

Techtextil North America Symposium 2010

May 18 – 20, 2010

Techtextil North America Symposium continues to be the industry's leader presenting the best education forum for high-level technical textiles. Renowned international specialists and leading industry consultants cover the latest technology and market trends in a broad range of topics and a variety of formats. The symposium draws attendance from the highest-level industry professionals eager to learn what the experts have to say.

Registration Fees: (Free Expo Hall Pass included with Symposium Pass)

	Before May 14, 2010	After May 14, 2010
Exhibit Hall Only Pass:	Pre-Registration: FREE	Onsite: \$50.00
3–Day Symposium:	Pre-Registration: \$850.00	Onsite: \$995.00
1–Day Symposium: (May 18 or 19)	Pre-Registration: \$425.00	Onsite: \$550.00
1/2–Day Symposium: May 18, 19 or 20 Morning May 18, 19 or 20 Afternoon	Pre-Registration: \$300.00	Onsite: \$400.00

***Please note that the 2010 Symposium is still in development, so keep checking back for regular updates.*

**** For Academia, Student, Nonprofit or Government agencies, special rates are available. Please contact us at 770.984.8016 x411 for full details.*

Tuesday, May 18, 2010

9:00 a.m. - 11:30 a.m.

TT01: General Session



*Session Chair: William C. Smith, Techtexsil North America Symposium
Director, Industrial Textile Associates, Greer, SC, USA*

The opening session for the Techtexsil North America Symposium is a general session, the only one of the morning, and will feature our keynote speaker, along with a panel of industry participants to review the "industry as a whole", the economy, trade, the state of industry and opportunities to expand or enter the technical textiles arena.

► Keynote Address: Textile Trade Trends and Technical Textiles



*Kim Glas, Deputy Assistant Secretary of Commerce for Textiles and Apparel,
USDOC, Washington, D.C., USA*

Ms. Glas will address the range of trade issues affecting the technical textiles industry, and can include some information on the Department's Sustainable Manufacturing Initiative.

► Welcome and Industry Overview Worldwide

Michael Jänecke, Director Techtexsil, Messe Frankfurt GmbH, Frankfurt, Germany

The Director of Techtexsil shows worldwide gives us an international perspective on the technical textiles industry from his unique vantage point.

► An Update on the Status of U.S. Manufacturing Sector, and Implications for Technical Textiles

Tom Murphy, Executive Vice President, RSM McGladrey, Inc., Minneapolis, MN, USA

► US Textiles Outlook and the Importance of Technical Textiles

Karl Spilhaus, President, National Textile Association, Boston, MA, USA

► The REAL State of the Industry 2010 - What have we learned?

William C. Smith, Techtexsil North America Symposium Director, Industrial Textile Associates, Greer, SC, USA

The economy is in a difficult position. How is the technical textiles industry coping? What markets offer opportunities?

1:30 p.m. - 4:00 p.m.

TT02: Technical Textile Research



Session Chair: Dr. Martin Jacobs, Executive Director, National Textile Center, Spring House, PA, USA

The National Textile Center again participates with Techtexil North America in presenting the latest, most relevant work being done by the National Textile Center Universities. Always one of our most popular sessions highlighting research in our industry that will drive developments to improve materials and make possible new products. The final selection of topics and presenters will be determined by the National Textile Center at a later date based on status of the projects and relevance of the work, but it is anticipated that research currently being done in the fields of biomedical textiles, energy, biohazards, environmental, and textile manufacturing (high-tech process control) will be presented. An added feature this year will be a number of poster sessions highlighting the work of students in the field of technical textiles, whether or not they are part of the National Textile Center.

► **Technology Transfer at the National Textile Center**

Dr. Martin Jacobs, Executive Director, National Textile Center, Spring House, PA, USA

► **Molecularly Imprinted Fibers with Recognition Capability**

Bogdan Zdyrko, Ph.D., Research Assistant Professor, Clemson University, Clemson, SC, USA

► **Cellulose/Soy Protein Based "Green" Composites**

Dr. Anil Netravali, Cornell University, Ithaca, NY, USA

► **Engineered Reinforced Structures from Short Fibers**

Yong K. Kim, Ph.D., Chancellor Professor, University of Massachusetts, Dartmouth, MA, USA

► **Electrospun Composite Nanofibers for Lithium-Ion Batteries**

Xiangwu Zhang, Ph.D., Assistant Professor, North Carolina State University, Raleigh, NC, USA

► **Logistics of Closed Loop Textile Recycling**

Jeffrey A. Joines, Ph.D., Assistant Professor, North Carolina State University, Raleigh, NC, USA

► **Challenges in Advanced Nanofiber Wound Dressings**

Marian G. McCord, Ph.D., Associate Professor, Textile Engineering, Biomedical Engineering, North Carolina State University, Raleigh, NC, USA

TT03: Natural Fibers and Sustainable Materials in Technical Textiles



Session Chair: Edward Gregor, President, Edward C. Gregor Associates, LLC, Charlotte, NC, USA

Use of sustainable materials in Technical Textiles is becoming an important issue in our industry. While synthetic fibers dominate, natural fibers, such as flax, cotton, and kenaf, among others, are still widely used and are 'making a comeback' in many areas. Others, like PLA fibers, though, man-made materials, are also sustainable. Important differences between "sustainable" and "green" are noted. Natural and sustainable fibers have an important role in technical textiles. Included will be unique applications, including those in composites.

► Sustainability...Shades of Green: An Introduction

Edward Gregor, President, Edward C. Gregor Associates, LLC, Charlotte, NC, USA

There are many definitions and opinions of what a biopolymer is and what constitutes sustainability. The moderator of the session will briefly define and set the stage for the session, including the most common accepted definitions of biopolymers and sustainability.

► The Advantages of Flax and Natural Fibers in Composites

Stuart Smith, Business Unit Manager, Norafin GmbH, Allschwil, Switzerland

► Sustainable Alternatives to PVC for Contract and Coated Fabrics

Edward Gregor, President, Edward C. Gregor Associates, LLC, Charlotte, NC, USA

► Bio-Resorbable Implants for 21st Century Medicine; Opportunities and Challenges

Robert F. Valentini, MD, PhD, President, Concordia Medical, Warwick, RI, USA

► Greener Technical Textiles – With Zero-Emission Thermoset Technology

Gero Nordmann, Market Development Manager, BASF Corp., Charlotte, NC, USA

TT04: High Performance Narrow Fabrics



Session Chair: Louis Franconi, Vice President, Bally Ribbon Mills, Bally, PA, USA

We often think of narrow fabrics as straps and tie-downs, but there is more to it. These materials (defined as fabrics, woven, knit, or braided, of 12 inches or less) make an important contribution in many areas such as FR materials for fire service and other areas, for medical components, for use in aerospace, safety systems, and the like. Some topics in development: three dimensional woven structures, safety & fall protection - narrow fabrics to meet the new e-6 specification, and narrow fabrics in medical devices.

▶ Three Dimensional Woven Fabrics - Quad Axial Isotropic Woven Narrow Fabric Structures

Louis Franconi, Vice President, Bally Ribbon Mills, Bally, PA, USA

▶ Safety/Fall Protection - Narrow Fabric to meet the new E-6 Specification

Peter Johnson, Safety Direct Ltd., Sherwood Park, Alberta, Canada

▶ Narrow Fabrics used in Medical Device Development

Robert Torgerson, Senior Development Engineer, Direct Flow Medical, Inc., Santa Rosa, CA, USA

▶ Liquid Crystal Fibers in Narrow Fabric

Forrest Sloan, Ph.D., International Marketing Manager, Kuraray America, Fort Mill, SC, USA

Wednesday, May 19, 2010

8:30 a.m. - 11:00 a.m.

TT05: Military – Developments to Impact the Industry



Session Chair: Eugene Wilusz, Ph.D., Senior NBC Scientist, Warfighter Science, Technology and Applied Research Directorate, Natick Soldier RD&E Center, Natick, MA, USA

Always the most popular session at the Techtexil North America Symposium. For 2010, we include a session on doing business with the government with a speaker from DSPC. Other subjects under development include a variety of subjects: ballistics, chemical, FR, etc. A special talk will focus on customization of nonwoven military uniforms – is this the future?

▶ **Doing Business With the Defense Department**

COL Kurt D. Wilson, Director Clothing and Textiles Directorate, Defense Supply Center, Philadelphia, PA, USA

▶ **Mass Customization Of Nonwoven Military Uniforms**

Dr. Hoon Joo Lee, Assistant Professor NCSU, Raleigh, NC, USA

▶ **Fibrous Armor Developments**

James N. Singletary, Research Associate, DuPont Protection Technologies, Richmond, VA, USA

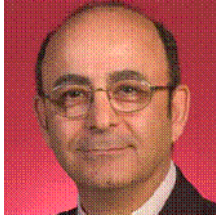
▶ **Development of Nonwoven Fabrics for Military Applications**

Stephen P. Szczesuil, Textile Technologist, US Army Natick RD&E Center, Natick, MA, USA

▶ **Nanofiber Media for Protection against Hazardous Aerosols**

Dr. Howard Walls, RTI International, Research Triangle Park, NC, USA

TT06: Filtration - Practical Opportunities in Nonwovens



Session Chair: Dr. Behnam Pourdeyhimi, Distinguished Professor, Executive Director of Nonwovens Cooperative Research Center, The Nonwovens Institute, North Carolina State University, Raleigh, NC, USA
Developments and opportunities for nonwovens in a broad range of technical filtration applications with a focus on the "hot topics" of *clean air, clean water and safe blood*. A look at some of the work of the Nonwoven Institute in these areas as well as commercial introductions.

► The Affects Of Increased Surface Area Media On Air Filter Performance

Dave Healey, Director, Synthetic Technology, Hollingsworth & Vose Company, East Walpole, MA, USA

► Super High Surface Area Fibers

Carol Clemens, President, Allasso Industries Inc., Raleigh, NC, USA

► Measured Breathability In A Composite

Mike Budai, Coating and Laminating Manager, Dynatec, Inc., Hendersonville, TN, USA

► Durable Elastomeric Microfiber Nonwovens

Nagendra Anantharamaiah, The Nonwovens Institute, North Carolina State University, Raleigh, NC, USA

► Aerosol Filtration Properties of Electrospun Nylon-6 Nanofiber Webs

Bong-Yeol Yeom, The Nonwovens Institute, North Carolina State University, Raleigh, NC, USA

► Functional Fiber Coatings Based On Adsorption Of Denatured Proteins

Jan Genzer, Chemical and Biomolecular Engineering, Celanese Professor, NCSU, Raleigh, NC, USA

TT07: Unique Fiber and Yarn Developments



Session Chair: Gerald Mauretti, President, EY Technologies, Fall River, MA, USA

Not the normal review of high performance fibers, this session will discuss the development of some of the exotic, but *useful and practical fibers*, and for unique and special yarns for demanding applications. Areas such as nanotechnology in fibers and yarns and additives to impart special properties such as antimicrobial and antibacterial, conductivity, added strength will be discussed.

► Conductive Polyblend Fibers Made Of Polyamide-6/ Polypropylene/ Polyaniline For Smart Textile Applications: Electrical And Mechanical Properties

Azadeh Soroudi, Researcher-Polymer Technology, School of Engineering, University of Boras, Boras, Sweden

► Zero-Halogen FR-PET Filament That Will Not Generate Flaming Drips

Ming-Ming Chen, Global Technologist, Federal-Mogul Corporation Systems Protection, Exton, PA, USA

► Highly Conducting Micro Fibers For Wearable Electronics

Willorage Rathna Pererâ, Ph.D., Engineering Director of New Product Development, EY Technologies, Fall River, MA, USA

► Unique Microstructural Features of Innegra™ High Modulus Polypropylene Fibers

Brian G. Morin, CEO, Innegrity, LLC, Simpsonville, SC, USA

► Advanced Metal Clad Fibers - Meeting Today's Demanding Design Requirements

Jeff Martin, Business Development & Project Manager, Syscom Advanced Materials, Inc., Columbus, OH, USA

► Advances in Conductive Metal Fibers

Pol Speleers, Product Market Manager, Bekaert Corporation, Zwevegem, Belgium

1:30 p.m. - 4:00 p.m.

TT08: New Product Development



Session Chair: Jim Kaufmann, T.E.A.M. - Textile Engineering and Manufacturing, Woonsocket, RI, USA

In this recessionary time, it seems every forward thinking company is, or should be, focusing on developing new products - what will be the next product or variation needed to continue, compete, and grow. Often misunderstood and poorly done, the question is how to do it most effectively.

That is the focus of this special session, expected to be one of our most popular. Look at product development as expanding your base, prepare for the future, and "growing where you are planted" – or expand and work with what you know best.

▶ New Product Development - Building Your Future

Jim Kaufmann, T.E.A.M. - Textile Engineering and Manufacturing, Woonsocket, RI, USA

▶ Innovative, customer driven product development

John Wilson, The Quantum Group, Colfax, NC, USA

▶ Developing Multifunctional Technical Textiles

Sean Hsu, Vice President, King-Tech Industries, Inc., San Diego, CA, USA

▶ Incorporating the Supply Chain Into New Product Development

Joe Walkuski, TEXbase, Inc., Bozeman, MT, USA

▶ Marketing New Products

Konstantin Goranov, General Manager, Salutaris, Atkinson, NH, USA

▶ Protecting Your Intelligent Property and Technology

Darrell Collier, Managing Director, International Market Solutions, Waxhaw, NC, USA

TT09: Protective Textiles

Session Chair: Frank Erwin, Executive Vice President, Valley Operational Wear, Knoxville TN, USA

Though protective and safety textiles have been consistently included in this Symposium, this special session will focus on emerging markets, such development of retro-reflective fabrics for public/personal safety, standards, testing such as the use of manikins for testing of protective clothing, automotive safety textiles, EMS, clean room, among others.

▶ Emerging Markets for Retro-Reflective Fabrics and Public Safety

Tom King, President, King Tech Industry, Inc., San Diego, CA, USA

▶ CBN (Chemical, Biological, Nuclear) Protection For Law Enforcement and EMS

► **FR Requirements and Materials for Law Enforcement Personnel**

► **New Standards and Updates on Soft Body Armor/Ballistic Protection**

Frank Erwin, Executive Vice President, Valley Operational Wear, Knoxville TN, USA

► **Puncture Resistant Materials for Protective Applications**

John Cronin, North American Body Armor Market Manager, Warwick Mills, Inc, New Ipswich, NH, USA

TT10: Nonwoven Technology Update



Session Chair: Dr. Subhash K. Batra, Principal, SKB Associates, LLC, Professor Emeritus, NCRC, NCSU, Raleigh, NC, USA

A fresh look at some of the techniques involved in producing high performance nonwoven fabrics- and what impact they may have on the end product and promise of products with new/improved properties. Needle-punch, improvements in web formation, stretch nonwovens among others, new fibers and variants, and updates on spunbond and meltblown.

► **Practical Experience With Carded Nonwoven Web Weight Leveling and How It Affects Your End Product**

Everette Scarboro, Jr. Regional Sales Director – North America, Oerliken Textiles, Charlotte, NC, USA

► **Machinery and Methods in the “Nanofiber” Meltblown Process**

Timothy Robson, Business Development Manager, Hills, Inc., W. Melbourne, FL, USA

► **Ultrasonic Technology And Processing To Enhance The Quality And Performance Of Nonwoven Materials**

Bill Lynch, Key Account Manager, Hermann Ultrasonics, Bartlett, IL, USA

► **Needle-punch: New Line Concepts For Nonwovens**

Terry Purdy, Sales Manager, Dilo, Inc., Charlotte, NC, USA

► **Benefits Of Inorganic Mineral Additives In Fibers For Nonwovens**

Larry McAmish, Technical Services Manager, IMERYS Performance Minerals, Marietta, GA, USA

► **High Performance Nonwovens For Outdoor Structures & Temporary Shelters**

Terry O'Regan, Freudenberg Nonwovens, Durham, NC, USA

Thursday, May 20, 2010

8:30 a.m. - 11:00 a.m.

TT11: Technology for Growth



Session Chair: McAllister Isaacs, III, Principal, Media Alternative Consulting, Griffin, GA, USA

A look at many of the new/improved technologies available to create growth, with a focus on the practical – status and advantages. Included will be updates on nanotechnology and carbon fabrics and technology, laser joining of high performance fabrics as alternative to sewing, and the use of textiles in solar cells.

► Taking Innovations to Another Level

Jonathan Dyson, Head of Content, World Textile Publications Ltd., Editor, Future Materials World Textile Publications Ltd., Yorkshire, United Kingdom

► Advances in Self-supporting Nanofiber Mats by Electrospinning

Dr. Laura M. Frazier, Technical Director, SNS Nano Fiber Technology, LLC, Uniontown, OH, USA

► Textile based solar cells - An Access for the Energy Supply of Microsystems

Dr. Uwe Möhring, Textilforschungsinstitut, Greiz, Germany

► Laser Welding of Textiles

Dr. Jan Beringer, Scientific Head Department Function and Care, Hohenstein Institute, Boennigheim, Germany

► Activated Carbon Fiber Filter Media in Proton Exchange Membrane Fuel Cells for Automotives

Wei Liu, Ph.D., Doctoral Candidate, Polymer and Fiber Engineering, Auburn University, Auburn, AL, USA

► Innovative Technologies for Technical Yarn Extrusion Systems

Dr. Lassad Nasri, Head of Process Engineering Technical Yarn, Swiss Tex Winterthur AG, Winterthur, Switzerland

TT12: Smart/Intelligent Fabrics



Session Chair: Dr. Barbara Pause, President, Textile Testing Solutions, Longmont, CO, USA

Smart and intelligent fabrics are more than wires woven into a fabric or garment, they are materials that "do something", by reacting to an outside stimuli to conduct electricity, change color, emit medicines or other desired properties, become FR, even change form. Included in this session will be Smart/Intelligent Coated and Laminated Textiles where the coatings contribute the desired properties.

► Smart Fabrics and Textile Enhancements: Harnessing Nature

Melinda E. Wales, Ph.D., Reactive Surfaces, Ltd., Austin, TX, USA

► Quantum Dots For Coloration And Sensor Technology On "Smart Textiles"

Dr. Richard V. Gregory, Chair/Professor, Department of Chemistry and Biochemistry, Old Dominion University, Virginia Beach, VA, USA

► Nano-Coating for Improved Textile Performance

Dr. Delwyn Evans, P2i Ltd., Oxfordshire, United Kingdom

TT13: Medical and Biotechnology

Session Chair: Deborah K. Lickfield, Ph.D., President, Lickfield Consulting, LLC, Easley, SC, USA

The Medical and Biotechnology area is one market that is poised to grow significantly, one that uses high technology, and one that involves many innovative ideas. The focus of this session will be on the market, those high tech and innovative ideas that hold great promise, and issues relating to the role of textiles-medical-areas.

► Medical Textiles – Where are We Heading Now?

Deborah K. Lickfield, Ph.D., President, Lickfield Consulting, LLC, Easley, SC, USA

► The Emerging Role For Electro-Textiles In Medical Treatment Applications

Robin Cranston, Research Leader, Material Science and Engineering, Nano Fibrous Materials Group CSIRO Materials Science and Engineering, Australia

► Use of Copper Oxide in Medical Devices - From Reduction of Nosocomial Infections to Wound Healing

Gadi Borkow, Ph.D., Chief Medical Scientist, Cupron Inc., Gibton, Israel

► Functionalized Medical Textiles - a Case Study for a Product Launch in a Highly Competitive Marketplace

Ben Favret, CEO, Vestagen Technical Textiles, Orlando, FL, USA

► **Quality and Regulatory Aspects of Medical Textile Product Development**

Elizabeth (Beth) Nichter, M.S., CMQ/OE (ASQ), Regulatory Affairs Specialist, Zeus Industrial Products, Inc., Orangeburg, SC, USA