



 **Rise[®]** | RESEARCH, INNOVATION & SCIENCE
FOR ENGINEERED FABRICS CONFERENCE
& n3m
NANOFIBERS FOR THE THIRD MILLENNIUM

CONFERENCE PROGRAM

February 9-12, 2015

Hilton Miami Downtown
Miami, Florida USA



**Association of the
Nonwoven Fabrics Industry**
ADVANCING NONWOVENS WORLDWIDE[®]

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Monday, February 9

Welcome Dinner Cruise on the South Beach Lady

Boarding Time: 5:00 p.m.

Ship will hoist anchor promptly at 5:30 p.m.

South Beach Lady departs from the rear of Bayside Marketplace approximately 1 mile from the conference hotel. Please arrange your own transportation.

Tuesday, February 10

WELCOME

8:45 a.m. – 9:00 a.m.

Dave Rousse, President, INDA

AN EYE ON THE HORIZON

9:00 a.m. – 12:00 p.m.

Room: Symphony I/II

Moderator: Jim Loftus, Ph.D., Research Associate, Owens Corning

Textile Integration of Electronic Functionality: Market Forecasts for the Next Decade

Harry Zervos, Ph.D., Principal Analyst, IDTechEx

9:00 a.m. – 9:30 a.m.

Soft Active Materials for Soft and Wearable Robotics

Rebecca Kramer, Ph.D., Assistant Professor,
School of Mechanical Engineering,
Purdue University

9:30 a.m. – 10:00 a.m.

Intellectual Property Rights and Innovation in China: What Western Companies Need to Know

Jeffrey Lindsay (林哲甫), Head of Intellectual
Property (知识产权总监), Asia Pulp and Paper

10:00 a.m. – 10:30 a.m.

Coffee & Networking

10:30 a.m. – 11:00 a.m.

Room: Concerto C/D

Bioadvantaged Thermoplastic Elastomers at Iowa State University

Eric Cochran, Ph.D., Associate Professor, Chemical
& Biological Engineering, Iowa State University

11:00 a.m. – 11:30 a.m.

The Other Dry Finishing

Gary S. Selwyn, Ph.D., President,
Green Theme Technologies LLC

11:30 a.m. – 12:00 p.m.



Speed Networking Luncheon

12:00 p.m. – 2:00 p.m.

Room: Concerto B

Separate Fee Required. See INDA Registration desk.

HYGIENE

2:00 p.m. – 4:00 p.m.

Room: Symphony I/II

Moderator: Patricia Brown, Technical Service Representative, BASF

Recent Developments in Measuring Antimicrobial and Anti-odor Properties on Treated Nonwoven Textiles

Robert A. Monticello, Ph.D., Senior Technical Advisor, International Antimicrobial Council

2:00 p.m. – 2:30 p.m.

Golden Isles CO™ Fluff Pulp: Cellulose with a New Purpose

Arthur J. Nonni, Ph.D., Senior Director Process and Product Technology, GP Cellulose, LLC, Georgia-Pacific

2:30 p.m. – 3:00 p.m.

Why the Biodegradation of Suitably Treated Plastics in Landfills Makes Sense

Charles Lancelot, Ph.D., President, XCaliber Associates, Inc.

3:00 p.m. – 3:30 p.m.

The Use of Renewable Feedstock in Superabsorbent Polymer Manufacturing

Jim Robinson, Technical Services Manager, BASF Hygiene Products

3:30 p.m. – 4:00 p.m.

RISE® DURABLE PRODUCT AWARD PRESENTATIONS



4:00 p.m. – 5:00 p.m.

Room: Symphony I/II

Moderator: Steve Ogle, Director of Technical Affairs and Education, INDA

The RISE® Durable Product Award is to recognize and reward innovation in new durable products that utilize nonwoven fabrics in a way that expands the usage of nonwovens. Presented annually at the RISE® Conference, eligible durable product categories include, but are not limited to: geotextiles, automotive applications, long-life, filters, construction, furniture, and durable household products. Join the finalists as they present their innovations to RISE® & N3M attendees.

AWARD FINALISTS:

4:00 p.m. – 4:15 p.m.

CT Melt Blown Cartridge Filters

Conversion Technologies International

4:15 p.m. – 4:30 p.m.

Fitesa Biobased Spunbond Nonwoven Fabric
FITESA

4:30 p.m. – 4:45 p.m.

TECHNOLOGY Elliptical Needle Loom ELLITTICA
Louis P. Batson Company

4:45 p.m. – 5:00 p.m.

Highly Breathable AAMI 4 Laminate
Polymer Group, Inc. (PGI)

The winner will be announced Wednesday afternoon.

Tabletop Event & Reception

5:00 p.m. – 6:30 p.m.

Room: Symphony III/IV

Wednesday, February 11

Networking Continental Breakfast

7:30 a.m. – 8:00 a.m.

Room: Concerto C/D

Please join us for breakfast. Croissants, muffins, and fluffy biscuits with an assortment of breakfast meats and cheeses will be available to all attendees.

ADVANCED MATERIALS & PROCESSES

8:00 a.m. – 12:00 p.m.

Room: Symphony I/II

Moderator: Jeff Willis, Principal, Nonwovens by Design

Low Cost Production of Nanocellulose for Reinforcement and Enhanced Barrier Properties in Nonwovens Using American Process Inc.'s AVAP® Biorefinery Technology

Jack Miller, Managing Consultant, Global Nanocellulose Sales, American Process, Inc.

8:00 a.m. – 8:30 a.m.

Advances in Airlaid Technology

Greg Moran, Director of Business Development, and Michael Flaherty, President & Owner, Rando Machine Corporation

8:30 a.m. – 9:00 a.m.

DETEX® Technology – A New Way of Avoiding Trouble

Chris Plotz, Product Development Manager, ITW Pro Brands

9:00 a.m. – 9:30 a.m.

Needled R5 per Inch Fiberglass

Glenn Haley, Ph.D., Director of Technology Development, and Steven Thaxton, Senior Engineering Lead, Owens Corning Science and Technology

9:30 a.m. – 10:00 a.m.

Nonwoven Materials with Extraordinary Functions: From Tough Hydrogels to Graphene Supercapacitors

Xuanhe Zhao, Ph.D., Assistant Professor of Mechanical Engineering and d'Arbeloff Career Development Chair, MIT

10:00 a.m. – 10:30 a.m.

Cost Efficient Carbon Composite Nano Spheres and Graphene Technology for Water Purification and Desalination

Arsheen Allam, CEO, CNanoz, Inc.

10:30 a.m. – 11:00 a.m.

Functional Applications of Electrospun Nanofibers in Medical Settings

Elizabeth Lobo, Ph.D., Professor of Materials

Science & Engineering, North Carolina State University & Professor of Biomedical Engineering at North Carolina State University and University of North Carolina-Chapel Hill

11:00 a.m. – 11:30 a.m.

The Design, Use, and Flaws of Personal Protective Equipment

Jason Villano, D.V.M., M.S., MSc, DACLAM, Clinical Assistant Professor, University of Michigan

11:30 a.m. – 12:00 p.m.

Lunch *(is not provided)*

12:00 p.m. – 2:00 p.m.

SPUNMELT ADVANCEMENTS

2:00 p.m. – 4:30 p.m.

Room: Symphony I/II

Moderator: Jeffrey Bassett, Managing Director, Fi-Tech, Inc.

The Future of Spunlaid and Spunmelt Fabrics Based on Reicofil Technology

Hans Georg Geus, Ph.D., Technical Director, Reifenhäuser REICOFIL GmbH & Co. KG

2:00 p.m. – 2:30 p.m.

Advanced Filter Media Structures Using Biax Spunblown Fiber Technology

Mohammad Hassan, Ph.D., Nonwoven and Polymer Scientist, Biax-Fiberfilm Corporation

2:30 p.m. – 3:00 p.m.

Coffee & Networking

3:00 p.m. – 3:30 p.m.

Room: Concerto C/D

Retrofitting: Breathing New Life into Old Machines

Timothy Robson, Business Development Manager, Hills, Inc.

3:30 p.m. – 4:00 p.m.

Tech Scouting in the Rolled Goods Industry

Fred Lybrand, President, Americas, ELMARCO, Inc.

4:00 p.m. – 4:30 p.m.

RISE® 2015 DURABLE PRODUCT AWARD ANNOUNCEMENT



4:30 p.m. – 4:45 p.m.

Room: Symphony I/II

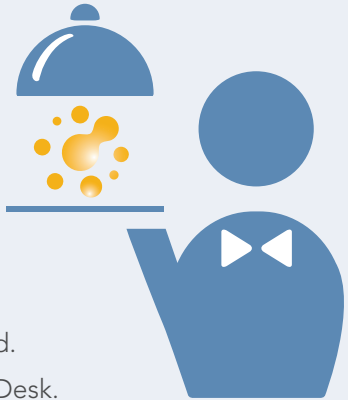
Emcee: Steve Ogle, Director of Technical Affairs and Education, INDA

Tabletop Event & Reception

5:00 p.m. – 6:30 p.m.

Room: Symphony III/IV

DINE WITH INDUSTRY THOUGHT LEADERS



7:30 p.m.

Separate Fee

Space is limited.

Pre-registration required.

See INDA Registration Desk.

A major reason businesses send their employees to INDA conferences and events is to market their products and services. Dining with industry thought leaders provides an opportunity for RISE® & N3M attendees to meet with decision makers from select areas of the value chain to learn about what is trending, fading, and on the horizon. Learn what these decision makers are currently watching, buying, or simply interested in learning more about. It's an excellent marketing and direct sales event for business owners, sales, marketing, and business development professionals.

How Dine with Industry Thought Leaders Works

Individuals with decision making power will host a table beginning at 7:30 p.m. at various restaurants across Miami. The decision makers are from major market segments and will provide thought-provoking, stimulating conversation in an informal atmosphere.

Space is limited. The cost of dinner is not included in the registration fee. Pre-registration required.

Please inquire at the INDA Registration Desk regarding availability.

Jeffrey Lindsay, Asia Pulp and Paper

Fred Lybrand, ELMARCO, Inc.

Behnam Pourdeyhimi, Ph.D.,
The Nonwovens Institute

Dave Rousse, INDA

Wolfgang Sigmund, Ph.D., University of Florida

Harry Zervos, Ph.D., IDTechEx

Thursday, February 12



NANOFIBERS FOR THE THIRD MILLENNIUM

WELCOME

8:15 a.m. – 8:30 a.m.

Fred Lybrand, President, Americas, ELMARCO, Inc.
and N3M Conference Organizer

Room: Symphony I/II

GENERAL SESSION

8:30 a.m. – 10:00 a.m.

Room: Symphony I/II

Moderator: Fred Lybrand, President, Americas,
ELMARCO, Inc.

Modeling Filtration Performance:

Role of Structure

Behnam Pourdeyhimi, Ph.D., Associate Dean
for Industry Research and Extension, William A.
Klopman Distinguished Professor, Executive
Director, The Nonwovens Institute

8:30 a.m. – 9:00 a.m.

The Future of Electrospun Nonwoven Materials as Hybrid and Ceramic Fibers

Wolfgang Sigmund, Ph.D., Professor, Material
Science & Engineering, University of Florida

9:00 a.m. – 9:30 a.m.

Design and Development of Filter Media to Control Airborne Sub-micron “Nano” Particles

Jay Forcucci, Senior Director, Product
Management, Polymer Group Inc. (PGI)

9:30 a.m. – 10:00 a.m.

Coffee & Networking

10:00 a.m. – 10:30 a.m.

Room: Concerto C/D

CONCURRENT SESSION I: MEDICAL

10:30 a.m. – 12:30 p.m.

Room: Concerto A

Moderator: Jean Brady, Group Leader, Dow Chemical

Electrospun Nanofiber Filters for Critical Removal of Bacteria and Viruses

Gabriel Tkacik, Ph.D., Director, Filtration R&D,
EMD Millipore Corporation

10:30 a.m. – 11:00 a.m.

Novel Superhydrophilic P(LLA-CL)/Fibrinogen Electrospun Scaffold for Tissue Regeneration

Hongbing He, Ph.D., Founder & CEO,
Shanghai P & P Biotech Co., Ltd.

11:00 a.m. – 11:30 a.m.

Combination of Nanofibres and Microfibres in 3D Scaffold for Bone or Cartilage Regeneration

Jiří Chvojka, Ph.D., Assistant Professor, Technical
University of Liberec

11:30 a.m. – 12:00 p.m.

Biodegradable and Biocompatible Soy Protein/Petroleum-Derived Polymer Electrospun Nanofiber Patches for Plant Protection

Alexander L. Yarin, Ph.D., Distinguished
Professor, University of Illinois at Chicago

12:00 p.m. – 12:30 p.m.

CONCURRENT SESSION II: TECHNOLOGY & MATERIALS I

10:30 a.m. – 12:30 p.m.

Room: Concerto B

Moderator: Jan O'Regan, Director, Strategic
Initiatives, Cotton Incorporated

Centrifugal Spinning of Nanofibers – Stepping Forward in Productivity

Christian Thum, Project Engineer, Dienes
Apparatebau GmbH

10:30 a.m. – 11:00 a.m.

Mass Production of Nanofibers Using Altering Current Electrospinning

David Lukas, Ph.D., Chair of the Department
of Nonwovens, Faculty of Textile Engineering,
Technical University of Liberec

11:00 a.m. – 11:30 a.m.

Nanofibers from the Meltblowing Process: Recent Developments, Future Opportunities, and Challenges

Gajanan S. Bhat, Ph.D., Professor – Materials
Science and Engineering, Director – UT
Nonwovens Research Laboratory,
The University of Tennessee

11:30 a.m. – 12:00 p.m.

New High-performance Barrier Membrane for Nonwoven Applications

Fred Humiston, President,
Bluetek Membrane Corporation

12:00 p.m. – 12:30 p.m.

Lunch *(is not provided)*

12:30 p.m. – 2:00 p.m.

CONCURRENT SESSION I: FILTRATION

2:00 p.m. – 4:00 p.m.

Room: Concerto A

Moderator: Morris Collins, Director of Member Services, INDA

Cellulose Acetate Micro-and Nanofibers as Particle Filter Media

Saptarshi Chattopadhyay, Ph.D., Postdoctoral Associate, Rutledge Research Group, MIT

2:00 p.m. – 2:30 p.m.

Fine Fibers for Filtration:

A Donaldson Perspective

Suresh Shenoy, Ph.D., Senior Principal Scientist, Corporate Technology, Donaldson Company

2:30 p.m. – 3:00 p.m.

Anionic Nanofiber Filter for Trace Metal Removal in Ultrapure Water

Takahiro Kawakatsu, Dr. Eng., Senior Researcher, Kurita Water Industries Ltd.

3:00 p.m. – 3:30 p.m.

Nanofiber Filter Media for Residential and Commercial HVAC

Thad Ptak, Ph.D., VP of Research & Development, Columbus Industries Inc.

3:30 p.m. – 4:00 p.m.

CONCURRENT SESSION II: TECHNOLOGY & MATERIALS II

2:00 p.m. – 4:30 p.m.

Room: Concerto B

Moderator: Jim Loftus, Ph.D., Research Associate, Owens Corning

Bicomponent Blend-electrospun Separator for Lithium Ion Battery

Yanbo Liu, Ph.D., Senior Engineer/Associate Professor, Tianjin Polytechnic University (TJPU)

2:00 p.m. – 2:30 p.m.

Industrial Scale Nanofiber from Molten Plastics

Leonard Torobin, Chief Executive Officer, Nanofiber Technology, Inc.

2:30 p.m. – 3:00 p.m.

Technology for Production of Meltblown Microfiber Layers with High Amount of Nanofibers Produced by Electrospinning Process

David Lukas, Ph.D., Chair of the Department, of Nonwovens, Faculty of Textile Engineering, Technical University of Liberec

3:00 p.m. – 3:30 p.m.

Unconfined, Melt Edge Electrospinning from Multiple, Spontaneous, Self-Organized Polymer Jets

Russell E. Gorga, Ph.D., Associate Professor, North Carolina State University, Fiber and Polymer Science Program

3:30 p.m. – 4:00 p.m.

Materials Characterization: Finding the Right Tool for Fast Fiber Analysis

Nicholas Rider, Application Engineer, Nanoscience Instruments, Inc.

4:00 p.m. – 4:30 p.m.

RISE2015 COMMITTEE

Many thanks to the RISE® Committee for their commitment and leadership in developing the RISE® program. These outstanding individuals gave their time, expertise, and insights to make RISE2015 a success.

Jim Loftus, Ph.D., Owens Corning-Chairman

Jeffrey Bassett, Fi-Tech, Inc.

Haskell Beckham, Ph.D., Exponent

Jean Brady, Ph.D., Dow Chemical

Patricia Brown, BASF

Doug Brown, Biax-Fiberfilm Corporation

Krister Erlandsson, PGI

Bill Ferry, Ph.D., ExxonMobil Chemical Company

Tom Kaiser, Domtar Personal Care

Jan O'Regan, Cotton Incorporated

Jeff Willis, Nonwovens by Design

Program subject to change. The opinions expressed at RISE2015 & N3M are those of the speakers and not necessarily that of INDIA or its Board of Directors.

Tabletop Exhibitors

Biax-Fiberfilm (Member 1997)

N1001 Tower View Drive
Greenville, WI 54942
UNITED STATES
P: 920 757 9000 F: 920 757 9082
Doug Brown
dbrown@biax-fiberfilm.com
biax-fiberfilm.com

Celanese (Member 1973)

222 W. Las Colinas Boulevard
Irving, TX 75039
UNITED STATES
P: 877 832 7782
Dan Grobe
emulsionstechservice@celanese.com
celanese.com/emulsion-polymers

Conversion Technologies International* (Member 2000)

P.O. Box 707
West Unity, OH 43570
UNITED STATES
P: 419 924 5566 F: 419 924 5619
Eric Rowley
werowley@conversiontechnologies.com
conversiontechnologies.com

Cotton Incorporated (Member 1987)

6399 Weston Parkway
Cary, NC 27513
UNITED STATES
P: 919 678 2220 F: 919 678 2231
Jan O'Regan
joregan@cottoninc.com
cottoninc.com

ELMARCO, Inc. (Member 2008)

1101 Aviation Parkway
Morrisville, NC 27560
UNITED STATES
P: 919 334 6495 F: 919 651 0246
Fred Lybrand
fred.lybrand@elmarco.com
elmarco.com

Fi-Tech, Inc. (Member 1987)

501 Research Road
Richmond, VA 23236-3090
UNITED STATES
P: 804 794 9615 F: 804 794 9514
Jeffrey Bassett
jbassett@fi-tech.com
fi-tech.com

Fitesa*

840 S.E. Main Street
Simpsonville, SC 29681
UNITED STATES
P: 864 967 5600 F: 864 967 5918
Steve Chester
schester@fitesa.com
fitesa.com

Freudenberg Performance Materials (Member 1982)

P.O. Box 15910
Durham, NC 27704
UNITED STATES
P: 919 620 3900 F: 919 620 3909
Russ Johnson
russ.johnson@freudenberg-nw.com
freudenberg-nw.com

IPS Testing (Member 2012)

3211 E. Capital Drive
Appleton, WI 54911
UNITED STATES
P: 920 749 3040 F: 920 749 3046
Chris Reitmeyer
creitmeyer@ipstesting.com
ipstesting.com

Louis P. Batson Company* (Member 2006)

P.O. Box 3978
Greenville, SC 29608
UNITED STATES
P: 864 242 5262 F: 864 271 4535
Charles Little, Jr.
charleslittle@lpbatson.com
lpbatson.com

NatureWorks LLC (Member 2005)

15305 Minnetonka Boulevard
Minnetonka, MN 55345
UNITED STATES
P: 952 562 3400 F: 952 562 3461
Robert Green
robert_green1@natureworkslc.com
natureworkslc.com

Nonwovens Industry Magazine

70 Hilltop Road
3rd Floor
Ramsey, NJ 07446
UNITED STATES
P: 201 825 2552 F: 201 825 0553
Karen McIntyre
kmcintyre@rodmanmedia.com
nonwovens-industry.com

The Nonwovens Institute (Member 1970)

2401 Research Drive,
Campus Box 8301
Raleigh, NC 27695
UNITED STATES

P: 919 515 6551

Behnam Pourdeyhimi

bpourdey@ncsu.edu

thenonwovensinstitute.com

Polymer Group, Inc.* (Member 1973)

111 Excellence Lane
Mooresville, NC, 28115
UNITED STATES

P: 704 660 6296

Kevin Jin/Krister Erlandsson

jink@pginw.com

erlandssonK@pginw.com

polymergroupinc.com

Polytex Inc.

820 East 140th Street
Bronx, NY 10454
UNITED STATES

P: 718 402 2000

Steven J. Dalbey

steven.dalbey@polytexink.com

polytexus.com

* RISE® Durable Product Award Finalist





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