

# **Innovation of Membrane Technology** for Water and Wastewater Treatment

—IMTEC Sapporo— Place: Hotel Royton Sapporo, Japan http://www.daiwaresort.co.jp/english/29\_royto.html

Date: August 8 Tuesday 2006



## AIM OF THE WORKSHOP

The Sustainable Water Metabolic Systems Group has achieved considerable results under the 21st Century COE Program "Sustainable Metabolic System of Water and Waste for Area-based Society". The major aims of this workshop are to publicize our accomplishments, and at the same time, to bring together a number of selected experts on membrane technology from around the world to share information and knowledge about problems, current status and a future trend of membrane technology through the thorough discussion.

### SIGNIFICANCE OF "MEMBRANE"

The Japanese 3rd Science and Technology Basic Plan that has started in April 2006, advocates that we should "achieve a healthy water metabolism and sustainable use of water" in its policy. In the policy, "membrane technology" is recognized as one of the most important leading-edge technologies for water treatment that can be widely used throughout the world.

## WORKSHOP STYLE

The program of the workshop consists of counterargument, one-on-one debate and all-hand discussion. A Speaker will give a presentation for 25 minutes first. After each presentation, his/her nominated discusser will give the 10 minutes of counterargument. In the following 10 minutes, the speaker and Discusser will develop the one-on-one discussion. Finally other participants will join the discussion in the last 5 minutes. Your active participation to the discussion will be encouraged.

#### **SPEAKERS**



Say Leong Ong National University of Singapore Singapore



Katsuki Kimura Hokkaido University Japan



Roger Ben Aim **INSA** Toulouse France



Chihpin Huang National Chiao Tung University Taiwan



Satoshi Okabe Hokkaido University Japan



Mark R. Wiesner **Duke University** USA



Stefan Panglisch **I**WW Water Center Germany

# **DISCUSSERS**



Hang-Sik Shin KAIST



**Gary Amy UNESCO IHE** The Netherlands



**Duu-Jong Lee** National Taiwan University Taiwan



So-Ryong Chae Hokkaido University Japan



**Guang- Hao Chen** Hong Kong University

Seoul National University

Korea



Yoshihiko Matsui, Hokkaido University Japan



# SESSION MODERATORS



**Kazuo Yamamoto** The University of Tokyo



Shin-ichi Nakao The University of Tokyo



Yoshimasa Watanabe Hokkaido University

# **Innovation of Membrane Technology for Water and Wastewater Treatment**

### **PROGRAM**

8:30 Registration

9:00 Opening address and a brief report on the current status of membrane technology in Japan

Yoshimasa Watanabe, COE Program Leader

#### 9:40 Track for Wastewater Moderator: Kazuo Yamamoto

9:40-10:30 SPEAKER DISCUSSER

Say Leong Ong

"Performance of Pre-denitrification Submerged Membrane Bioreactor (MBR) under various Solid

**Retention Times**"

Hang-Sik Shin

"Effect of SRT on Membrane Fouling and

Performance"

10:30-11:20 SPEAKER DISCUSSER

Roger Ben Aim

"An Approach towards a Better Understanding of Fouling Phenomena in MBR"

Duu-Jong Lee

"An Alternative Approach towards a Better understanding of Fouling Phenomena in MBR"

11:20-12:10 SPEAKER DISCUSSER

Satoshi Okabe

"Membrane Biofouling in the MBR Treating Domestic Wastewater: Identification of Key Players in Membrane Biofouling"

Guang-Hao Chen

"Is Biofilm Formation The Key Player in MBR

Biofouling?"

12:10-13:30 Lunch

13:30 Track for Drinking Water I Moderator: Shin-ichi Nakao

13:30-14:20 **SPEAKER** .....

Mark Wiesner

"Nanomaterials and Membranes for Water and Wastewater Treatment"

----- DISCUSSER Yoshihiko Matsui

"Nanosized Materials in Membrane Applications"

14:20-15:10 SPEAKER DISCUSSER

Katsuki Kimura

"Mechanism involved in the Evolution of Irreversible Fouling in Microfiltration (MF) and Ultrafiltraion (UF) Membranes used for Water Treatment"

Gary Amy "TBD"

15:10-15:30 Break

15:30 Track for Drinking Water II Moderator: Yoshimasa Watanabe

15:30-16:20 SPEAKER DISCUSSER

"Recovery of Spent Filter Backwash Water Using Coagulation-Assisted Membrane Filtration"

"Discussion for Recovery of Spent Backwash Water Using

Coagulation-Assisted Membrane Filtration"

16:20-17:10 **SPEAKER** ···

Stefan Panglisch

"Low Pressure Membrane Filtration for Drinking Water Production in Germany: State of the Art and Future Developments"

**DISCUSSER** 

Chung-Hak Lee

"TBD"

17:10-17:30 Closing 18:00 Party

FEE Registration to attend the Workshop is FREE

PARTY FEE is 3,000 yen/person \*on-site: 4,000 yen

Also visit the following URL for details about "Hokkaido University International Symposium on Sustainable Development - From scientific research to practical policy recommendations -URL: http://hokudai.ac.jp/huisd/

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