

JAMES R. FAIR PROCESS SCIENCE & TECHNOLOGY CENTER
University of Texas at Austin
PSTC Spring Meeting, April 6-7, 2021

Tuesday, April 6, 2021 Online Only via Zoom

8:00 am		Freeman Group
	Overview of Membrane Research at UT	Benny Freeman
	Novel Membranes for Natural Gas Separations	Jaesung Park
	Influence of Processing Conditions on Asymmetric Membrane Structure	Alec Bridge
	Fouling Resistance in Water Purification Membranes	Yu-Heng Cheng
	Gas Separation Properties of Novel Membranes	Julian Richardson
	Membranes for Lithium Recovery from Brine	T. J. Dilenschneider
	Fundamentals of Ion Transport in Membranes for Water Purification	Rahul Sujanani
	Modeling Ion Transport in Membranes for Water Purification	Everett Zofchak

10:50 am Break

11:00 am		Baldea Group
	Double Intensification of Ethylene Glycol Separation	Lingqing Yan
	Multi-scale Design of IL-based Carbon Capture Process	Kyeongjun Seo

12:00 pm Lunch Break

1:00 pm	Designing Membrane Materials for Gas Separations	Zachary P. Smith, MIT
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1:30 pm		Seibert Group
	SRP Update	Frank Seibert
	Co-Current Downflow Gas Film Controlled Spray Mass Transfer	Frank Seibert
	Oil Recovery from Dilute Oil-Water Mixtures via Hydrophobic Hollow Fiber Membranes	Carolyn Cooper

2:45 pm Break

3:00 pm		Rochelle Group
	Introduction to the War on Amine Oxidation	Gary Rochelle
	FEED for Piperazine with the Advanced Stripper™ on NGCC at Denver City, Texas	Fred Closmann
	Corrosion in PZAS	Ching-Ting Liu

4:30 pm Adjourn

Wednesday, April 7, 2021 Online Only via Zoom

8:00 am

Ritter Group

Brief Overview of Adsorption Process and Adsorbent Materials Research at USC	James A. Ritter
Process Scaling and Design for Large Scale CO ₂ Capture by PSA	Huan Jiang
Design and Scale-up of TVSA Cycle for CO ₂ Removal from Spacecraft Cabins Using a Structured Adsorbent	Pravin B. C. A. Amalraj
Adsorption Dynamics in Carbon Molecular Sieves and ETS-4 Adsorbents based on Kinetic Models	Sulaimon A. Adegunju
Equilibrium Theory Analysis of Equalization Steps in Pressure Swing Adsorption	Behnam Fakhari-Kisomi
Developing a 1-D Pressure Drop Correlation for Structured Adsorbent Columns with Triangular Channels	Ryan T. Sanders

9:45 am Break

10:00 am

Eldridge Group

CFD Modeling of the Lung	Bruce Eldridge
Predicting the Liquid Flow Angle and Mass Transfer in Structured Packings with CFD	Luke Macfarlan

11:00 am Adjourn