covalent Polymers

Hideyuki Otsuka (Tokyo Institute of Technology)

16:20-16:40 Invited Lecture S-21

Reversible-deactivation Radical Polymerization of Vinyl Acetate Mediated By Schiff Base Derivatives

Chi-How Peng (National Taiwan University)

16:40-17:00 Invited Lecture S-22

Photo-active Polymeric Dormant: Design and Application to Precise UV-Curing

Takeo Suga (WASEDA University)

17:00-17:20 Invited Lecture S-23

Development of Peroxide Alternatives

Didier Gimes (Aix-Marseille University/CNRS)

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June 9 (Fri.)

9:00-9:25 Invited Lecture 25

Electrochemistry as an Enabling Tool for Organic Reaction Discovery

Song Lin (Cornell University)

9:25-9:50 Invited Lecture 26

Recent Developments in Carbonylation Reactions Involving Radical Intermediates

Troels Skrydstrup (Aarhus University)

9:50-10:10 Invited Lecture S-24

Toward On Demand Synthesis of Organic Small Molecules

Jie Wu (Department of Chemistry, National Singapore University)

10:10-10:40 Coffee Break

10:40-11:05 Invited Lecture 27

Polysulfide Anion Photocatalysis for Chemical Synthesis

Shunsuke Chiba (Nanyang Technological University)

11:05-11:30 Invited Lecture 28

New Methods for C–N Bonds Formation Based on Radical Intermediate

Qian Zhang (Northeast Normal University)

Poster Presentations

June 5 (Mon.) 16:00-18:00

Synthesis_01

1 Defluoroarylation of Trifluoromethylarenes Using Photoredox Catalyst and Organostannanes

Naoki Sugihara¹, Masayuki Abe¹, Yoshihiro Nishimoto^{1, 2}, Makoto Yasuda^{1, 2} (1. Graduate School of Engineering, Osaka University, 2. Innovative Catalysis Science Division, Institute for Open and Transdisciplinary Research Initiatives (ICS-OTRI), Osaka University)

2 Visible-Light-Enabled Intramolecular Aminopyridylation of Alkenes

Yejin Koo^{1, 2}, Sungwoo Hong^{2, 1*} (1. Department of Chemistry, Korea Advanced Institute of Science and Technology (KAIST), 2. Center for Catalytic Hydrocarbon Functionalizations, Institute for Basic Science (IBS))

3 Catalytic Formal Carbyne Transformation of Phosphorus Ylides

Taiga Ando, Ryuhei Suzuki, Kosuke Ohmatsu, Takashi Ooi (Nagoya University)

4 Photoredox Catalyzed Radical Alkene Group Transfer

Floriane Baussiere, Marius Myreng Haugland (UiT the Arctic University of Norway)

5 Synthesis of Cyclic and Linear Fluoroalkyl Aromatics by Photoinduced Reaction of Aromatics and 1,4-Diiodoperfluorobutane

Airi Yamaguchi, Tadashi Kanbara and Tomoko Yajima (Ochanomizu University)

6 Generation of Functionalized Alkyl Radicals via the Direct Photoexcitation of 2,2'-(Pyridine-2,6-diyl)diphenol-Based Borates

Yusuke Miyamoto¹, Yuto Sumida^{*2}, Hirohisa Ohmiya^{*1} (1. Institute for Chemical Research, Kyoto University, 2. Division of Pharmaceutical Sciences, 2. Graduate School of Medical Sciences, Kanazawa University)

7 Photoinduced Decarbonylative 1,3-Migration of Bicyclo[2.2.2]octenones

Gary Jing Chuang (Chung Yuan Christian University, Department of Chemistry)

8 Diastereoselective Direct Functionalization of Pyrrolidine Derivatives

Shoma Chiba¹, Kokoro Nowaki, Bumpei Maeda, Kei Murakami (Kwansei Gakuin University)

9 Radical Cascades Involving Sequential C–H Bond Activations

Lise Benoist, Éléonore Barbier, Mariam Sangare, Philippe Renaud*, Fabrice Dénès* (University of Bern, Department of Chemistry, Biochemistry and Pharmaceutical Sciences, Switzerland)

10 Reductive C–C Bond Cleavage of 1,2-Diaryl-1,2-diborylethanes by Means of Sodium

Mizuki Fukazawa, Fumiya Takahashi, Hideki Yorimitsu (Department of Chemistry, Graduate School of Science, Kyoto University)

11 Enantioselective Copper-Catalyzed FUKUYAMA Indole Synthesis from 2-Vinylphenyl Isocyanides

Till Drennhaus¹, Dirk Leifert¹, Jessika Lammert¹, Jan P. Drennhaus², Klaus Bergander¹, Constantin G. Daniliuc¹, Armido Studer¹ (1. Organisch-Chemisches Institut, Westfälische Wilhelms-Universität Münster, Germany, 2. Department of Physics and Astronomy, KU Leuven, Belgium)

12 Triple Photoredox/Cobalt/Brønsted Acid Catalysis Enabling Markovnikov Hydroalkoxylation of Unactivated Alkenes

Masanari Nakagawa¹, Yuki Matsuki², Kazunori Nagao^{*1}, and Hirohisa Ohmiya^{*1} (1. Institute for Chemical Research, Kyoto University, 2. Division of Pharmaceutical Sciences, Graduate School of Medical Sciences, Kanazawa University)

13 Copper-Catalyzed Three-Component Coupling Reaction of Terminal Alkenes with Trimethylsilyl Azide and Cyclic Ethers via the Radical Pathway

Yuichi Ikemoto¹, Sho Chiba¹, Zhenyao Li¹, Hiroki Mori², Yasushi Nishihara² (1. Graduate School of Natural Science and Technology, Okayama University, 2. Reserch Institute for Interdisciplinary Science, Okayama University)

14 Denitrogenative Annulation Reactions of 1,2,3,4-Benzothiazin-1,1(2H)-dioxides with Arynes via Formation of Diradical Species

Jen-Chieh Hsieh (Tamkang University)

15 Switchable Synthesis of ammonium Salts via α -ammonio Radical

Takumi Kinoshita, Yota Sakakibara, Kei Murakami (Kwansei Gakuin University)

16 Retro-1,2-Brook Rearrangement Induced by the Reduction of Silyl Enol Ethers

Ban Kinoshita, Fumiya Takahashi, Hideki Yorimitsu (Department of Chemistry, Graduate School of Science, Kyoto University)

17 Decarboxylative Pyridylation of Carboxylic Acid with External Oxidant Free Photocatalytic System

Changha Kim^{1,2}, Sungwoo Hong^{*2,1} (1. Korea Advanced Institute of Science and Technology (KAIST), 2. Institute of Basic Science (IBS))

18 α -Amino Acid and Peptide Synthesis Using Catalytic Cross-Dehydrogenative Coupling

Ryo Yazaki¹, Taro Tsuji¹, Kayoko Hashiguchi¹, Mana Yoshida¹, Tetsu Ikeda¹, Yunosuke Koga¹, Yusaku Honda¹, Tsukushi Tanaka¹, Suyong Re², Kenji Mizuguchi^{2,3}, Daisuke Takahashi¹, Takashi Ohshima¹ (1. Kyushu University, 2. NIBIOHN, 3. Osaka University)

19 Mechanochemistry Enabling Air-Tolerant and Highly Efficient Birch Reduction With Sodium Lump

Keisuke Kondo¹, Koji Kubota^{1,2}, Hajime Ito^{1,2} (1. Division of Applied Chemistry, Graduate School of Engineering, Hokkaido University, 2. Institute for Chemical Reaction Design and Discovery, Hokkaido University)

20 Photocatalytic, Automated Synthesis of Tetrahydronaphthyridines

Qiao Cao, Alexander J Cresswell (University of Bath)

21 Ester Hydrogenolysis via β -C-O Bond Cleavage Catalyzed by a Phenanthroline-Based PNNP-Cobalt(I) Complex

Yumiko Nakajima^{*1,2}, Heng Zhang², Yoshihiro Shimoyama² (1. School of Materials and Chemical Technology, Tokyo Institute of Technology, 2. Interdisciplinary Research Center for Catalytic Chemistry, National Institute of Advanced Industrial Science and Technology (AIST))

- 22 Visible-Light-Induced Defluorofunctionalization of Trifluoromethylarenes**
Mingshuo Chen, Xiaoping Chen, Xiaheng Zhang* (University of Chinese Academy of Sciences)

Polymer

- 23 Microphase-separation Using Multifunctional Polymeric Dormants**
Shuhei Abe, Kenichi Oyaizu, Takeo Suga (Waseda University)
- 24 Synthesis of Topological Block Polymers by Organotellurium-Mediated Emulsion Polymerization in Water**
Yuhan Jiang, Masatoshi Tosaka, and Shigeru Yamago (Institute for Chemical Research, Kyoto University)
- 25 Radical (Co)Polymerization of Vinylboronic Acid Derivatives and Subsequent Deprotection for Synthesis of Vinyl Polymers Bearing Boronic Acid on Backbone**
Takuma Kawada, Tsuyoshi Nishikawa, Makoto Ouchi (Graduate School of Engineering, Kyoto University)
- 26 Enhancing Triethylborane Initiation through Mechanistic Understanding Using a Novel Radical Trapping Technique**
Ivan Ocana, Andrew Rickard, Victor Chechik (University of York)
- 27 Selection of Halogen Endgroups of Photo-active Polymeric Dormants to Control Nanodomains in UV-Cured Coatings**
A. Mochizuki, M. Iwakiri, K. Oyaizu, T. Suga (Department of Applied Chemistry, Waseda University)
- 28 Synthesis of Structurally Controlled Dendritic Hyperbranched Polyacrylates by TERP and Their Rheological Properties**
Tianxiang Tong, Masato Kibune, Masatoshi Tosaka, Yumi Matsumiya, Hiroshi Watanabe, Shigeru Yamago (Institute for Chemical Research, Kyoto University)
- 29 Polymerization Chemistry of Vinylboronic Acid Derivatives: Boron-Based Monomer Design Leading to Post-Polymerization Transformation of Side-Chain Element**
Tsuyoshi Nishikawa, Makoto Ouchi (Kyoto University)
- 30 Microphase Separation of Polymer RAFT agents via controlled UV-curing**
Nana Suzuki, Kenichi Oyaizu, Takeo Suga (Department of Applied Chemistry, Waseda University)

Bio

- 31 The Fate of Lipid-Derived Alkoxy Radicals and Their Role in Oxidative Cell Death**
Dmitry D. Saraev (University of Ottawa)
- 32 Development of GBM-targeted Prodrug Responsive to Free Radicals Inducing ROS**
Yoon Kyung Park, Dokyoung Kim* (Department of Biomedical Science, Graduate School, Kyung Hee University)
- 33 Design and Synthesis of Mechanistic Probes for Deoxydopodophyllotoxin Synthase Catalyzed Carbon-carbon Bond Formation**
Tun-Cheng Chien (National Taiwan Normal University)
- 34 Aminic and Phenolic Organoseleniums as Lipid Peroxyl Radical-Trapping Agents**
Vijay P. Singh (Department of Chemistry & Centre for Advanced Studies in Chemistry, Panjab University)
- 35 Iron-silicate-coated Porous Silicon Nanoparticles for Cancer Therapy via Hydroxyl**

Radical Generation

Hyeji Um, Dokyoung Kim* (Department of Biomedical Science, Graduate School, Kyung Hee University)

Synthesis_02

36 Reductive Borylmetallation of Styrenes Using Flow Microreactors

Kazuki Nishihara, Yiyuan Jiang, Takashi Kurogi, Hideki Yorimitsu (Kyoto University)

37 Deaminative Borylation and Hydrodeamination of Aromatic Amines via Radical/Radical Ion Intermediates

Kohei Sekine^{1,2}, Akira Shiozuka², Takumi Toki², Kyohei Kawashima¹, Toshifumi Mori^{1,2}, Yoichiro Kuninobu^{1,2} (1. Institute for Materials Chemistry and Engineering, Kyushu University, 2. Interdisciplinary Graduate School of Engineering Sciences, Kyushu University)

38 Facilitating [2+2] Photocycloadditions by Promoting Oxygen Tolerance and Substrate Activation in Water

Julian C. G. Kürschner, Linda Brüß, Line Næsberg (University of Münster WWU, Organisch-Chemisches Institut)

39 Electrochemical Synthesis of Diarylsulfone via Dehydrogenative C – O Bond Formation

Yasuyuki Okumura, Koichi Mitsudo, Seiji Suga (Division of Applied Chemistry, Graduate School of Natural Science and Technology, Okayama University)

40 Photo-induced C–H Bond Thiocyanation and One-Pot Isothiocyanation

Bunpei Maeda¹, Yusuke Aihara², Ayato, Sato², Toshinori Kinoshita², Kei Murakami¹ (1. Graduate School of Science and Engineering, Kwansei Gakuin University, 2. Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University)

41 Photocatalytic Generation and Downstream Reactivity of alpha-Amino Radical Species

Andrew Maitland, Darren Dixon (University of Oxford)

42 Light-Driven Radical-Polar Crossover Catalysis for Cross-Coupling with Organosilanes

Tomotoki Matsuo, Kazunori Nagao*, Hirohisa Ohmiya* (Institute for Chemical Research, Kyoto University)

43 Highly Selective Hydrogenation of C=C Bonds Catalyzed by a Rhodium Hydride

Yiting Gu^{1,3}, Jack R. Norton,¹ Farbod Salahi,² Vladislav G. Lisnyak,² Zhiyao Zhou,² Scott A. Snyder² (1. Department of Chemistry, Columbia University, 2. Department of Chemistry, University of Chicago, 3. Current Address: Frontier Institute of Science and Technology (FIST), Xi'an Jiaotong University)

44 Visible-Light-Induced Radical Carboamination of Styrenes with Carboxylic Acids and (Diarylmethylene)aminobenziodoxolones

Daichi Okumatsu, Kensuke Kiyokawa, Satoshi Minakata (Department of Applied Chemistry, Graduate School of Engineering, Osaka University)

45 Site-Selective Pyridylic C–H Functionalization by Photocatalytic Radical Cascades

J. Kim^{1,2}, S. Hong*^{2,1} (1. Department of Chemistry, Korea Advanced Institute of Science and Technology (KAIST), 2. Center for Catalytic Hydrocarbon Functionalizations, Institute for Basic Science (IBS))

- 46 Electrochemical [3+2] Cycloaddition Reactions in Laminar Flow Microreactor**
Kazuhiro Okamoto, Naoki Shida, Mahito Atobe (Department of Engineering, Yokohama National University)
- 47 Copper-catalyzed Radical Cascade Reaction of Cyclobutanes: Synthesis of Highly Functionalized Cyclobutene Derivatives**
Chunyang Liu, Yan Li, Qian Zhang (Department of Chemistry, Northeast Normal University)
- 48 Synthesis of tert-Alkylphosphonate Oligonucleotides through Light-Driven Radical-Polar Crossover**
Kenji Ota¹, Kazunori Nagao¹, Dai Hata², Naoya Miyamoto², Ryosuke Tokunoh², Yusuke Sasaki², Hirohisa Ohmiya¹ (Institute for Chemical Research, Kyoto University, 2. Research, Takeda Pharmaceutical Company Limited)
- 49 Convergent Radical Decarboxylative and Deboronative Phosphorylation Enabled by Novel Phosphite Radical Trap**
Santosh K. Pagire, Chao Shu, Dominik Reich, Adam Noble, Varinder K. Aggarwal* (School of Chemistry, University of Bristol)
- 50 Iron-catalyzed Synthesis of Alpha-Azido Amino Acids: An Easy Access to Versatile Building Blocks**
Pierre Palamini, Jerome Waser (École Polytechnique Fédérale de Lausanne, Laboratory of Catalysis and Organic Synthesis)
- 51 Radical Caging Strategy for Cholinergic Optopharmacology**
Rikako Nakamura¹, Takeru Yamazaki², Yui Kondo³, Miho Tsukada³, Yusuke Miyamoto¹, Nozomi Arakawa³, Yuto Sumida^{3*}, Taketoshi Kiyama⁴, Satoshi Arai^{2*}, Hirohisa Ohmiya^{1*} (1. Institute for Chemical Research, Kyoto University, 2. WPI Nano Life Science Institute (NanoLSI), Kanazawa University, 3. Division of Pharmaceutical Sciences, Graduate School of Medical Sciences, Kanazawa University, 4. Division of Life Sciences, Graduate School of Natural Science and Technology, Kanazawa University)
- 52 Cross-Coupling of Chiral Amino Acid Chlorides and Hydrocarbons Enabled by Mechanistically Controlled Nickel/Photoredox Dual Catalysis**
Beomsoon Park, Soon Hyeok Hong* (Korea Advanced Institute of Science and Technology)
- 53 Diastereoselective Synthesis of Congested β -Amino Ketone via N-Heterocyclic Carbene-Catalyzed Radical–Radical Coupling**
Yukiya Sato¹, Yuto Sumida², Hirohisa Ohmiya¹ (1. Institute for Chemical Research, Kyoto University, 2. Division of Pharmaceutical Sciences, Graduate School of Medical Sciences, Kanazawa University)
- 54 Novel Synthetic Methods using Photoexcited Nitroarenes**
Raquel Sanchez^{1‡}, Rory Mykura^{2‡}, Vincent Duong¹, Lucrezia Angelini¹, Rodrigo Carbajo³, Josep Llaveria⁴, Alessandro Ruffoni^{*2} and Daniele Leonori^{*2} (1. Department of Chemistry, University of Manchester, 2. Institute of Organic Chemistry, RWTH Aachen University, 3. In Silico Discovery & External Innovation, Therapeutics Discovery, Janssen Research & Development, 4. Global Discovery Chemistry, Therapeutics Discovery, Janssen Research & Development)
- 55 Visible-Light-Induced Bromoperfluoroalkylation of Olefins Catalyzed by 10-Phenylphenothiazine**
Koto Tagami, Tomoko Yajima (Ochanomizu University)

- 56 Modelling Radical Ions: New Stability Scale and Machine Learning Representation**
Stiv Llenga, Ganna Gryn'ova (Heidelberg Institute for Theoretical Studies (HITS gGmbH))
- 57 Synthesis and Electronic Properties of Pyrene-Containing Tetraazacyclophane**
Yuna Funato¹, Hiroyuki Fueno², Akira Koshio¹, and Akihiro Ito¹ (1. Department of Applied Chemistry, Mie University, 2. Department of Molecular Engineering, Kyoto University)
- 58 Hole-catalyzed Transformations of a Silicon-Silicon Triply Bonded Compounds**
Shintaro Ishida, Daichi Yanagisawa, Takeaki Iwamoto (Tohoku University)
- 59 Design and Synthesis of Nitroxide Radicals having SOMO-HOMO Energy Conversion**
Ayaka Itasaka, Manabu Abe* (Department of Chemistry, Graduate School of Advanced Science and Engineering, Hiroshima University)
- 60 Conformational Tuning Improves the Stability of Spirocyclic Nitroxides with Long Paramagnetic Relaxation Times**
Mateusz Piotr Sowinski¹, Sahil Gahlawat¹, Bjarte Aarmo Lund¹, Anna Luisa Warnke¹, Kathrin Helen Hopmann¹, Janet Eleanor Lovett², Marius Myreng Haugland¹ (1. UiT The Arctic University of Norway, 2. University of St Andrews, UK)
- 61 Synthesis, Structures, Electrochemical and Optical Properties of Vinyl-Extended Tetrathiafulvalene Functionalized Two 2,6-dicyano-15-Phosphinine Units**
Tomoya Misaki¹, Aya Yoshimura,¹ Takashi Shirahata,^{1,2} Minoru Hayashi,¹ Yohji Misaki*^{1,2} (1. Grad. Sch. Sci. Eng., Ehime University, 2. RU:E-USE, Ehime University)
- 62 Phosphorus-centered Radicals for the Synthesis of P-Chirogenic Organophosphorus Compounds**
Toshiaki Murai, Ryota Wada, Koji Iwata, Yuuki Maekawa (Gifu University)
- 63 Electronic Structures of Doubly Bridged Bis(triarylamine) Radical Cations**
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- 64 Reversible Radical Generation System Operated by Visible Light**
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- 65 Open-Shell Germylene Stabilized by a Phenalenyl-Based Ligand**
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- 66 Structure-Property Relationships of Fluorescent Radical Precursors for Detecting Polymeric Mechanoradicals**
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- 68 Synthetic Study on Thiophosphoryl Radical by Sulfidation of an Isolable Phosphinyl Radical**
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69 Imidazole-annelated Benzoquinone-Type Organic Anolytes for Aqueous Redox Flow Battery

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70 Late-stage α -C(sp³)-H Functionalization of Trialkylamine-containing Pharmaceuticals

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71 Visible Light-Mediated Radical Difunctionalization with N-Aminopyridinium Salts

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72 Substituent Effects of Methoxy Group on Reactivity and Solid-State Magnetic Property of 2,2-Diphenylquinoline-N-oxyl Derivatives

Msaomi Takii, Youhei Miura, Naoki Yoshioka (Faculty of Science and Technology, Keio University)

73 Photoredox/Cobalt-Catalyzed Markovnikov Selective Hydrohalogenation of Alkene

Shotaro Shibutani, Kazunori Nagao, Hirohisa Ohmiya (Institute for Chemical Research, Kyoto University)

74 2-Silylated Dihydroquinazolinone as Photocatalytic Energy Transfer Enabled Radical Hydrosilylation Reagent

Tatsuhiko Uchikura, Haruka Nakamura, Takahiko Akiyama (Gakushuin University)

75 Hydroperfluoroalkylation of Unactivated Alkenes

Gulsana Sissengaliyeva, Elena Pruteanu, Fabrice Dénès, Philippe Renaud (Department of Chemistry, Biochemistry and Pharmaceutical Sciences, University of Bern)

76 Low-Valent Titanium-Mediated Alcohol C–O Bond Homolysis

Takuya Suga, Yuuki Takahashi, Chinatsu Miki, Yutaka Ukaji (Kanazawa University)

77 Selective Defluoroaminoxylation of Perfluoroalkylarenes Mediated by Organic Photocatalyst

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78 Discovery of Molecule-Induced Radical Formation (MIRF) Reactions of Benzynes

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79 Photocatalytic Deuterium Atom Transfer Deuteration of Electron-Deficient Alkenes with High Functional Group Tolerance

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80 Visible-Light-Mediated Reduction and Borylation of Aryl Chlorides Catalyzed by

Organic Aluminum Complex

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81 Persulfate-Mediated Oxidative Glycosylation of p-Methoxyphenyl Glycosides as Novel Glycosyl Donors

Eunbin Jang, Hoe In Kim, Jaehoon Sim (College of Pharmacy, Kyung Hee University)

82 Total Synthesis of Batrachotoxin

Yuuki Watanabe, Hisahiro Morozumi, Hiroyuki Mutoh, Koichi Hagiwara, Masayuki Inoue (Graduate School of Pharmaceutical Sciences, The University of Tokyo)

83 Bifunctional 1-Hydroxypyrene-Photocatalyst for Hydrodesulfurization via Reductive C(aryl)-S Bond Cleavage

Di Wu¹, Akira Shiozuka¹, Kohei Sekine^{1,2}, Yoichiro Kuninobu^{1,2} (1. Interdisciplinary Graduate School of Engineering Science, Kyushu University, 2. Institute for Materials Chemistry and Engineering, Kyushu University)

84 Azido-Alkynylation of Alkenes Through Radical-Polar Crossover

Julien Borrel, Jerome Waser (Laboratory of Catalysis and Organic Synthesis (LCSO), Institute of Chemical Sciences and Engineering (ISIC), EPFL)

85 Reductive anti-Dizincation of Alkynes

Haruka Yamaguchi, Fumiya Takahashi, Takashi Kurogi, Hideki Yorimitsu* (Department of Chemistry, Graduate School of Science, Kyoto University)

86 Aminoacylation of Alkenes by Cooperative NHC and Photoredox Catalysis

Lena Lezius, Jannik Reimler, Dr. Nadine Döben, Prof. Dr. Armido Studer (University of Münster)

87 Intramolecular Hydrogen Atom Transfer Hydroarylation of Alkenes Using Cobalt-Photoredox Catalysis

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88 Functionalization of Alkenylammonium Salts Enabled by Photo Redox Catalyst

Aoi Yoshita, Yota Sakakibara, Kei Murakami (Kwansei Gakuin University)

89 Cobalt-Catalyzed Enantioselective Hydrofunctionalization of Alkenes and Nucleophiles

Ge Zhang (Northeast Normal University)

90 Generation of Vinylic Lithium Species from Silyl Enol Ethers

Ziwei Zhang, Fumiya Takahashi, Takashi Kurogi, Hideki Yorimitsu (Department of Chemistry, Graduate School of Science, Kyoto University)

91 Synthesis of Block Copolymer Grafted Silica Nanoparticles by SI NMP for The Design and The Characterization of Tyre Nanocomposite Models

Maxime Blanchard*^{1,2}, Marine Bonnevide², Nicolas Malicki², Marc Couty², Trang N.T. Phan¹, Didier Gimes¹ (1. Aix-Marseille University, Institut de Chimie Radicalaire (UMR7273), 2. Manufacture Française des Pneumatiques Michelin)