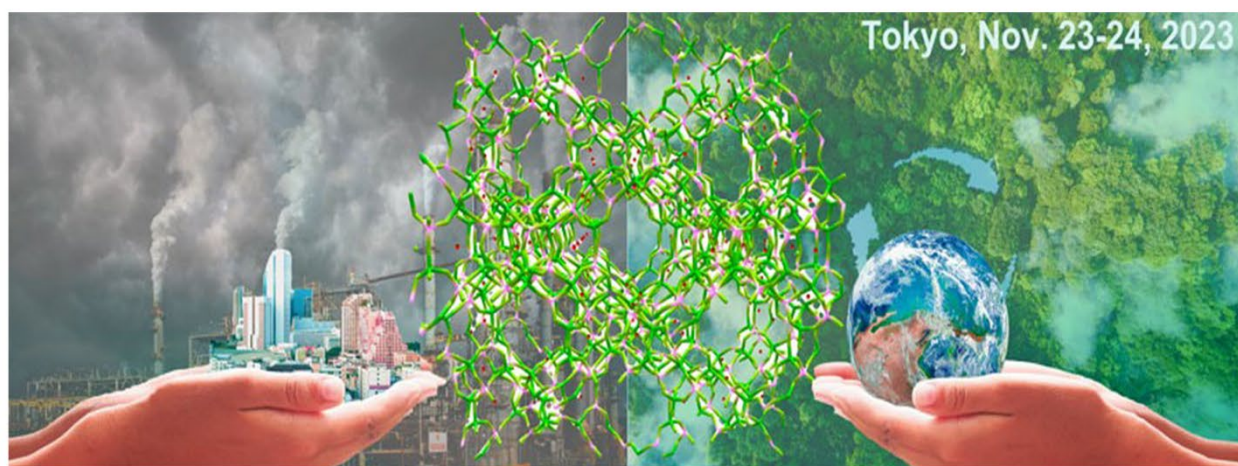


5th International Symposium on Porous Materials 2023 & LAURELIN Open Symposium in Japan 2023



Tokyo Tech Front, Kurumae Hall
Tokyo Institute of Technology, Tokyo, Japan

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 **東京大学**
THE UNIVERSITY OF TOKYO

 **東京工業大学**
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5th International Symposium on Porous Materials 2023 and LAURELIN Open Symposium in Japan 2023

November 23-24, 2023

【主催】 International Symposium on Porous Materials 2023 実行委員会
東京工業大学ナノ空間触媒研究ユニット

【協賛】 一般社団法人 日本ゼオライト学会
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触媒学会 規則性多孔体研究会

【Special thanks】

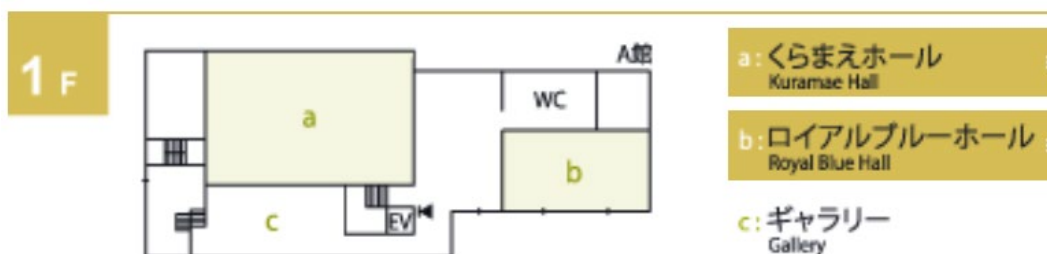
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Tsinghua University
Korea Advanced Institute of Science and Technology
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Taiwan Catalysis Society

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Kevin C.-W. Wu (National Taiwan University)
Dun-Yen Kang (National Taiwan University)

Venue

Online: Zoom
Tokyo site: Kuramae Hall, Tokyo Tech Front,
Tokyo Institute of Technology, Tokyo, Japan
2-12-1 Ookayama, Meguro-ku, Tokyo, 152-8550



Program

Nov. 23 (Thu.)

~12:00 Connection test / Rehearsal

12:20 Opening remarks

Session 1

12:30 **PL1 Prof. Fernando Rey** (Instituto de Tecnologia Quimica, Spain)
“Charge Matching of occluded Organic Structure Directing Cations in zeolites”

13:00 **PL2 Prof. Christopher Hardacre** (The University of Manchester, UK)
“Utilisation of hybrid plasma-catalysis for net zero applications”

13:30 **PL3 Prof. Minkee Choi** (Korea Advanced Institute of Science and Technology, Korea)
“Hierarchical LTL Zeolite as an Efficient and Sustainable Solid Acid Catalyst for Replacing HCl in the Production of Polyurethane Intermediates”

14:00 Break

Session 2

14:15 **PL4 Prof. Chawalit Ngamcharussrivichai** (Chulalongkorn University, Thailand)
“Sustainable Valorization of Biomass and Waste to Biofuels and Biochemicals towards the Net Zero Goals”

14:45 **PL5 Prof. Masazumi Tamura** (Osaka Metropolitan University, Japan)
“Direct polymerization of CO₂ and α,ω -diols to polycarbonates over CeO₂ catalyst”

15:15 **IL1 Dr. Pascual Oña** (Instituto de Tecnologia Quimica, Spain)
“Electrochemical Activation of a Cobalt MOF Nanosheets for Superior Electrocatalytic Water Oxidation in Neutral Media”

15:35 Break

Session 3

- 15:50 **IL2 Dr. Luis Miguel Martinez Prieto** (Instituto de Tecnologia Quimica, Spain)
“Ultrastable Catalysts for Magnetically Induced Catalysis”
- 16:10 **IL3 Prof. Atsushi Muramatsu** (In Tohoku University, Japan)
“Mechanochemical process to prepare amorphous oxides precursor with isomorphous substitution of Si(IV) by heteroatoms and successive hydrothermal Synthesis to crystalize zeolites”
- 16:30 **PL6 Prof. Kevin C.-W. Wu** (National Taiwan University, Taiwan)
“Catalytic Lignocellulosic Biomass and Waste Plastics Conversion over Metal-Organic Frameworks (MOFs) Catalysts”
- 17:00 Poster Session
- 18:00 Adjourn / Banquet

Nov. 24 (Fri.)

8:45 Connection test / Rehearsal

Session 4

9:00 **GO1 Dr. M. A. Molina** (University College London, UK)
“The extraordinary capability of one-pot laccase@NH₂-MIL-53(AI) biocatalysts to remove BPA from aqueous solutions”

9:15 **GO1 Dr. Mohammad Albahar** (Saudi Aramco, Saudi Arabia)
“Effect of silica source and template/silica ratio on the physical and chemical properties of ZSM-5 zeolite”

9:30 **IL4 Prof. Liang Wang** (Zhejiang University, China)
“Dehydrogenation of light alkanes over heteroatom zeolite catalysts”

9:50 **IL5 Prof. Jonas Gorauskis** (Instituto de Nanociencia y Materiales de Aragón (INMA), Spain)
“Hierarchical porosity catalyst carriers for energy conversion and environmental remediation applications”

10:10 **IL6 Prof. Stefan Wuttke** (BCMaterials - Basque Center for Materials, Applications and Nanostructures, Spain)
“Reticular Nanoscience: Bottom-Up Assembly Nanotechnology”

10:30 Break

Session 5

10:40 **PL7 Prof. Feng-Shou Xiao** (Zhejiang University, China)
“Rational Synthesis of Zeolites from Theoretical Simulations”

11:10 **PL8 Prof. Jun Huang** (The University of Sydney, Australia)
“Heterogeneity in MOFs or MOF based composite for catalytic transformation”

11:40 **PL9 Prof. Andrew Beale** (University College London, UK)
“Time and spatially resolved optical spectroscopy of zeolites”

12:10 **PL10 Prof. Teruoki Tago** (Tokyo Institute of Technology, Japan)
“Zeolite-encapsulated metal nanoparticles for catalyst”

12:40 Closing remarks

Poster session on Nov. 23 (Thu.)

P1 Adawiah Adawiah (Universitas Indonesia)

“Synthesis of Cr-PTC-HIna/TiO₂ Composite for The Adsorption of Heavy Metal Pb”

P2 Agustino Zulys (Universitas Indonesia)

“Optimization of The Synthesis of Cr-PTC-HIna Metal Organic Frameworks (MOFs) as a Photocatalyst for the Photodegradation of Methylene Blue using Response Surface Methodology”

P3 Misaki Endo (Tokyo institute of technology)

“Development of MFI zeolite-encapsulated metal nanoparticulate catalysts by dry-gel conversion method for its application for naphtha cracking reaction

P4 Shih-Yuan Chen (National Institute of Advanced Industrial Science and Technology (AIST), Japan)

“Environmentally Friendly Solid Acid Catalysts for Efficient Conversion of Glucose to HMF”

P5 Hidekazu Goto (Tokyo institute of technology)

“OSDA Free synthesis of Hierarchical MFI”

P6 Raichi Asami (Tokyo institute of technology)

“Preparation of MFI zeolite-encapsulated metal particle catalysts by zeolite conversion of metal-supported silica gel and their application to dehydrogenation reaction”

P7 Nuttapat Thiensuwan (Chulalongkorn University, Thailand)

“Exfoliated Layered Metal Oxide-Supported Ruthenium Catalysts for Base-Free Oxidation of 5-Hydroxymethylfurfural into a Renewable Bioplastic Precursor”

P8 Suphathee Chaowamalee (Chulalongkorn University, Thailand)

“One-pot hydrogenolysis of glycerol to 1-propanol: Effect of catalyst support and preparation method on reduction behavior and catalytic performance”

P9 Dian H. Wahyudi (Institut Teknologi Bandung, Indonesia)

“Transformation of FAU-CHA-MER assisted by organic-confined technique”

P10 Atikhun Chotirattanachote (Chulalongkorn University, Thailand)

“Synthesis of Light Olefins from Glycerol hydrogenolysis Using Hierarchical Core-Shell Zeolite-Supported Metal Catalysts”

P11 Hannarong Pitayachinchot (Chulalongkorn University, Thailand)

“Highly selective iron-based catalysts derived from Al-containing MIL-53 for CO₂ hydrogenation to light olefins”

P12 Shengxiang Zhang (Yokohama National University)

“Effect of hierarchical structure and silylation on the catalytic performance of YFI-type titanasilicate for selective oxidations”

P13 Boqing Li (The University of Tokyo)

“Hydrophobicity Manipulation of Titanium-silicalite-1 with Enhanced Catalytic Performance via Liquid-mediated Defect-healing Treatment”

P14 Zimu Zhou (The University of Tokyo)

“Revealing the Crystallization Pathway of VSV-type Zincosilicate Zeolite”

P15 Hanlong Ya (The University of Tokyo)

“Adsorption behavior of nitrous oxide on ion-exchanged MOR-type zeolite”

P16 Tatsushi Yoshioka (The University of Tokyo)

“Dealumination of RHO zeolite via acid treatment and recrystallization”

P17 Kengo Nakamura (Tokyo institute of technology)

“Spectroscopic Analysis of Catalytic Active Species in Partial Oxidation of CH₄ over Metal Containing Zeolite”

P18 Masato Sawada (Tokyo institute of technology)

“Comparative study of Seed-Assisted Crystallization of CON-type zeolite”

P19 Liang Zhao (Tokyo institute of technology)

“Pentaerythritol-Assisted Modulation of Al Distribution in High-Silica Zeolite”

P20 Hiroto Toyoda (Tokyo institute of technology)

“Investigation of site-selective dealuminated MSE-type zeolite”

P21 Yao Lu (Tokyo institute of technology)

“Synthesis of TUN Zeolite via Interzeolite Conversion Method and Its Catalytic Performance”

P22 Yin Liu (Tokyo institute of technology)

“Post-Treatment Effects on BEA Zeolite and Its Catalytic Application in Sorbitol Conversion”

P23 Yuqin Sun (Tokyo institute of technology)

“Synthesis of ERI-type aluminosilicate zeolites and their catalytic performance for dimethyl ether to olefins”

P24 Wu Fan (Tokyo institute of technology)

“Surface Functionalization of METAL-CONTAINING Mesoporous Silica SBA-15 materials”

P25 Piyapatch Techasarintr (Tokyo institute of technology)

“Direct synthesis of Tin-containing MWW-type zeolites and their physicochemical properties”

P26 Yibing Cai (Tokyo institute of technology)

“A Novel Synthesis Route to SFH-type Aluminosilicate Zeolite Having Extra-large Pore”

P27 Nandkishor Urkude (Tokyo institute of technology)

“Development of nickel encapsulated in Zeolite/Ceria hybrid catalyst for selective production of hydrogen rich gas from biomass based resources”

P28 Natnicha Yotpanya (Tokyo institute of technology)

“Effects of Al Distribution in Aluminosilicate Zeolites for Oxidative Methane Reforming”

P29 Tahta Muslim Karim (Tokyo institute of technology)

“The Effect of Sodium Availability On The Hierarchical ZSM-5 Using Cetyltrimethylammonium Bromide as Mesopore-Directing Agent”