

FiltXPO™ 2020

Tuesday, February 25, 2020

Filter Media Training Course

9:00 AM - 6:00 PM

Wednesday, February 26, 2020

Filter Media Training Course

9:00 AM - 3:00 PM

Wednesday, February 26, 2020

Biopharmaceutical I

9:00 AM - 11:00 AM

Ruben Carbonell, Ph.D.
North Carolina State University

Chair

Michael Phillips, Ph.D.
MilliporeSigma

Next Generation Technologies to Support Advanced Biomanufacturing

Ales Strancar
BIA Separations D.O.O.

Progress and Future Potential of Monolithic Chromatographic Resins in Bioseparations

Francis Porbeni, Ph.D.
3M

Materials Development for Next Generation Biopharmaceutical Process Filtration

Break

11:00 AM - 11:45 AM

Biopharmaceutical II

11:45 AM - 12:45 PM

Mandar Dixit
Sartorius Stedim Biotech

*Innovative Filtration Technologies to
Address Evolving Challenges*

Ruben Carbonell, Ph.D.
North Carolina State University

*High Productivity Nonwoven Membrane
Adsorbers for Biological Product Capture*

Lunch

12:45 PM - 2:15 PM

Membrane Technologies I

2:15 PM - 4:15 PM

Behnam Pourdeyhimi, Ph.D.
North Carolina State University
The Nonwovens Institute

Chair

Aflal Rahmathullah, Ph.D.
Donaldson Company, Inc.

*Contamination Control Using Membrane
Technologies: An Understanding of
Market Needs and Solutions*

Jang-Hoon Ha, Ph.D.
Korea Institute of Materials Science

*Preparations and Characterizations of
Low-Cost Porous Ceramic Membranes for
Potential Microfiltration Applications*

Brendan Smith, Ph.D.
MIT

*Antifouling Silicon Nanofiltration
Membranes for Molecular-Scale
Separations in Harsh Environments*

Air/Gas Filtration I

2:15 PM - 4:15 PM

Paul Marold
Lydall Performance Materials, Inc.

Chair

Michael O'Laughlin
Lydall Performance Materials, Inc.

*Gas Phase and Particulate Filtration:
Delivering Advanced Solutions with
Performance Materials*

Xin Feng
China Academy of
Building Research

*A Novel Long-life Air Cleaning Unit and
Its Continuous Operation Performance
Analysis*

R. Vijayakumar, Ph.D.
Aerfil, LLC

*Testing and Estimating Efficiencies of
Ventilation Filters at PM_{2.5} and 10*

Break

4:15 PM - 5:00 PM

Membrane Technologies II

5:00 PM - 6:00 PM

Fred Lybrand
Hollingsworth & Vose Company

*Rules, Regulations, Requirements and
Standards for Water Filtration Media*

Behnam Pourdeyhimi, Ph.D.
North Carolina State University
The Nonwovens Institute

*Pathways to a Mechanical HEPA Filter
Medium*

Air/Gas Filtration II

5:00 PM – 6:00 PM

Carlos Lora
AAF International

*Airborne Pathogen Protection in
Livestock Operations*

Neeraj Shukla
Welspun India Limited

*An Innovative Filter Media for Hot Gas
Filtration Application*

Thursday, February 27, 2020

Nanofiber Filter Media

9:00 AM - 11:00 AM

Alexander L. Yarin, Ph.D.
University Of Illinois

Chair

Eliton Medeiros, Ph.D.
Federal University of Paraíba

*Production of Micro and Nanofibers by
Solution Blow Spinning: Current Status*

Alexander L. Yarin, Ph.D.
University Of Illinois

*Electrostatic Transparent Air Filter
Membranes Comprising Metallized
Microfibers for Particulate Removal*

Stanislav Petrik
Technical University of Liberec

*Nanofiber Membranes for Water
Treatment*

Break

11:00 AM - 11:45 AM

Nanofiber Filter Media

11:45 AM - 12:45 PM

William Haberkamp
Cummins Filtration

*Challenges and Advantages using
Polymeric Nanofiber in Liquid
Filtration with Increasing Pressure*

Andrew McDowell
NXTNANO

*Current and Emerging Nanofiber
Markets*

Lunch

12:45 PM - 2:15 PM

Water Filtration I

2:15 PM - 4:15 PM

Hervé Buisson
Veolia Water

Chair

Eric Hoek, Ph.D.
University of California - UCLA

*Engineering the Next-Generation of
Membrane Materials Needed to
Achieve Global Water Sustainability
Goals*

Peter Waldron
Toray Membrane USA, Inc

*Current and Future Membrane
Technologies to Solve Modern Water
Worries*

Jayraj Joshi, Ph.D.
Purafil Filtration Group

Targeted Odorous Gas Removal

Filter Media Modeling I

2:15 PM – 4:15 PM

Hooman V. Tafreshi, Ph.D.
Virginia Commonwealth University

Chair

Hooman V. Tafreshi, Ph.D.
Virginia Commonwealth University

Understanding Airborne Dust and Droplet Filtration via Multiscale Modeling and Experiment

Ben Mullins, Ph.D.
Curtin University

Microscale Simulation of Gas-Liquid and Liquid-Liquid Filtration

Christopher Cox, Ph.D.
University of Tennessee
at Chattanooga

Modeling to Design Filtration Processes with Application to Crewed Missions in Deep Space

Break

4:15 PM - 5:00 PM

Water Filtration II

5:00 PM – 6:00 PM

Hervé Buisson
Veolia Water

Modeling to Design Filtration Processes with Application to Crewed Missions in Deep Space

Filter Media Modeling II

5:00 PM – 6:00 PM

Andreas Wiegmann
Math2Market GmbH

Machine Learning-based Segmentation and Identification of Individual Fibers and Binders in μ CT Images of Fibrous Media

Dietmar Hietel, Ph.D.
Fraunhofer-Institute For
Industrial Mathematics (ITWM)

Physical Modeling and Simulation of Filament Generation in Meltblown Processes for Fine Fiber Nonwovens

Chris Hogan, Ph.D.
University of Minnesota

Modeling Heterogeneous Filter Structure and Pressure Drop Evolution

Friday, February 28, 2020

Separation & Manufacturing I

9:00 AM - 11:00 AM

Taylor Sulmonetti, Ph.D.
Exponent

Chair

Shagufta Patel, Ph.D.
Parker Hannifin Company

The Forces of Nature: Creating Challenges and Opportunities in Filtration and Separation for the Oil & Gas Industry

Patrick Laine
MYCELX Technologies Corporation

Ecological Impacts of Perfluoroalkylated Substances (PFAS) and Possible Remediation Solutions

Hal Alper
MYCELX Technologies Corporation

The Problem with Inventors (They Are Not Smart) - Case Study in the Development and Use of PFAS and Other Fluorinated Hydrocarbons and the Resulting Ecological Mayhem

Break

11:00 AM - 11:45 AM

Separation & Manufacturing II

11:45 AM - 12:45 PM

Lothar Kaierle
American Truetzschler, Inc.

*Filtration and Filter Media Production
in a Changing World*

Ray Piascik
Beckmann Converting, Inc.
& Sandel International

*Textile Composites: Important
Considerations for Performance and
Manufacturability*