TUESDAY, OCTOBER 15, 1996

8:25 AM OPENING REMARKS
Dr. David Brookstein, President
Dr. Steve Warner, Conference Chairman

8:30 SESSION I: NATURAL FIBERS
Moderator: Prof. Kenneth Langley, Univ. Mass., Dartmouth

THE FUNCTIONAL STRUCTURE OF COTTON FIBER
W.R. Goynes and B.F. Ingber, USDA

COTTON FIBER SELECTION AND BLENDING: CONCEPTS, ALGORITHMS, APPLICATIONS
Y.E. El Mogahzy, Auburn University

APPLICATIONS OF ARTIFICIAL NEURAL NETWORKS ON TEXTILE RESEARCH
R. Zhu, Texas Tech

KENAF FIBER PROCESSING AND TEXTILE PRODUCT DEVELOPMENT
G. N. Ramaswamy, Miss. State Univ.

10:30-10:45 AM BREAK

INSIGHTS INTO THE TRANSFORMATION OF WOOLEN FABRIC IN FULLING
AND NAPPING

L. Crothers and T.A. Allain, L.W. Packard Co.

ELECTROKINETIC PHENOMENA STUDIES ON SILK FIBER

Y. Kwok-wing and S. Song-min, Hong Kong Polytechnic Univ.

12:00 NOON LUNCH (on your own)

1:30-3:15 PM SESSION II: FABRICS

Moderator, Dr. Bill Bessey, Hoechst-Celanese Corp.

ANALYSIS OF KNIT FABRICS USING IMAGE PROCESSING AND GEOMETRIC MODELS

K. Lane and M. Realff, Georgia Institute of Technology

THE ROLE OF FIBER ARCHITECTURE IN THE PERMEABILITY OF RENITENT COMPOSITES

M. W. Dunn, Philadelphia Col. Textiles and Science

THE DYNAMICS OF FABRIC DRAPE

R. J. Postle, Univ. New S. Wales

NOVEL COMPOSITES BY HOT COMPACTION OF FIBERS

I. M. Ward and P. J. Hine, Univ. of Leeds

3:15-3:30 PM BREAK

FORENSIC APPLICATION OF TEXTILE FIBER ANALYSIS: A SURVEY OF INTERESTING CASES

D. W. Deedrick, FBI Lab: Hair & Fibers Unit

A POISSON MODEL OF NONWOVENS IN COMPRESSION AT HIGH STRESS

M.M. Schoppee, Albany International Research Co.

5:10 PM ANNUAL MEMBERSHIP BUSINESS MEETING
6:00 PM LOBSTER DINNER AT THE PIER RESTAURANT

WEDNESDAY, OCTOBER 16, 1996

7:30 AM REGISTRATION

8:30 AM SESSION III: RECYCLING FIBERS

Moderator, Prof. Satish Kumar, Georgia Institute of Technology

FROM BEVERAGE BOTTLES TO FORTREL ECOSPUNÆ: TECHNOLOGICAL CONSIDERATIONS

D. Sobourin, Wellman, Inc.

CONVERSION OF CARPET WASTE TO THERMOPLASTIC RESINS

S. Kumar, Georgia Institute of Technology

CARPET WASTE FIBERS FOR SOIL REINFORCEMENT IN ROAD CONSTRUCTION

Y. Wang, Georgia Institute of Technology

PHASE TRANSFER CATALYZED DEPOLYMERIZATION FOR RECYCLING PET AND NYLON

M.B. Polk, Georgia Institute of Technology

10:30 - 10:45 AM BREAK

10:45 AM SESSION IV: MARINE APPLICATIONS OF TEXTILES

COMPLIANT REINFORCED HOSE AND CABLES FOR OCEANOGRAPHIC APPLICATIONS

W. Paul, Woods Hole Oceanographic Institution

WEAR AND FATIGUE OF MOORING LINES: NYLON VS. POLYESTER

S. Backer and J. Chen, MIT

12:00 - 1:30 PM LUNCH ON YOUR OWN
1:30 - 2:35 PM **SESSION V: STUDENT PAPERS**

Moderator: Dr. Behnam Pourdeyhimi, Georgia Institute of Technology

**CONVECTIVE AND DIFFUSIVE ENERGY AND MASS TRANSFER IN A HYGROSCOPIC POROUS TEXTILE**


**NEW CONSTITUTIVE EQUATIONS FOR ORIENTABLE POLYMER MELTS**

Celine Almonacil, Georgia Institute of Technology

**THERMORHEOLOGICAL CONSEQUENCES OF CRYSTALLINE PHASE CROSSLINKING IN POLYAMIDE FIBERS**

Shalini Thadani, Georgia Institute of Technology

2:35-3:15 PM **FIBER SOCIETY AWARD PAPER**

**MICROSTRUCTURE DEVELOPMENT DURING HOT DRAWING OF POLYETHYLENE TEREPHALTATE AND POLYETHYLENE NAPTHALATE**

David R. Salem, TRI/Princeton

3:15-6:00 PM TIME ON YOUR OWN TO EXPLORE NEWPORT

6:00 PM RECEPTION AND POSTER SESSION

Chair - Prof. Mary Lynn Realff, Georgia Institute of Technology

7:00 PM BANQUET AT VIKING INN

**HONORARY MEMBERSHIP RECEPIENTS**

Robin Dent

John B. Lawson

John Skelton

**THURSDAY, OCTOBER 17, 1996**

8:00-10:15 AM **SESSION VI: STRUCTURE AND PROPERTIES OF FIBERS**
Moderator: Philip M. Cunniff, US Army RD&E Labs

DEVELOPMENTS IN ELECTRICALLY CONDUCTIVE FIBERS FROM POLYANILINE BLENDS

A.P. Chacko and R. V. Gregory, Clemson Univ.

HEAT RESISTANT PROPERTIES OF POLY(P-PHENYLENE-2,6-BENZOBISOXAZOLE) FIBER

T. Kuroki T. Hokadoh, K. Yabuki, Toyobo Res. Inst., Toyobo Co., Ltd

DEVELOPMENT OF HIGH PERFORMANCE POLY(VINYL ALCOHOL) FIBERS

Q. Zheng and R. Morgan, Michigan State Univ.

POLY (TRIMETHYLENE TEREPHTHALATE) - A NEW FIBER'S CHEMISTRY AND PROPERTIES

H. Chuah, Shell Chemical Co.

MOLECULAR MODELING OF INTERPHASES IN FIBERS

S.A. Fossey, US Army Natick RD & E Labs

10:15-10:30 am BREAK

MOLECULAR MODELING OF POLYMERIC FIBER MECHANICAL PROPERTIES

P.M. Wilson, J.G. Gassner, R. Kovar, et al., Foster Miller, Inc.

FIBER INITIAL MODULUS AS A FUNCTION OF FIBER LENGTH


SINGLE FIBER ACOUSTIC EMISSION AND TENSILE PROPERTIES OF COTTON YARNS

Y. Velu, M. Ellison, J. Dai, C.D. Rogers, Clemson University

SINGLE FIBER SYNCHROTON X-RAY DIFFRACTION

B. Chu, SUNY Stony Brook

12:30 PM ADJOURN
PARTIAL LIST OF POSTERS

TORSIONAL PROPERTIES OF STRUCTURE-PROPERTY RELATIONSHIPS IN PET MONOFILAMENTS

S. Goa, M. Ellison, M. McCord, Clemson and NC State Univ.

THE EFFECT OF SPINNING METHOD ON THERMAL-CONTACT AND THERMAL-INSULATION PROPERTIES OF COTTON KNITS

R.M. Vasconcelos and L. Hes, Minho Univ.

MIRAFLEXÆ FIBER - A BICOMPONENT INORGANIC FIBER DELIVERING A NEW LEVEL OF PERFORMANCE

S.L. Eikleberry, G.D. Lamb, D.G. Miller, W.W. Lincoln, Owens Corning

A STUDY OF THE EFFECT OF PLASMA TREATMENT ON THE DYEING PROPERTIES OF WOOL FIBER

C.W. Kan, K. Chan, C.W.M. Yuen & M.H. Miao, Hong Kong Polytechnic Univ.

EFFECTIVE FACTORS ON YARN TENSION IN YARN-FORMING ZONE OF FRICTION SPINNING

A.A. Marati, F. Konda, M. Okamura, E. Marui, Gifu Univ.

EFFECT OF ATMOSPHERIC MOISTURE ON COTTON FIBER STRENGTH MEASUREMENTS

H.H. Ramey, Jr. and J.L. Knowlton, USDA

MACROSCOPY OF TEXTILES WITH SEM

L. Barish, Albany International Research Co.

CHAOTIC MIXING IN EXTRUSION-BASED MELT SPINNING OF FIBERS

B.L. Gomillion, M.S. Ellison, Clemson Univ.

SPINNING FLEXIBILITY

R.M. Vasconcelos, M. Lima, Minho Univ.

GO TO FALL 1996 MEETING ABSTRACTS
Fall 1996 Meeting Program
Newport, RI
Oct. 15-17, 1996