

Advances in Materials and Processes for Polymeric Membrane Mediated Water Purification

22-25 February 2009

Asilomar Conference Center, Pacific Grove, CA

Co-organized by....

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SUNDAY, FEBRUARY 22

KEYNOTE ADDRESS SESSION I

Michelle Chapman, U.S Bureau of Reclamation, Discussion Leader

3:00 p.m.	Co-Organizers Overview and Objectives of the Workshop
3:15 p.m.	J. Paul Armistead, Office of Naval Research Evolving Navy Needs and Research Programs in Water Purification and Desalination
4:15 p.m.	Jay Dusenbury, TARDEC Army Water Purification Needs
5:15 p.m.	WELCOME RECEPTION
6:00 – 7:00 p.m.	DINNER

KEYNOTE ADDRESS SESSION II

Benny Freeman, University of Texas, Discussion Leader

7:30 p.m.	Bill Mickols, Dow Water Solutions The Development of Reverse Osmosis and Nanofiltration Through Modern Times
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MONDAY, FEBRUARY 23

7:30 – 9:00 a.m.	BREAKFAST
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INVITED LECTURE SESSION I

Bill Koros, Georgia Institute of Technology, Discussion Leader

9:00 a.m.	Benjamin Chu and Benjamin S. Hsiao, Department of Chemistry, Stony Brook University Low Pressure High Flux Nanofibrous Membrane Technology for Water Purification
9:45 a.m.	Tony Fane, The University of New South Wales, Sydney, Australia Membranes for the Water Cycle – Needs and Challenges
10:15 a.m.	BREAK
10:30 a.m.	Anita J. Hill, CSIRO Materials Science and Engineering, Australia Taking advantage of tailored porosity in dense polymer membranes for water purification
11:00 a.m.	Charles Linder, Zuckerberg Institute for Water Research, Ben-Gurion University of the Negev, Israel Relationship Between Material Parameters and Properties of the Selective Layer of Novel NF Membranes
11:30 a.m.	Mark A. Shannon, Dept. of Mechanical and Industrial Engineering, University of

	Illinois at Urbana-Champaign Impact of Water on Sustainability: Role of Membranes in Water Purification
12:00 – 1:00 p.m.	LUNCH

INVITED LECTURE SESSION II
Robert Allen, IBM Almaden, Discussion Leader

1:45 a.m.	Matthias Wessling, University of Twente, Dept of Science and Technology, The Netherlands Dead-End Ultrafiltration: Widely Used, Little Understood?
2:15 p.m.	Stein Erik Skilhagen, Statkraft, Osmotic Power, Oslo, Norway Osmotic Power, a New, Renewable Energy Source
3:00 p.m.	Menachem Elimelech, Environmental Engineering Program, Yale University Osmotically-Driven Membrane Processes: Challenges and Recent Developments
3:45 p.m.	BREAK
4:00 p.m.	Mike Hickner, Penn State University Ionic Grafts on Nanoporous Substrates for Controlling Surface Charge and Transport Properties
4:30 p.m.	Sankar Nair, School of Chemical & Biomolecular Engineering, Georgia Institute of Technology Hydrophobic "Front End" Membranes
5:30 p.m. ongoing	RECEPTION AND POSTER Submit poster abstracts to Lesia Linkous, ACS Polymer Division, Virginia Tech, E-mail: lesiar@vt.edu
6:00 – 7:00 p.m.	DINNER

INVITED LECTURE SESSION III
Jim McGrath, Virginia Tech, Discussion Leader

7:30 p.m.	Lloyd Robeson, Air Products (retired) Water Purification: Relevance of Technology Developed for Gas Separation Membranes
8:15 p.m.	Andrew Groth, Siemens Water Technologies Division, Australia Materials Challenges for MF/UF Water Purification and Treatment: Australian and Global Perspectives

TUESDAY, FEBRUARY 24

7:30 – 9:00 a.m.	BREAKFAST
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INVITED LECTURE SESSION IV**Don Paul, University of Texas, Discussion Leader**

9:00 a.m.	Kay Bjornen, ConocoPhillips The Increasingly Complex Realities of Water Use and Treatment in the Petroleum Industry
9:45 AM	Jack Gilron, Ben Gurion University of the Negev, Israel TBA
10:30 a.m.	BREAK
10:45 a.m.	Yoram Cohen, University of California, Los Angeles New class of RO/NF membranes using a patented surface nano-structuring approach
11:30 a.m.	Masaru Kurihara, Toray, Japan Leading Edge Technology on Commercially Available Membranes vs. Innovative Membranes in the R&D Stages for Polymeric Membrane Mediated Water Purification
12:00 – 1:00 p.m.	LUNCH

INVITED LECTURE SESSION V**Paul Armistead, ONR, Discussion Leader**

1:45 p.m.	Klaus-Viktor Peinemann, GKSS Institut für Polymerforschung, Max-Planck Institute, Hamburg, Germany Nano-engineered thin-film-composite membranes for water treatment
2:30 p.m.	Vicki Chen, University of New South Wales, Sydney, Australia Fouling in Membrane Bioreactors
3:15 p.m.	BREAK
3:30 p.m.	Régis Mercier, CNRS, University of Savoie, France Functionalized PBI as a Candidate for Desalination Membrane Applications
4:15 p.m.	Ingo Pinnau, Membrane Technology and Research, Inc. (MTR) Improved Fouling-Resistant Membranes for Water Treatment Applications
6:00 – 7:00 p.m.	DINNER

WEDNESDAY, FEBRUARY 25

7:30 – 9:00 a.m.	BREAKFAST
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INVITED LECTURE SESSION VI**Len Buckley, NRL, Discussion Leader**

9:00 a.m.	Benny Freeman, University of Texas Chlorine Resistant Desalination Membranes
9:45 a.m.	Judy Riffle, Virginia Tech

	Crosslinked Desalinization Membranes
10:30 a.m.	BREAK
10:45 a.m.	Jim McGrath, Virginia Tech Hydrophobic-hydrophilic Block Copolymer Desalinization Membranes
11:30 a.m.	<u>Sophia Belfer</u> Zuckerman Institute for Water Research, Ben-Gurion University of the Negev, Israel Novel Membranes Made by Redox Initiated Free Radical Polymerization
	Closing Remarks
12:00 – 1:00 p.m.	LUNCH

For additional workshop information, contact:

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Or visit the meeting's website:

<http://www.polyacs.org/arcmeetings/waterpur.209.shtml>