

**10th INTERNATIONAL SYMPOSIUM
ON ORGANIC REACTIONS**

ISOR10

Scientific Program

November 21-24, 2011

Keio University, Yokohama, Japan

**Organized by
Organizing Committee of ISOR10 / Yokohama**

INFORMATION FOR SCIENTIFIC SESSIONS

In ISOR10, recent progress and new aspects of organic reactions will be demonstrated and discussed, ranging from all new methods and reactions to industrial processes and functional materials.

Thematic Topic

Organic Synthesis and Reaction Chemistry
Organic Electrochemistry and Electron Transfer Chemistry
Natural Products Chemistry
Organometallic Chemistry
Polymer, Supramolecular, and Materials Chemistry
Bioorganic and Medicinal Chemistry

Language

The official language is English.

Oral Presentations

Plenary Lecture (PL):	40 min
Keynote Lecture (KL):	30 min
Special Invited Lecture (SP-IL):	30 min
Invited Lecture (IL):	20 min
Short Invited Lecture (SIL):	15 min
Oral Presentations (OP):	15 min

The presentation time includes discussion (ex. IL: 5 min, SIL: 3 min, etc.).

Poster Presentations

The posterboards are 90 (W) × 210 (H) cm in size. Posters are presented on November 22nd and 23rd. You can mount the poster from AM 9:00 to PM 1:00, and remove it after your presentation.

NOTE: There are over 130 registrations for poster presentation. It is supposed that enough time will not be provided for poster presenters. The organizing committee recommends the presenters to have a discussion for posters in lunchtime.

TIMETABLE

	11/21 (Mon)	11/22 (Tue)	11/23 (Wed)	11/24 (Thu)		
9:00		Opening Remarks	Session 9 (Keynote Lecture)	Session 17		
		Session 1 (Plenary Lecture)	Session 10 (Keynote Lecture)		Session 18	
10:00		Session 2 (Keynote Lecture)	Coffee Break			
		Coffee Break				
11:00		Session 3	Session 4	Session 11		Session 12
					Coffee Break	
12:00					Session 19 (Special Invited)	
					Session 20 (Plenary Lecture)	
					Closing Remarks	
13:00			Poster Session 1	Poster Session 2	Excursion	
14:00		Coffee Break	Coffee Break			
15:00	Registration	Session 5	Session 6	Session 13		Session 14
16:00			Coffee Break	Coffee Break		
17:00		Welcome Party	Session 7	Session 8	Session 15	Session 16
18:00						
19:00				Banquet		

PL: Plenary Lecture, KL: Keynote Lecture

SCIENTIFIC PROGRAM

November 22, Tuesday

Main Hall

9:00~9:10

Opening Remarks

9:10~9:50

Session 1:

PL-1

(9:10~9:50)

Polymeric Ladderphanes

Tien-Yau Luh

(National Taiwan University)

9:50~10:20

Session 2:

KL-1

(9:50~10:20)

Some New Nazarov Chemistry. Application in Synthesis.

Marcus A. Tius

(University of Hawaii at Manoa, The University of Hawaii Cancer Center)

10:20~10:40

Coffee Break

Room A

10:40~12:00

Session 3:

IL-1A

(10:40~11:00)

Synthesis of Biologically Important Oligosaccharides Toward Chemical Glycobiology Study

Takashi Takahashi

(Tokyo Institute of Technology)

SIL-1A

(11:00~11:15)

Traceless Stereoselective Glycosylation Strategy

Kwok-Kong Tony Mong

(National Chiao Tung University)

SIL-2A

(11:15~11:30)

Electrochemical Glycosylation for Oligosaccharide Synthesis of Amino Sugars

Toshiki Nokami

(Kyoto University)

SIL-3A

(11:30~11:45)

Anomerization Reaction of Pyranosides with 2,3-*trans* Carbamate Group

Shino Manabe

(RIKEN)

OP-1A

(11:45~12:00)

Inner Strain Promotes Endocyclic Pathway for Anomerization of Pyranosides with Cyclic Protecting Groups

Hiroko Satoh

(National Institute of Informatics)

Room B

10:40~12:00

Session 4:

IL-1B

Acid-Catalyzed Cyclization of 2-Cyclohexen-6-yn-1-ol Derivatives to

- (10:40~11:00) Spirocycles
Ming-Chang P. Yeh
(National Taiwan Normal University)
- SIL-1B**
(11:00~11:15) Silver-Catalyzed Enantioselective CO₂ Incorporation into Bispropargylic Alcohols
Tohru Yamada
(Keio University)
- SIL-2B**
(11:15~11:30) Chiral Synthesis of Indolizidines 209D and 167B via Asymmetric Oxidation of Sulfides and Sulfoxides
Shang-Shing P. Chou
(Fu Jen Catholic University)
- SIL-3B**
(11:30~11:45) Electrochemical Reduction of Benzyl Carbonates in the Presence and Absence of Carbon Dioxide: Synthesis of Phenylacetic Acids and 2-Phenylpropanoic Acids
Hisanori Senboku
(Hokkaido University)
- SIL-4B**
(11:45~12:00) Asymmetric Tandem Michael-Aldol Reaction of Iminoglycinate
Biing-Jiun Uang
(National Tsing Hua University)
- 12:00~13:00 Lunch
- Main Hall**
13:00~14:30 **Poster Session 1 (PP-1~PP-67)**
- 14:30~14:50 Coffee Break
- Room A**
14:50~16:35 **Session 5:**
- IL-2A**
(14:50~15:10) Organocatalysis in Organic Reactions
Kwunmin Chen
(National Taiwan Normal University)
- IL-3A**
(15:10~15:30) New Frontier in Organocatalytic Aldol Chemistry: Development of *anti*- and *syn*-Selective Asymmetric Cross-Aldol Reaction of Two Different Aldehydes
Keiji Maruoka
(Kyoto University)
- SIL-4A**
(15:30~15:45) Primary Amino Acid-Catalyzed Asymmetric Michael Addition of Malonates to Enones
Masanori Yoshida
(Hokkaido University)
- IL-4A**
(15:45~16:05) Metal-Free “Threading-Followed-by-Shrinking” Protocol for Rotaxane Synthesis
Sheng-Hsien Chiu
(National Taiwan University)

SIL-5A Preparation of Fluoroalkyl-substituted Aryl Silanes from Corresponding
(16:05~16:20) Halides via Grignard Reagent Formation
Toshimasa Katagiri
(Okayama University)

SIL-6A Chiral Amplification in Organogels Featuring One-Dimensional Helical
(16:20~16:35) Nanostructures
Shih-Sheng Sun
(Academia Sinica)

Room B

14:50~16:35

Session 6:

IL-2B Bioinspired Catalysts with Vitamin B₁₂ Function Using Visible Light
(14:50~15:10) **Yoshio Hisaeda**
(Kyushu University)

IL-3B Diels-Alder reactions of 3,5-dibromo-2-pyrone: unified approach for the
(15:10~15:30) total synthesis of trans-dihydronarciclasine and pancratistatin
Cheon-Gyu Cho
(Hanyang University)

SIL-5B New C-C Bond Forming Reactions Induced by Photo-Irradiation
(15:30~15:45) **Ilhyong Ryu**
(Osaka Prefecture University)

IL-4B Single Electron Transfer as a Key Process to control Radical Reaction
(15:45~16:05) Pathways
Eietsu Hasegawa
(Niigata University)

SIL-6B Synthesis of Chiral Furopyrrolizidinones Through a Key Tandem Cope
(16:05~16:20) Elimination/1,3-Dipolar Cycloaddition Reaction and Their Application
on The Serratine-Analogs Synthesis
Yu-Jang Li
(National Chiayi University)

SIL-7B Cation- π Controlled Solid-state Photodimerization of Styrylpyridines
(16:20~16:35) **Shinji Yamada**
(Ochanomizu University)

16:35~16:55

Coffee Break

Room A

16:55~18:35

Session 7:

IL-5A Doubly *Ortho*-linked, *cis*-Stilbene/Fluorene Hybrid Materials and Their
(16:55~17:15) 7,8-Dihydro-Indene fused Analogs for OLED and Solar Cell
Applications
Chien-Tien Chen
(National Tsing Hua University)

IL-9B Electrochemical Analysis Using Boron-doped Diamond Electrodes
(17:15~17:35) **Yasuaki Einaga**

(Keio University, JST-CREST)

SIL-7A Carbon-Bridged Oligo(phenylenevinylene)s: Rigid Planar π -Conjugated System with High Photo- and Electrochemical Stability

(17:35~17:50)

Hayato Tsuji

(The University of Tokyo, JST-PRESTO)

SIL-8A Recent Development of Fused-Thiophenes for Organic Thin Film Transistors (OTFTs)

(17:50~18:05)

Ming-Chou Chen

(National Central University)

SIL-9A Preparation, physical properties and FET characteristics of diindenopyrazinediones and related compounds

(18:05~18:20)

Jun-ichi Nishida

(Tokyo Institute of Technology)

SIL-10A Organic field-effect transistors based on contorted poly-fused aromatic molecules

(18:20~18:35)

Yu-Tai Tao

(Academia Sinica)

Room B

16:55~18:35

Session 8:

IL-5B Vanadium-Induced Oxidative Coupling for Carbon-Carbon Bond Formation

(16:55~17:15)

Toshikazu Hirao

(Osaka University)

IL-6B Facile synthesis of cyclic β -amino acids

(17:15~17:35)

Osamu Onomura

(Nagasaki University)

SIL-8B DDQ as a versatile reagent for the formation of Disulfide bond

(17:35~17:50)

Jeh-Jeng Wang

(Kaohsiung Medical University)

SIL-9B Photocatalytic Function of Vitamin B₁₂-TiO₂ Hybrid Catalyst

(17:50~18:05)

Hisashi Shimakoshi

(Kyushu University)

SIL-10B Redox Combined Reactions Using Electrochemical Microreactor

(18:05~18:20)

Mahito Atobe

(Yokohama National University, Tokyo Institute of Technology)

SIL-11B Solid-state Modification of Conducting Polymers on Electrode

(18:20~18:35)

Shinsuke Inagi

(Tokyo Institute of Technology)

November 23, Wednesday

Main Hall

9:00~9:30

Session 9:

KL-2
(9:00~9:30)

Syntheses of Glycolipids and *S*-linked Oligo-sialic Acids
Chun-Cheng Lin
(National Tsing Hua University)

9:30~10:00

Session 10:

KL-3
(9:30~10:00)

Synthesis of gem-Difluorinated Compounds Using $\text{PhSCF}_2\text{SiMe}_3$
Manat Pohmakotr
(Mahidol University)

10:00~10:20

Coffee Break

Room A

10:20~12:00

Session 11:

IL-7A
(10:20~10:40)

Glutathionylspermidine (Gsp) synthetase/amidase: Development of activity-based probes and discovery of protein S-thiolation by Gsp
Chun-Hung Lin
(Academia Sinica)

IL-8A
(10:40~11:00)

Integrated Synthesis of Bioactive Glycans and Heterocycles
Koichi Fukase
(Osaka University)

SIL-11A
(11:00~11:15)

Development and Applications of Activity-Based Probes for Hydrolases
Lee-Chiang Lo
(National Taiwan University)

SIL-12A
(11:15~11:30)

Chemistry on Firefly Bioluminescence
Shojiro A. Maki
(The University of Electro-Communications)

SIL-13A
(11:30~11:45)

Design, Synthesis and Biological Evaluation of 6-Substituted Uridine Derivatives as Potential Chemotherapeutic Agents
Tun-Cheng Chien
(National Taiwan Normal University)

SIL-14A
(11:45~12:00)

Synthesis of 2,3,6-Trisubstituted 2*H*-Pyran-5-carboxylates, Their Transformations and Biological Properties
Tsutomu Inokuchi
(Okayama University)

Room B

10:20~12:00

Session 12:

IL-7B
(10:20~10:40)

Regioselective Carbonylation of Unactivated $\text{C}(\text{sp}^3)\text{-H}$ Bonds Catalyzed by $\text{Ru}_3(\text{CO})_{12}$
Naoto Chatani
(Osaka University)

- IL-8B** (10:40~11:00) Transition Metal-Catalyzed and Iodine Mediated Cascade Cyclization of Enediynes to Benzo[*a*]carbazoles
Ming-Jung Wu
(National Sun Yat-sen University)
- SIL-12B** (11:00~11:15) Spectroscopic Observation of Radical Cations Possessing a One-Electron σ -Bond: Photoinduced Electron-transfer Reactions of Diarylated Cage Compounds
Hiroshi Ikeda
(Osaka Prefecture University)
- SIL-13B** (11:15~11:30) Synthesis of Acene Based Super Electron Acceptor and Beltene
Chih-Hsiu Lin
(Academia Sinica)
- SIL-14B** (11:30~11:45) Isomerism of Cation Radicals. Computational and Experimental Studies of Oxygen-Containing Cation Radicals
Ryoichi Akaba
(Gunma College of Technology)
- SIL-15B** (11:45~12:00) Reaction of formyl [2.2.1]bicyclic carbinols with nucleophiles
Te-Fang Yang
(National Chi Nan University)
- 12:00~13:00 Lunch
- Main Hall**
13:00~14:30 **Poster Session 2 (PP-68~PP-135)**
- 14:30~14:50 Coffee Break
- Room A**
14:50~16:35 **Session 13:**
- IL-9A** (14:50~15:10) Structural Effect of Organic Dyes for Sensitized Solar Cells
Tahsin J. Chow
(Academia Sinica)
- IL-10A** (15:10~15:30) Reactions Using Electrochemically Generated Organo-dications
Seiji Suga
(Okayama University)
- SIL-15A** (15:30~15:45) Electroreduction of Phosphine Oxides to the Corresponding Phosphines
Kuroboshi Manabu
(Okayama University)
- IL-11A** (15:45~16:05) Inversion or Retention? Highly Stereospecific Suzuki–Miyaura Coupling of Chiral α -(Acylamino)benzylboronic Esters
Michinori Suginome
(Kyoto University)
- SIL-16A** (16:05~16:20) Base Catalyzed Povarov Reaction: An Unusual [1,3] Sigmatropic Rearrangement to Dihydropyrimido-Benzimidazoles
Chung-Ming Sun

(National Chiao Tung University)

SIL-17A Synthesis, Stereochemical Analysis and Anticancer Activity of
(16:20~16:35) 3,5-dialkyl-2,6-Chemistry Diaryltetrahydropyran-4-one Oxime Ethers
Paramasivam Parthiban
(Inje University)

Room B

14:50~16:35

Session 14:

IL-6A Coordination Programming of Electro- and Photo-functional Molecular
(14:50~15:10) Wires and Networks
Hiroshi Nishihara
(The University of Tokyo)

IL-10B Chromogenic and Fluorogenic Sensing of Heavy Metal Ions Based on
(15:10~15:30) Functionalized Calix[4]arenes
Wen-Sheng Chung
(National Chiao Tung University)

OP-1B Bio-inspired Catalysts with Vitamin B₁₂ and TiO₂ for Arsenic
(15:30~15:45) Detoxification
Koichiro Nakamura
(Nippon Sheet Glass Co., Ltd.)

IL-11B Multifunctional Polymeric Catalysts and Reagents
(15:45~16:05) **Patrick H. Toy**
(The University of Hong Kong)

SIL-16B Novel stimuli-responsive π -conjugated pyridine derivatives:
(16:05~16:20) Application as ion-sensing reagents
Satoaki Onitsuka
(Kyusyu University)

SIL-17B Synthesis of Quinoxaline-Embedded Multi-Functionalized Polyacene
(16:20~16:35) Derivatives
Teh-Chang Chou
(Chaoyang University of Technology)

16:35~16:55 Coffee Break

Room A

16:55~18:35

Session 15:

IL-12A Oxygen Induced Cyclization of Ru Vinylidene Complexes with Olefinic
(16:55~17:15) Group
Ying-Chih Lin
(National Taiwan University)

IL-13A Construction of Carbon Frameworks through Cleavage of Carbon-
(17:15~17:35) Carbon Single Bonds
Masahiro Murakami
(Kyoto University)

- SIL-18A** The Study of Enantioselective Nozaki-Hiyama-Kishi Reaction
(17:35~17:50) **Chinpiao Chen**
(National Dong Hwa University)
- SIL-19A** Catalytic asymmetric allylic alkylation reaction by the use of Pd complex
(17:50~18:05) having C₂-symmetric chiral bidentate NHC ligand
Masatoshi Asami
(Yokohama National University)
- SIL-20A** Transition-Metal-Catalyzed C-S Bond Cross-Coupling Reaction
(18:05~18:20) **Chin-Fa Lee**
(National Chung Hsing University)
- SIL-21A** Synthesis of 2-Trifluoromethylfuran Derivatives by Mg-Promoted
(18:20~18:35) Trifluoroacetylation of Benzalacetone
Hirofumi Maekawa
(Nagaoka University of Technology)

Room B

16:55~18:35

Session 16:

- IL-12B** Aminolithiation-Carbolithiation Conjugate Process
(16:55~17:15) **Kiyoshi Tomioka**
(Doshisha Women's College of Liberal Arts)
- IL-13B** Asymmetric synthesis of isoquinuclidine by Diels-Alder reaction of
(17:15~17:35) 1,2-dihydropyridine utilizing chiral Lewis acid catalyst
Haruo Matsuyama
(Muroran Institute of Technology)
- SIL-18B** Vanadium-Catalyzed Oxidative Bromination under Molecular Oxygen
(17:35~17:50) **Toshiyuki Moriuchi**
(Osaka University)
- SIL-19B** Total synthesis of denbinobin, moniliformediquinone and calanquinone
(17:50~18:05) A by Pd-catalysis and cyclization
Yean-Jang Lee
(National Changhua University of Education)
- SIL-20B** Regioselective HBr-Elimination of Vicinal Dibromides Having an
(18:05~18:20) Adjacent O-Functional Group
Noriki Kutsumura
(Tokyo University of Science)
- SIL-21B** Total Synthesis of *Anti*-HIV-1 Agent (-)-Concentricolide
(18:20~18:35) **Rong-Jie Chein**
(Academia Sinica)

November 24, Thursday

Room A

9:00~11:00

Session 17:

- IL-14A**
(9:00~9:20) Conjugate Addition and Displacement Reaction to unsaturated Sulfones
Minoru Isobe
(National Tsing Hua University)
- IL-15A**
(9:20~9:40) Recent Progress in the Phosphoric Acid Catalysis-
Enantioselective Transfer Hydrogenation of Ketimines by Use of
Benzothiazoline as a Novel Hydrogen Donor
Takahiko Akiyama
(Gakushuin University)
- SIL-22A**
(9:40~9:55) Asymmetric Synthesis of *Sila*-carboxylic Acid
Kazunobu Igawa
(Kyushu University)
- IL-16A**
(9:55~10:15) Asymmetric synthesis of bis-tetrahydrofuran cores in annonaceous
acetogenins
Duen-Ren Hou
(National Central University)
- OP-2A**
(10:15~10:30) Synthetic studies of a novel antibiotic, incednine
Takashi Ohtani
(Keio University)
- SIL-23A**
(10:30~10:45) Enantioselective Syntheses of Cladoacetals A and B
Day-Shin Hsu
(National Chung Cheng University)
- SIL-24A**
(10:45~11:00) Bioactive Substances from Marine Cyanobacteria
Kiyotake Suenaga
(Keio University)

Room B

9:00~11:00

Session 18:

- IL-14B**
(9:00~9:20) Development of Iron-catalyzed Reactions Using Ionic Liquids
Toshiyuki Itoh
(Tottori University)
- IL-15B**
(9:20~9:40) Organoalanes and Organotitanium Reagents for Asymmetric Addition
Reactions and Coupling Reactions
Han-Mou Gau
(National Chung Hsing University)
- SIL-22B**
(9:40~9:55) Integration of Electrochemical and Chemical Coupling Reactions
Directed towards π -Conjugated Compounds
Koichi Mitsudo
(Okayama University)
- IL-16B**
(9:55~10:15) Palladium-catalyzed Coupling Reaction of Tetrafluoroethylene with
 Ar_2Zn

	Sensuke Ogoshi (Osaka University)
OP-2B (10:15~10:30)	Palladium-Catalyzed C-H Functionalization in Organic Synthesis Jean-Ho Chu (National Sun Yat-sen University)
SIL-23B (10:30~10:45)	Chain-Walking Strategy for Synthesis of Small Organic Molecules: Palladium-Catalyzed Formation of Five-Membered Rings from 1,n-Dienes Takuya Kochi (Keio University)
SIL-24B (10:45~11:00)	Bicyclo[2.2.1] Chiral Dienes in the Rh-Catalyzed 1,4-Addition Reactions Hsyueh-Liang Wu (National Taiwan Normal University)
11:00~11:20	Coffee Break
Main Hall 11:20~11:50	Session 19:
SP-IL (11:20~11:50)	Recent Advances in the Chemistry of Masked <i>o</i> -Benzoquinones Chun-Chen Liao (National Tsing Hua University, Chung Yuan Christian University)
11:50~12:30	Session 20:
PL-2 (11:50~12:30)	Organic Electrochemistry, Microreactors, and Their Synergy Jun-ichi Yoshida (Kyoto University)
12:30~12:45	Closing Remarks