15th International Conference on Catalysis in Membrane Reactors

（ICCMR-15）

Tentative Program (June 6th, 2022)

August 1st-4th, 2022

Waseda University, Tokyo, Japan

ICCMR15 Time Table (August 1 - August 4, 2022) at Glance

JPN	8/1 (Mon)			8/2 (Tue)			8/3 (Wed)		8/4 (Thu)	
		A	B		A	B	A	B	A	B
13:00	Regstration			(13:00-14:40)Poster Session						
13:10										
13:20										
13:30										
13:40										
13:50										
14:00							PL3 Jerry Y.S. Lin (Arizona State University, USA)			
14:10										
14:20										
14:30										
14:40										
14:50										
15:00		Opening			KA2-1	KB2-1	*Coffee Break*		KA4-1	KB4-1
15:10										
15:20							KA3-1	KB3-1		
15:30		PL1 David Alfredo Pacheco Tanaka (Tecnalia, Spain)			OA2-2	OB2-2			OA4-2	OB4-2
15:40										
15:50					OA2-3	OB2-3	OA3-2	OB3-2	OA4-3	OB4-3
16:00										
16:10					OA2-4	OB2-4	OA3-3	OB3-3	OA4-4	OB4-4
16:20										
16:30		Coffee Break			Coffee Break		OA3-4	OB3-4	OA4-5	OB4-5
16:40										
16:50		KA1-1	KB1-1		PL2 Weishen Yang (Dalian Institute of Chemical Physics,		*Coffee Break*		*Coffee Break*	
17:00										
17:10							KA3-5	KB3-5	PL4 Tohru Setoyama (Mitsumibshi Chemical, japan)	
17:20		OA1-2	OB1-2							
17:30										
17:40		OA1-3	OB1-3				OA3-6	OB3-6		
17:50					*Coffee Break*					
18:00		*Coffee Break*					OA3-7	OB3-7		
18:10					KA2-5	KB2-5			Closing	
18:20		KA1-4	KB1-4				OA3-8	OB3-8		
18:30										
18:40					OA2-6	OB2-6				
18:50		OA1-5	OB1-5							
19:00					OA2-7	OB2-7				
19:10		OA1-6	OB1-6							
19:20						OB2-8				
19:30		OA1-7	OB1-7				(19:30-21:30) Banquet			
19:40										
19:50										
20:00										

Mon, Aug 1st, 2022

Opening Ceremony

Opening Ceremony

Room A

15:00 [OP] Opening Ceremony

Plenary Session

Plenary Lecture 1

Room A

15:30 [PL1] Palladium and carbon molecular sieves membranes for gas separation and membrane reactors

*David Alfredo Pacheco Tanaka[1], Margot Anabell Llosa Tanco[1], Fausto Gallucci[2] (1. Tecnalia Research &Innovation, 2. Eindhoven University of Technology)

Tue, Aug 2nd, 2022

Plenary Session

Plenary Lecture 2

Room A

16:50 [PL2] Solid ELECTROLYTE MEMBRANE REACTOR for CO_2 reduction

*Weishen Yang[1] (1. Dalian Institute of Chemical Physics, Chinese Academy of Sciences)

Wed, Aug 3rd, 2022

Plenary Session

Plenary Lecture 3

Room A

14:00 [PL3] HYDROGEN PRODUCTION IN CERAMIC-CARBONATE DUAL-PHASE MEMBRANE REACTORS WITH CO_2 CAPTURE

*Jerry Y.S. Lin[1] (1. Arizona State University)

Thu, Aug 4th, 2022

Plenary Session

Plenary Lecture 4

Room A

17:10 [PL4] Innovative separation system by ceramic membrane

*Tohru Setoyama Setoyama[1] (1. Mitsubishi Chemical Corporation)

Mon, Aug 1st, 2022

Oral Session

Session 1: Photo-catalysis

Room A

16:40 [1-1-A-01] MIL-88B-based photocatalytic membrane reactor for improving permeance flux and phenol removal efficiency

*Chechia Hu[1], Lee-Lee Chang[2], Kuo-Lun Tung[2] (1. National Taiwan University of Science and

Technology, 2. National Taiwan University)

17:10 [1-1-A-02] Catalytic membranes applied for cyglohexane partial oxidation to cyclohexanone in a liquid-phase

*Izumi Kumakiri[1], Shotaro Yamada[1], Haruki Bonkohara[1], Shiho Yamato[1] (1. Yamaguchi University)

17:30 [1-1-A-03] Photocatalytic oxidation of organics by silver deposited TiO_2 membrane

*Azzah Nazihah binti Che Abdul Rahim[1], Sergio Mestre[2], Izumi Kumakiri[1] (1. Yamaguchi Univ., 2. Jaume I Univ.)

Oral Session

Session 2: Porous Membranes

Room B

16:40 [1-1-B-01] EFFECT OF CARBONIZATION TEMPERATURE ON THE GAS PERMEATION OF ALUMINA-CARBON MOLECULAR SIEVE MEMBRANES (Al-CMSM)

*Margot Anabell Llosa[1], Serena Poto[2], Fausto Gallucci[2], David Alfredo Pacheco-Tanaka[1] (1. Tecnalia, 2. Eindhoven University of Technology)

17:10 [1-1-B-02] Ultra CO_2 Selective Carbon Molecular Sieve Membranes For Biogas Upgrading

*Arash Rahimalimamaghani[1], David Alfredo Pacheco Tanaka[2], Margot Anabell Liosa Tanco[2], Fernanda Neira d' Angelo[1], Fausto Gallucci[1] (1. Inorganic Membranes and Membrane Reactors, Sustainable Process Engineering, Chemical Engineering and Chemistry, Eindhoven University of Technology, Eindhoven, The Netherlands. , 2. TECNALIA, Basque Research and Technology Alliance (BRTA), Mikeletegi Pasealekua 2, 20009, Donostia, San Sebastian, Spain.)

17:30 [1-1-B-03] Design of hydrogen-selective carbon-ceramic composite membranes from alkoxides and a thermosetting benzoxazine ligand

*Sulaiman Oladipo Lawal[1], Hiroki Nagasawa[1], Toshinori Tsuru[1], Masakoto Kanezashi[1] (1. Separation technology laboratory, Chemical Engineering Program, Graduate School of Advanced Science and Engineering, Hiroshima University.)

Oral Session

Session 3: Photo-catalysis

Room A

18:20 [1-2-A-01] Development of HNb_3O_8/g-C_3N_4 nanosheet composite photocatalytic membranes with improved water permeance and photocatalytic activity

*Keizo Nakagawa[1,2], Seiji Imoto[1], Chechia Hu[3], Tomohisa Yoshioka[1,2], Takuji Shintani[1,2], Atsushi Matsuoka[2,4], Eiji Kamio[2,4], Shik Chi Edman Tsang[5], Hideto Matsuyama[2,4] (1. Graduate School of Science, Technology and Innovation, Kobe University, 2. Research Center for Membrane and Film Technology, Kobe University, 3. Department of Chemical Engineering, National Taiwan University of Science and Technology, 4. Department of Chemical Science and Engineering, Kobe University, 5. Department of Chemistry, University of Oxford)

18:50 [1-2-A-02] Photocatalytic Mixed Matrix Membrane Contactor used in a Hybrid Advanced Oxidation Process for Water Treatment

*Stefan Herrmann[1], Maik Tepper[1,2], Hannah Roth[1,2], Matthias Wessling[1,2] (1. RWTH Aachen University, AVT.CVT - Chair of Chemical Process Engineering, Forckenbeckstraß e 51, 52074 Aachen, Germany, 2. DWI - Leibniz Institute for Interactive Materials, Forckenbeckstraß e 50, 52074 Aachen, Germany)

19:10 [1-2-A-03] PHOTOCATALYTIC MEMBRANE REACTOR VS. MEMBRANE DISTILLATION UNIT FOR TREATMENT OF SURFACE WATER CONTAMINATED WITH KETOPROFEN

Revathy Rajakumaran[1], *Sylwia Mozia[1] （1. West Pomeranian University of Technology in Szczecin, Faculty of Chemical Technology and Engineering）

19:30 [1-2-A-04] Radical Filtration: Photocatalytic Membranes for Micropollutants Degradation

*Shuyana Ainara Heredia Deba[1,2], Bas Wols[2], Doekle Yntema[2], Rob Lammertink [1] （1. Membrane Science and Technology, Faculty of Science and Technology (TNW), University of Twente, Drienerlolaan 5, 7522 NB Enschede, The Netherlands., 2. Wetsus European Center of Excellence for Sustainable Water Technology, 8911MA Leeuwarden, The Netherlands.）

Oral Session

Session 4: Porous Membranes

Room B

18:20 [1-2-B-01] Application of a carbon hollow fiber membrane reactor in esterification reaction

*Miki Yoshimune[1], Hideyuki Negishi[1] （1. National Institute of Advanced Industrial Science and Technology (AIST)）

18:50 [1-2-B-02] Vapor/gas permeation through carbon molecular sieve membranes: experimental and theoretical investigation

*Serena Poto[1], Margot A. LLosa Tanco[2], D. Alfredo Pacheco Tanaka[2], Fausto Gallucci[1], M. Fernanda Neira d'Angelo[1] （1. Inorganic Membranes and Membrane Reactors Group, Eindhoven University of Technology, Eindhoven, The Netherlands. , 2. TECNALIA, Energy and Environment Division, Mikeletegi Pasealekua 2, 20009 San Sebastian-Donostia, Spain）

19:10 [1-2-B-03] In-situ recovery of carboxylic acids from synthetic fermentation broths through membrane-assisted reactive extraction (pertraction) using disc and tubular carbon membranes for improved stability in liquid-liquid separations

*Brandon Jose Leal Perez[1], Arash Rahimalimamaghani[1], Fausto Gallucci[2,3] （1. Doctoral Candidate in Chemical Engineering at Eindhoven University of Technology, 2. Professor of the Inorganic Membranes and Membrane Reactors Group at Eindhoven University of Technology, 3. Dean of the department of Chemical Engineering and Chemistry）

19:30 [1-2-B-04] Novel ammonia selective Carbon Molecular Sieve Membranes for ammonia synthesis in a catalytic membrane reactor.

*Gaetano Anello[1], Arash Rahimalimamaghani[1], Luca Di Felice[1], Fausto Gallucci[1] （1. Eindhoven University of Technology）

Tue, Aug 2nd, 2022

Oral Session

Session 5: Membrane Reactors

Room A

15:00 [2-1-A-01] ADVANCED MATERIALS AND REACTORS FOR ENERGY STORAGE THROUGH AMMONIA (ARENHA)

*Jose Luis Viviente[1] （1. TECNALIA）

15:30 [2-1-A-02] ESTIMATION OF REACTION DEPENDENT REQUIREMENTS ON MEMBRANES TO BE APPLICABLE IN MEMBRANE REACTORS

*Irin Wilson Panjikkaran[1,2], Corina Nentwich[1], Robert Franke[1,3], Andreas Seidel-Morgenstern[2,4] （1. Evonik Operations GmbH, Paul-Baumann-Straß e 1, 45772 Marl, Germany, 2. Institut fü r Verfahrenstechnik, Otto-von-Guericke-Universitä t Magdeburg, Universitä tsplatz 2, 39106 Magdeburg, Germany , 3. Lehrstuhl fü r Theoretische Chemie, Ruhr-Universitä t Bochum, 44780

Bochum, Germany, 4. Max Planck Institute for Dynamics of Complex Technical Systems, Sandtorstraß e, 39106 Magdeburg, Germany）

15:50 [2-1-A-03] Adsorbent materials for residual ammonia removal from hydrogen produced via ammonia decomposition in a catalytic membrane reactor

*Valentina Cechetto[1], Luca Di Felice[1], Fausto Gallucci[1] （1. Inorganic Membranes and Membrane Reactors, Sustainable Process Engineering, Chemical Engineering and Chemistry, Eindhoven University of Technology, Eindhoven, The Netherlands. ）

16:10 [2-1-A-04] AMMONIA DECOMPOSITION IN RU-BASED CATALYTIC MEMBRANE REACTORS

*Zancat Sahin[1], Valentina Cechetto[1], Arash Rahimalimamaghani[1], Fausto Gallucci[1], Matteo Gazzani[3,1], Luca di Felice[1], Margot Llosa Tanco[2,1], Alfredo Pacheco Tanaka[2] （1. Technical University of Eindhoven, 2. TECNALIA, 3. Universiteit Utrecht）

Oral Session

Session 6: Membrane Reactors

Room B

15:00 [2-1-B-01] Platinum Nanoparticles Immobilized on Electrospun Membranes for Catalytic Oxidation of Volatile Organic Compounds

*Karel Soukup[1], Pavel Topka[1], Jaroslav Kupčí k[1], Vladimí r Hejtmá nek[1], Olga Š olcová[1] （1. ICPF）

15:30 [2-1-B-02] An effective route to seal SOFC for NO_x and N_2O treatment

*Celina Fernandes[1], Luí s Alves[1], Laura Holz[1,2,3], Paulo Ribeirinha [1], Duncan Fagg[2], José Nogueira[3], Adé lio Mendes [1] （1. LEPABE-Laboratory for Process Engineering, Environment, Biotechnology and Energy - Faculty of Engineering, University of Porto, 2. Center for Mechanical Technology and Automation, Univ. of Aveiro , 3. Bondalti Chemicals, S.A., ）

15:50 [2-1-B-03] TECHNO-ECONOMIC ASSESMENT OF PROPYLENE PRODUCTION VIA DIRECT DEHYDROGENATION OF PROPANE IN MEMBRANE REACTORS: COMPARISON WITH THE BENCHMARK TECHNOLOGY

*Camilla Brencio[1], Keegan Walker[1], Luca Di Felice[1], Fausto Gallucci[1] （1. Inorganic Membranes and Membrane Reactors, Chemical Engineering and Chemistry, Eindhoven University of Technology, Eindhoven, The Netherlands. ）

16:10 [2-1-B-04] Synthesis and investigation of a pentagonally structured coating in the processes of low-temperature hydrogen permeability

*Iliya Petriev[1,2], Polina Pushankina[1], Yuliya Glazkova[1], Timofey Malkov[1], Georgy Andreev[1] （1. Kuban State University, Krasnodar, 350040, Russia, 2. Southern Scientific Centre of the RAS, Rostov-on-Don, 344000, Russia）

Oral Session

Session 7: Membrane Reactors

Room A

18:10 [2-2-A-01] Combined Reaction System of NH_3 Decomposition and CO_2 Methanation Using Palladium Membrane Reactor with Heat Exchange

*Shigeyuki Uemiya[1], Haruka Goto[1], Akira Hamajima[1], Manabu Miyamoto[1], Yasunori Oumi[1] （1. Gifu University）

18:40 [2-2-A-02] Effect of membrane properties on the direct conversion of CO_2 to dimethyl ether in a fixed bed membrane reactor

*Serena Poto[1], Margot A. LLosa Tanco[2], D. Alfredo Pacheco Tanaka[2], Fausto Gallucci[1], M. Fernanda Neira d'Angelo[1] （1. Inorganic Membranes and Membrane Reactors Group, Eindhoven University of

Technology, Eindhoven, The Netherlands. , 2. TECNALIA, Energy and Environment Division, Mikeletegi Pasealekua 2, 20009 San Sebastian-Donostia, Spain）

19:00 [2-2-A-03] PD-BASED MEMBRANES PERFORMANCE UNDER HYDROCARBON EXPOSURE FOR PROPANE DEHYDROGENATION PROCESSES: EXPERIMENTAL AND MODELLING

*Camilla Brencio[1], Fabrice Fontain[1], Jose Medrano Jimenez[1], Alba Arratibel[2], Fausto Gallucci[1] （1. Inorganic Membranes and Membrane Reactors, Chemical Engineering and Chemistry, Eindhoven University of Technology, Eindhoven, The Netherlands. , 2. Membrane Technology and Process Intensification / Materials and Processes, TECNALIA, San Sebastian, Spain.）

Oral Session

Session 8: Porous Membranes

Room B

18:10 [2-2-B-01] Catalytic micro-tubular ceramic membranes for automotive emissions control

NUR IZWANNE MAHYON[2], Tao Li[2], RICARDO MARTINEZ-BOTAS[2], *Zhentao Wu[1], Kang Li[2] （1. Aston University, 2. Imperial College London）

18:40 [2-2-B-02] CO_2 Permeation properties of fluorine induced microporous silica membranes

*IKRAM RANA[1], Masakoto Kanezashi[1], Hiroki Nagasawa[1], Toshinori Tsuru[1] （1. Hiroshima University）

19:00 [2-2-B-03] Hydrophobic silica membraene for organic solvent nanofiltration

*Sadao Araki[1], Nishikawa Yuta[1], Masanobu Nakata[1], Kang Li[2], Hideki Yamamoto[1] （1. Kansai University, 2. Imperial College London）

19:20 [2-2-B-04] Low-temperature synthesis of silica-based molecular sieve membranes by atmospheric-pressure plasma-enhanced chemical vapor deposition

*Hiroki Nagasawa[1], Mitsugu Kawasaki[1], Takuji Noborio[1], Masakoto Kanezashi[1], Toshinori Tsuru[1] （1. Hiroshima University）

Wed, Aug 3rd, 2022

Oral Session

Session 9: MACBETH Project

Room A

15:20 [3-1-A-01] scale-up of membrane reactors: the macbeth project

FRANK STENGER[2], ROBERT FRANKE[2], ULF MENYES[3], Emma Palo[4], *Fausto Gallucci[1] （1. Eindhoven University of Technology, 2. Evonik, 3. Enzymicals AG, 4. KT）

15:50 [3-1-A-02] Optimization of small-scale hydrogen production with membrane reactors

*Michele Ongis[1,2], Gloria Rosati[3], Gioele Di Marcoberardino[3], Marco Binotti[1], Fausto Gallucci[2] （1. Politecnico di Milano , 2. Eindhoven University of Technology, 3. University of Brescia）

16:10 [3-1-A-03] Interaction of double-skin Pd-based membranes with propane and propylene

*Wout Ververs[1], Alba Arratibel Plazaola[2], Luca Di Felice[1], Fausto Gallucci[1] （1. TU Eindhoven, 2. Tecnalia）

16:30 [3-1-A-04] METALLIC FILTERS MODIFICATION FOR PD-BASED MEMBRANES SYNTHESIS

*Serena Agnolin[1], Jon Melendez[2], Luca di Felice[3], Fausto Gallucci[4] （1. Eindhoven University of Technology, 2. Hydrogen Onsite, S.L., 3. Eindhoven University of Technology, 4. Eindhoven University of Technology）

Oral Session

Session 10: Porous Membranes

Room B

15:20 [3-1-B-01] Preparation of polyacrylic acid coated porous alumina membrane and pH responsive permeation

*Takafumi Sato[1], Kotomi Makino[1], Shingo Tamesue[1], Naotsugu Itoh[1] (1. Utsunomiya Univ.)

15:50 [3-1-B-02] The Viable Preparation of High-hydrogen Permeance Mixed Matrix Hollow Fiber Membrane and Its Potential toward Chemical Processing Industry

*Ya-Wei Lee[1], Yu-Ting Lin[1], Ming-Yen Wey[1], Hui-Hsin Tseng[1] (1. Department of Environment Engineering, National Chung Hsing University, Taichung 402, Taiwan, ROC.)

16:10 [3-1-B-03] NOVEL IN-SITU MEMBRANE FOULING MONITORING VIA BLENDING QUANTUM DOTS (QDS) WITH PVDF MEMBRANE

*Wei-Rong Jian[1], Yi-Chen Lin[2], Hui-Hsin Tseng[1] (1. Department of Environmental Engineering, National Chung Hsing University, Taichung, Taiwan, 2. School of Chemical and biomolecular Engineering, The University of Sydney, New South Wales, Australia)

16:30 [3-1-B-04] Structure-performance correlation of monolithic supported liquid-phase (SLP) hydroformylation catalysts

*Mahtab Madani[1], Leonhard Schill[1], Nanette Zahrtmann[2], Raquel Portela[3], Linda Arsenjuk[4], Robert Franke[4], Rasmus Fehrmann[1], Anders Riisager[1] (1. Technical University of Denmark, Lyngby, Denmark, 2. LiqTech Ceramics A/S, Ballerup, Denmark, 3. Institute of Catalysis and Petrochemistry (ICP-CSIC), Madrid, Spain, 4. Evonik Operations GmbH, Marl, Germany)

Oral Session

Session 11: MACBETH Project

Room A

17:10 [3-2-A-01] MEMBRANE REACTORS AND SEPARATION ENHANCED REACTORS for hydrogen and chmical production

*Fausto Gallucci[1], luca di Felice[1] (1. Eindhoven University of Technology)

17:40 [3-2-A-02] Hydrotalcite based catalyst for industrial application in the propane dehydrogenation reaction

*Giovanni Festa[1], Vincenzo Palma[1], Marco Martino[1], Eugenio Meloni[1] (1. Univ. of Salerno)

18:00 [3-2-A-03] Supported Liquid Phase (SLP)-catalyzed gas-phase hydroformylation of but-1ene in a continuously operated membrane reactor – Detailed kinetics for homogeneous catalysis process intensification

*Marco Haumann[1], Markus Schoerner[1], Robert Franke[2,3] (1. Friedrich-Alexander-Universitaet Erlangen-Nuernberg (FAU), 2. Evonik Performance Materials GmbH, 3. Ruhr-Universitä t Bochum)

18:20 [3-2-A-04] Polymeric membranes for the hydroformylation in a membrane reactor

*Fynn Weigelt[1], Sergey Shishatskiy[1], Volkan Filiz[1], Torsten Brinkmann[1] (1. Helmholt-Zentrum Hereon)

Oral Session

Session 12: Porous Membranes

Room B

17:10 [3-2-B-01] CO_2 separation using CHA-type zeolite membranes

*Yasuhisa Hasegawa[1], Mayuni Natsui[1], Chie Abe[1], Wakako Matsuura[1], Ayumi Ikeda[1] (1. National

Institute of Advanced Industrial Science and Technology (AIST))

17:40 [3-2-B-02] Dehydration of water/hydrogen mxitures at high temperature by hydroxy sodalite (H-SOD) zeolite membrane

Devipriyanka Arepalli[1], Aafaq ur Rehman[1], Min-Zy Kim[1], *Churl-Hee Cho[1] (1. Chungnam National University)

18:00 [3-2-B-03] Acid stable, high flux ZSM-5 membranes prepared on capillary a-alumina supports from nanosize silicalite-1 seed particles

Aafaq ur Rehman[1], Devipriyanka Arepalli[1], Min-Zy Kim[1], *Churl-Hee Cho[1] (1. Chungnam National University)

18:20 [3-2-B-04] HYDROGEN RECOVERY FROM BLENDED NATURAL GAS GRIDS THROUGH A CHEAP AND EFFICIENT MEMBRANE SEPARATION TECHNOLOGY

*Tiago Araujo[1], Telmo Lopes[1], José Sousa[1,2], Adelio Mendes[1] (1. LEPABE-Laboratory for Process Engineering, Environment, Biotechnology and Energy, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias, Porto, 4200-465, Portugal, 2. Chemistry Department, University of Trá s-os-Montes e Alto Douro, apartado 1013, 5001-801, Vila Real, Portugal)

Thu, Aug 4th, 2022

Oral Session

Session 13: Porous Membranes

Room A

15:00 [4-1-A-01] Development of membrane reactor for reverse water-gas shift by ZSM-5 membrane

*Motomu Sakai[1], Kyoka Tanaka[2], Takaya Matsumoto[3], Yukihiro Sugiura[3], Tsuyoshi Asano[3], Masahiko Matsukata[1,2,4] (1. Research Organization for Nano &Life Innovation, Waseda University, 2. Department of Applied Chemistry, Waseda University, 3. ENEOS Corporation, 4. Advanced Research Institute for Science and Engineering, Waseda University)

15:30 [4-1-A-02] Selective propylene production through an MFI zeolite membrane contactor

*Mikihiro Nomura[1], Shusei Tanizume[1], Sota Maehara[1], Ryota Nishiyama[1], Katsunori Ishii[1] (1. Shibaura Institute of Technology)

15:50 [4-1-A-03] Efficient transesterification reactions with methanol permselective zeolite membrane

*Ayumi Ikeda[1], Wakako Matsuura[1], Chie Abe[1], Yasuhisa Hasegawa[1] (1. National Institute of Advanced Industrial Science and Technology (AIST))

16:10 [4-1-A-04] Enhanced esterification of acetic acid with ethanol by rapid pervaporation dehydration using a high-flux and acid-resistant MOR zeolite membrane

Tian Gui[1], Xiaowei Wu[1], Zhicheng Yan[1], Yuqin Li[1], *xiangshu chen[1], Hidetoshi Kita[2] (1. Jiangxi Normal University, 2. Yamaguchi University)

16:30 [4-1-A-05] PREPARATION OF TS-2 ZEOLITE MEMBRANE

*Meihua Zhu[1], Libin Chen[1], Wenjuan Ding[1], Lingling Zhou[1], Yuqin Li[1], Xiangshu Chen[1], Hidetoshi Kita[2] (1. Jiangxi Normal University, 2. Yamaguchi University)

Oral Session

Session 14: Porous Membranes

Room B

15:00 [4-2-B-01] Development of novel membrane reactors with dimethoxydimethylsilane-derived amorphous silica membranes for producing hydrogen from biogas

*Kazuki Akamatsu[1], Keigo Imamura[1], Masato Suzuki[1], Shin-ichi Nakao[1], Xiao-lin Wang[1,2] (1.

Kogakuin University, 2. Tsinghua University)

15:30 [4-2-B-02] Micropores tuning effect on organosilica derived membrane via hydrolysis-polymerisation process control for light gas separation

*Yu Hsuan Wei[1,3], JING YI LI[1], MING YEN WEY[1,2], HUI HSIN TSENG[1,3] (1. Department of Environmental Engineering, National Chung Hsing University, 2. Energy and Materials Recovery Lab, 3. Advanced Membrane Materials for Sustainable Environment Lab)

15:50 [4-2-B-03] Silylated Ionic Liquid-derived Organosilica Membranes for Separation of Methanol and H_2O from H_2 and CO_2

*Yuichiro Hirota[1], Chihiro Nagaya[1], Norikazu Nishiyama[2] (1. Nagoya Institute of Technology, 2. Osaka University)

16:10 [4-2-B-04] Development of subnano porous organosilica membrane for enhancing gas separation

*Jing-Yi Li[1], Yu-Hsuan Wei[2], Ming-Yen Wey[3], Hui-Hsin Tseng[4] (1. NCH Univ., 2. NCH Univ., 3. NCH Univ., 4. NCH Univ.)

16:30 [4-2-B-05] Transesterification reaction with organosilica membrane: Experimental and theoretical comparison of Batch and continuous flow reactors

Takaaki Sato[1], Hiroki Nagasawa[1], Masakoto Kanezashi[1], *Toshinori Tsuru[1] (1. Hiroshima University)

Tue, Aug 2nd, 2022

Poster Session

Poster Session

Poster Session

13:00 [P] Poster Session

Thu, Aug 4th, 2022

Closing Remarks

Closing Remarks

Room A

18:20 [CL] Closing Remarks

Wed, Aug 3rd, 2022

Banquet

Banquet

Banquet Hall

19:30 [BQ] Banquet

Mon, Aug 1st, 2022

Registration

Registration

Registration Desk

13:00 [REG] Registration