

Oral session 4 - Biochemical applications

Monday July 13, 3:20 PM

Room: Sapphire

Chair

Hiro Yoshi Kawakami, Tokyo Metropolitan University, Japan

Co-chair

Akon Higuchi, National Central University, Taiwan & National Research Institute for Child Health and Development, Japan

O4-1 3:20 PM

Novel nanocarrier as a transdermal protein delivery and its membrane permeation behavior through skin

Masahiro Goto, Yoshiro Tahara, Norio Kamiya

Kyushu University, Japan

O4-2 3:40 PM

Permeation and isolation of hematopoietic stem cells and blood cells from umbilical cord blood through surface-modified polyurethane membranes having nanosegments

Akon Higuchi

National Central University, Taiwan & National Research Institute for Child Health and Development, Japan

O4-3 4:00 PM

Use of membrane emulsification to implement biocatalytic membrane reactors

L. Giorno¹, E. Piacentini^{1,2}, R. Mazzei^{1,3}, E. Drioli^{1,2}

1: Institute on Membrane Technology, CNR-ITM, C/o University of Calabria, Via P. Bucci 17/C, 87030 Rende (CS), Italy

2: Dept. of Chemical Engineering and Materials, University of Calabria, Via P. Bucci 42/A, 87030 Rende (CS), Italy

3: Dept. of Ecology, University of Calabria, Via P. Bucci 6/B, 87036 Rende (CS), Italy

O4-4 4:20 PM

A well-controlled antibiofouling poly(vinylidene fluoride) ultrafiltration membrane with poly(ethylene glycol) methacrylate via surface-initiated atom transfer radical polymerization

Yung Chang¹, Chao-Yin Ko¹, Yu-Ju Shih¹, Da-Ming Wang²

1: R&D Center for Membrane Technology and Department of Chemical Engineering, Chung Yuan University, Taiwan

2: Department of Chemical Engineering, National Taiwan University, Taiwan

Oral session 5 - Gas separation and pervaporation II

Monday July 13, 3:20 PM

Room: Ruby

Chair

Akira Ito, Tokyo Institute of Technology, Japan

Co-chair

Yongtaek Lee, Chungnam National University, Korea

O5-1 3:20 PM

Defect-free hollow fiber fabrication for natural gas purification and investigation of plasticization performance

Guangxi Dong, Hongyu Li, Vicki Chen

CRC for Greenhouse Gas Technologies, University of New South Wales, Australia

O5-2 3:40 PM

β -Cyclodextrin containing matrimid sub-nano composite membranes for pervaporation application

Lan Ying Jiang¹, Yan Wang¹, Tai Shung Chung²

1: Nanoscience and Nanotechnology Initiative, National University of Singapore, Singapore

2: Dept. of Chemical and Biomolecular Engineering, National University of Singapore, Singapore

O5-3 4:00 PM

Removal of VOCs from their aqueous solution by pervaporation with PDMS-zeolite composite membrane

Dongjae Jeong¹, Mihye Yun¹, Jeongsik Oh¹, Ina Yum¹, Yongtaek Lee¹, Seong Yong Ha²

1: Department of Chemical Engineering, Chungnam National University, Korea

2: Airrane Co. Ltd, Korea

O5-4 4:20 PM

Preparation of silane modified PDMS/silicalite hybrid membranes and its pervaporation performance for dilute ethanol/water separation

Yinhua Wan, Shouliang Yi, Yi Su, Haoli Zhou, Yinhua Wan,

Institute of Process Engineering, Chinese Academy of Sciences, China

Oral session 6 - Membrane preparation and modification II

Monday July 13, 3:20 PM

Room: Emerald

Chair

Takaaki Tanaka, Niigata University, Japan

Co-chair

Ying-Ling Liu, Chung Yuan Christian University, Taiwan

O6-1 3:20 PM

Preparation and applications of PTFE/polyamide thin film composite membranes

Ying-Ling Liu, Chung-Hao Yu, Irdham Kusumawardhan, Juin-Yih Lai

Chung Yuan Christian University, Taiwan

O6-2 3:40 PM

Design concept of high performance PVDF membrane

Hirokazu Fujimura, Tetsuo Shimizu, Satoshi Shiki, Masatoshi Hashino, Noboru Kubota

Asahi Kasei Chemicals Corporation, Japan

O6-3 4:00 PM

Characterisation of functionalised gold nanotube membranes for molecular separations

Leonora Velleman¹, Dusan Losic², Joe Shapter¹,

1: Flinders University, Australia

2: Ian Wark Research Institute, University of South Australia, Australia

O6-4 4:20 PM

High boron removal seawater RO membrane

Masahiro Henmi, Hiroki Tomioka, Koji Nakatsuji

Toray Industries, Inc. Japan