IWA regional conference on membrane technology 2016

5th IWA Regional Conference on Membrane Technology (IWA-RMTC2016)
Aug. 22-24, 2016, Kunming, Yunnan Province, China
SPECIAL EVENTS

Sunday – August 21, 2016
Registration: Fontaine Blanche Hotel 14:00 – 20:00
IWA China Task force on Membrane Technology Workshop (Invited only):
Conference Room Yunxuan, Level 2 16:00 – 17:30
Welcome Reception: Hot Spring Park of Fontaine Blanche Hotel 18:00 – 20:00

Monday – August 22, 2016
Registration: Fontaine Blanche Hotel 8:00 – 14:00
Opening Ceremony: International Conference Center, Level 2 9:00 – 9:20

Tuesday – August 23, 2016
Registration: Fontaine Blanche Hotel 8:00 – 14:00
Gala dinner: Yunnan Dianchi Garden Resort Hotel 18:30 – 20:30

Wednesday – August 24, 2016
Registration: Fontaine Blanche Hotel 8:00 – 10:00
Closing ceremony and Awards: International Conference Center, Level 2 9:00 – 11:50
Technical visit: MBR wastewater treatment plant (The final participant list will be released at the conference's on-site registration desk)

OPENING CEREMONY (International Conference Center—Level 2)
09:00 09:20 Chair: Xia Huang

PLENARY SESSION (International Conference Center—Level 2)
Chair: Zhiwei Wang
09:20 09:50 Energy efficiency of desalination: Role of membranes and process design: Menachem Elimelech, Yale University, USA
09:50 10:20 Design of polymeric membranes for water reuse, seawater desalination and osmotic power generation: Tai-Shung (Neal) Chung, National University of Singapore, Singapore
10:20 10:40 Coffee Break
10:40 11:10 Possible contribution of MBR systems to achieve the sustainable development goals (SDGs): Kazuo Yamamoto, Asian Institute of Technology, Thailand
11:10 11:40 Evolution of bacterial quorum quenching for biofouling control in MBR: Let microorganisms handle their business: Chung-Hak Lee, Seoul National University, South Korea

11:40 13:00 Lunch

Session 1.1 Novel membrane materials and configurations (1)
Chair: TBD
13:00 13:25 KN Approaches to prepare HF PVDF based MF, UF & NF membranes for clean water
Xiaolin Wang
Tsinghua University, China

Conference Room Yuntu, Level 2 Water reuse & Resource and energy recovery
Chair: TBD
13:00 13:25 KN Chemically-enhanced phosphorus removal and recovery with a ceramic membrane bioreactor in municipal wastewater treatment
Xiao-yan Li
The University of Hong Kong, China

Conference Room Yunxuan, Level 2 Drinking water treatment & Desalination
Chair: TBD
13:00 13:25 KN Implication of membrane technology in drinking water treatment
Shuili Yu
Tongji University, China

Conference Room Yunlong, Level 2 Membrane fouling mechanisms and control (1)
Chair: TBD
13:00 13:25 KN Recent development in measurement methods and sensors for prediction of biofouling of RO membranes
Roger BenAim
Institute for Filtration and Liquid Solid Separation, France
13:25 13:40  A0063  Selective gas and water transport behavior in graphene membrane
Chang-Min Kim, Euntea Yang, Jun-Ho Song, In S. Kim
Gwangju Institute of Science and Technology, South Korea

13:40 13:55  A0003  Polyamide membranes with ultrafast water transport for forward osmosis
Jia Xu, Congjie Gao
Ocean University of China, China

13:55 14:10  A0018  Preparation of ceramic tight nanofiltration membrane using atomic layer deposition under atmospheric pressure
Ran Shang, Luuk Rietveld, Bas Heijman
Delft University of Technology, The Netherlands

14:10 14:25  A0019  Fabrication of hydrophobic/hydrophilic hollow fibers for DCMD: Influence of dope formulation and external coagulant
Lan Ying Jiang, Xuan Feng, Jia Ming Zhu
Central South University, China

14:25 14:40  D0002  Synthesis and application of hydroxy sodalite-polyethersulfone (HS-PES) composite membrane for acid mine drainage treatment
Wenhai Luo, Long D. Nghiem
University of Wollongong, Australia

B0031  Investigation of entrapped marine biomass coupled with membrane for the treatment of high-saline pharmaceutical wastewater
Zhengzhong Zhou, Jim Yang Lee
Jiangsu University, China

C0005  Rejection of TrOCs with polyamide NF/RO membranes and DSPM model-fitting
Zhenyu Cui, Yonghong Yao
Tianjin Polytechnic University, China

E0007  The content of nitrogenous biopolymer in feed water is not a generic fouling indicator in ultrafiltration of different water types
Shaoqing Zhang, Binbin Sheng and Fangang Meng
Sun Yat-sen University, China
14:40 14:55 J0006 A novel Anion exchange membrane modified by alternate electro-deposition layers with highly improved monovalent selectivity

D0025 A novel electrochemical membrane reactor (EMR) for efficient treatment of refractory wastewater

Kok Kwang Ng, Xueqing Shi, Say Leong Ong, How Yong Ng
National University of Singapore, Singapore

Zhiyong Deng
University of the Witwatersrand, South Africa

14:55 15:15 Discussion

15:15 15:45 Coffee break & Poster session

Chair: TBD

15:45 16:00 A0021 Robust aquaporin incorporated phospholipid bilayer membranes for nanofiltration and forward osmosis
Zhining Wang, Miaqi Wang, Wande Ding
Ocean University of China, China

F0007 Recovery of palladium nanoparticles (PdNP) and in situ application to water treatment: PdNP-biofilm versus PdNP-film on H2-delivering membranes
Chen Zhou, Zhaoyang Wang, Bruce E. Rittmann
Arizona State University, USA

H0007 A secondary pore-forming method to improve support surface porosity for enhancing the flux of TFC RO membrane
Wentao Yan, Zhi Wang, Junhui Wu, Song Zhao, Jixiao Wang, Shichang Wang
Tianjin University, China

Chair: TBD

16:00 16:15 A0028 Mussel-inspired superhydrophilic and underwater superoleophobic PVDF membrane for oil-in-Water emulsion separation
Zhengxing Wang, Xiaobin Yang, Lu Shao
Harbin Institute of Technology, China

F0011 Effect of pH and organic loading on the release of phosphorus by acidogenic fermentation with food waste from the chemically-flocculated MBR sludge
Ruo-hong Li, Xiao-yansheng Li
The University of Hong Kong, Pokfulam, China

H0010 Desalination of waste water containing organic solutes by electrodialysis
Le Han, Sylvain Galier, Hélène Roux-de Balmain
Université de Toulouse, France

16:15 16:30 A0035 Photoelectrocatalysis by Triple
F0015 Electrically conductive and functionalized graphene membranes for water purification
Le Han, Sylvain Galier, Hélène Roux-de Balmain
Université de Toulouse, France

16:30 16:45 Chair: TBD

16:45 16:55 A0035 Photoelectrocatalysis by Triple
F0015 Electrically conductive and functionalized graphene membranes for water purification
Le Han, Sylvain Galier, Hélène Roux-de Balmain
Université de Toulouse, France

Chair: TBD

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Chair: TBD

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F0015 Electrically conductive and functionalized graphene membranes for water purification
Le Han, Sylvain Galier, Hélène Roux-de Balmain
Université de Toulouse, France
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<tr>
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<th>Session</th>
<th>Title</th>
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<tbody>
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<td>16:30</td>
<td>A0042</td>
<td>Fabrication of high performance forward osmosis membrane with different additives</td>
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<tr>
<td>16:45</td>
<td>A0022</td>
<td>Ceramic hollow fiber microfiltration/ultrafiltration membranes for highly efficient separation of oil-in-water emulsion</td>
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<td>17:00</td>
<td>A0056</td>
<td>Preparation, characterization, and phase inversion mechanism study of PVDF-CTFE hydrophobic membrane for MD application</td>
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<td>17:15</td>
<td>A0058</td>
<td>Surface modification of hydrophobic PVDF</td>
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<td>16:45</td>
<td>F0018</td>
<td>Direct membrane filtration of municipal wastewater for recovery of organic matter</td>
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<td>17:00</td>
<td>G0002</td>
<td>Anaerobic membrane bioreactor (AnMBR) For wastewater treatment and energy recovery</td>
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<td>17:15</td>
<td>G0003</td>
<td>Fluidized glass beads reduce fouling in an anaerobic membrane bioreactor treating municipal wastewater</td>
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<td>16:00</td>
<td>H0017</td>
<td>Graphene/PVDF membrane for the treatment of RO brine from coal seam gas produced water by membrane distillation</td>
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<td>17:00</td>
<td>H0023</td>
<td>A forward osmosis-membrane distillation (FO-MD) hybrid process by utilizing poly(propylene oxide) as a biodegradable draw agent</td>
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<tr>
<td>17:15</td>
<td>H0024</td>
<td>Surface engineering of electrospun nanofibrous membranes and its anti-wetting properties in membrane distillation for desalination</td>
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<td>16:45</td>
<td>H0042</td>
<td>High and regenerative anti-biofouling and chlorine resistance reverse osmosis (RO) membrane</td>
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<tr>
<td>17:00</td>
<td>I0052</td>
<td>An assessment of ultraviolet light emitting diodes (UV-LEDs) to suppress membrane biofouling: flow-through module development</td>
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<tr>
<td>17:15</td>
<td>I0057</td>
<td>Intra-membrane ultramicrobacteria biofilm and its contribution to membrane filtration resistance in membrane bioreactor</td>
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<td>17:15</td>
<td>I0060</td>
<td>Intra-membrane ultramicrobacteria biofilm and its contribution to membrane filtration resistance in membrane bioreactor</td>
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Microporous membranes via poly(DOPA) deposition for MBR

Lijuan Zhang, Xiaotong Yuan, Xuan Wang, Xiaolong Lu, Dongyue Guo
Tianjin Polytechnic University, China

Seawater and reclaimed wastewater: the effect of feed solution concentrations on power production
Ying Mei, Chuyang Y. Tang
University of Hong Kong, China

Pretreatment in RO desalination
Peng Pan, Hiroshi Yamamura, Yoshimasa Watanabe
Chuo University, Japan

Composite membrane for nanofiltration
Zhiwei Lv, Jiahui Hu, Junfeng Zheng, Xuan Zhang, Lianjun Wang
Nanjing University of Science & Technology, China

17:30 17:45 A0068 A polyionized hydrogel with unprecedented underwater anti-crude-oil-adhesion property for oil/water separation
Shoujian Gao, Jian Jin
Suzhou Institute of Nano-Tech and Nano-Bionics, CAS, China

17:45 18:00 G0007 Methane fermentation of coffee grounds and waste activated sludge using a submerged anaerobic membrane reactor
Wei Qiao, Simon Mdondo, Kazuyuki Takayanagi, Yu-You Li
China Agricultural University, China

17:45 18:05 H0008 Reverse osmosis membrane embedding graphene oxide in both active and support layers
Hee-Ro Chae, Chung-Hak Lee, Pyung-Kyu Park, In-Chul Kim, Jae-Hyuk Kim
Yonsei University, South Korea

17:45 18:00 A0080 Enhanced hydrophilicity and antifouling study of graphene oxide-poly(m-phenylene isophthalamide) (PMIA) mixed matrix membrane
Mei Yang, Changwei Zhao
Research Center for Eco-Environmental Sciences, CAS, China

17:45 18:00 H0033 Dual layer poly(ethylene terephthalate) nonwoven membranes used in membrane distillation for desalination
Haoyuan Zhou, Zhongyun Liu, Xiaochan An and Yunxia Hu
Yantai Institute of Coastal Zone Research, CAS, China

Discussion
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<th>Time</th>
<th>Session 2.1</th>
<th>Conference Room Yuntu</th>
<th>Conference Room Yunxuan, Level 2</th>
<th>Conference Room Yunlong, Level 2</th>
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<tr>
<td>08:30</td>
<td>Novel membrane materials and configuration (2)</td>
<td>Chair: TBD</td>
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<tr>
<td>08:55</td>
<td>KN Novel forward osmosis membranes</td>
<td>KN The opportunities and challenges of anaerobic membrane bioreactor for domestic and industrial wastewater treatment and reuse</td>
<td>KN Impact of inclusion of ion exchange membranes on faradaic processes in CDI treatment of brackish waters</td>
<td>KN Structures of polysaccharides causing membrane fouling in membrane bioreactors: A new surrogate polysaccharide for fouling research</td>
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<tr>
<td>09:05</td>
<td>09:10 A0044 Fabricating a nanofiltration membrane with nanofiber on its surface for improving water flux</td>
<td>F0005 Swine manure treatment by anaerobic membrane bioreactor with carbon, nitrogen and phosphorus recovery</td>
<td>B0002 Catalytic gravity-driven nanofibrous membrane for water treatment</td>
<td>I0058 In-situ, on-line biofouling monitoring in gravity-driven membrane filtration using optical coherence tomography</td>
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<tr>
<td>09:25</td>
<td>A0054 A novel polydopamine/graphene oxide/TMC membrane with a high antioxidant capacity and flux</td>
<td>H0018 Treating reactive dye effluents with ceramic NF membrane</td>
<td>B0009 In-situ degradation of refractory organics in secondary effluent by graphene modified electro-Fenton membranes</td>
<td>I0067 Combined effects of wastewater effluent organic materials and suspended solids on fouling in ceramic membrane</td>
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<td>09:50</td>
<td>A0054 The application of forward osmosis in treatment of coal gasification wastewater</td>
<td>D0014 Impacts of epichlorohydrin–dimethylamine on coagulation performance</td>
<td>I0071 Membrane under stress: forward osmosis membrane integrity loss during gypsum scaling</td>
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<td>09:40 09:55</td>
<td>A0060 Poly(N-vinyl imidazole) gel composite membranes for molecular separation</td>
<td>D0006 Sulfuric acid treatment by membrane distillation: concentration, crystallization and wetting</td>
<td>B0018 Life cycle assessment of forward osmosis and nanofiltration hybrid systems</td>
<td>I0074 Insight to the fouling behaviour by SMP and EPS in a submerged anaerobic membrane reactor treating municipal wastewater</td>
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<td>Xinyu Zhang, Jiayu Tian, Shanshan Gao, Fuyi Cui Harbin Institute of Technology, China</td>
<td>Bo WANG, Xianghua WEN, Pan Zhang Tsinghua University, China</td>
<td>Fan Bu, Baoyu Gao, Ruihua Li, Shenglei Sun, Qinyan Yue Shandong University, China</td>
<td>Ming Xie, Chuyang Y. Tang, Stephen R. Gray Victoria University, Australia</td>
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09:55 10:10

Discussion

10:10 10:40

Coffee break & Poster session

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<tr>
<th>10:40 10:55</th>
<th>A0008 Preparation of graphene oxide modified polyamide thin film composite membranes for PPCPs removal</th>
<th>D0010 The study of insoluble polyimide solvent-resistant nanofiltration membranes fabricated by a two-step method</th>
<th>B0019 Biocatalytic carbon nanotubes membrane for efficient micro-pollutant degradation</th>
<th>I0092 The impact of ferromagnetic material on membrane fouling for coagulation/ultrafiltration process</th>
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<tbody>
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<td></td>
<td>Nana Li, Yu Zhao, Shengji Xia Tongji University, China</td>
<td>Jingjing Xue, Bing Cao, Pei Li Beijing University of Chemical Technology, China</td>
<td>Chao Ji, Jingwei Hou, Vicki Chen The University of New South Wales, Australia</td>
<td>Jie Wang, Fei Gao, Lulu Liu Tianjin Polytechnic University, China</td>
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10:55 11:10

A0062 The effect of doping temperature dependent nitrogen-bonding configuration on nitrogen-doped graphene / ceramic-membrane electrode assembly for water purification | D0011 Treatment of greywater by forward osmosis technology: effect of the feed and draw solution temperature | B0027 Persistently Hydrophilic Modification of PVDF ultrafiltration membranes with PVA based on in situ crosslinking | I0036 Concentration polarization characterization in nanofiltration caused by humic-like substance |
| | | | | |
Jun-ho Song, Chang-Min Kim, Euntae Yang, In S. Kim Gwangju Institute of Science and Technology, South Korea

Ce Wang, Yongmei Li, Yanqiang Wang Tongji University, China

Li Qing Zhang, Gang Zhang, Lei Wang, Xu Dong Wang University of Jinan, China

Wentao Shang, Feiyun Sun, Sanfeng Yue Harbin Institute of Technology Shenzhen Graduate School, China

D0013 Degradation of 4-chlorophenol in different electrode diaphragm systems under Pd-Fe/graphene gas-diffusion cathode

Dandan Xu, Xiaozhe Song, Hui Wang, Zhaoyong Bian Beijing Forestry University, China

A0079 Bio-inspired modification of anion exchange membranes to improve the monovalent anion selectivity and antifouling property

Yan Zhao, Huimin Liu, Kaini Tang, Bart Van der Bruggen, Congjie Gao, Jiangnan Shen Zhejiang University of Technology, China

Wei Wang, Shun Wang, Xuesong Ren, Shoujun Yuan, Zhenhu Hu Hefei University of Technology, China

B0028 Integrated ultrafiltration-capacitive desalination process with a dual-layer polyvinylidene fluoride (PVDF)/carbon membrane

Shuai Liang, Jun Cao, Kuichang Zhuo, Xia Huang Beijing Forestry University, China

C0011 Fabrication of an antibacterial super-hydrophilic membrane to reduce biofouling

Hassan Younas, Yuhuan Fei, Jiahui Shao Shanghai Jiao Tong University, China

B0030 Water flux, reverse solute flux and anaerobic toxicity assay of monosodium glutamate as a draw solute for application in forward osmosis-anaerobic digestion hybrid process

Seungheon Yang, Kyungjin Cho, Seungkwon Hong, Seckheon Lee Korea Institute of Science and Technology, South Korea

C0012 Application of ozone at low dose in submerged membrane tank on controlling ultrafiltration membrane fouling in drinking water treatment

Wenzheng Yu, Nigel J. D. Graham, Geoffrey D. Fowler Imperial College London, UK

C0007 Effect of molecular size of NOM and floc hydrodynamics on coagulation-ultrafiltration membrane process

Feng Xiao, Shuxuan Duan, Hui Xu, Dongsheng Wang Research Center for Eco-Environmental Sciences, CAS, China

C0020 Ultrafiltration membrane fouling during algae-laden water treatment: Individual and combined fouling effects of cells and extracellular organic matter

Bin Liu, Heng Liang, Fangshu Gu, Guibai Li Harbin Institute of Technology, China

A0064 Modified polyamidate-amide nanofiltration membranes for electrodialysis concentrate reclamation

Dongsheng Zhao, Shuli Yu Tongji University, China

B0017 Rapid establishment of phenol- and quinoline-degrading consortia in an anaerobic baffled ceramic membrane bioreactor

Wei Wang, Shun Wang, Xuesong Ren, Shoujun Yuan, Zhenhu Hu Hefei University of Technology, China

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A0020 Advanced membranes enabled by atomic layer deposition

Yong Wang Nanjing Tech University, China

D0019 Self-forming dynamic membrane bioreactor maximizing recovery of sewage organics towards energy-neutral and compact treatment

Di Wu, Peng Bai, Ji Dai, Feng Jiang, Guang-Hao Chen The Hong Kong University of Science and Technology, China

11:10 11:25 A0064 Modified polyamidate-amide nanofiltration membranes for electrodialysis concentrate reclamation

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11:55 12:10 Discussion

12:10 13:00 Lunch

International Conference Conference Room Yuntu Conference Room Yunlong
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<td>Hybrid membrane processes (2)</td>
<td>Domestic/industrial wastewater treatment (2)</td>
<td>Industrial applications</td>
<td>Membrane fouling mechanisms and control (3)</td>
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<td>Chair: TBD</td>
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<td>KN</td>
<td>Osmotic membrane bioreactor: applications, challenges and future perspectives</td>
<td>Membrane distillation and pervaporation for the treatment of high concentration brines</td>
<td>An electrocatalytic membrane reactor for wastewater treatment</td>
<td>Sustainable membrane application in reverse osmosis concentrate management</td>
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<td>Chuyang Tang</td>
<td>Vicki Chen</td>
<td>Jianxin Li</td>
<td>Saravanamuthu Vigneswaran</td>
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<td>The Hong Kong University, China</td>
<td>University of New South Wales, Australia</td>
<td>Tianjin Polytechnic University, China</td>
<td>University of Technology Sydney, Australia</td>
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<td>13:25 13:40</td>
<td>A0081</td>
<td>D0027</td>
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<td>I0059</td>
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<tr>
<td>A0081</td>
<td>Benchmark of the fouling propensity of three new ultrafiltration membranes on surface waters</td>
<td>Applicability of a self-forming dynamic membrane for post-treatment of UASB effluents at reduced HRTs</td>
<td>Comparative Experiment on treatment of Digested Piggery Wastewater with a Biofilm MBR and a Conventional MBR: Analysis of Biological Performance</td>
<td>Mapping biofouling in membrane filtration systems using optical coherence tomography (OCT)</td>
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<td>Emmanuelle Filloux, Morgane Guennec, Anne Brehant, Reynald Bonnard, Martin Heijnen, Davis Anfin</td>
<td>Pei Jun Quek, How Yong Ng National University of Singapore, Singapore</td>
<td>Xiaoyan Song, Rui Liu, Lvjun Chen, Tomoki Kawagishi Tsinghua University, China</td>
<td>Luca Fortunato, TorOve Leiknes King Abdullah University of Science and Technology, Saudi Arabia</td>
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<td>D0028</td>
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<td>A0085</td>
<td>A novel and efficient strategy to prepare antifouling and antibiofouling aromatic polyamide reverse osmosis membrane</td>
<td>Enrichment of nitrifying activated sludge with a membrane bioreactor and its application</td>
<td>Prospects of wastewater treatment in China based on membrane technologies</td>
<td>How to tune the fractionation and characterization of dissolved organic matter (DOM) to understand membrane fouling?</td>
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<td>Ying Pan, Yufeng Zhang, Jiangjiang Meng Tianjin Polytechnic University, China</td>
<td>Xiaolin sheng, Rui Liu, Lvjun Chen, Zihua Yin Tsinghua University, China</td>
<td>Chen Chen, Yubin Yu, Xinzheng Bai, Qing Chen Suzhou Litree UF Membrane Technology Co., Ltd, China</td>
<td>Céline Jacquin, Geoffroy Lesage, Benoît Teychene, Marc Heran Université de Montpellier, France</td>
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<td>D0031</td>
<td>J0005</td>
<td>I0095</td>
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<td>A0087</td>
<td>High flux interfacial polymerization polyimide solvent resistant nanofiltration membrane</td>
<td>Removal of antibiotics in inclined tube anoxic/aerobic membrane bioreactor treating municipal solid waste leachate</td>
<td>Study on forward osmosis and its membrane fouling for separation of microalgae from water</td>
<td>Uniformly oriented halloysite nanotubes composite membranes for excellent antifouling performance</td>
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<td>Hongyan Zhen, Baowei Su, Li Lv, Xiaojuan Song, Xueli Gao, Congjie Gao Ocean University of China, China</td>
<td>A.Kaewmanee, W.Chiemchaiasri, C.Chiemchaiasri, K. Yamamoto Kasetsart University, Thailand</td>
<td>Li-Hua Cheng, Zhi-Yi Ni, Yu-Peng Gong, Wen-Zhe Fang, Xin-Hua Xu, Huan-Lin Chen Zhejiang University, China</td>
<td>Lijuan Qin, Yatao Zhang, Jindun Liu Zhengzhou University, China</td>
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</table>
14:10 14:25  A0089 New polyamide TFC reverse osmosis membranes fabricated from a novel trimesoylamidoamine monomer

Lifen Liu, Xiaolin Chen, Hao Wu, Congjie Gao  
Zhejiang University of Technology, China

D0034 Optimization of cost by hydraulic retention time (HRT) for membrane bioreactor (MBR) treating antibiotic wastewater

Dawei Yu; Yutao Chen, Yuansong Wei, Jianxing Wang, Kun Li, Xiang Zheng, Yaobo Fan  
Research Center for Eco-Environmental Sciences, CAS, China

D0053 Reducing the energy consumption in a large-scale membrane bioreactor via ammonia-based real-time feedback aeration control

Jianyu Sun, Peng Liang, Kang Xiao, Junlin Xia, Ting Lei, Xia Huang, Xianghua Wen  
Tsinghua University, China

I0081 Fouling control by mechanical vibration of membrane module in submerged membrane bioreactor

Pengzhe Sui, Hiroshi Yamamura, Akio Yonezu, Yuuki Fukumashi, Yoshimasa Watanabe  
Chuo University, Japan

14:25 14:40  A0017 Tuning the carboxylic groups of the thin-film composite membranes and their effects on the performance

Shuren Chou

Beijing Origin Water, China

D0008 Performance of forward osmosis in removal of heavy metals from polluted water

Chia–Yu Wu, Hinano Mouri, Shiao–Shing Chen, Jun Kobayashi

Prefectural University of Kumamoto, Japan

I0053 A novel indirect contact-killing mechanism for enhanced anti-biofouling behaviours of polyvinylidene fluoride membrane modified by quaternary ammonium

Mengmeng Liu, Min Yang, Dawei Yu, Yuansong Wei, Meixue Chen  
Research Center for Eco-Environmental Sciences, CAS, China

Xingran Zhang, Jinxing Ma, Zhiwei Wang  
Tongji University, China

14:40 14:55  A0010 Fabrication of electrospun nanofibers as support of thin film composite membrane

Li-jun Meng, Man-hong Huang, Cui-cui Zhang, Jue Wang, Bei-bei Li

Donghua University, China

D0035 Enhancement of organic removal performance via advanced oxidation process for pharmaceutical wastewater treatment

Xueqing Shi, Kok Kwang Ng, How Yong Ng

National University of Singapore, Singapore

I0055 Combination of airlift oxidation ditch and membrane bioreactor: Performance and membrane fouling

Lumei Tian, Shengsan Huang, Yufang Yang, Norihiro Takeuchi, Zhenjia Zhang  
Toray Advanced Materials Research Labs (China) Co., Ltd., China

Hongyang Zhang, Junlin Xia, Jianyu Sun, Xiaoxu Yan, Kang Xiao, Jiao Zhang, Xia Huang, Hanchang Shi  
Tsinghua University, China

14:55 15:10  Discussion

Coffee break & Poster session
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<td>15:40</td>
<td>A0091</td>
<td>Novel cellulose nanoparticles embedded polyamide thin-film membrane</td>
<td>Chair: TBD</td>
<td>Improved nanofiltration performance</td>
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<td>15:40</td>
<td>D0040</td>
<td>Energy consumption and reduction of membrane bioreactor for wastewater</td>
<td>Chair: TBD</td>
<td>treatment in China</td>
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<td>15:55</td>
<td>J0010</td>
<td>Seven years of successful operation: ZeeWeed MBR at Meicun</td>
<td>Chair: TBD</td>
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<td>15:55</td>
<td>I0087</td>
<td>A combination of bacterial quorum quenching and chemically enhanced</td>
<td>Chair: TBD</td>
<td>Backwashing controls biofouling in membrane bioreactors</td>
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<td>16:00</td>
<td>D0044</td>
<td>Influence of sludge adaptation to alcohol ethoxylate on the</td>
<td>Chair: TBD</td>
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<td>16:00</td>
<td>K0003</td>
<td>Extraction of water and saleable minerals from CSG produced water</td>
<td>Chair: TBD</td>
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<td>16:10</td>
<td>A0093</td>
<td>Simultaneous rejection of microorganism and nutrient over high-flux</td>
<td>Chair: TBD</td>
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<td>16:10</td>
<td>D0054</td>
<td>Removal of dissolved organic matter (DOM) from bio-treated coking</td>
<td>Chair: TBD</td>
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<td>16:10</td>
<td>K0006</td>
<td>Production integrated filtration for resource recovery from rinsing</td>
<td>Chair: TBD</td>
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<td>16:10</td>
<td>I0100</td>
<td>Influence of bubble size and the vibration of flat-sheet membrane</td>
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<td>16:25</td>
<td>A0097</td>
<td>Enhanced hydrophilicity, permeability and antifouling of PES</td>
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<td>16:25</td>
<td>D0056</td>
<td>Anaerobic dynamic membrane bioreactor – natural ventilation trickling</td>
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<td>H0022</td>
<td>Evaluation of RO applications in China</td>
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<tr>
<td>16:40</td>
<td>A0100</td>
<td>Energy reduction of submerged MBR using PTFE Hollow fibre membrane</td>
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<td>16:40</td>
<td>I0087</td>
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<td>Chair: TBD</td>
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Taro Miyoshi, Thanh Phong Nguyen, Terumi Tsumuraya, Hiromu Tanaka, Toru Morita, Hiroki Itokawa, Toshikazu Hashimoto, Maezawa Industries, Inc., Japan

Xinying Zhang, Yan Wu, Meiyin Wang, Zhiwei Wang, Zhichao Wu, Fuzhou University, China

Xiaofen Chen, Li Liu, Rong Cheng, Xiang Zheng, Lei Shi, Zhenxing Zhang, Renmin University of China, China

Kibaek Lee, Seonki Lee, Sang Hyun Lee, Sang-Ryoung Kim, Hyun-Suk Oh, Pyung-Kyu Park, Kwang-Ho Choo, Yea-Won Kim, Jung-Kee Lee, and Chung-Hak Lee, Seoul National University, South Korea

16:40 16:55 A0101 Water and reverse salt flux performances of a novel nanofiber Forward Osmosis Membrane

D0021 Performance of a novel microfiltration anaerobic osmotic membrane bioreactor for municipal wastewater treatment

D0009 Fouling behavior and foulants accumulation property of cake sludge in a full-scale membrane bioreactor

I0010 Optimization and performance of alkali-assisted cleaning for fouling control in anaerobic ceramic membrane bioreactor (AnCMBRs)

Serkan Arslan, Taha Aslan, Murat Eyvaz Serkan Güclü, Ayşe Yükseldağ, Ebubekir Yüksel, Ismail Koyuncu, Gebze Technical University, Turkey

Xinhua Wang, Chen Wang, Xiufen. Li, Jiangnan University, China

Yisong Hu, Xiaochang C. Wang, Xi’an University of Architecture and Technology, China

Lin Li, Yun Ye, Jaleh Mansouri, Jingwei Hou, Vicki Chen, University of New South Wales, Australia

Xue Li, Tao Cai, Chun Yan Chen, Tai-Shung Chung, National University of Singapore, Singapore

Muhammad Aslam, Amine Charfi, Jeonghwan Kim, INHA University, South Korea

16:55 17:10 H0005 Development of composite hollow fibre PVA/PVDF pervaporation membrane for desalination application

G0005 Anti-fouling membrane development for osmotic power generation

B0011 Addition of solid granulates for mitigating colloidal fouling in fluidized membrane reactor

I0006 Mechanisms underlying the effects of biofouling on the removal of pharmaceutically active compounds by NF membrane

Serkan Arslan, Taha Aslan, Murat Eyvaz Serkan Güclü, Ayşe Yükseldağ, Ebubekir Yüksel, Ismail Koyuncu, Gebze Technical University, Turkey

Xinhua Wang, Chen Wang, Xiufen. Li, Jiangnan University, China

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Lin Li, Yun Ye, Jaleh Mansouri, Jingwei Hou, Vicki Chen, University of New South Wales, Australia

Xue Li, Tao Cai, Chun Yan Chen, Tai-Shung Chung, National University of Singapore, Singapore

Muhammad Aslam, Amine Charfi, Jeonghwan Kim, INHA University, South Korea

Chen Li, Yu Yang, Li’an Hou, Beijing Normal University, China

17:10 17:25 Discussion

PLENARY SESSION (International Conference Center—Level 2)
Chair: Xiaomao Wang

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<td>Membranes can provide cheap and simple decentralized drinking water: Franz-Bernd Frechen, University of Kassel, Germany</td>
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<td>09:30</td>
<td>New method for minimizing membrane fouling and enhancing treatment performance of a hybrid membrane bioreactor: Huu-Hao Ngo, University of Technology, Sydney, Australia</td>
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<td>10:00</td>
<td>Coffee break</td>
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<td>10:20</td>
<td>Recent advances of inorganic membranes for water and wastewater treatments: Kuo-Lun Tung, Taiwan University, Taiwan, China</td>
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<td>10:50</td>
<td>Application of membrane technology in water and wastewater treatment in China: Xia Huang, Tsinghua University, China</td>
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<td>11:20</td>
<td>Closing Ceremony</td>
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<td>Chair: Xia Huang</td>
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<td>11:50</td>
<td>Announcing best poster &amp; best student oral presentation awards: Roger BenAim</td>
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<td>11:50</td>
<td>Conference summary: Xia Huang</td>
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<td>Lunch</td>
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<td>Technical tour</td>
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