

International Symposium on Porous Materials 2020

Nov. 6 - 7, 2020

Online / TKP Garden City Ochanomizu, Tokyo, Japan

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International Symposium on Porous Materials 2020

【主催】 International Symposium on Porous Materials 2020 実行委員会

東京工業大学ナノ空間触媒研究ユニット

東京大学大久保-脇原研究室

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触媒学会 規則性多孔体研究会

触媒学会 固体酸塩基点の作用と設計研究会

【Special thanks】

Zhejiang University

Korea Advanced Institute of Science and Technology

National Taiwan University

Taiwan Catalysis Society

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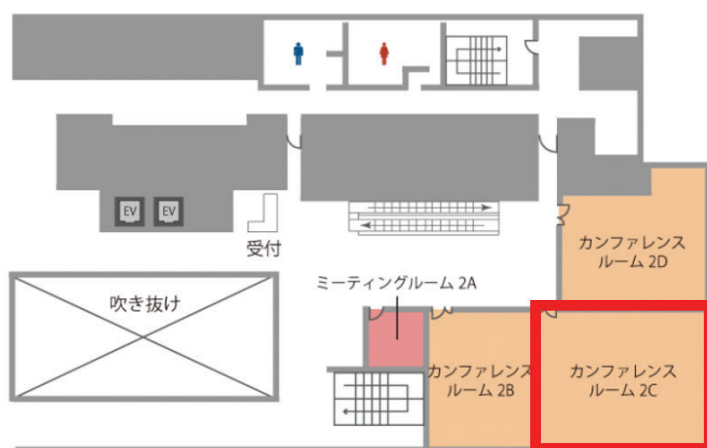
Dun-Yen Kang (National Taiwan University)

Venue

Tokyo site: TKP Garden City Ochanomizu

Mitsui Sumitomo Insurance Surugadai Annex

3-11-1 Surugadai, Kanda, Chiyoda-ku, Tokyo, 101-0062, Japan



2F

Conference Room 2C

Program

Nov. 6 (Fri.)

9:00 Registration

10:00 Opening remarks

Session 1, Chair: Takahiko Moteki, The University of Tokyo

10:10 Plenary lecture 1 by **Prof. Masahiko Matsukata** (Waseda University)

“Prospects of zeolite membrane for novel chemical production”

10:50 Invited lecture 1 by **Prof. Jihan Kim**

(Korea Advanced Institute of Science and Technology)

“Natural and Artificial Design of Porous Materials”

11:10 Oral presentation 1 by **Li-Chiang Lin** (The Ohio State University)

“Computational Study of Zeolite Nanosheets for Filtration Applications”

11:30 Break

Session 2, Chair: Minkee Choi, Korea Advanced Institute of Science and Technology

11:40 Oral presentation 2 by **Yi-Pei Li** (National Taiwan University)

“Tuning of Zeolite Catalysts for Biofuel Conversions: A Computer-Aided Approach”

12:00 Oral presentation 3 by **Chung-Wei Kung** (National Cheng Kung University)

“Chemically Robust Metal–Organic Framework-Based Materials for Electrocatalysis and Energy Storage”

12:20 Oral presentation 4 by **Wen-Yeuh Yu** (National Taiwan University)

“In-Situ Infrared Spectroscopy Study of Methanol Dehydrogenation over Palladium Nanoparticles Confined within Metal–Organic Frameworks”

12:40 Oral presentation 5 by **Satoshi Inagaki** (Yokohama National University)

“Cosolvent Effect on Selectivity in the Phenol Oxidation with H₂O₂ over Ti-beta Catalyst”

13:00 Break

Session 3, Chair: Satoshi Inagaki, Yokohama National University

14:10 Invited lecture 2 by **Prof. Zhendong Liu** (The University of Tokyo)

“High-Pressure Synthesis and Processing of Zeolites”

14:30 Oral presentation 6 by **Jie Yao** (University of Toyama)

“A newfound atmosphere-confined NH₃ in-situ reduction mechanism for metal-zeolite catalyst being used in highly efficient dimethyl ether carbonylation”

14:50 Oral presentation 7 by **Taichi Nakamura** (Hokkaido University)

“Short-term synthesis of Hf-Beta zeolite from dense precursor gel”

15:10 Break

Session 4, Chair: Zhendong Liu, The University of Tokyo

15:20 Invited lecture 3 by **Prof. Jiuxing Jiang** (Sun Yat-sen University)

“The preparation of zeolites with new topologies and new compositions”

15:40 Oral presentation 8 by **Changbum Jo** (Inha University)

“Fine tuning of molecular sieving action of aluminosilicate zeolites by organic post-functionalization for light olefin/paraffin separation”

16:00 Oral presentation 9 by **Takahiko Moteki** (The University of Tokyo)

“Methane conversion to C1/C2 oxygenates over zeolite supported Rh catalyst with the help of CO”

16:20 Break

Session 5, Chair: Mizuho Yabushita, Tohoku University

16:30 Oral presentation 10 by **Hiroyasu Fujitsuka** (Tokyo Institute of Technology)

“Effect of the location of metal in catalysts and reaction temperature on naphtha catalytic cracking over bifunctional metal-zeolite catalyst”

16:50 Oral presentation 11 by **Huang Yuan** (Hokkaido University)

“Application of Water-resistant Metal-Organic Framework NH₂-MIL-53(Al) as a Catalyst Support for Nitrite Reduction in Water”

17:10 Oral presentation 12 by **Yosuke Oka** (Waseda University)

“Preparation of siloxane-based nanoporous materials by interlayer silylation of layered octosilicate with cage siloxane”

17:30 Break

Session 6, Chair: Minkee Choi, Korea Advanced Institute of Science and Technology

17:40 Invited lecture 4 by **Prof. Mizuho Yabushita** (Tohoku University)

“Preparation of isomorphously-substituted zeolites from amorphous metallosilicates and their catalytic applications”

18:00 Invited lecture 5 by **Prof. Hao Xu** (East China Normal University)

“Structural modification of meta-stable zeolites”

18:20 Plenary lecture 2 by **Prof. Ryong Ryoo**

(Korea Advanced Institute of Science and Technology)

“Mesoporous Zeolites for Advanced Catalytic Applications”

19:00 End

Nov. 7 (Sat.)

Session 7, Chair: Dun-Yen Kang, National Taiwan University

- 9:30 Plenary lecture 3 by **Prof. Chung-Yuan Mou** (National Taiwan University)
“Mesoporous Silica Thin Film for Applications”
- 10:10 Invited lecture 6 by **Prof. Tseng-chang Tsai** (National University of Kaohsiung)
“ON THE STUDY OF IMPROVED CATALYTIC PERFORMANCE OF
STEMING-TRATED NA-MORDENITE IN LAB SYNTHESIS”
- 10:30 Invited lecture 7 by **Prof. Hong-Ping Lin** (National Cheng Kung University)
“Synthesis of Multiporous Carbons from Water Caltrop Shell for High-Performance
Supercapacitors”
- 10:50 Break

Session 8, Chair: Hong-Ping Lin, National Cheng Kung University

- 11:00 Invited lecture 8 by **Prof. Jinwoo Lee**
(Korea Advanced Institute of Science and Technology)
“Direct Access to Functional Porous Materials for High Performance
Lithium-Sulfur Batteries”
- 11:20 Oral presentation 13 by **Yasutaka Kuwahara** (Osaka University)
“Hollow Silica Catalysts Encapsulating Pd Nanoparticles and Aminopolymers
for Selective Hydrogenation Reactions”
- 11:40 Oral presentation 14 by **Weizhe Gao** (University of Toyama)
“Insight into solvent-free synthesis of MOR zeolite and its laboratory scale
production”
- 12:00 Break

Session 9, Chair: Yasutaka Kuwahara, Osaka University

- 12:10 Invited lecture 9 by **Prof. Yu-Wen Chen** (National Central University)
“Encapsulation of Astaxanthin in Mesoporous Materials”
- 12:30 Oral presentation 15 by **Hongjun Park**
(IBS, Center for Nanomaterials and Chemical Reactions)
“Comparative Evaluation of Carbon Precursors in Zeolite-Templated Synthesis”
- 12:50 Oral presentation 16 by **Yukari Yamazaki** (Osaka University)
“Plasmonic Silver Nanocatalyst Loaded on Porous Silica for 4-Nitrophenol
Reduction”
- 13:10 Break

Session 10, Chair: Raquel Simancas, The University of Tokyo

- 14:20 Invited lecture 10 by **Prof. Shutao Xu** (Dalian Institute of Chemical Physics)
“Application of in situ and sensitivity enhanced solid-state NMR techniques for methanol conversion reaction over molecular sieve catalysts”
- 14:40 Oral presentation 17 by **Yoshifumi Kondo** (Osaka University)
“Photocatalytic aerobic benzyl alcohol oxidation utilizing ruthenium-complex incorporated into titanium-based metal-organic framework”
- 15:00 Oral presentation 18 by **Baizhang Zhang** (University of Toyama)
“Directly conversion of syngas to aromatics over Fe-based/morphological differently ZSM-5 catalysts”
- 15:20 Break

Session 11, Chair: Xiangju Meng, Zhejiang University

- 15:30 Invited lecture 11 by **Dr. Shuhei Yasuda** (Tokyo Institute of Technology)
“Oxidative methane conversion over Zeolite-supported ultra-small nickel”
- 15:50 Invited lecture 12 by **Prof. Tae-Hyun Bae**
(Korea Advanced Institute of Science and Technology)
“Harnessing microporous filler materials for enhancing gas separation performance of mixed-matrix membranes”
- 16:10 Plenary lecture 4 by **Prof. Feng-Shou Xiao** (Zhejiang University)
“Rational Synthesis of Aluminosilicate Zeolites and Synergistic Catalysis by a Combined Catalyst of Both Metal Nanoparticles and Zeolite Crystals”
- 16:50 Closing remarks
- 17:00 End