

Ericka N. Johnson

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Education

Ph.D. Candidacy Polymer, Textile, & Fiber Engineering, Began January 2007
Georgia Institute of Technology, Atlanta, GA 30332

M.S. Polymer Science, May 2007

- **Research:** Biobased Resins for Wrinkle Resistant Textiles and Determination of Structure-Property Relationships
- Thesis Advisors: Dr. Shelby F. Thames & Dr. James W. Rawlins

The University of Southern Mississippi, Hattiesburg, MS 39406

Minor Technology Commercialization, Completed April 2006
The University of Southern Mississippi, Hattiesburg, MS 39406

B.S. Polymer Fiber Engineering HONOR, 2003
Georgia Institute of Technology, Atlanta, GA 30332

Exchange Student, 2000-2001
The University of Leeds, Leeds, LS2 9JT, UK

Achievements

ACS Cellulose and Renewable Materials Division Graduate Student Travel Award, 2007

Associate, Integrative Graduate Education and Research Traineeship (**IGERT**)
Entrepreneurial Medicinal Chemistry and Polymer Science, 2004-2006

- Business plan
Prevention of Nosocomial Infection via Aggressive Antimicrobial Coatings
- Chinese business and economy courses
Tongji University, College of Economic Management and Business School;
(Shanghai, China)

Herman and Myrtle (Graduate) Student Paper Competition, 1st place, 2006

Polymer Textile & Fiber Engineering School, Faculty Award, 2003

Freshman/Sophomore Writing Contest, 1999

Professional Organizations

American Chemical Society, 2006-present

Phi Psi Textile Fraternity, 1999-2003

Alliance for Graduate Education in Mississippi, 2003-present

Women in Science and Engineering, 2005-2006

Undergraduate Research Experience

Case Western Reserve University Department of Macromolecular Science & Engineering, 2002

- Research: Morphology of Side Chain Polysiloxane Liquid Crystals

The University of Maine Advanced Engineering Wood Composites Center, 2001

- Research: Filament Wound Composites Embedded with Fiber Optics Strain Sensor Gauges

Patent

S. F. Thames, J. W. Rawlins, S. K. Mendon, E. N. Johnson, and Zhangqing Yu. "Functionalized Vegetable Oil Derivatives, Latex Compositions and Textile Finishes". March 22, 2006.

Journal Articles

E. N. Johnson, J. W. Rawlins, S. K. Mendon, S.F. Thames, "Durable Press Performance of Vegetable Oil Derivatives", AATCC Review 6 (2006) 40-44.

Oral and Poster Presentations

E. N. Johnson, J. W. Rawlins, S. K. Mendon, S.F. Thames, "FTIR Analysis of Biobased, Formaldehyde-Free Crosslinkers for Cellulosic Textiles, Oral Presentation" and "Investigating the Mechanisms of Biobased, Formaldehyde-free Crosslinkers for Cellulosic Textiles" Oral Presentations, American Chemical Society: Cellulose and Renewable Materials Division (Chicago, IL), March 28, 2007.

E. N. Johnson, J. W. Rawlins, S. K. Mendon, S.F. Thames, "Durable Press Performance of Vegetable Oil Derivatives", Herman and Myrtle Student Paper Competition, Manuscript and Oral Presentation, American Association of Textile Chemists and Colorists: International Conference and Exhibition (Atlanta, GA), Oct 31, 2006.

E. N. Johnson, J. W. Rawlins, S. K. Mendon, S.F. Thames, "Spectroscopic Elucidation of Textile Performance with Biobased Crosslinkers", Oral Presentation, The Alliance for Graduate Education in Mississippi and the University of Puerto Rico Research and Cultural Exchange, (San Juan, Puerto Rico), October 20, 2006.

E. N. Johnson, J. W. Rawlins, S. K. Mendon, M.E.B. Culpepper, S.F. Thames, "Spectroscopic Determination of Vegetable Oil Textile Coatings Performance, Poster Presentations", President's Invitational Polymer Science Alumni Celebration, (Hattiesburg, MS), Mar 31, 2006.

E. N. Johnson, J. W. Rawlins, S. K. Mendon, M.E.B. Culpepper, S.F. Thames, "Spectroscopic Determination of Vegetable Oil Textile Coatings Performance", Oral & Poster Presentations, American Chemical Society: Cellulose and Renewable Materials Division (Atlanta, GA), Mar 26 – 27, 2006.

E. N. Johnson, J. W. Rawlins, S. K. Mendon, S. F. Thames, "Vegetable Oil Macromonomer-Based Textile Latex for Durable Press Finishing", Tongji University, Material Science and Engineering Department (Shanghai, China) and Tsinghua University, Department of Chemical Engineering (Beijing, China), May 2005.

J. Morizur, E. N. Johnson, J. Adkins, "Fostering Entrepreneurship at the University", American Chemical Society: Division of Polymer Chemistry, September 2006.

Skills & Techniques

Textile Finishing and Evaluation
Infrared Spectroscopy
X-ray Diffraction
Emulsion Polymerization

Internships

Propex Fabrics (BP AMOCO Fabrics and Fibers)

- Hazlehurst Plant, Extrusion Process Engineering, 2003

- Seneca Plant, Nonwovens Quality Assurance/Process Engineering, 2000
- Austell Research & Development, Fabric Development Group, 1999
- Roanoke Plant, Engineering/Maintenance/Engineering, 1998