

2018 THE 9TH CSE SUMMER SCHOOL

14(SAT) – 15(SUN) JULY, 2018

PIRICA COTAN AND KEIRYU-SOU, JOZANKEI

CSE summer school is a symposium organized by DC students at CSE for the purpose of collaboration and exchange of different fields.

INVITED SPEAKERS

Prof. Nisanth N. Nair (Indian Institute of Technology Kanpur, India)

“Supercomputer vs Superbugs: What Makes the Catalytic Reaction by Beta-Lactamase Enzymes Highly Efficient?”

Prof. Ning Yan (National University of Singapore, Singapore)

“Chemicals from Renewable Resources: Current Status, Opportunities and Challenges”

The seminars by Prof. Nisanth N. Nair and Prof. Ning Yan are approved of the “Topical Lectures in Chemical Sciences and Engineering” (for MC students) and the “Research in Chemical Sciences and Engineering II” (for DC students).

Prof. Toshihiro Shimada (Hokkaido University, Japan)

“Sensing gas molecules – from WVTR to artificial noses”

PROGRAM

Invited Lectures, Oral and Poster Presentation, Recreations, Banquet

Students must have oral or poster presentation.

Oral and poster presentation awards will be given for brilliant presenters.

REGISTRATION

Registration Fee : ¥13,000

(This price includes accommodation, meals and banquet fee. CSE supports the MC and DC students as their travelling fee up to ¥10,000.)

Dead line : June 30th

Please send e-mail to: Md. A. R. Jamil (jamil@cat.hokudai.ac.jp)

ORGANIZING COMMITTEE

Ryoto Tanaka (D1, CSE, Hokkaido Univ.), Takuro Tsutsumi (D1, CSE, Hokkaido Univ.), Md. A. R. Jamil (D2, ICAT, Hokkaido Univ.), Tatsuya Saitoh (D3, CSE, Hokkaido Univ.), Shizuka Anan (D3, CSE, Hokkaido Univ.), Yu Harabuchi (Fac. Sci., Hokkaido Univ.), Prof. Kiyotaka Asakura (ICAT, Hokkaido Univ.)

The 7th Hokkaido Univ. – Chungbuk National Univ. Joint Symposium on Advanced Engineering



July 5, 2018

Faculty of Engineering, Hokkaido University

Invited Speakers (9:00-12:45)

Seminar room 2, Frontier Research in Applied Sciences Building

STEM-VEELS of Ag nano-particles in glass

Prof. **Norihito Sakaguchi**

Center for Advanced Research of Energy and Materials, HU

Alloyed atomic layer junctions on 2D metal-semiconductor contact

Prof. **Byungjin Cho**

Department of Advanced Materials Engineering, CBNU

Next-generation smart bridge pier foundation structure based on damage control design concept

Prof. **Koichi Isobe**

Division of Field Engineering for Environment, HU

Fines migration and clogging behaviors during gas production from hydrate-bearing sediments

Prof. **Jongwon Jung**

School of Civil Engineering, CBNU

Molecular dynamics simulation on temperature response of novel rod-type amphiphilic polymers

Prof. **Shinichiro Sato**

Division of Applied Chemistry, HU

Density functional theory (DFT) studies on environmental and energy applications

Prof. **Dong-Hee Lim**

Department of Environmental Engineering, CBNU

Novel electrode materials for electrochemical energy storage and conversion

Prof. **Hiroki Habazaki**

Division of Applied Chemistry, HU

Electrochemical characteristics and applications of nanocomposite materials for hybrid capacitor

Prof. **Soo-Gil Park**

School of Industrial Engineering Chemistry, CBNU

(16:00-17:30) Open Hall, Faculty of Engineering

Honorary degree ceremony & Plenary lecture

President **Yeo-pyo Yun**

Chungbuk National University



北海道大学大学院工学研究院
Faculty of
ENGINEERING
Hokkaido University



HOKKAIDO UNIVERSITY
**AMBITIOUS
LEADER'S PROGRAM**
Fostering Future Leaders to
Open New Frontiers in Materials Science



GRADUATE SCHOOL OF
**CHEMICAL SCIENCES AND
ENGINEERING**
HOKKAIDO UNIVERSITY



30th
Anniversary



第30回記念

万有札幌シンポジウム

希望につながる新しい化学



2018 **7.7** SAT

北海道大学工学部オープンホール

※本会協賛の、講演者出席、司会役ご招待の万有MSD生命科学シンポジウムホームページをご覧ください。
<http://www.msd-life-science-foundation.or.jp/category/symp/sapporo>

EDUOKA



参加
無料

Lectures

坂本 良太	東北大学大学院理学系研究科	機能性分子低次元系のボトムアップ創製
大嶋 孝志	九州大学大学院薬学研究所	保護基・活性化基に頼らない直接触媒反応
山子 茂	京都大学化学研究所	離状イオン共役分子の新しい有機化学
小笠原 正道	北海道大学大学院工学部理工学研究所	ネーブルな遷移金属錯体の不斉合成と応用
柴崎 正勝	東北大学理学部	協奏機体型不斉触媒が拓く環境調和型医薬合成: 30年前の北大が出発点

【日時】 2018年7月7日(土) 11:00~19:20

【会場】 北海道大学工学部オープンホール(札幌市東区北14条5丁目5号501号)

【主催】 万有札幌シンポジウム組織委員会

【共催】 有機合成化学協会北海道支部・日本化学会北海道支部・北海道大学大学院工学研究科フロンティア化学教育研究センター

【後援】 公益財団法人MSD生命科学財団

【協賛】 日本化学会・日本農芸化学会・日本薬学会・有機合成化学協会

Organizer

高橋 保 北海道大学数値科学研究所

【問い合わせ】

30周年記念 万有札幌シンポジウム事務局 〒001-0021 札幌市東区北21条西10丁目

北海道大学数値科学研究所 TEL 011-706-0153

〒 234

E-mail: symp@icaf.hokudai.ac.jp

Japan-Korea Joint Symposium on Polymer Science 2018

-Innovative soft matters by microstructure control-

Dates: July 23-27th, 2018

**Venue: Frontier Research in Applied Sciences Building,
Faculty of Engineering, Hokkaido University**

Program Summary

July 23th: 18:00 – Registration & Welcome Reception at Restaurant Elm at HU

July 24th: 9:00 –18:00 Invited Lectures and Student Poster Presentation at HU

Keynote Lecture: Jin Kon Kim (POSTECH), Jian Ping Gong (Hokkaido Univ.)

Invited Lecture: Masami Kamigaito (Nagoya Univ.), Sang Youl Kim (KAIST), Hideharu Mori (Yamagata Univ.), Kookheon Char (Seoul National Univ.), Toshifumi Satoh (Hokkaido Univ.), Myungeun Seo (KAIST), Eunkyong Kim (Yonsei Univ.), Kenji Hisada (Fukui Univ.), Han Young Woo (Korea Univ.), Teruaki Hayakawa (Tokyo Tech), Taiho Park (POSTECH)

July 25th: 9:00 – 17:40 Invited Lectures at HU

Keynote Lecture: : Atsushi Takahara (Kyushu Univ.), Jae Suk Lee (GIST)

Invited Lecture: Ji-Woong Park (GIST), Kazuki Sada (Hokkaido Univ.), Eiji Ihara (Ehime Univ.), Du Yeol Ryu (Yonsei Univ.), Takashi Ishizone (Tokyo tech), Yu-Cheng Chiu (Hokkaido Univ. Taiwan Tech), Ken Nakajima (Tokyo Tech), Moon Jeong Park (POSTECH), Woo-dong Jang (Yonsei Univ.), Takamasa Sakai (Univ. of Tokyo), Pil J. Yoo (Sungkyunkwan Univ.), Jinkee HongJang (Yonsei Univ.), Toshiki Sawada (Tokyo Tech), Byeong-Su Kim (UNIST)

July 26th: 9:00 –23:00 Invited Lectures at HU and Meeting at Dai-ichi Takimotokan

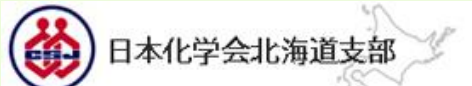
Keiji Tanaka (Kyushu Univ.), Myung-Han Yoon (GIST), Daisuke Aoki (Tokyo Tech), Takuya Isono (Hokkaido Univ.), Hironori Atarashi (Okayama Univ.), Youn Soo Kim (POSTECH), Takuya Yamamoto (Hokkaido Univ.)

Organizers: Toshifumi Satoh (Hokkaido Univ., Tel:706-6602), Eunkyong Kim (Yonsei Univ.)

Sponsored by:



日本学術振興会



日本化学会北海道支部

高分子学会北海道支部

公益財団法人

東京応化科学技術振興財団

Tokyo Ohka Foundation for The Promotion of Science and Technology

公益財団法人 杉野目記念会

THE SUGINOME MEMORIAL FOUNDATION

<http://poly-bm.eng.hokudai.ac.jp/jkjs2018/index.html>

This symposium is approved of a part of the "Topical Lectures in Chemical Sciences and Engineering" (for MC students) and the "Research in Chemical Sciences and Engineering II" (for DC students) in Hokkaido Univ.

Chairman: Prof. Sang Youl Kim

11:20– 11:40

Invited Lecture

IL05

Novel Synthetic Pathway for Multicyclic Polymers

Toshifumi Satoh (*Hokkaido University*)

11:40 – 12:00

Invited Lecture

IL06

Control of Polymer Architecture via RAFT Alternating Copolymerization

Myungeun Seo (*Korea Advanced Institute of Science and Technology*)

12:00 – 13:40

Lunch Time

Chairman: Prof. Kookheon Char

13:40 – 14:10

Keynote Lecture

KL02

Novel Hydrogels with Reversible Sacrificial Bonds –From Toughness to Wet Adhesion to Composites–

Jian Ping Gong (*Hokkaido University*)

Chairman: Prof. Teruaki Hayakawa

14:10 – 14:30

Invited Lecture

IL07

Side Chain Engineering in Conjugated Polymers for a Long Bistable Electrochromism

Eunkyong Kim (*Yonsei University*)

14:30 – 14:50

Invited Lecture

IL08

Tribological Phenomena of Molecular Assembled Films

Kenji Hisada (*University of Fukui*)

14:50 – 15:10

Coffee break

Chairman: Prof. Myungeun Seo

15:10 – 15:30

Invited Lecture

IL09

Organic Photovoltaic Polymers for Next Generation Green Energy Sources

Han Young Woo (*Korea University*)

15:30 – 15:50

Invited Lecture

IL10

Morphology Control Based on Post-Functionalization of Block Copolymers

Teruaki Hayakawa (*Tokyo Institute of Technology*)

15:50 – 16:10

Invited Lecture

IL11

Rational Design of Conducting Polymers for Energy Devices

Taiho Park (*Pohang University of Science and Technology*)

16:10 – 18:00

Student Poster Session

at Second floor, Frontier Research in Applied Sciences Building

18:30 –

Dinner at Sapporo Beer Garden

☆July 25th, Wednesday☆

*at Akira Suzuki Hall (Second floor), Frontier Research in Applied Sciences Building,
Faculty of Engineering, Hokkaido University*

Chairman: Prof. Eunkyong Kim

9:00 – 9:30

Keynote Lecture

KL03

Synchrotron Radiation X-ray Scattering of Polymeric Materials under Various Deformation States

Atsushi Takahara (*Kyusyu University*)

Chairman: Prof. Ken Nakajima

9:30 – 9:50

Invited Lecture

IL12

Organic Sol-Gel Synthesis of Nanostructured Materials for Catalysis

Ji-Woong Park (*Gwangju Institute of Science and Technology*)

9:50 – 10:10

Invited Lecture

IL13

Lattice-Controlled A-A / B-B type Stepwise Polymerization

Kazuki Sada (*Hokkaido University*)

10:10 – 10:30

Coffee break

Chairman: Prof. Woo-Dong Jang

10:30 – 10:50

Invited Lecture

IL14

Pd-initiated Polymerization of Diazoacetate to Afford Poly(alkoxycarbonylmethylene)

Eiji Ihara (*Ehime University*)

10:50 – 11:10

Invited Lecture

IL15

Effects of Compositional Asymmetry and Chain Length on Phase Transition Behavior of Symmetric Diblock Copolymers

Du Yeol Ryu (*Yonsei University*)

Chairman: Prof. Hideharu Mori

11:10 – 11:30

Invited Lecture

IL16

Anionic Polymerization of Benzofulvene Derivatives

Takashi Ishizone (*Tokyo Institute of Technology*)

11:30 – 11:50 **Invited Lecture**
IL17 **Intrinsically Stretchable and Healable Semiconducting Polymer for Skin-Inspired Wearable Transistors**

Yu-Cheng Chiu (*Hokkaido University, National Taiwan University of Science and Technology*)

11:50 – 13:30 **Lunch Time**

Chairman: Prof. Takashi Ishizone

13:30 – 14:00 **Keynote Lecture**
KL04 **Bottlebrush Block Copolymers synthesized by Combination of Living Anionic Polymerization and Ring-Opening Metathesis Polymerization for Photonic Crystal**

Jae Suk Lee (*Gwangju Institute of Science and Technology*)

Chairman: Prof. Du Yeol Ryu

14:00 – 14:20 **Invited Lecture**

IL18 **AFM Nanomechanics on Polymeric Materials**

Ken Nakajima (*Tokyo Institute of Technology*)

14:20 – 14:40 **Invited Lecture**

IL19 **Design Rules of Efficient Ion Conducting Polymers: From Block Copolymers to Single-Ion Polymers**

Moon Jeong Park (*Pohang University of Science and Technology*)

14:40 – 15:00 **Coffee break**

Chairman: Prof. Eiji Ihara

15:00 – 15:20 **Invited Lecture**

IL20 **Design of Multi-Modal Stimuli-Responsive Polymers**

Woo-Dong Jang (*Yonsei University*)

15:20 – 15:40 **Invited Lecture**

IL21 **Instantly Formative Hydrogels for Artificial Vitreous Body**

Takamasa Sakai (*The University of Tokyo*)

15:40 – 16:00 **Invited Lecture**

IL22 **Hierarchically Architected Cellular Network of Graphene Bubbles for Ultralight, Strong, and Superelastic Materials**

Pil J. Yoo (*Sungkyunkwan University*)

16:00 – 16:20 **Coffee break**

Chairman: Prof. Ji-Woong Park

16:20 – 16:40

Invited Lecture

IL23

Multilayer Nano-Films for Stem Cell Technology

Jinkee Hong (*Yonsei University*)

16:40 – 17:00

Invited Lecture

IL33

Construction and Thermophysical Characterization of Hierarchical Assemblies Composed of Filamentous Viruses

Toshiki Sawada (*Tokyo Institute of Technology*)

Chairman: Prof. Takamasa Sakai

17:00 – 17:20

Invited Lecture

IL25

Tuning the Release Kinetics of pH-Responsive All Polyether Micelles with Novel Epoxide Monomers

Byeong-Su Kim (*Ulsan National Institute of Science and Technology*)

17:20 – 17:40

invited Lecture

IL26

Loss Tangent Map Measured by Nanorheological Atomic Force Microscope

Eijun Ueda (*Zeon Corporation*)

18:30 –

Banquet at Hotel Mystays Sapporo Aspen

☆July 26th, Thursday☆

***at Akira Suzuki Hall (Second floor), Frontier Research in Applied Sciences Building,
Faculty of Engineering, Hokkaido University***

Chairman: Prof. Takuya Yamamoto

9:00 – 9:20

Invited Lecture

IL27

Swelling Kinetics and Proton Conductivity in Thin Nafion Films

Keiji Tanaka (*Kyushu University*)

9:20 – 9:40

Invited Lecture

IL28

Mixed Conductor-Based Bioelectronics: From PEDOT:PSS Thin Film Electrochemical Transistors to Single-Strand Microfiber Sensors

Myung-Han Yoon (*Gwangju Institute of Science and Technology*)

Chairman: Prof. Yu-Cheng Chiu

9:40 – 10:00

Invited Lecture

IL29

A Rational Entry to Macrocyclic Compounds and Polymers via Selective Cyclization Derived From Dynamic Covalent Bond

Daisuke Aoki (*Tokyo Institute of Technology*)

10:00 – 10:20 **Invited Lecture**
IL30 **Synthesis and Morphology of Sugar-Containing Low Molecular Weight Block Copolymers**
Takuya Isono (*Hokkaido University*)

10:20 – 10:40 **Coffee break**

Chairman: Prof. Myung-Han Yoon

10:40 – 11:00 **Invited Lecture**
IL31 **Morphology Control of High Performance Polymers Prepared from Cinnamic Acid Derivatives**
Hironori Atarashi (*Okayama University*)

11:00 – 11:20 **Invited Lecture**
IL32 **Biomimetic Functional Hydrogels with Anisotropic Structures**
Youn Soo Kim (*Pohang University of Science and Technology*)

11:20 – 11:40 **Invited Lecture**
IL24 **Functional Materials Formed from Cyclic Polymers**
Takuya Yamamoto (*Hokkaido University*)

Chairman: Prof. Toshifumi Satoh and Eunkyong Kim

11:40 – **Poster Award Ceremony**

12:00 – 13:00 **Lunch Time**

13:45 – **Move to Dai-ichi Takimotokan, Noboribetsu from North Exit of Sapporo Station**

20:00 –23:00 **Integration meeting at Dai-ichi Takimotokan, Noboribetsu**

☆July 27th, Friday☆
at Dai-ichi Takimotokan, Noboribetsu

Chairman: Toshifumi Satoh and Eunkyong Kim

8:00 – 9:30 **Meeting for future collaboration at Dai-ichi Takimotokan, Noboribetsu**

9:30 – **Closing remarks and Move to New Chitose Airport and Sapporo Station**

CSE International Student Symposium 2018

Date: August 27th, 2018

Venue: Seminar Room 2, Frontier Research in Applied Sciences Building,
Faculty of Engineering, Hokkaido University

Program Summary

13:00 Opening Remarks

Prof. Shin-ichiro Sato (*Hokkaido University*)

13:05-13:45 **Invited Lecture 1**

『Improving of in vitro two-phase reaction system and synthesis of short-chain-length PHA』

Prof. Xuerong Han (*Changchun University of Science and Technology*)

13:45-14:45 **Invited Lecture 2**

『From Functional Polymer to Intrinsically Stretchable and Healable Transistor Devices』

Prof. Yu-Cheng Chiu (*National Taiwan University of Science and Technology, Hokkaido University*)

15:00-16:30 **Student Poster Session (at Foyer on the 2F of FCC)**

15:00-15:45 odd number 15:45-16:30 even number

16:45-17:00 Poster Award & Closing Remarks

Prof. Toshifumi Satoh (*Hokkaido University*)

17:30 **Genghis Khan Party** (near Materials & Chemistry Building)

(Party fee; ¥1000 for students and ¥3,000 for others)

Committee: Shin-ichiro Sato, Kenji Tajima

(Contact: s-sato@eng.hokudai.ac.jp, ktajima@eng.hokudai.ac.jp)

Organized by:



GRADUATE SCHOOL OF
CHEMICAL SCIENCES AND ENGINEERING
HOKKAIDO UNIVERSITY



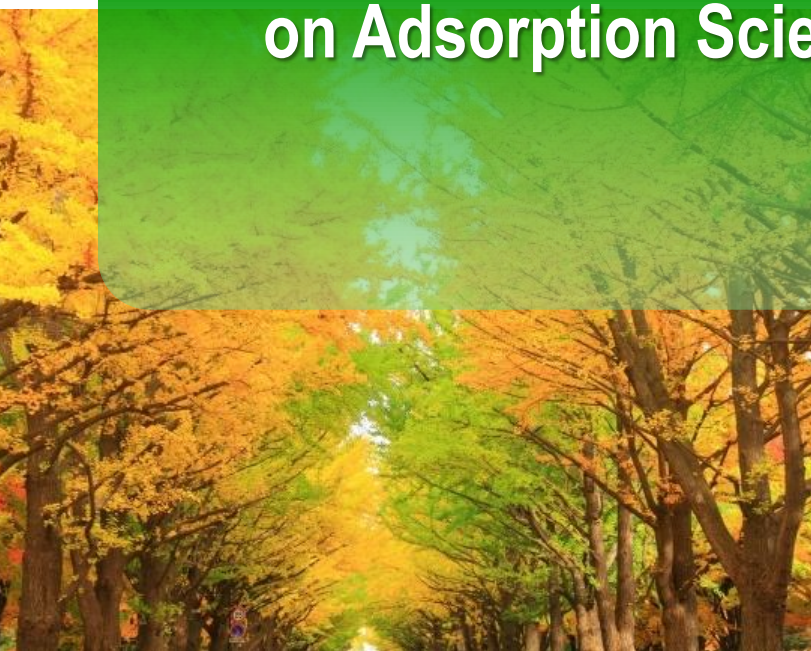
Faculty, Graduate School and School of
ENGINEERING
Hokkaido University

Frontier Chemistry Center
フロンティア化学教育研究センター

PROGRAM

8th Pacific Basin Conference
on Adsorption Science and Technology

PBAST-8



September 3 - 6, 2018
Frontier Research in Applied Sciences Building,
Hokkaido University, Sapporo, Japan.

A tradition of

Innovation

in Sorption Measurement Technology

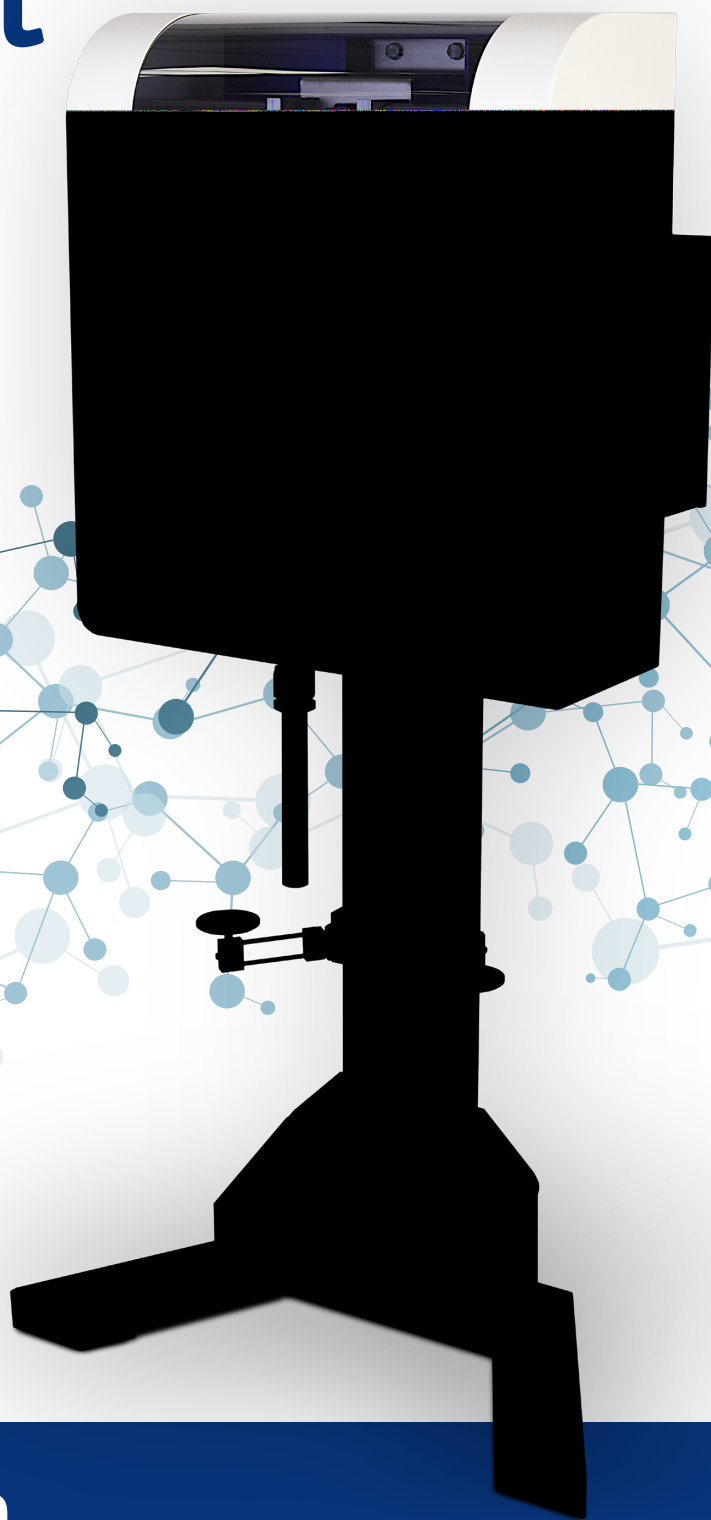
GAS AND VAPOR
SORPTION ANALYZERS

MEMBRANE GAS
PERMEATION ANALYZERS

BREAKTHROUGH
CURVES

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Hiden Isochema is a world leader in the design and manufacture of sorption instruments.

HIDEN
ISOHEMA

Scope

The aim of this conference is to provide a platform so that researchers who are involved in the field of adsorption science and technology, especially those from the Pacific Rim, can freely discuss and exchange ideas. The symposium aims at promoting fundamental and applied studies related to adsorption. The major topics of the symposium will be:

- A. Fundamentals of Adsorption
- B. Instrumentation for Adsorption Measurement
- C. Chemisorption & Catalysis
- D. Synthesis and Characterization of Novel Adsorbent Materials
- E. Applications of Adsorption
 - E1. Adsorption for Energy Related Applications
 - E2. Adsorption for Bio-applications
 - E3. Adsorption for Environment Protection
- F. Miscellaneous

Contents

Scope/Contents	1
Host/Sponsors/Exhibitors	2
Committees	3
Venue/Floor map	4
Organizer/Social events	5
Program schedule	6-7
Plenary lectures	8
Keynote lectures	9
Lecture program	10-15
Poster program	16-18
Author Index	19-23

Hosts

Host Organizing Committee of the 8th Pacific Basin Conference on Adsorption Science and Technology

Co-hosts Faculty of Engineering, Hokkaido University
Frontier Chemistry Center, Hokkaido University
Japan Society on Adsorption

Sponsors

The Suginome Memorial Foundation
(Sapporo, Japan)

Hiden Isochema
(Warrington, United Kingdom)



MicrotracBEL Corp.
(Osaka, Japan)



Exhibitors

Hiden Isochema
(Warrington, United Kingdom)

MicrotracBEL Corp.
(Osaka, Japan)

Osaka Gas Chemicals Co., Ltd.
(Osaka, Japan)

Anton Paar Japan K.K.
(Tokyo, Japan)

Committees

Organizing Committee

Shin Mukai (Chair)	Hokkaido Univ.
Akira Endo (Secretary)	AIST
Takahiro Ueda (Program Chair)	Osaka Univ.
Shinichirou Iwamura (Treasurer)	Hokkaido Univ.
Toshihide Horikawa	Univ. Tokushima
Taku Iiyama	Shinshu Univ.
Akio Kodama	Kanazawa Univ.
Ryotaro Matsuda	Nagoya Univ.
Akihiko Matsumoto	Toyohashi Tech.
Isamu Moriguchi	Nagasaki Univ.
Kazuyuki Nakai	MicrotracBEL
Tomonori Ohba	Chiba Univ.
Takahiro Ohkubo	Okayama Univ.
Hideki Tanaka	Kyoto Univ.
Takuji Yamamoto	Univ. Hyogo
Masayuki Yoshida	MicrotracBEL

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Chang-Ha Lee	Yonsei Univ., Korea
Hirofumi Kano	Chiba Univ., Japan
Peter A. Monson	Univ. Massachusetts Amherst, U.S.A.
Yousheng Tao	Chinese Academy of Sciences., China
Paul Webley	Univ. Melbourne, Australia

Venue

Frontier Research in Applied Sciences Building

Kita 13, Nishi 8, Kita-ku, Sapporo 060-8628

Faculty of Engineering, Hokkaido University



Frontier Research in Applied Sciences Building



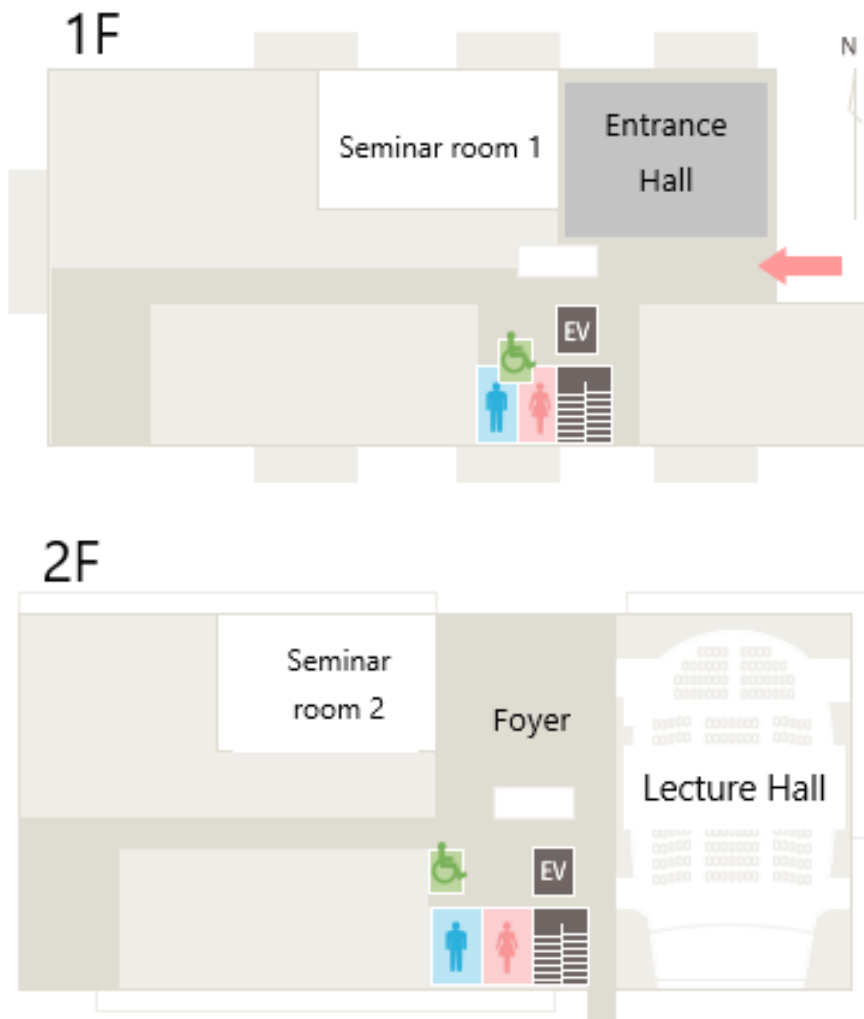
Lecture Hall

Plenary & Keynote Lectures: Lecture Hall

Oral presentation: Lecture Hall, Seminar room 2

Poster presentation & Exhibition: Entrance Hall, Seminar room 1

Floor map



Organizer & Contact

Correspondence

Professor Shin Mukai (Chair)
Faculty of Engineering
Hokkaido University
N-13, W-8, Kita-ku
Sapporo 060-8628, Japan
E-mail:pbast8@gmail.com

Conference Secretariat

c/o Kinki Nippon Tourist Hokkaido Co.,
Ltd.
Hokkaido DM Branch
N-3, W-2, Chuo-ku
Sapporo 060-0003, Japan
Phone: +81-11-280-8855
Fax: +81-11-251-2288
E-mail:s-convention-1@or.knt-h.co.jp

Social events

Welcome Reception (Sept. 3, 2018)

The conference welcome reception will be held at the North Cafeteria, Hokkaido University.

Fee: Included in all registration fees.

Banquet (Sept. 5, 2018)

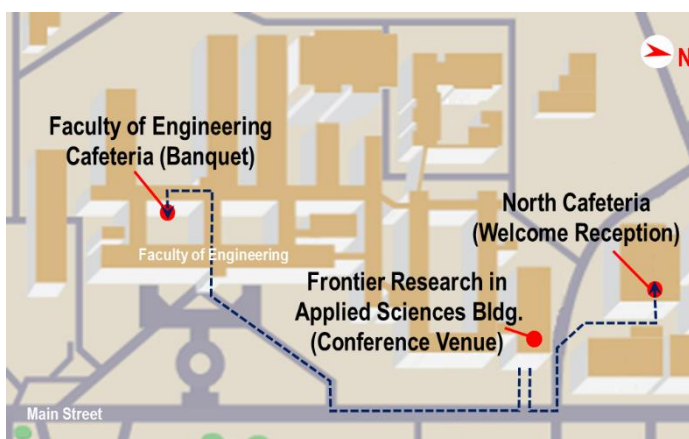
The conference banquet will be held at the Faculty of Engineering Cafeteria, Hokkaido University.

Fee: Included in all registration fees.

Excursion (Sept. 6, 2018)

The conference excursion will be held on the afternoon of Sept. 6, 2018. We are planning to visit Nikka Whisky Yoichi Distillery and Otaru Canal. After returning to Sapporo, we will have dinner at Sapporo Beer Garden (Barbecue with fresh draft beer).

Fee: Included in the registration fees for general participants and accompanying persons. Students can attend the excursion by paying the excursion fee.



Nikka Whisky Yoichi Distillery



Otaru Canal

Program schedule

Sept. 3	16:00 - 18:00	Registration at Conference Office	
	18:00 - 19:30	Welcome Reception	

Sept. 4	9:00 - 9:40	Plenary Lecture PL1 (Lecture Hall)		
	9:40 - 10:00	Coffee Break		
		Lecture Hall	Seminar Room 2	
		A. Fundamentals of Adsorption	E1. Adsorption for Energy Related Applications	
	10:00 - 10:20	LA-1	LE1-1	
	10:20 - 10:40	LA-2	LE1-2	
	10:40 - 11:00	LA-3	LE1-3	
	11:00 - 11:20	LA-4	LE1-4	
	11:20 - 11:30	Break		
	11:30 - 12:00	Keynote Lecture KL1 (Lecture Hall)		
	12:00 - 13:20	Lunch		
	13:20 - 13:50	Keynote Lecture KL2 (Lecture Hall)		
	13:50 - 14:00	Break		
		Lecture Hall	Seminar Room 2	
		A. Fundamentals of Adsorption	E1. Adsorption for Energy Related Applications	
	14:00 - 14:20	LA-5	LE1-5	
	14:20 - 14:40	LA-6	LE1-6	
	14:40 - 15:00	LA-7	LE1-7	
	15:00 - 15:20	LA-8	LE1-8	
	15:20 - 15:40	LA-9	LE1-9	
15:40 - 16:00	LA-10	LE1-10		
16:00 - 16:20	Group Photo			
16:20 - 18:00	Poster (Entrance Hall, Seminar Room 1) (16:20-18:00)			

Sept. 5	9:00 - 9:40	Plenary Lecture PL2 (Lecture Hall)		
	9:40 - 10:00	Coffee Break		
		Lecture Hall	Seminar Room 2	
		A. Fundamentals of Adsorption	D. Synthesis and Characterization of Novel Adsorbent Materials	
	10:00 - 10:20	LA-11	LD-1	
	10:20 - 10:40	LA-12	LD-2	
	10:40 - 11:00	LA-13	LD-3	
	11:00 - 11:20	LA-14	LD-4	

Sept. 5	11:20 - 11:30	Break	
	11:30 - 12:00	Keynote Lecture KL3 (Lecture Hall)	
	12:00 - 13:20	Lunch	
	13:20 - 13:50	Keynote Lecture KL4 (Lecture Hall)	
	13:50 - 14:00	Break	
		Lecture Hall	Seminar Room 2
		B. Instrumentation for Adsorption Measurement C. Chemisorption & Catalysis	D. Synthesis and Characterization of Novel Adsorbent Materials
	14:00 - 14:20	LB-1	LD-5
	14:20 - 14:40	LB-2	LD-6
	14:40 - 15:00	LC-1	LD-7
	15:00 - 15:20	LC-2	LD-8
	15:20 - 15:40	Coffee Break	
		Lecture Hall	Seminar Room 2
		E2. Adsorption for Bio-applications	E3. Adsorption for Environment Protection
	15:40 - 16:00	LE2-1	LE3-1
	16:00 - 16:20	LE2-2	LE3-2
	16:20 - 16:40	LE2-3	LE3-3
	16:40 - 17:00	LE2-4	LE3-4
	17:00 - 17:20	LE2-5	
		Banquet	

Sept. 6	9:00 - 9:40	Plenary Lecture PL3 (Lecture Hall)	
	9:40 - 10:00	Coffee Break	
		Lecture Hall	Seminar Room 2
		A. Fundamentals of Adsorption	E3. Adsorption for Environment Protection
	10:00 - 10:20	LA-15	LE3-5
	10:20 - 10:40	LA-16	LE3-6
	10:40 - 11:00	LA-17	LE3-7
	11:00 - 11:10	Break	
	11:10 - 11:40	Keynote Lecture KL5 (Lecture Hall)	
	11:40 - 13:10	Lunch	
	13:10 - 17:00	Excursion	
		Conference Dinner	

Plenary lectures

Tuesday, September 4, 2018

9:00 PL1 New Challenges in Fundamental Adsorption-based Science
K. Kaneko (Shinshu University, Japan)

Biographical Information

http://www.knt.co.jp/ec/2018/pbast8/pdf/CV_Professor_Katsumi_Kaneko.pdf

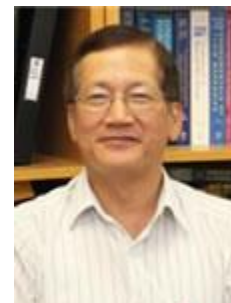


Wednesday, September 5, 2018

9:00 PL2 Fundamental Mechanism of Transition from Clustering to Molecular Layering
in Adsorption of Gases on Carbon Materials
D. D. Do (The University of Queensland, Australia)

Biographical Information

http://www.knt.co.jp/ec/2018/pbast8/pdf/CV_Professor_Duong_D_Do.pdf



Thursday, September 6, 2018

9:00 PL3 Contribution of Adsorption Technology to High Techno-Economic
Performance and Carbon Assessment in Integrated Coal-Syngas Process:
H₂ PSA and Pre-combustion CO₂ Capture
C.-H. Lee (Yonsei University, Korea)

Biographical Information

http://www.knt.co.jp/ec/2018/pbast8/pdf/CV_Professor_Chang-Ha_Lee.pdf



Keynote lectures

Tuesday, September 4, 2018

- 11:30 KL1 Preparation of Hierarchically Nanoporous Carbon-Based Nanocomposites for the Applications in Electro-Chemical Energy Storage
Y. Tao, K. P. Annamalai, L. Liu, M. Zhang, N. A. Fathy, J. Gao, X. Zheng and T. Chen (Chinese Academy of Sciences, China)

Biographical Information

http://www.knt.co.jp/ec/2018/pbast8/pdf/CV%E3%80%80Professor_Yousheng_Tao.pdf



- 13:20 KL2 Compression and High Pressure Effects in Adsorbed Films
K. Shi, Y. Long, D. Srivastava, M. Śliwiska-Bartkowiak, E. E. Santiso and K. E. Gubbins (North Carolina State University, U.S.A.)

Biographical Information

http://www.knt.co.jp/ec/2018/pbast8/pdf/CV_Professor_Keith_E._Gubbins.pdf



Wednesday, September 5, 2018

- 11:30 KL3 Defect Engineering for Manipulating Porosity and Adsorption Behavior of Metal-organic Frameworks
Y. Jiao, Y. Liu, G. Zhu, J. T. Hungerford, S. Bhattacharyya, R. P. Lively, D. S. Sholl, and K. S. Walton (Georgia Institute of Technology, U.S.A)

Biographical Information

http://www.knt.co.jp/ec/2018/pbast8/pdf/CV_Professor_Krista_S._Walton.pdf



- 13:20 KL4 Intrinsic Thermal Management Capabilities of Flexible Metal-organic Frameworks for CO₂ Separation
H. Tanaka, S. Hiraide and M. T. Miyahara (Kyoto University, Japan)

Biographical Information

http://www.knt.co.jp/ec/2018/pbast8/pdf/CV_Professor_Hideki_Tanaka.pdf



Thursday, September 6, 2018

- 11:10 KL5 Structure and Gas Transport at the Polymer-Zeolite Interface: Insights from Molecular Dynamics Simulations
R. C. Dutta and S. K. Bhatia (The University of Queensland, Australia)

Biographical Information

http://www.knt.co.jp/ec/2018/pbast8/pdf/CV_Professor_Suresh_Bahtia.pdf



Lecture program

Sept. 4, 2018

		Chair: S. Mukai (Hokkaido University)	Lecture Hall
9:00	PL1	New Challenges in Fundamental Adsorption-based Science <u>K. Kaneko</u> (Shinshu University, Japan)	
9:40		Coffee Break	
			A. Fundamentals of Adsorption
		Chair: A. Matsumoto (Toyohashi University of Technology)	Lecture Hall
10:00	LA-1	Selective O ₂ Sorption of Elastic Layer-structured MOFs R. Koyama, M. Togo, H. Kajiro, and <u>H. Kanoh</u> (Chiba University, Japan)	
10:20	LA-2	Thermodynamic and Kinetic Modeling of Capillary Condensation and Evaporation in Open-Ended Nanopores <u>T. Hiratsuka</u> , H. Tanaka, and M. T. Miyahara (Kyoto University, Japan)	
10:40	LA-3	Measuring Adsorption Properties of Fragrance Molecules on Fibres: Importance of Substrate Amorphicity on the Adsorption and Retention Behaviour of Small Molecules by Solid State Materials <u>N. Ali</u> , J. Marsh, G. Rondepierre and D. R. Williams (Imperial College London, United Kingdom)	
11:00	LA-4	Selective Adsorption and Permeation using Graphene Sheet K. Shimizu, Y. Oya, H. Kitayama, M. Ishida, D. Hoshi, and <u>T. Ohba</u> (Chiba University, Japan)	
11:20		Break	
		Chair: I. Moriguchi (Nagasaki University)	Lecture Hall
11:30	KL1	Preparation of Hierarchically Nanoporous Carbon-Based Nanocomposites for the Applications in Electro-Chemical Energy Storage <u>Y. Tao</u> , K. P. Annamalai, L. Liu, M. Zhang, N. A. Fathy, J. Gao, X. Zheng and T. Chen (Chinese Academy of Sciences, China)	
12:00		Lunch	
		Chair: H. Kanoh (Chiba University)	Lecture Hall
13:20	KL2	Compression and High Pressure Effects in Adsorbed Films K. Shi, Y. Long, D. Srivastava, M. Śliwinski-Bartkowiak, E. E. Santiso and <u>K. E. Gubbins</u> (North Carolina State University, U.S.A.)	
13:50		Break	
			A. Fundamentals of Adsorption
		Chair: B. Han (Yonsei University)	Lecture Hall
14:00	LA-5	Characterization of Electrostatic Field Strength in Zeolite Cavities by Adsorption Microcalorimetry of Methane as Probe Molecule <u>A. Matsumoto</u> , S. Mizuno and H. Ito (Toyohashi University of Technology, Japan)	
14:20	LA-6	Adsorption of Carbon Dioxide on Perfect and Defective Surfaces of Porous Silica Glass: Computer Simulation and Experimental Studies C. Boonfung, N. Ketprasoet, C. Tangsathitkulchai and <u>A. Wongkoblap</u> (Suranaree University of Technology, Thailand)	
14:40	LA-7	High-silica Potassium-exchanged LTA Zeolite as a Highly Selective CO ₂ Adsorbent for Post-combustion CO ₂ Capture A. Hanif, <u>J. Shang</u> (City University of Hong Kong, Hong Kong)	
		Chair: T. Horikawa (Tokushima University)	Lecture Hall
15:00	LA-8	On the Microscopic Mechanism of Thin-to-Thick Film Transition for Argon Adsorption on Weak Surfaces – Cluster Growth and Coalescence of Clusters <u>L. Prasetyo</u> , S. (Johnathan) Tan, K. Q. Loi, D. D. Do and D. Nicholson (University of Queensland, Australia)	
15:20	LA-9	Low Temperature Adsorption of CO ₂ in Graphitic Wedge Shaped Pores with GCMC Simulation <u>X. Liu</u> , C. Fan and D. D. Do (Curtin University, Australia)	
15:40	LA-10	Multiscale Nature of Adsorption Deformation of Hierarchical Micro-Mesoporous Materials <u>A. V. Neimark</u> (Rutgers University, USA)	
16:00		Group Photo	
16:20		Poster (16:20–18:00)	Entrance Hall & Seminar room 1

Sept. 4, 2018

		Chair: S. Mukai (Hokkaido University)	Lecture Hall
9:00	PL1	New Challenges in Fundamental Adsorption-based Science <u>K. Kaneko</u> (Shinshu University, Japan)	
9:40		Coffee Break	
		E1. Adsorption for Energy Related Applications	
		Chair: T. Yamamoto (University of Hyogo)	Seminar room 2
10:00	LE1-1	Ethane-selective Carbon Composites CPDA@A-ACs with High Uptake and Its Enhanced Ethane/Ethylene Adsorption Selectivity <u>J. Xiao, W. Liang, Y. Wu, and Z. Li</u> (South China University of Technology, China)	
10:20	LE1-2	Carbon Dioxide Breakthrough Separation using Elastic-Layer Structured MOF pellet <u>H. Kajiro, T. Nagai, and H. Dohnomae</u> (Nippon Steel & Sumitomo Metal Co., Japan)	
10:40	LE1-3	Performance of Novel Desorbent Swing Adsorption (DSA) Process Using Zeolite for Propane and Propylene Separation <u>J.-J. Kim, S.-H. Hong and C.-H. Lee</u> (Yonsei University, Korea, Republic of)	
11:00	LE1-4	Long-Term Effect of Large Alkanes on Adsorbed Natural Gas Systems <u>J. Romanos, S. Abou Dargham, F. Barakat</u> (Lebanese American University, Lebanon)	
11:20		Break	
		Chair: I. Moriguchi (Nagasaki University)	Lecture Hall
11:30	KL1	Preparation of Hierarchically Nanoporous Carbon-Based Nanocomposites for the Applications in Electro-Chemical Energy Storage <u>Y. Tao, K. P. Annamalai, L. Liu, M. Zhang, N. A. Fathy, J. Gao, X. Zheng and T. Chen</u> (Chinese Academy of Sciences, China)	
12:00		Lunch	
		Chair: H. Kanoh (Chiba University)	Lecture Hall
13:20	KL2	Compression and High Pressure Effects in Adsorbed Films <u>K. Shi, Y. Long, D. Srivastava, M. Śliwinski-Bartkowiak, E. E. Santiso and K. E. Gubbins</u> (North Carolina State University, U.S.A.)	
13:50		Break	
		E1. Adsorption for Energy Related Applications	
		Chair: M. Miyamoto (Gifu University)	Seminar room 2
14:00	LE1-5	Separation of Ternary Gas Mixtures Using Triple Reflux Pressure Swing Adsorption (TR-PSA) <u>G. (Kevin) Li, V. Jusko, G. Xiao, P. A. Webley and E. F. May</u> (The University of Melbourne, Australia)	
14:20	LE1-6	Biogas Upgrading by Vacuum Pressure Swing Adsorption Process Using Commercial Adsorbents <u>Y. Shen, W. Shi and D. Zhang</u> (Tianjin university, China)	
14:40	LE1-7	Determination of Kinetic Parameters of Porous Adsorbents Using a Pressure Jump/Pressure Drop Technique and a Transient Hot Bridge Method <u>O. Kraft, M. Stripf and U. Hesse</u> (University of Applied Sciences Karlsruhe, Germany)	
		Chair: D. Zhang (Tianjin University)	Seminar room 2
15:00	LE1-8	Methane Adsorption on Pitch Derived Activated Carbon Monoliths <u>T. E. Rufford, S. Gao, A. Arami-Niya, B. S. Villacorta, L. Ge, and Z. Zhu</u> (The University of Queensland, Australia)	
15:20	LE1-9	On-site Pilot Demonstration of a Two-stage Deep Desulfation and Decarbonization Pressure and Temperature Swing Adsorption Unit at Elevated Temperature for 3 Nm ³ /h Hydrogen Production at an Ammonia Plant <u>S. Li, P. Hao, X. Zhu, Y. Shi, N. Cai, S. Li, H. Jiang</u> (Tsinghua University, China)	
15:40	LE1-10	Material Selection and Properties for Adsorption Heat Storage <u>F. Mikšík, T. Miyazaki</u> (Kyushu University, Japan)	
16:00		Group Photo	
16:20		Poster (16:20-18:00)	Entrance Hall & Seminar room 1

Sept. 5, 2018

		Chair: T. Ueda (Osaka University)	Lecture Hall
9:00	PL2	Fundamental Mechanism of Transition from Clustering to Molecular Layering in Adsorption of Gases on Carbon Materials <u>D. D. Do</u> (The University of Queensland, Australia)	
9:40		Coffee Break	
		A. Fundamentals of Adsorption	
		Chair: K. Urita (Nagasaki University)	Lecture Hall
10:00	LA-11	Machine Learning Driven Computational Design of High Functional Adsorbents for Hazardous Chemicals <u>H. Jung, B. Han</u> (Yonsei University, Korea, Republic of)	
10:20	LA-12	First-Principles Computational Study of the Adsorption Mechanism of CH ₃ I(g) on Activated Carbon and Transition Metal Surfaces <u>H. Chun, B. Han</u> (Yonsei University, Korea, Republic of)	
10:40	LA-13	Consequences of Heterogeneities for Adsorption on Graphene <u>F. Vallejos-Burgos</u> and K. Kaneko (Shinshu University, Japan)	
11:00	LA-14	Structures of Ice Confined in Nanocarbons; X-ray (WAXS) and Neutrons Diffraction (ND) Studies <u>M. Śliwiska-Bartkowiak, K. Domin, M. Jazdzewska, A. Beskrowny, K. E. Gubbins</u> (A. Mickiewicz University, Poznan, Poland)	
11:20		Break	
		Chair: S. Tanaka (Kansai University)	Lecture Hall
11:30	KL3	Defect Engineering for Manipulating Porosity and Adsorption Behavior of Metal-organic Frameworks <u>Y. Jiao, Y. Liu, G. Zhu, J. T. Hungerford, S. Bhattacharyya, R. P. Lively, D. S. Sholl, and K. S. Walton</u> (Georgia Institute of Technology, U.S.A)	
12:00		Lunch	
		Chair: A. Kondo (Tokyo University of Agriculture and Technology)	Lecture Hall
13:20	KL4	Intrinsic Thermal Management Capabilities of Flexible Metal-organic Frameworks for CO ₂ Separation <u>H. Tanaka, S. Hiraide and M. T. Miyahara</u> (Kyoto University, Japan)	
13:50		Break	
		B. Instrumentation for Adsorption Measurement/C. Chemisorption & Catalysis	
		Chair: F. Y. Yeoh (Universiti Sains Malaysia)	Lecture Hall
14:00	LB-1	Suitable Gas Probe (N ₂ or Ar) for Characterization of Pore Size Distribution <u>K. Nakai, T. Funahashi, T. Shigeoka, H. Tanaka and M. T. Miyahara</u> (MicrotracBEL Corp., Japan)	
14:20	LB-2	Study of Multi-Component Vapor Phase Adsorption Breakthrough of Volatile Organic Compounds (VOCs) at sub-ppm Levels Through Selected Ions Flow Tube Mass Spectrometry <u>T. Virdis, C. Walgraeve, H. Van Langenhove, J. F. M. Denayer</u> (Vrije Universiteit Brussels, Belgium)	
14:40	LC-1	Preparation of Shaped Porous Coordination Polymer Composites by Using Macroporous Solid Materials for Gas Separation <u>M. Matsuoka, S. Mine and Y. Horiuchi</u> (Osaka Prefecture University, Japan)	
15:00	LC-2	Ortho-Para Conversion of Hydrogen Molecule Adsorbed in the Nanospace of Porous Metal Complexes <u>A. Hori, K. Kaneshima, A. Mishima, Y. Ma and R. Matsuda</u> (Nagoya University, Japan)	
15:20		Coffee Break	
		E2. Adsorption for Bio-applications	
		Chair: M. Matsuoka (Osaka Prefecture University)	Lecture Hall
15:40	LE2-1	Small Uremic Toxins Adsorption by Nanoporous Biomaterials <u>F.-Y. Yeoh, C.-H. Ooi, W.-K. Cheah, and Y.-L. Sim</u> (Universiti Sains Malaysia, Malaysia)	
16:00	LE2-2	Acetic Acid Recovery from Fermentation Broth in Layered Beds <u>A. P. Mathews</u> and H. Naidu (Kansas State University, U.S.A)	
16:20	LE2-3	Adsorption Kinetics of Protein for Improved Understanding of Biopharmaceutical Processes <u>S. Hedberg, L. Brown, J. Heng and D. Williams</u> (Imperial College London, United Kingdom)	
16:40	LE2-4	Quantifying Host Cell Protein Interactions with MABs using Interaction Chromatography Tools <u>D. Sethi, S. Hedberg and D. Williams</u> (Imperial College London, United Kingdom)	
17:00	LE2-5	Selective Adsorption and Complexation of Oxalic Acid Metabolite on Aluminosilicate Minerals during Bioleaching <u>X. Xue, I. Pedruzzi, P. Li and J. Yu</u> (East China University of Science and Technology, China)	

Sept. 5, 2018

		Chair: T. Ueda (Osaka University)	Lecture Hall
9:00	PL2	Fundamental Mechanism of Transition from Clustering to Molecular Layering in Adsorption of Gases on Carbon Materials <u>D. D. Do</u> (The University of Queensland, Australia)	
9:40		Coffee Break	
		D. Synthesis and Characterization of Novel Adsorbent Materials	
		Chair: T. Iiyama (Shinshu University)	Seminar room 2
10:00	LD-1	Photo-induced Post-synthetic Modification of Sulfur Functional Groups in a Microporous Metal Complex <u>S. Kusaka</u> , R. Matsuda, S. Kitagawa (Nagoya University, Japan)	
10:20	LD-2	Prediction of Adsorption-Induced Phase Changes in the Zeolitic Imidazolate Framework ZIF-7 <u>A. Arami-Niya</u> , S. Rahman, G. Li and E. May (The University of Western Australia, Australia)	
10:40	LD-3	Recovery of Helium from Gas Mixtures Using Temperature-Regulated Trapdoor Zeolites <u>Y. Wang</u> , A. Arami-Niya, G. Li and E. May (The University of Western Australia, Australia)	
11:00	LD-4	Dramatic Change in Gate Adsorption Pressure of Soft MOF (ELM-12) with Varied Particle Sizes <u>S. Watanabe</u> , A. Fukuta, S. Hiraide, H. Tanaka, and M. T. Miyahara (Kyoto University, Japan)	
11:20		Break	
		Chair: S. Tanaka (Kansai University)	Lecture Hall
11:30	KL3	Defect Engineering for Manipulating Porosity and Adsorption Behavior of Metal-organic Frameworks Y. Jiao, Y. Liu, G. Zhu, J. T. Hungerford, S. Bhattacharyya, R. P. Lively, D. S. Sholl, and <u>K. S. Walton</u> (Georgia Institute of Technology, U.S.A)	
12:00		Lunch	
		Chair: A. Kondo (Tokyo University of Agriculture and Technology)	Lecture Hall
13:20	KL4	Intrinsic Thermal Management Capabilities of Flexible Metal-organic Frameworks for CO ₂ Separation <u>H. Tanaka</u> , S. Hiraide and M. T. Miyahara (Kyoto University, Japan)	
13:50		Break	
		D. Synthesis and Characterization of Novel Adsorbent Materials	
		Chair: S. Watanabe (Kyoto University)	Seminar room 2
14:00	LD-5	Tools to Characterise Virtual Porous Materials Using a New "Absolute" Accessible Volume <u>L. F. Herrera</u> , L. Prasetyo and D. D. Do (Charles Darwin University, Australia)	
14:20	LD-6	Synthesis and Characterization of Highly Nanoporous Nickel Cobaltite/Graphene Nanocomposite <u>K. P. Annamalai</u> , T. Chen, L. Liu and Y. Tao (Chinese Academy of Sciences, China)	
14:40	LD-7	Rapid Microwave-assisted Synthesis of Metal-organic Framework Having Improved Performance as CO ₂ adsorbent for CCS <u>S. Gaikwad</u> and S. Han (Changwon National University, Korea, Republic of)	
15:00	LD-8	Ultrafast Room Temperature Synthesis of Gly@Cu-BTC with High CO ₂ /CH ₄ /N ₂ Adsorption Selectivity and Improved Stability against Moisture Y. Wu, <u>X. Zhou</u> and Z. Li (South China University of Technology, China)	
15:20		Coffee Break	
		E3. Adsorption for Environment Protection	
		Chair: A. Kodama (Kanazawa University)	Seminar room 2
15:40	LE3-1	Development of Porous Carbon Materials from Petroleum Coke via KOH Activation for CO ₂ capture S. W. Choi, E. Jang, S.-M. Hong, <u>K. B. Lee</u> (Korea University, Korea, Republic of)	
16:00	LE3-2	Temperature Swing Adsorption Processes for CO ₂ Capture from Moist Flue Gas Employing Commercial Zeolites <u>S. E. Zanco</u> , M. Hefti, and M. Mazzotti (ETH Zurich, Switzerland)	
16:20	LE3-3	Characteristics of Activated Carbon in Elevated-temperature Pressure Swing Adsorption Desulfurization <u>P. Hao</u> , Z. Liu, Y. Shi and N. Cai (Tsinghua University, China)	
16:40	LE3-4	Nano-fibrous Silica Supported MgO as an Efficient High-Temperature CO ₂ Adsorbent A. Hanif, <u>J. Shang</u> (City University of Hong Kong, Hong Kong)	
17:00			

Sept. 6, 2018

	Chair: A. Endo (AIST)	Lecture Hall
9:00	PL3 Contribution of Adsorption Technology to High Techno-Economic Performance and Carbon Assessment in Integrated Coal-Syngas Process: H ₂ PSA and Pre-combustion CO ₂ Capture C.-H. Lee (Yonsei University, Korea)	
9:40	Coffee Break	
	A. Fundamentals of Adsorption	
	Chair: S. Inagaki (Yokohama National University)	Lecture Hall
10:00	LA-15 Cluster-mediated Diffusion of Light and Heavy Water in Hydrophobic Carbon Pore H. Ito, Y. Ono, F. Vallejos-Burgos, M. Yoshimoto, R. Futamura, K. Kaneko, T. Iiyama and A. Matsumoto (Toyohashi University of Technology, Japan)	
10:20	LA-16 Methanol Film on Oxygenated Graphite at Low Temperatures: Transition from a Ring to String Configurations W. Dilokekunakul, N. Klomklang, S. Supasitmongkol and D. D. Do (Mahidol University, Thailand)	
10:40	LA-17 Co-ion Association Structure of Ionic Liquids in Monolayer Sized Carbon Nanopores R. Futamura, T. Iiyama, Y. Gogotsi, M. J. Biggs, M. Salanne, P. Simon, and K. Kaneko (Shinshu University, Japan)	
11:00	Break	
	Chair: T. Ohba (Chiba University)	Lecture Hall
11:10	KL5 Structure and Gas Transport at the Polymer-Zeolite Interface: Insights from Molecular Dynamics Simulations R. C. Dutta and S. K. Bhatia (The University of Queensland, Australia)	
11:40	Lunch	
13:10	Excursion	



Sept. 6, 2018

	Chair: A. Endo (AIST)	Lecture Hall
9:00	PL3 Contribution of Adsorption Technology to High Techno-Economic Performance and Carbon Assessment in Integrated Coal-Syngas Process: H ₂ PSA and Pre-combustion CO ₂ Capture C.-H. Lee (Yonsei University, Korea)	
9:40	Coffee Break	
	E3. Adsorption for Environment Protection	
	Chair: K. B. Lee (Korea University)	Seminar room 2
10:00	LE3-5 Separation of Guaifenesin Enantiomers by Simulated Moving Bed Process with Four Operation Modes R. Gong, Y. Yang, J. Wang, P. Li and J. Yu (East China University of Science and Technology, China)	
10:20	LE3-6 Adsorption Capacity of TEDA-Impregnated Activated Carbons for Removal of Radioactive Methyl Iodide K. Ho, H. C. Lee, Y. K. Hwang, C.-H. Lee (Yonsei University, Korea, Republic of)	
10:40	LE3-7 Adsorption Interactions between Volatile Organic Compounds and Natural and Synthetic Fibres: Impact of Relative Humidity M. Guo, L. Cao, E. Hunter-Sellars, N. Ali, D. Williams (Imperial College London, United Kingdom)	
11:00	Break for Changing the Lecture Room	
	Chair: T. Ohba (Chiba University)	Lecture Hall
11:10	KL5 Structure and Gas Transport at the Polymer-Zeolite Interface: Insights from Molecular Dynamics Simulations R. C. Dutta and S. K. Bhatia (The University of Queensland, Australia)	
11:40	Lunch	
13:10	Excursion	



Poster program

A. Fundamentals of Adsorption

PA-1	On the Origin of Hysteresis in Water Adsorption on Graphitized Carbon Black <u>T. Horikawa</u> , N. Takashima, D. D. Do, K. Sotowa, and J. R. Alcántara-Avila (The University of Tokushima, Japan)
PA-2	NMR Study of Dynamic Hydration Structure of Ions Confined in Nanospace <u>R. Ogura</u> , T. Ueda (Osaka University, Japan)
PA-3	Anomalously Restricted and Enhanced Hydration Shell Formation in 1– 3 nm Nanopores of Carbon Nanotubes <u>Y. Oya</u> , T. Ohba (Chiba University, Japan)
PA-4	Simulation of Phase Diagram of Ethylene Adsorption on Graphite at Low Temperatures – The Importance of Energetic Corrugation and Anisotropy in Polarizability of Carbon Atom <u>C. Fan</u> , X. Liu, D. D. Do and D. Nicholson (Curtin University, Australia)
PA-5	Characterization of Surface Structure on Functional Group Removal Carbons <u>K. Urita</u> , C. Urita, T. Araki, K. Horio, M. Yoshida and I. Moriguchi (Nagasaki University, Japan)
PA-6	Investigation of Phase Transition Phenomena of Spherical Molecules in Carbon Micropores by Diffraction Techniques M. Yoshimoto, <u>T. Iiyama</u> , T. Ota, R. Futamura, A. Hoshikawa, and T. Ishigaki (Shinshu University, Japan)
PA-7	Fundamental Study on Adsorptive Separation of Oxygen Isotope <u>Y. Matsuda</u> , Y. Osaka, T. Tsujiguchi, A. Kodama (Kanazawa University, Japan)
PA-8	Intracrystalline Diffusivity of Methylanthalene within Si-beta in Methanol and Cyclohexane Solution <u>Y. Nakasaka</u> , R. Nakano, S. Inagaki, Y. Kubota, T. Yoshikawa, T. Masuda (Hokkaido University, Japan)
PA-9	On the Microscopic Mechanism of Growth of a Localised Cluster Adsorbing on a Weak Surface Decorated with Strong Patches <u>S. (Johnathan) Tan</u> , L. Prasetyo, K. Q. Loi, D. D. Do and D. Nicholson (University of Queensland, Australia)

B. Instrumentation for Adsorption Measurement/C. Chemisorption & Catalysis

PB-1	Surface Characterization of Non-Porous Polymers Using Small Molecule Adsorption Techniques <u>J. Ramadani</u> , D. Williams, M. Caputi and I. Ambrogio (Imperial University, United Kingdom)
PC-1	Alkaline-Treated ZSM-5 Zeolites for the Applications in Hydrolysis of Cellulose <u>T. Chen</u> and Y. Tao (Chinese Academy of Sciences, China)
PC-2	Improvement of the Efficiency of Gas-liquid-solid Three-phase Reactions Using Microhoneycomb-shaped Monolithic Catalysts <u>H. Mega</u> , T. Aihara, S. Takahashi, S. Yoshida, S. Iwamura, I. Ogino, S. R. Mukai (Hokkaido University, Japan)
PC-3	Characterization of Potassium-based Solid Sorbents Using Ca-series Materials as an Additive Material for CO ₂ Capture at Low Temperatures <u>M. S. Cho</u> , S. C. Lee, H. J. Chae, Y. M. Kwon, M. Y. Ryu, C. H. Lee, H. J. Kim, J. B. Lee and J. C. Kim (Kyungpook National University, Korea, Republic of)
PC-4	Evaluation of Hydrophilicity in the Micropores of MSE-type Titanosilicates, Ti-YNU-2 and Ti-MCM-68 <u>S. Inagaki</u> , M. Kaneda, M. Takeyama, A. Endo, and Y. Kubota (Yokohama National University, Japan)

D. Synthesis and Characterization of Novel Adsorbent Materials

PD-1	Comparison of CO ₂ Capture Performance between Powder and Spherical Aggregates of the Salt-promoted MgO at the Intermediate Temperature S. Jin, <u>K. Ko</u> and C.-H. Lee (Yonsei University, Korea, Republic of)
PD-2	Synthesis and Characterization of Cu(I)-loaded MIL-100(Fe) Adsorbents for CO/CO ₂ Separation T. K. Vo, <u>J. Kim</u> , W.-S. Kim, C. K. Yoo (Kyung Hee University, Korea, Republic of)
PD-3	Fabrication of Dimensionally Controlled Nanoceramics using Single-Walled Carbon Nanohorns <u>D. Hoshi</u> , T. Watanabe and T. Ohba (Chiba University, Japan)
PD-4	Role of Anionic Molecules in 1D Flexible Metal-Organic Frameworks on Adsorption <u>A. Kondo</u> , M. Kakinuma, T. Suzuki, K. Maeda (Tokyo University of Agriculture and Technology, Japan)
PD-5	Separation of Cesium Ions from a Continuous Flow Using Ammonium Molybdophosphate Immobilized in a Silica Microhoneycomb (AMP-SMH) <u>S. Yoshida</u> , S. Iwamura, I. Ogino and S. R. Mukai (Hokkaido Industrial Research Institute, Japan)
PD-6	Synthesis of Humidity Control Materials with a Hierarchical Pore System of Meso- and Macropores <u>T. Mori</u> , T. Shigyo, T. Nomura, S. R. Mukai (Hokkaido Research Organization, Japan)

PD-7	Design of Transformable Nanoporous Metal Complexes Showing Selective Gas Adsorption R. Matsuda, A. Hori and <u>Y. Ma</u> (Nagoya University, Japan)
PD-8	Simple Aqueous Synthesis of Large Pore RHO-topology Zeolitic Imidazolate Framework <u>M. Yamaguchi</u> and S. Tanaka (Kansai University, Japan)
PD-9	OSDA-free Synthesis of CHA Zeolite from FAU Zeolite <u>S. Miyagawa</u> , S. Tanaka (Kansai University, Japan)
PD-10	Cu(I)-chelated Nitrogen-rich Porous Organic Polymer for Adsorptive CO/CO ₂ Separation <u>J. H. Kang</u> , J. W. Yoon, A.-R. Kim, T.-U. Yoon, and Y.-S. Bae (Yonsei University, Korea, Republic of)
PD-11	Preparation of Cu(I)-loaded Metal-organic Framework with Reversible CO Binding and High CO/CO ₂ Selectivity A.-R. Kim, <u>J. H. Kang</u> , T.-U. Yoon, and Y.-S. Bae (Yonsei University, Korea, Republic of)
PD-12	On the Role of Interfaces in Gate Adsorption Properties of Core-shell Soft MOF Particles <u>A. Fujiwara</u> , S. Watanabe and M. Miyahara (Kyoto University, Japan)
PD-13	Adsorptive Xe/Kr Separation Using a Zr-based MOF with Electron-rich Ligands S.-J. Lee, <u>J.-Y. Lee</u> , W.-S. Ju, Y.-C. Kim and Y.-S. Bae (Yonsei University, Korea, Republic of)
PD-14	Adsorptive Separation of SF ₆ over N ₂ Using a Bromine-functionalized Metal-Organic Framework M.-B. Kim, <u>J.-Y. Lee</u> , T.-H. Kim, T.-U. Yoon, J. H. Kim, and Y.-S. Bae (Yonsei University, Korea, Republic of)
PD-15	Porous Carbon Nanosheets Prepared from Cellulose Nanofibers <u>K. Ito</u> , K. Sagisaka, M. Kimura and Y. Hattori (Shinshu University, Japan)
PD-16	Pore Structure of sp ³ Carbon Frills-fabricated Carbon Sheets <u>M. Yamada</u> , K. Sagisaka, R. Futamura, F. Vallejos-Burgos, K. Kaneko and Y. Hattori (Shibshu University, Japan)
PD-17	Pore Structure Analysis of SWCNT Films and Xerogels <u>Y. Kamijou</u> , D. Stević, R. Kukobat, F. Vallejos-Burgos, R. Futamura, T. Sakai, K. Kaneko (Shinshu University, Japan)
PD-18	Seed-Assisted Synthesis of KFI-Type Zeolite and Its CO ₂ Adsorption/Desorption Property <u>Y. Kamimura</u> and A. Endo (AIST, Japan)
PD-19	Kinetic Modelling of Electroless Nickel-Phosphorus Plating under High Pressure <u>H. Yokohama</u> , M. Tayakout-Fayolle, N. Fukumuro, S. Yae, K. Itoh, K. Maeda, T. Yamamoto (University of Hyogo, Japan)
PD-20	Effect of High Pressure on Growth of Colloidal Particles during Sol-Gel Phase Transition of Resorcinol-Formaldehyde Solution <u>T. Yamamoto</u> , M. Tayakout-Fayolle, T. Kakibe, H. Satone, K. Iimura, K. Itoh, K. Maeda (University of Hyogo, Japan)
E1. Adsorption for Energy Related Applications	
PE1-1	Combined Pressure Swing Adsorption Process with Membrane Process for High Purity CO from N ₂ /CO/CO ₂ Mixture <u>J.-H. Kang</u> and C.-H. Lee (Yonsei University, Korea, Republic of)
PE1-2	Comparison of Adsorption Mechanism Between Zeolite 13X and CMS-4K for Propane/Propylene Separation <u>S.-H. Hong</u> , J.-J. Kim, S.-J. Lim, and C.-H. Lee (Yonsei University, Korea, Republic of)
PE1-3	Effect of Anions on Ion Exchange for Cu-containing Zeolite Adsorbent and Its Application to Desulfurization in Natural Gas <u>Y.-H. Cha</u> , K. B. Lee (Korea University, Korea, Republic of)
PE1-4	N ₂ Rejection from N ₂ /CH ₄ Mixtures by Dual Reflux Pressure Swing Adsorption with Activated Carbon W. Lu, <u>G. Xiao</u> , G. Li, and E. May (The University of Western Australia, Australia)
PE1-5	Synthesis of CMS for Propylene / Propane Separation <u>Y. Yamane</u> , H. Tanaka, H. Tamura, and M. T. Miyahara (Kyoto University, Japan)
PE1-6	Vacuum Pressure Swing Adsorption System for N ₂ /CH ₄ Separation under Uncertainty Z. Han, Y. Shen and <u>D. Zhang</u> (Tianjin University, China)
PE1-7	TiO ₂ /Porous Carbon Nanocomposites Produced through the Vacuum Liquid Pulse CVD Technique for Supercapacitor Electrodes <u>S. Motohashi</u> , S. Iwamura and S. R. Mukai (Hokkaido University, Japan)

PE1-8	Capacitor Performance Dependence on Substrate Pore Size of MnO ₂ /Porous-carbon Nanocomposites R. Umedu, S. Iwamura, <u>K. Itsuki</u> , K. Onishi, I. Ogino, S. R. Mukai (Hokkaido University, Japan)
PE1-9	Biogas Separation by Adsorbent Packed Bed Heat Exchanger Driven with Temperature Swing <u>N. I. Zainol</u> , Y. Osaka, T. Tsujiguchi and A. Kodama (Kanazawa University, Japan)
PE1-10	Effect of Core-shell Structuring of Chabazite Zeolite on Vapor Phase Separation of Acetone-butanol-ethanol Mixtures in Humid Conditions <u>M. Miyamoto</u> , H. Iwatsuka, Y. Oumi, S. Uemiya, S. Van der Perre, G. V. Baron, J. F. M. Denayer (Gifu University, Japan)
PE1-11	Electrophoretic Deposition of Mesoporous Silica Powder Coatings on Honeycomb Aluminum Substrates and Properties of Cyclic Adsorption and Desorption of Water Vapor on their Surface <u>H. Negishi</u> and A. Endo (AIST, Japan)
PE1-12	Design of SnO ₂ -embedded Carbon Nanospace for Effective Li-ion Reactions in All-solid-state Battery Electrode <u>H. Notohara</u> , K. Urita, I. Moriguchi (Nagasaki University, Japan)
PE1-13	Influence of Carbon Pores on Electrochemical Performance on Phosphorous/Porous Carbon Composite Electrodes <u>Y. Komine</u> , K. Urita, I. Moriguchi (Nagasaki University, Japan)
E3. Adsorption for Environment Protection	
PE3-1	Humidity Control Ability of Banana Peel Char <u>J. Hayashi</u> , S. Fukuda, N. Kageura and I. Hasegawa (Kansai University, Japan)
PE3-2	Preparation of Na ₂ CO ₃ -Carbon Nanocomposite and its CO ₂ Occlusion <u>T. Nasiman</u> and H. Kanoh (Chiba University, Japan)
PE3-3	Effect of Double-layer Structure of Adsorbent Impregnated with Modified Polyethyleneimine on CO ₂ Capture <u>S. Jeon</u> , H. Jung, S. H. Kim, and K. B. Lee (Korea University, Korea, Republic of)
PE3-4	Chemically Bonded ZrO ₂ on CaO-based High-temperature CO ₂ Sorbent for Enhancement of Cyclic Sorption Performance <u>H. J. Yoon</u> , K. B. Lee (Korea university, Korea, Republic of)
PE3-5	Effect of Calcination Temperature to Adsorption and Photocatalytic Properties of TiO ₂ -SiO ₂ Microhoneycombs <u>K. Urkasame</u> , S. Yoshida, S. Iwamura, I. Ogino, S. R. Mukai (Hokkaido University, Japan)
PE3-6	Carbon Gel Monoliths with Introduced Straight Microchannels for Phenol Adsorption K. Takahashi, S. Yoshida, <u>K. Urkasame</u> , S. Iwamura, I. Ogino, S. R. Mukai (Hokkaido University, Japan)
PE3-7	Applications of Boron-Rich Boron Nitride Nanotube (B _N -BNNT) for Nitrogen Oxide Adsorptions: A Theoretical Study <u>H. Choi</u> , and H. Bae (National Fusion Research Institute, Korea, Republic of)
PE3-8	Adsorption Mechanism of Metal Ions on Activated Carbon <u>A. Kuroki</u> , Y. Urushihara, T. Horikawa, K. Sotowa, J. R. Alcántara-Avila (The University of Tokushima, Japan)
PE3-9	Preparation of Spherical RF Magnetic Adsorbent with Prussian Blue and Its Cesium Ion Adsorption Property D. Shirai, <u>N. Takashima</u> , T. Horikawa, K. Sotowa, J. R. Alcántara-Avila (The University of Tokushima, Japan)
PE3-10	Adsorption Characteristics of Nitrate on Chitosan and Cross-linked Chitosan Beads <u>S. J. Lee</u> , S. D. Yoon, J. W. Lee, J. W. Nah, and W. G. Shim (Suncheon National University, Korea, Republic of)
PE3-11	SnO ₂ Nanowire Gas Sensors for Detection of ppb Levels NO _x Gas <u>H. J. Kim</u> , S. C. Lee, B. W. Hwang, H. J. Chae, M. Y. Ryu, C. H. Lee and J. C. Kim (Kyungpook National University, Korea, Republic of)
PE3-12	Stability Analysis on Amine Functionalized Bimetallic Metal Organic Frameworks (MOFs) under Humid Air and Acid Gas <u>S. Gaikwad</u> , K. Patil, and S. Han (Changwon National University, Korea, Republic of)
PE3-13	Inexpensive Amine Impregnation of Acid-activated Sepiolite for CO ₂ capture L. Liu, G. Zhang, E. Shiko, X. Fan, Y. Zhou, H. Chen, X. Luo, <u>X. (Eric) Hu</u> (Xiangtan University, University of Edinburgh)



Hokkaido University - National Central University Joint Symposium on Materials Chemistry and Physics 2018



November 15-16th, 2018

**Seminar room 2, Frontier Research in
Applied Sciences Building,
Faculty of Engineering, Hokkaido University**



Invited Speakers

Prof. Tu Lee, National Central University, Taiwan

A Quick-fix Design of Phase Change Material by Particle Blending and Spherical Agglomeration

Prof. Ken'ichiro Matsumoto, Hokkaido University, Japan

Microbial synthesis of block copolyester

Assis. Prof. Yohei Ishida, Hokkaido University, Japan

Matrix Sputtering Method: A Novel Physical Approach for Photoluminescent Noble Metal Nanoclusters

Program

Nov. 15th

13:50-14:00 Opening remark

14:00-14:30 Invited Lecture by Prof. Tu Lee

14:30-15:00 Invited Lecture by Prof. Ken'ichiro Matsumoto

15:00-16:30 Student Poster Presentation

16:30-17:00 Invited Lecture by Assis. Prof. Yohei Ishida

17:00-17:30 Closing

18:00-20:00 Banquet (Restaurant ELM)

Nov. 16th

10:00- Campus tour and Lab. visit

Contact: Toshifumi Satoh E-mail: satoh@eng.hokudai.ac.jp

Deadline for registration of poster presentation: Oct. 31st.

Organizers: Faculty of Engineering, Hokkaido University, and Graduate School of Chemical Sciences and Engineering (CSE), Hokkaido University

Co-organizers: Frontier Chemistry Center (FCC), Hokkaido University,
Hokkaido branch of the Society of Polymer Science, Japan

Committee: Laboratory of Polymer Chemistry, Division of Applied Chemistry,
Faculty of Engineering, Hokkaido University



北海道大学 Hokkaido University
大学院工学院 / 大学院工学研究院
Graduate School / Faculty of Engineering



GRADUATE SCHOOL OF
CHEMICAL SCIENCES AND
ENGINEERING
HOKKAIDO UNIVERSITY



Frontier Chemistry Center
フロンティア化学教育研究センター

高分子学会北海道支部

The 14th Hokkaido University-Nanjing University -NIMS/FMCU Joint Symposium “Designed Chemistry for Future”

Date: December 7th (Fri)

Location: Auditorium (大講堂) at Faculty of Science in
Hokkaido University

Keynote Speakers



Prof. Satoshi Maeda

Institute for Chemical Reaction
Design and Discovery (WPI),
Hokkaido University

Prof. Xinghua Xia

State Key Laboratory of
Analytical Chemistry for Life
Science, Nanjing University



Program

8:45 Opening Remarks
9:00 - 10:30 Keynote Session
10:40 - 12:00 Morning Session
13:30 - 16:40 Afternoon Session
16:40 - 17:30 Poster Session
17:30 Closing Remarks
Banquet (Restaurant ELM) 18:00 -

Chair: Kei Murakoshi
Department of Chemistry
Faculty of Science, Hokkaido University
<symposium2018@sci.hokudai.ac.jp>

Invited Speakers

Hokkaido Univ.	Nanjing Univ.
Takanori Suzuki	Shuo Huang
Kiyoharu Tadanaga	Mengning Ding
Atsushi Miura	Luming Peng
Hirokazu Kobayashi	Dongdong Wu
Yasuhide Inokuma	Dongshan Zhou
Hideo Kaiju	
Chunyu Zhu	

NIMS
Masafumi Yoshio

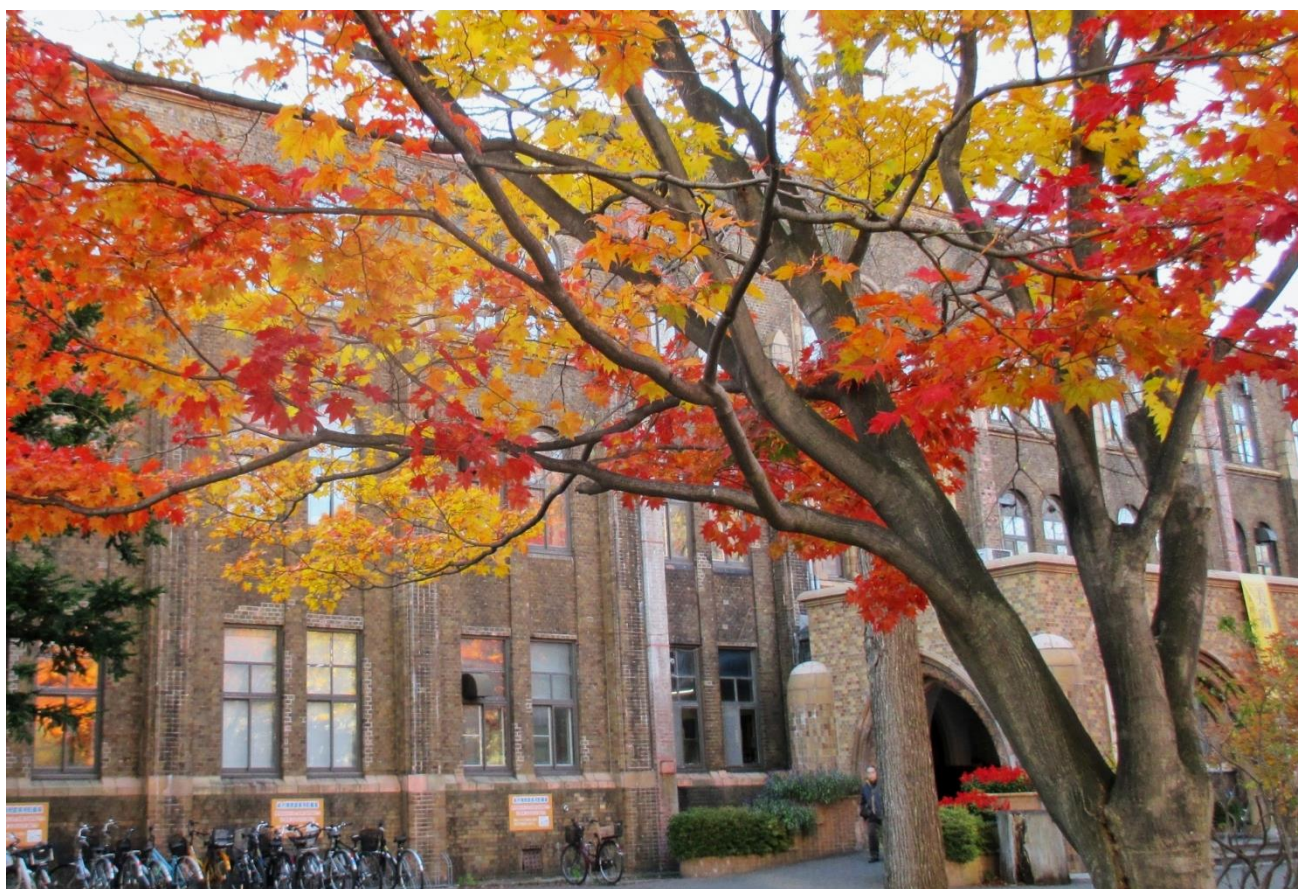
Co-organized by:

**Graduate School of Chemical Sciences and Engineering,
Ambitious Leader's Program; “Fostering Future Leaders to
Open New Frontiers in Materials Science”,
Frontier Chemistry Center in Faculty of Engineering, and
World Premier International Research Center Initiative, Hokkaido University
National Institute for Materials Science
School of Chemistry and Chemical Engineering, Nanjing University**



**14th Hokkaido University–Nanjing University–
NIMS/FMCU Joint Symposium**

"Designed Chemistry for Future"



December 7 – 8, 2018

Hokkaido University, Sapporo, Japan

The 14th Hokkaido University – Nanjing University
– NIMS/FMCU Joint Symposium
"Designed Chemistry for Future"

December 7 – 8, 2018

Hokkaido University, Sapporo, Japan

Sponsors

Graduate School of Chemical Sciences and Engineering, Hokkaido University
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Science", Hokkaido University,
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National Institute for Materials Science

School of Chemistry and Chemical Engineering, Nanjing University

Organizing Committee

Chair: Kei Murakoshi (Hokkaido University)

Xinghua Xia (Nanjing University)

Shuo Huang (Nanjing University)

Hideaki Oikawa (Hokkaido University)

Sadamu Takeda (Hokkaido University)

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Takeshi Uchida (Hokkaido University)

Tomohide Saio (Hokkaido University)

Yoshiyuki Kageyama (Hokkaido University)

Masato Kobayashi (Hokkaido University)

Takeshi Iwasa (Hokkaido University)

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Hokkaido University, Sapporo, 060-0810, Japan
symposium2018@sci.hokudai.ac.jp

Program

DAY 1 (Friday, December 7)

8:40 Welcome Address
Kei Murakoshi (Hokkaido Univ.)

8:45 Opening Remarks
Hideaki Oikawa (Hokkaido Univ.)
Shuo Huang (Nanjing Univ.)

Keynote Session Chair: **Kei Murakoshi**

9:00-9:45 KL-1 **Xinghua Xia** (Nanjing Univ.)
Plasmon Enhanced IR Spectroscopy and Electrochemistry

Chair: **Shuo Huang**

9:45-10:30 KL-2 **Satoshi Maeda** (Hokkaido Univ.)
Reaction Path Network and Its Analysis:
Toward Systematic Prediction of Chemical Reactions

————— Short Break (10 min) —————

Oral Session 1 Chair: **Tetsuya Taketsugu**

10:40-10:55 IL-1 **Kiyoharu Tadanaga** (Hokkaido Univ.)
Preparation of Sulfide Solid Electrolyte from Solution for All Solid-State Lithium
Battery

10:55-11:10 IL-2 **Luming Peng** (Nanjing Univ.)
Investigations of Oxide Nanostructures with ¹⁷O Solid-State NMR Spectroscopy

11:10-11:25 IL-3 **Yasuhide Inokuma** (Hokkaido Univ.)
Shapable Aliphatic Chains for Molecular Coiling

11:25-11:40 IL-4 **Dongdong Wu** (Nanjing Univ.)
Assembling of Small Molecules into 4D Stem Cell Microenvironment with Definable
Biochemical Ligands Patterning

————— Group Photo and Lunch —————

Oral Session 2 Chair: **Luming Peng**

13:30-13:45 IL-5 **Atsushi Miura** (Hokkaido Univ.)

Photoinduced Single Sub-Picolitter Microparticle-Based Ultratrace Analysis at Single Molecule Level

- 13:45-14:00 IL-6 **Mengning Ding** (Nanjing Univ.)
On-Chip Signaling Approaches for in situ Investigation of Electrochemical Processes
- 14:00-14:15 IL-7 **Hirokazu Kobayashi** (Hokkaido Univ.)
Catalytic Conversion of Chitin to Chemicals
- 14:15-14:30 IL-8 **Shuo Huang** (Nanjing Univ.)
Visualizing Single Molecule Sensing in a High Throughput Nanopore Array: from Measuring Elementary Charges to Sequencing Bio-Macromolecules
- 14:30-14:45 IL-9 **Hideo Kaiju** (Hokkaido Univ.)
Magnetocapacitance Effect in Magnetic Tunnel Junctions

————— Short Break (15 min) —————

Oral Session 3

Chair: **Sadamu Takeda**

- 15:00-15:15 IL-10 **Masafumi Yoshio** (NIMS)
Supramolecular Liquid-Crystalline Materials for Mass Transport and Stimuli-Responsive Emission
- 15:15-15:30 IL-11 **Dongshan Zhou** (Nanjing Univ.)
Application and Development of Chip Calorimetry for the Study of Glass Transition, Crystallization and Nucleation in Polymeric Materials
- 15:30-15:45 IL-12 **Takanori Suzuki** (Hokkaido Univ.)
Prototype for Molecular-Based Data Storage Devices Based on Dynamic Redox Systems with Electrochemical Bistability
- 15:45-16:00 IL-13 **Chunyu Zhu** (Hokkaido Univ.)
Hierarchical Porous Carbon for Efficient Electrochemical Oxygen Reduction Reaction

————— Short Break (15 min) —————

16:15-17:30 **Poster Presentation**

17:30 Closing Remarks
Xinghua Xia (Nanjing Univ.)

18:00-20:00 Banquet @ Restaurant ELM

DAY 2 (Friday, December 8)

9:30-18:00 Free Discussion & Mutual Collaborations

Poster Session

- P-1 **Yuchun Wang**
Investigation on the Strong Coupling State of Plasmonic Heterostructure via Electrochemical Method
- P-2 **Jian Li**
In Aqueous IR Analysis through Antenna Enhanced Attenuated Total Reflection IR Spectroscopy
- P-3 **Shunpei Oikawa**
Electrochemical Control of the Strong Coupling State between Dye Molecules and Surface Lattice Resonance
- P-4 **Yanfeng Liu**
Room Temperature Synthesis of pH-Switchable Polyaniline Quantum Dots as a Turn-on Fluorescent Probe for Acidic Biotarget Labeling
- P-5 **Kazuma Sugawara**
Multi-Chromic Behavior of Tetraarylanthraquinodimethane Derivatives: Electrochromism in Solution and Mechanofluorochromism in Solid State
- P-6 **Linlin Qin**
Conformational Transitions of Polymer Chains in Solutions Characterized by Fluorescence Resonance Energy Transfer
- P-7 **Yuta Fuji**
Fe-P-S Electrodes in All-Solid-State Lithium Secondary Batteries Using Sulfide-based Solid Electrolytes
- P-8 **Wen He**
On-Chip Electrochemical Intercalation of Two-Dimensional Molybdenum Disulfide with Functional Semiconductor Molecules
- P-9 **Yuma Sasaki**
Molecular Nano-Spintronic Devices Utilizing Ni₇₈Fe₂₂ Thin-Film Edges
- P-10 **Yongjie Wang**
Label-Free Optical Imaging of the Dynamic Stick-Slip and Migration of Single Sub-100nm Surface Nanobubbles: A Super-Localization Approach
- P-11 **Yu Iwai**
Composition, Valence and Oxygen Reduction Reaction Activity of Mn-Based Layered Double Hydroxides
- P-12 **Sha Wang**
A Coordination Investigation of Metal Ions with Amino Acid Residues of MspA Protein Nanopore at the Single-Molecule Level

- P-13 **Sayaka Abe**
Viscosity of Levitated Single Aerosol Water Droplets Studied by Laser Trapping -
Time-Resolved Microspectroscopy
- P-14 **Weiwei Chen**
Colorimetric DNA Assay by Exploiting the DNA-Controlled Peroxidase Mimicking
Activity of Mesoporous Silica Loaded with Platinum
- P-15 **Pengru Chen**
Selective Synthesis of Cello-Oligosaccharides by Hydrolysis of Cellulose via
Semi-Flow Reactor
- P-16 **Huipu Liu**
Quantitative Screening of Cell-Surface Gangliosides by Nondestructive Extraction
and Hydrophobic Collection
- P-17 **Mitsuharu Uesaka**
Aliphatic Polyimines as ‘Slap Bracelet’ Molecules
- P-18 **Yuqi Wang**
Caspase-Instructed Macrocyclization and Self-Assembly Amplify Photoacoustic
Signal for Targeted Imaging of Tumor Apoptosis
- P-19 **Yuka Nakasuji**
Nucleation and Crystallization of Protein Molecules Controlled by Laser Beams
- P-20 **Jinyue Zhang**
Emerging Roles of Mycobacterium Smegmatis Porin A (MspA) Nanopore: Direct
MicroRNA Sequencing and N6-Methyladenosine(m6A) Recognition
- P-21 **Yuya Inaba**
Bioinspired Synthesis of Chromophores from Chain-Like Molecules