



In this edition of the newsletter we update you on the Fall 2007 Conference in Davis, California; a recap of the Spring 2007 Conference in Greenville, South Carolina; a summary of some changes to the Fiber Society web site; and recent articles published in the *Journal of Engineered Fibers and Fabrics*.

Please contact us with your thoughts or suggestions for future newsletter editions. We appreciate contributions of short news articles, announcements, or editorials of interest to our members.

Phil Gibson, Newsletter Editor
newsletter@thefibersociety.org

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Note: This document incorporates embedded links to web pages and email addresses, and is optimized for Adobe Reader Version 7.0

2007 Fall Meeting Update

The Fiber Society Fall Conference



Entry vineyard at Interstate 80



The Fiber Society Fall Conference will be held October 9-11, 2007, on the campus of the University of California at Davis. Conference papers will encompass fundamental research related to the science and engineering of fibers and fibrous materials. Major conference themes include:

- Biobased Fibers and Polymers
- Fibers with Nanotubes and Nanoparticles
- Electrospinning and Nanofibers
- Fiber Formation / Fabrication /Characterization and Modeling
- Innovative Uses and Enhancement
- Fibers in Health and Medicine

The Conference Chair is Professor You-Lo Hsieh of UC Davis. The conference program and registration details are posted at www.thefibersociety.org. The deadline to take advantage of discounted registration rates is September 12.

The conference venues are the Buehler Alumni/Visitor Center and the University Club, both located on the campus of the University of California at Davis. The Buehler Center is across the street from the new Mondavi Center for the Performing Arts.



Buehler Center



**UNIVERSITY CLUB
Conference Center**



Mondavi Center

Mondavi Center events during the Fiber Society Conference include a performance of the San Francisco Symphony on October 10. Further information is available at www.mondaviarts.org.

On the two days prior to The Fiber Society Fall Conference, an **Advanced Fiber Process Development** short course will be offered at the University Club on the UC Davis campus. This short course, organized and presented by the Center for Advanced Engineering Fibers and Films (CAEFF), will provide background on the key elements in a fiber spinning process and the state of the art in modeling those elements. The course also offers information on polymer characterization, including on-line measurements that can be made to verify model predictions. Interactive case study sessions will allow participants to gain hands-on experience with models. Process engineers, product development personnel, production managers,

chemists, engineers, and physicists can all benefit from taking this course developed with National Science Foundation funding. Short course registration is available at www.thefibersociety.org.

The Fiber Society is also offering opportunities for Table-Top Exhibits at the 2007 Fall Conference. Manufacturers who produce equipment that feature the latest in testing and analytical instruments, software, and materials and material conversion technologies are invited to register for setting up Table Top Exhibits. Publishers of scientific and technological books and journals would also be appropriate exhibitors for this venue. Table-Top exhibit information is available at [The Fiber Society](http://TheFiberSociety) web site.

Presenters at the 2007 Fall Conference of The Fiber Society are invited to submit completed full-length papers for publication in the **Journal of Engineered Fibers and Fabrics (JEFF)**. *JEFF* is a refereed electronic online journal sponsored by The Fiber Society, INDA, TAPPI, and AATCC. *JEFF* also welcomes contributions from non-Fiber Society members and the scientific and engineering community at large. www.jeffjournal.org.

The 2007 Fall Conference is hosted by the Department of Textiles and Clothing at UC Davis. UC Davis is the largest of the 10 campuses of the University of California. The City of Davis is located in the heart of the Sacramento Valley, about 15 minutes from the California State Capitol in Sacramento, midway (about 90 minutes) between San Francisco to the east and the High Sierra / Lake Tahoe to the west, and an hour from the Napa Valley.

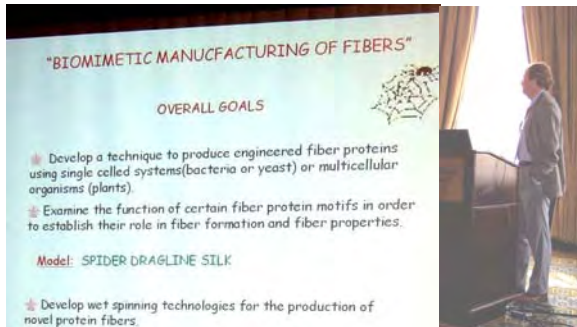


Fiber Society Spring Meeting: Greenville, South Carolina, USA

The Fiber Society held its Spring 2007 Meeting at the Westin Poinsett Hotel in Greenville, South Carolina, May 23-25, 2007.



The theme of the conference was Advanced Polymer Fiber Materials Science and its Applications in Novel Engineered Products. Topical papers in focus sessions covered Bio-Inspired Fibers and Materials, Fibers with Advanced Functionality, Fiber-Based Architectural Materials, and Modeling of Fiber Process and Product.



In conjunction with the Conference, the Center for Advanced Engineering Fibers and Films (CAEFF) conducted an Advanced Fiber Process Development Workshop on the two days prior to the conference (May 21-22).

The conference brought researchers worldwide together in one place for presentations on topics such as high-strength protein-based fibers, advanced filtration media, antimicrobial treatments, electrospun nanofibers, and chemical and electrically "active" fabrics.

Conference organizer Mike Ellison, a professor of materials science and engineering at Clemson University, said that the meeting was designed to share scientific knowledge pertaining to fibers, fiber-based products, and fibrous materials.

"Engineering textiles and fibers to be stronger and more durable while still being lightweight is a burgeoning area of research and technology. Some of the brightest minds on the planet will be here giving a glimpse of what consumers can expect next," said Ellison.

"The Fiber Society is relatively unique among science and technological societies in that they most often present very recent work — often work that's not entirely finished," Ellison said. "It's really current stuff. The conference is exciting because of that momentum."

The plenary address "Genetic Engineering for Design of Advanced Protein-based Fibrous Materials" by Albert Abbott, holder of the Coker Chair in Genetics at Clemson, was followed by sessions featuring synthetic silk proteins. A poster and table-top exhibition was included on Wednesday evening, which featured local textile affiliated companies.

Fiber researchers presented a multitude of interesting applications, such as cotton engineered to be even more breathable, fibers mimicking lotus leaves and spider silk, environmentally-friendly composites, and biomedical textiles.

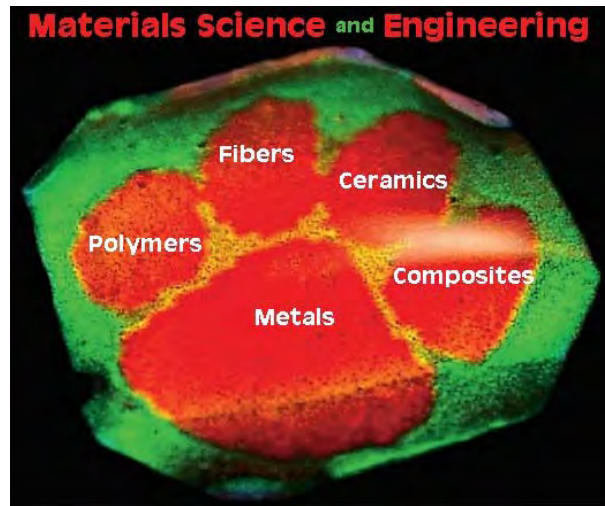
Sessions also focused on reinforcing composite materials based on metals, ceramics and polymers for high-performance and light-weight applications, with uses in automotive, space, athletic equipment, and medical prosthetic markets.

Medical topics were also considered, for example, artificial arteries, scaffolds for cell or bone growth, and self-healing fabrics that promote skin reconstruction.

The fields of electronics and telecommunication were included in presentations on the latest research in composite fibers, including nontraditional "textile" fibers, such as inorganic glasses, extending to high power fiber laser systems, lasers for automotive welding, defense sensing, and warfare applications.

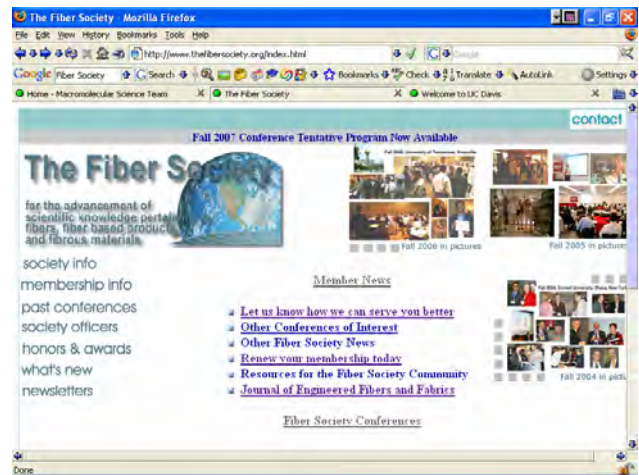
Note: (portions of the above were adapted from a Clemson University press release on the conference)

The Fiber Society would like to thank the hosts and organizers of this successful conference: **Professor Michael Ellison** of the School of Materials Science and Engineering at Clemson University, and **Dr. Douglas Hirt**, the Director of the Center for Advanced Engineering Fibers and Films (CAEFF).



The Spring 2007 Conference abstract book is available in PDF format on The Fiber Society website: www.thefibersociety.org.

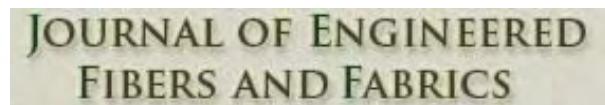
Changes to The Fiber Society Web Site



The Fiber Society web site has been migrated to a new server, and further changes to the web site design and the introduction of new services to members offered through the site are anticipated over the next year. The Fiber Society web site was hosted for many years by North Carolina State University, with special help from webmaster Shawn Deaton, and assistance from Pam Gabriel. Prior to that, the web site was hosted at Georgia Tech for several years. All work and hosting has been done on a volunteer basis, and The Fiber Society would especially like to thank Shawn and Pam for their many years of effort. However, hosting the web site at a university made it difficult to implement changes such as online conference registration or collection of member dues. Some of these types of changes are planned for implementation through fully secure commercial web site pages that protect members' personal information to the highest security standards.

Planned changes being considered include: online reminders and collection of membership dues; e-mail capability for officers and committee chairs; online membership application; and online conference registration. Members of the Fiber Society Publication Committee, the Fiber Society Governing Council, and the Fiber Society officers have all suggested future changes to the site. Fiber Society Treasurer Steve Michielson has taken the initiative on site migration and initial changes, and we welcome further suggestions on ways to improve services offered through the Fiber Society web site.

JEFF Publishes Second Volume



The *Journal of Engineered Fibers and Fabrics* (JEFF) published its first complete volume (two issues) of peer-reviewed scientific journal articles in December 2006, and recently published the complete first issue of Volume 2. JEFF is an international, peer-reviewed open-access scientific e-Journal that publishes original R&D on all aspects of fabric technologies and their value chain -- from raw materials to end use products.

JEFF is sponsored by The Fiber Society and three trade associations: the American Association of Textile Chemists & Colorists (AATCC); the Association of the Nonwoven Fabrics Industry (INDA); and the Technical Association of the Pulp and Paper Industry (TAPPI).

The mission of JEFF is to publish a highly recognized and peer-reviewed research journal that fosters scientific efforts across many disciplines, to enhance the performance of fibers, their converted forms, and their applications. The JEFF editorial board includes area editors in North America, Asia, and Europe.

Journal articles may be viewed and downloaded from the web site www.jeffjournal.org.

Paper submissions are actively sought for future issues. Submission guidelines are available at the journal web site and through the online editorial manager.

***Journal of Engineered Fibers and Fabrics* Volume 2, Issue 1**

Designing Nonwovens to Meet Pore Size Specifications

Glen E. Simmonds, John D. Bomberger
E.I. Du Pont de Nemours & Co., Experimental Station, Wilmington, Delaware, USA
Michael A. Bryner
E.I. Du Pont de Nemours & Co., Richmond, Virginia, USA

Contributions of Strain Energy and PV-work on the Bending Behavior of Uncoated Plain-woven Fabric Air Beams

Paul V. Cavallaro
U.S. Naval Undersea Warfare Center, Newport, Rhode Island, USA
Ali M. Sadegh, Ph.D.,
The City College of The City University of New York, New York, New York, USA
Claudia J. Quigley
U.S. Army Research, Development and Engineering Command, Natick, Massachusetts, USA

Electrospinning and Porosity Measurements of Nylon-6/Poly(ethylene oxide) Blended Nonwovens

Margaret W. Frey, Ph.D. and Lei Li, Ph.D.
Department of Textiles and Apparel, Cornell University, Ithaca, New York, USA

Strength Optimization of Thermally Bonded Spunbond Nonwovens

Nataliya Fedorova, Ph.D., Svetlana Verenich, Ph.D., Behnam Pourdeyhimi, Ph.D.
North Carolina State University, Nonwovens Cooperative Research Center, Raleigh, North Carolina, USA

Novel Microporous Films and Their Composites

P.C. Wu, Ph.D., Greg Jones, Ph.D., Chris Shelley, Ph.D., Bert Woelfli, Ph.D.
Clipay Plastic Products Co., Mason, Ohio, USA

Book Review

The Handbook of Nonwoven Filter Media

Author: Irwin M. (Marshall) Hutten
Reviewer: Dr. Larry C. Wadsworth, University of Tennessee, Knoxville, USA

Upcoming Meetings

Fiber Society conferences are run on a volunteer basis by organizations and individuals. We are always seeking interested companies, other organizations, and individuals, for sponsorship, arranging special interest topic sessions, meeting chairs, and joint meetings with other professional societies. Please contact The Fiber Society Secretary if you interested in helping out with future meetings.

Future meetings of The Fiber Society;

Spring 2008 (14-16 May, 2008)

Hosted by ENSISA/ENSAIT
University of Haute-Alsace, Mulhouse, France
Program Chair: Professor Dominique Adolphe



Fall 2008 (October 1-3, 2008)

Hosted by Industrial Materials Institute
Montreal (Boucherville), Canada
Program Chair: Dr. Abdellah Ajji

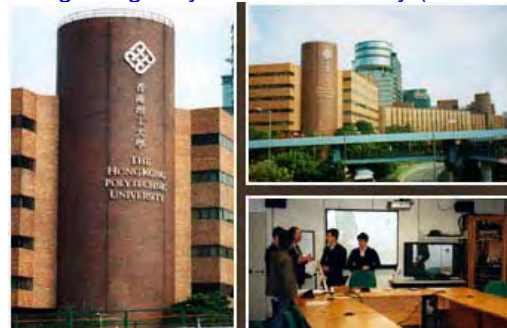


National Research
Council Canada

Conseil national
de recherches Canada

Spring 2009

Hosted by
Hong Kong Polytechnic University (Tentative)



Information and Calls for Papers are available on our web site (www.thefibersociety.org) as plans for each meeting are finalized.

Past Meetings of The Fiber Society

Note – many of the recent meetings include online abstracts and programs archived on The Fiber Society web site www.thefibersociety.org

2007 Spring Meeting (May 23-25, 2007)
Advanced Polymer Fiber Materials Science and Its Applications in Novel Engineered Products
Greenville, South Carolina, USA

2006 Fall Meeting (October 10-12, 2006)
The Fiber Society Fall Annual Meeting and Technical Conference
Knoxville, Tennessee, USA

2006 Spring Meeting (30 May - 2 June, 2006)
Extreme Textiles: Functionality, Performance, and Industrial Aspects
Joint Conference with the Korean Fiber Society in Seoul, Korea

2005 Fall Meeting (October 17-19, 2005)
Fiber Science – The Next Generation
New Jersey Institute of Technology,
Newark, New Jersey, USA

2005 Spring Meeting (May 25-27, 2005)
Fiber-Based Product Design for Performance
ETH/EMPA, St. Gallen, Switzerland

2004 Fall Meeting (October 11-13, 2004)
A Symposium on Advanced Materials and Processes
Cornell University, Ithaca, New York, USA.

2004 Spring Meeting (May 17-20, 2004)
International Symposium on Fibers, Fibrous Structures, and Filtration
Clayton, Missouri, USA

2003 Fall Meeting (October 14-16, 2003)
Fibers and Fibrous Structures: From Science to Applications -- A Tribute to Prof. Stanley Backer
Raleigh, North Carolina, USA

2003 Spring Meeting (June 30-July 2, 2003)
Advanced Flexible Materials and Structures: Engineering with Fibers
Loughborough University, Loughborough, UK

2002 Fall Meeting (Oct 30 – Nov 1, 2002)
Natick, Massachusetts, USA

The Fiber Society Welcomes New Members

New members from October 2005 to May 2007

- Stephane Fontaine
ENSITM
- Mabrouk Ouederni
Jubail Industrial College
- Gary Bowlin
Virginia Commonwealth University
- George Chase
University of Akron
- Yong Shi
Stevens Institute of Technology
- Pelagia-Irene Gouma
SUNY-Stony Brook
- Vincent Ventenat
Decathlon (France)
- Hemant Kedia
Reliance Industries, Ltd.
- Steven Smith
Invista
- Donggang Yao
Georgia Tech
- Hassan El-Dessouky
Mansoura University and University of Leeds
- Timothy Long
Virginia Tech
- Ashwini Agrawal
Indian Institute of Technology
- W. Douglas Bates
DuPont Advanced Fiber Systems-Research
- Tracy Colwell
Lockheed Martin Space Systems
- Stephen Foulger
Clemson University
- Ruth Stephens
Industrial Fabrics Association International
- Carole Winterhalter
US Army Natick Soldier Center
- Filiz Avsar
Lawson-Hemphill, Inc.
- Cheng-Hsien Chung
United Ship Design & Development Center
- Ramsis Farag
Auburn University
- Moran Wang
University of California Davis
- Hongyu Chen
Dow Chemical Company
- Larry Dickinson
3F, LLC
- Haifeng Shan
Clemson University
- Hideki Yamane
Kyoto Institute of Technology
- Arthur Tucker
Delaware State University
- Eugenia Posey-Marcos
DTRA/DOD
- Raja Dharmarajan
Exxonmobil Chemical
- Filiz Avsar
Lawson Hemphill
- Xiaolin Man
University of Iowa
- Simon Zeier
ETH Zurich
- Yuki Imura
New Jersey Institute of Technology
- Pratapkumar Nagarajan
Georgia Tech
- Sophie Cozien-Cazuc
University of Nottingham
- Ajit Moghe
NC State University
- Suraj Sharma
Clemson University
- Nouredine Abidi
Texas Tech University
- Eric Francois Hequet
Texas Tech University
- Canh-Dung Tran
CSIRO/HCMC University of Technology
- Weilin Xu
Wuhan University of Science & Engineering
- Konstantin Kornev
Clemson University
- David Phillips
CSIRO
- Sohn Sungkyun
Eastman Chemical Company
- Melih Gunay, Melih
Hue Metrix, Inc.
- Terry L. Cutshall
Missing Octave Insights
- Nataliya Fedorova
3M Company
- Ke Feng
Ticona Polymer Inc.
- Joon Ho Kim
Yeungnam University
- Eunice Lee
Habasit Belting LLC
- Chad Myers
ARmark Authentication Technologies
- Donald Theeuwes
Delta and Pine Land Company
- Matthew Weir
ARmark Authentication Technologies
- Yuhai Guo
Sci-Tech University
- Krasimira Hristov
Ethicon, Inc.
- Chuyang Zhang
Fiberweb
- Hoon Joo Lee
NC State University
- Minedys Macias
University of Texas at Dallas
- Wei Liu
Auburn University

Fiber Society Contacts

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sbatra@unity.ncsu.edu

Fiber Society administrative questions such as membership status and dues may be addressed to Pam Gabriel: Pam_Gabriel@ncsu.edu, phone (919) 513-0143

Please also feel free to contact any of our officers or Governing Council members with suggestions or concerns:

- **President**, You-Lo Hsieh
University of California at Davis
ylhsieh@ucdavis.edu
- **Vice-President**, Michael Ellison
Clemson University
ellisom@clemson.edu
- **Treasurer**, Stephen Michielson
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- Past-President (2006), Phil Gibson
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Mark Your Calendars!

**The Fiber Society
Spring Meeting
14-16 May 2008**

Organized by
ENSISA and **ENSAIT** at
University of Haute-Alsace
Mulhouse, France



**Call for Papers
Available Soon on
The Fiber Society Website
(www.thefibersociety.org)**



**Laboratoire
de
Physique et
Mécanique
Textiles**

