

Oral session 7 - Hybrid and novel processes

Tuesday July 14, 8:40 AM

Room: Sapphire

Chair

Bart van der Bruggen, K.U.Leuven, Belgium

Co-chair

Nobuyuki Katagiri, Nagoya University, Japan

O7-1 8:40 AM

Effect of coagulant on sludge thickening using membrane filtration

Ramon Christian P. Eusebio¹, Hyoung-Gun Kim², Han-Seung Kim¹

1: Department of Environmental Engineering and Biotechnology, Myongji University, Korea

2: Institute of Construction Technology, KUMHO Engineering and Construction, Korea

O7-2 9:00 AM

New method for obtaining filtration characteristics based upon step-up pressure membrane filtration tests

Nobuyuki Katagiri, Eiji Iritani

Department of Chemical Engineering, Nagoya University, Japan

O7-3 9:20 AM

The application of nanofiltration membranes in water purification: future research challenges

Bart van der Bruggen

K.U.Leuven, Belgium

O7-4 9:40 AM

Energy hydrogen production using membranes in waste water treatment

Mikel C. Duke¹, Cathryn O'Sullivan², Hang Zheng², Ram Mereddy², Raymond Zeng³, William Clarke²

1: Institute for Sustainability and Innovation, Victoria University, Australia

2: BioMass BioEnergy Group, Division of Environmental Engineering, The University of Queensland, Australia

3: Advanced Water Management Centre, The University of Queensland, Australia

Oral session 8 - Inorganic membranes

Tuesday July 14, 8:40 AM

Room: Ruby

Chair

Xuehong Gu, Nanjing University of Technology, China

Co-chair

Mikihiro Nomura, Shibaura Institute of Technology, Japan

O8-1 8:40 AM

Preparation of zeolite T membranes by secondary growth with nanosized seeds and their pervaporation properties

Rongfei Zhou¹, Na Hu¹, Hui Yuan¹, Xiangshu Chen¹, Hidetoshi Kita²

1: Department of Chemistry and Chemical Engineering, Jiangxi Normal University, China

2: Environmental Science and Engineering, Graduate School of Science and Engineering, Yamaguchi University, Japan

O8-2 9:00 AM

Synthesis of industrial-scale zeolite NaA membranes with high reproducibility

Ye Zhang, Yanmei Liu, Zhanzhao Yang, Xuehong Gu, Nanping Xu

State Key Laboratory of Materials-Oriented Chemical Engineering, College of Chemistry and Chemical Engineering, Nanjing University of Technology, China

O8-3 9:20 AM

Rejection of electrolytes and neutral solutes through titania nanofiltration membranes at high-temperatures

Toshinori Tsuru, Kazuhisa Ogawa, Masakoto Kanezashi, Tomohisa Yoshioka

Hiroshima University, Japan

O8-4 9:40 AM

Effect of adhesion of metals on deterioration of pd and pd alloy membranes

Shigeyuki Uemiya, Mai Tokiwa, Keisuke Taniguchi, Manabu Miyamoto

Department of Materials Science and Technology, Gifu University, Japan

Oral session 9 - Drinking and waste water applications

Tuesday July 14, 8:40 AM

Room: Emerald

Chair

Pierre Le-Clech, University of New South Wales, Australia

Co-chair

Noboru Kubota, Asahi Kasei Chemicals Co., Japan

O9-1 8:40 AM

Effect of nanofiltration fouling on removal of trace organic compounds during wastewater treatment

Pierre Le-Clech, Shima Hajibabania, Arne Verliefde, James McDonald, Stuart Khan

University of New South Wales, Australia

O9-2 9:00 AM

Membrane crystallizers for reducing brine disposal and increasing recovery factor in seawater and brackish water desalination

E. Drioli^{1,2}, F. Macedonio^{1,2}, G. Di Profio^{1,2}, E. Curcio^{1,2}

1: Department of Chemical Engineering and Materials, University of Calabria, Via P. Bucci Cubo 44/A, 87036 Arcavacata di Rende (CS), Italy

2: Institute on Membrane Technology, ITM-CNR, c/o University of Calabria, Via P. Bucci Cubo 17/C, Arcavacata di Rende (CS), Italy

O9-3 9:20 AM

A/O-MBR system for advanced biological nutrient removal

Han-Seung Kim¹, Ramon Christian Eusebio¹, Mark Sibag¹, Yoon-Ho Cho¹, Hyung-Gun Kim²

1: Myongji University, Department of Environmental Engineering and Biotechnology, Korea

2: Institute of Construction Technology, Kumho Engineering and Construction, Korea

O9-4 9:40 AM

Intermittent electric field for suppressing fouling in membrane bioreactors

Kazuki Akamatsu, Wei Lu, Takashi Sugawara, Shin-ichi Nakao

Department of Chemical System Engineering, The University of Tokyo, Japan

Oral session 10 - Membrane preparation and modification III

Tuesday July 14, 8:40 AM

Room: Topaz

Chair

Masakazu Yoshikawa, Kyoto Institute of Technology, Japan

Co-chair

Da-Ming Wang, Chung Yuan Christian University, Taiwan

O10-1 8:40 AM

The development of simplified process for the fabrication of hydrophilic PVDF membrane

Nur Awanis Hashim, Kang Li, Fu Liu

Department of Chemical Engineering & Chemical Technology, Imperial College London, UK

O10-2 9:00 AM

Preparation of porous PVDF membrane via thermally induced phase separation with diluent mixture of TBC and DEHP

Min Liu, Zhen Liang Xu

School of Materials Science and Engineering, East China University of Science and Technology, China

O10-3 9:20 AM

Effect of the nonsolvency of coagulation on the micro- and nano-scale structure of PVDF membranes

Chia-Ling Li¹, Da-Ming Wang¹, Andre Deratani², Damien Quemener², Denis Bouyer³, Juin-Yih Lai⁴

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

2: European des Membranes, UM2, France

3: Universite Montpellier 2, France

4: Research and Development Center for Membrane Technology, Chung Yuan University, Taiwan

O10-4 9:40 AM

Closed-pore porous polymer film of UV curable monomer/oligomer/CO₂ system via photopolymerization induced phase separation

Kentaro Taki, Akiyoshi Kajii, Shuhei Okumura, Shinsuke Nagamine, Masahiro Ohshima

Kyoto University, Japan