

Sarah E. Morgan, Ph.D.
Curriculum Vitae

ADDRESS:

The School of Polymers and High Performance Materials
The University of Southern Mississippi
118 College Dr., #10076
Hattiesburg, MS 39406

EDUCATION:

Ph.D., Polymer Science, University of Southern Mississippi 1988
National Sea Grant Fellowship

B.A. Rice University, Behavioral Science, Pre-Med, Houston, TX 1980
National Merit Scholar

PROFESSIONAL EXPERIENCE:

11/2002 – Present **Assistant Professor** of Polymer Science, University of Southern Mississippi, Hattiesburg

2003 – Present **Education Director**, Center for Response-Driven Polymeric Films; NSF MRSEC, University of Southern Mississippi

2003 – Present **Director**, NSF Industry/University Cooperative Research Center in Coatings, University of Southern Mississippi

2006 – Present **Director**, NSF RET Site for Polymer Engineering Research and Workforce Development, University of Southern Mississippi

2000 – 2002 **Global Sourcing Quality Manager**, Six Sigma Master Black Belt
Led global team to develop and qualify new sources of materials, developed and led Six Sigma training
GE Plastics Headquarters, Pittsfield, MA

1997 – 2000 **Global Technology Manager**, NORYL[®] Resins
Product and process research and development in polyphenylene ether engineering resins for automotive, electronics and business equipment applications, led group of 75 researchers
GE Plastics, Selkirk, NY

1995 – 1997 **GELOY[®]/Weatherables Technology Manager**
Color technology and weatherable resins R&D for outdoor applications in building and construction, automotive and telecommunications industry, led group of 30 researchers
GE Plastics, Selkirk, NY

1993 – 1995 **Group Leader**, LEXAN[®] Product Technology
Polycarbonate copolymers, blends and additives R&D for automotive, medical, telecommunications and business equipment markets, led group of 15 researchers
GE Plastics, Mt. Vernon, IN

1991 – 1993 **Product Development Specialist** LEXAN[®], CYCOLOY[®],
 Product development in polycarbonate blends, polymer additives,
 reactive extrusion. GE Plastics, Mt. Vernon, IN

1989 – 1991 **Technical Leadership Program** Product Developer
 R&D in polycarbonate blends, copolymers and additives
 GE Plastics, Bergen op Zoom, NETHERLANDS

1988 – 1989 **Member of Technical Staff**, AT&T Bell Laboratories,
 Norcross,GA
 R&D in materials and coatings for fiber optic applications

HONORS, PROFESSIONAL SOCIETIES AND EXAMPLES OF SERVICE

NSF Fellowship for Nanotechnology Workshop
 Alliance for Graduate Education in Mississippi Recruiting Award
 American Chemical Society Mentor Award
 College of Science and Technology Service Award Nominee, 2004
 NSF “Forward to Professorship” Conference, 2004
 American Chemical Society, Member
 ACS Polymer Division Program Committee Member
 Organizing Symposium “Cosmetic Nanotechnology: Polymers and Colloids in
 Personal Care” for Fall 2005 Meeting
 Society of Plastics Engineers, Senior Member
 Materials Research Society, Member
 Mississippi Academy of Sciences, Member
 NSF Peer Review Panel Member
 Research Experience for Teachers (August, 2004)
 Partnership for Innovation (June, 2004)
 MRSEC Center Review (September, 2003)
 Research Experience for Teachers (July, 2003)
 Partnership for Innovation (May, 2003)
 Surface Engineering Panel (April, 2003)
 Computer Science, Engineering and Mathematics Scholarship (April, 2003)
 Senior Editor, International Journal of Coatings Science

Service Activities, University of Southern Mississippi

Education Director, Center for Response-Driven Polymeric Films, NSF MRSEC
 Director Research Experience for Undergraduates, 2004
 Co-Director, S.C.I.E.N.C.E. High School Program, 2004
 Director, Research Experience for Teachers, 2003 and 2004
 K-12 Outreach, 2003, 2004, 2005
 Coordinator, Petal High School Polymer Science Apprentice Program
 Associate Director, Industry/University Cooperative Research Center in Coatings
 Chair, Southern Association of Colleges and Schools, Compliance Leadership Committee
 Member, College of Science and Technology Dean’s Search Committee
 Polymer Science Graduate Recruiting Committee

Polymer Science Undergraduate Recruiting Committee
Polymer Science Undergraduate Curriculum Committee
Polymer Science Outreach Committee
Faculty Advisor, Women in Science, Engineering and Technology student organization
Presidential Scholarship Interviewer
Science Summer Camp co-Organizer
Presenter, Gifted Studies Career Exploration for High School Girls
Waterborne High Solids and Powder Coatings Symposium
 Session Chair
 Judge
 Short Course Presenter

RESEARCH INTERESTS

Atomic force microscopy of polymer surfaces
Nanotribological and nanomechanical properties of polymers
Biopolymer films and coatings
High performance engineering polymers
Polymer processing
Polymer blends
Polymer nanocomposites
Polymer additives and colorants
Flame retardant materials

PATENTS

Morgan, S.; Pratt, C.; DiFede, C.; Verdult-Van Aert, J. (General Electric Co., USA)
“Low-gloss poly(phenylene ether) blends with styrene-containing co-polymers” Eur. Pat. EP523258 1993.

Morgan, S. E.; Pratt, C. F.; Verbraak, C. L.; Hobbs, S.; Fewkes, E. (General Electric Co., USA)
“Low-gloss polycarbonate blends,” Eur. Pat. EP 523259 1993.

Boutni, O. M.; Fontana, L. P.; Morgan, S. E. (General Electric Co., USA)
“Polycarbonate/polyestercarbonate compositions,” EP 508716, 1992.

Morgan, S. E.; Pratt, C. F.; Saveniji, H. B. (General Electric Co., USA) “Aromatic polycarbonate-based blends with loss gloss,” EP 519098, 1992.

Boutni, O. M.; Fontana, L. P.; Patterson, D. J.; Pratt, C. F.; Morioka, M.; Morgan, S. E. (General Electric Co., USA) “Polyester-polycarbonate blends with polyesters,” EP 465924, 1992.

Boutni, O. M.; Morioka, M.; Fontana, L. P.; Morgan, S. E.; Patterson, D. J.; Saveniji, H. B. (General Electric Co., USA) "Impact-Resistant polyester-polycarbonate compositions," EP 465923, 1992.

ENCYCLOPEDIA ARTICLES

Morgan, S.E., Li, J. : "Polycarbonate (PC)" In *Encyclopedia of Chemical Processing*; Sunggyu Lee, Ed.; Taylor & Francis, Inc.: New York, **2005**; Vol. 4 , pp. 2277-2290.

JOURNAL PUBLICATIONS

Jun Li, Chunyong Wu, Douglas A. Wicks, Robert A. Smith, and Sarah E. Morgan, "Preparation and Characterization of Keratin Coatings for Orthopedic Implant Titanium Rods" in *Cosmetic Nanotechnology: Polymers and Colloids in Personal Care*, ACS Symposium Series Publication (in press).

Misra, R; Li, J; Cannon, G. C.; Morgan, S. E. "Nanoscale reduction in surface friction of polymer surfaces modified with Sc³ hydrophobin from *Schizophyllum commune*," *Biomacromolecules* **2006**, 7(5), 1463-1470.

Morgan, S. E.; Misra, R.; Jones, Paul J.; "Nanomechanical and Surface Frictional Characteristics of a Copolymer based on Benzoyl-1,4-Phenylene and 1,3-Phenylene," *Polymer* **2006**, 47 (8), 2865-2873.

Morgan, S.; Davis, G.; Gijzen, E.; Lemmen, T.; "The Performance of Sulfonate Salt-Containing Polycarbonate Products in Flammability Testing" *J Vinyl & Additive Technology* 1995, 1(2), 114.

McCormick, C. L.; Morgan, S. E.; Hester, R. D.; "Roles of Molecular Structure and Solvation on Drag Reduction in Aqueous Solutions" *ACS Symposium Series* 1991, 467 (Water-Soluble Polym.), 320-37.

McCormick, C. L.; Hester, R. D.; Morgan, S. E.; Safieddine, A.M.; "Water-Soluble Copolymers 30. Effects of Molecular Structure on Drag Reduction Efficiency" *Macromolecules* 1990, 23(8), 2124.

McCormick, C. L.; Hester, R. D.; Morgan, S. E.; Safieddine, A.M.; "Water-Soluble Copolymers 31. Effects of Molecular Parameters, Solvation and Polymer Associations on Drag Reduction Performance" *Macromolecules* 1990, 28(8), 2132.

Morgan, S. E.; McCormick, C. L.; "Water-Soluble Copolymers XXXII. Macromolecular Drag Reduction, A Review of Predictive Theories and the Effects of Polymer Structure" *Progress in Polymer Science* 1990, 15, 507.

Morgan, Sarah E.; McCormick, Charles L., "Water-Soluble Polymers in Enhanced Oil Recovery," *Progress in Polymer Science*, 15(1) 103-45, 1990.

Morgan, S. E., "Synthesis and Characterization of Water-Soluble Polymer for the Study of Polymeric Drag Reduction," Ph.D. Dissertation, University of Southern Mississippi, 1980.

McCormick, C. L.; Hutchinson, B. H.; Morgan, S. E.; "Water-Soluble Copolymers 16. Studies of the Behavior of Acrylamide/N-(1,1-dimethyl-3-oxobutyl)acrylamide Copolymers in Aqueous Salt Solution" *Makromol. Chem.* 1987, 188, 357.

PREPRINTS

Sorci, G. A.; Williams, E. B.; Cannon, G. C.; Heinhorst, S.; Morgan, S. E. "Development of static and dynamic light scattering techniques to follow the behavior of the protein complexes termed carboxysomes" *Polymer Preprints* **2006**, 47(1), 104-105.

Misra, R.; Morgan, S. E. "Nanoscale Surface Topography and Friction of Polypropylene/Polyhedral Oligomeric Silsesquioxane (POSS[®]) Hybrid Nanocomposites," *Polymer Preprints* **2006**, 47(1), 410-411.

Hamilton, K.; Misra, R.; Morgan, S. E. "Thermal Properties of Octaisobutyl Polyhedral Oligomeric Silsesquioxane/Polypropylene Hybrid Nanocomposites" *Polymer Preprints* **2006**, 47(1), 603-604.

Jones, P.; Wahl, L.; Morgan, S. E. "Nanoindentation of Poly(benzoyl paraffinylene), Polycarbonate and Polyetherimide Engineering Thermoplastics" *Polymer Preprints* **2006**, 47(1), 185.

Alidedeoglu, A. H.; Misra, R.; Li, J.; Morgan, S. E. "Surface friction study of hyaluronic acid thin films through lateral force microscopy" *Polymer Preprints* **2006**, 47(1), 286-287.

Morgan, S. E.; Li, J.; Benson, D.; Misra, R.; Cannon, G. C. "Nanoprobe Evaluations of Hydrophobin-Modified Hair" *Polymer Preprints* **2005**, 46 (2), 517-518.

Alidedeoglu, A. H.; Dutta, S.; Flossenzer, V.; Morgan, S. E.; Rawlins, J. W. "Sec-butenyl Acetate and Styrene Copolymers via Emulsion Polymerization" *Polymer Preprints* **2005**, 46 (2), 994-995.

Li, J; Wu, C.; Morgan, S. E.; Smith, R. A.; Wicks, D. A. "Preparation and Characterization of Keratin Coatings for Orthopedic Implant Applications" *Polymer Preprints* **2005**, 46 (2), 527-528.

Wu, C.; Li, J.; Smith, R.; Wicks, D. A.; Morgan, S. E. "Fabrication of Hydratable Keratin from Human Hair for Medical Applications" *Polymer Preprints* **2005**, 46 (2), 512.

Misra, R.; Li, J.; Benson, S. D.; Malkovich, N.; Morgan, S. E., Nanotribology of Protein Modified Surfaces, Annual Technical Conference – Society of Plastics Engineers **2005**, 63rd, 1842-1846.

Jones, P. J.; Malkovich, N.; Thomas, D. B.; Morgan, S. E. "Dielectric Properties of Self-Reinforced Polymers" Annual Technical Conference – Society of Plastics Engineers **2005**, 63rd, 2067-2069.

Benson, S. D.; Cannon, G. C.; McCormick, C. L. , Morgan, S. E., "Surface Modification Behavior of Amphipathic Fungal Proteins" *PMSE* **2005**, 92, 311.

Benson, S. D.; Hong, C. K.; Cannon, G. C.; McCormick, C. L., Morgan, S. E. "Interfacial Behavior of Sc3 Hydrophobin from *Schizophyllum commune*." *PMSE* (91) **2004**, 572-573.

Hong, C.K.; Benson, S.D.; Cannon, G. C., McCormick, C. L. and Morgan, S.E. " Surface Properties of Amphipathic Films of Natural and Synthetic Polymers." Annual Technical Conference – Society of Plastics Engineers **2004**, 62nd(Vol.2), 11957-1961.

Morgan, S. E.; Malkovich, N.; Hong, C. K.; and Benson, S. D. "Surface Characterization of Rigid Rod Polymers."Annual Technical Conference – Society of Plastics Engineers **2004**, 62nd(Vol.2), 1943-1947.

Benson, S. D.; Stroud, P. A., Morgan, S. E.; Cannon, G. C.; and McCormick, C. L. Characterization of Assembled States of Hydrophobin from *Schizophyllum commune*. *Polymeric Materials Science and Engineering* **2003**, 89, 541-542.

Morgan, S. E.; Lemmen, T.; Davis, G.; Gijzen, E.; "The Performance of Sulfonate Salt-Containing Polycarbonate Products in Flammability Testing" *Antec Proceedings* **1994**, 3, 2840.

LeGrand, D. G.; McKinley, B.; McCloskey, P.; Dardaris, D.; Caraher, J.; Morgan, S.; Snow, K.; Sybert, P.; " The Effects of Endgroups and Molecular Weight on the Thermal Aging of Polycarbonate Resins" *Antec Proceedings* **1994**, 2, 2067.

Murmick, P. S.; Morgan, S. E.; "Volume Fraction Normalization Technique for the Study of Drag Reduction Efficiency" *Polymer Preprints* **1989**, 30(2), 256.

McCormick, C. L.; Hester, R. D.; Morgan, S. E.; Safiedinne, A.M.; "Model Water Soluble Acrylamide Copolymers for the Study of Polymeric Drag Reduction" *Polymer Preprints* **1987**, 28(2).

PUBLISHED ABSTRACTS

Morgan, Sarah E. "Surface modification behavior of hydrophobin fungal proteins," *Proceedings Mississippi Biomass Conference*, April, **2006**, Choctaw, Mississippi.

Danner, J.; Nazarenko, S.; Morgan, S. E.; "The Characterization of Dendritic Polyol/Clay Nanocomposites," *J Mississippi Academy of Sciences* **2005**, 50(1), 59.

Benson, S. D.; Cannon, G. C.; McCormick, C. L.; Morgan, S. E. "Mechanical and Interfacial Behavior of Amphipathic Natural and Synthetic Polymers" *J Mississippi Academy of Sciences* **2005**, 50(1), 59.

Misra, R.; Jones, P. J.; Morgan, S. E. "Nanotribological Studies of Polymer Surfaces via Atomic Force Microscopy" *J Mississippi Academy of Sciences* **2005**, 50(1), 54.

McWright, C.; Short, C.; Grant, A.; Benson, S. D.; Morgan, S. E. "Surface Modification Behavior of Amphipathic Fungal Proteins Isolated from Edible Fungal Sources" *J Mississippi Academy of Sciences* **2005**, 50(1), 53.

Benson, S. D.; Cannon, G. C.; McCormick, C. L.; Morgan, S. E. "Mechanical and Physicochemical Film Properties of Amphipathic Natural and Synthetic Polymers" Alliance for Graduate Education in Mississippi Abstracts of Papers, **2005**.

Grant, A.; Yarbrough, J.; Benson, S. D.; Hong, C. K.; Cannon, G. C.; McCormick, C. L.; Morgan, S. E. "Growth and Isolation of the Hydrophobin Sc3 Secreted by the Wood-Rotting Fungus *Schizophyllum Commune*", Mississippi Academy of Science, **2004**.

Davis, F.; Thigpen, S.; Benson, S. D.; Hong, C. K.; Morgan, S.E. "Surface Analysis of Pluronic-Treated Surfaces Using Contact Angle Testing Methods", Mississippi Academy of Sciences, **2004**.

Benson, S. D., Hong, C. K., Morgan, S. E., McCormick, C. Ll., Cannon, G. C. "Interfacial Behavior of Hydrophobins, a Unique Class of Proteins" Mississippi Academy of Sciences, **2004**.

Morgan, S. E.; Hasson, A.; Sowle, D.; Saito, A.; "High Flow Flame Retardant Polycarbonate Blends for Thin Wall Applications" *Proceedings Fire Retardant Chemical Association International Meeting* **1995**, 147.

McCormick, C. L.; Hester, R. D.; Morgan, S. E.; Safieddine, A. M. "Water Soluble Drag Reducing Copolymers" *Abstracts MS ACS Midwinter Symposium*, **1987**.

McCormick, C. L.; Morgan, S. E. "Synthesis and Characterization of Acrylamide Copolymers for Drag Reduction Studies" *Abstracts SE Regional ACS Meeting*, **1986**.

McCormick, C. L.; McCaleb Morgan, S. E. "Acrylamide Copolymers for Drag Reduction Studies" *Abstracts MS Academy of Sciences*, **1986**.

McCormick, C. L.; McCaleb Morgan, S. E. "An Investigation of the Molecular Parameters which Relate to Drag Reduction" *Abstracts SE Regional ACS Meeting*, **1985**.

McCormick, C. L.; McCaleb Morgan, S. E. "Drag Reduction in Dilute Polymer Solutions" *Abstracts MS Academy of Sciences*, **1985**

PRESENTATIONS

Sorci, G. A.; Williams, E. B.; Cannon, G. C.; Heinhorst, S.; Morgan, S. E. "Development of static and dynamic light scattering techniques to follow the behavior of the protein complexes termed carboxysomes" ACS Atlanta, 2006.

Misra, R.; Morgan, S. E. "Nanoscale Surface Topography and Friction of Polypropylene/Polyhedral Oligomeric Silsesquioxane (POSS[®]) Hybrid Nanocomposites," ACS Atlanta, 2006.

Hamilton, K.; Misra, R.; Morgan, S. E. "Thermal Properties of Octaisobutyl Polyhedral Oligomeric Silsesquioxane/Polypropylene Hybrid Nanocomposites" ACS Atlanta, 2006.

Jones, P.; Wahl, L.; Morgan, S. E. "Nanoindentation of Poly(benzoyl paraffinylene), Polycarbonate and Polyetherimide Engineering Thermoplastics" ACS Atlanta 2006.

Alidedeoglu, A. H.; Misra, R.; Li, J.; Morgan, S. E. "Surface friction study of hyaluronic acid thin films through lateral force microscopy" ACS Atlanta, 2006.

Morgan, Sarah E. "Surface modification behavior of hydrophobin fungal proteins," Mississippi Biomass Conference, April, 2006, Choctaw, Mississippi

Morgan, S. E.; Li, J.; Benson, D.; Misra, R.; Cannon, G. C. "Nanoprobe Evaluations of Hydrophobin-Modified Hair" ACS Washington D.C., 2005.

Alidedeoglu, A. H.; Dutta, S.; Flosenzier, V.; Morgan, S. E.; Rawlins, J. W. "Sec-butenyl Acetate and Styrene Copolymers via Emulsion Polymerization" ACS Washington D.C., 2005.

Li, J.; Wu, C.; Morgan, S. E.; Smith, R. A.; Wicks, D. A. "Preparation and Characterization of Keratin Coatings for Orthopedic Implant Applications" ACS Washington D.C., 2005.

Wu, C.; Li, J.; Smith, R.; Wicks, D. A.; Morgan, S. E. "Fabrication of Hydratable Keratin from Human Hair for Medical Applications" ACS Washington D.C., 2005.

Benson, S. D.; Cannon, G. C.; McCormick, C. L. , Morgan, S. E., “Surface Modification Behavior of Amphipathic Fungal Proteins” ACS San Diego, 2005.

Misra, R.; Li, J.; Benson, S. D.; Malkovich, N.; Morgan, S. E., “Nanotribology of Protein Modified Surfaces” ANTEC Boston, 2005.

Jones, P. J.; Malkovich, N.; Thomas, D. B.; Morgan, S. E. “Dielectric Properties of Self-Reinforced Polymers” ANTEC Boston, 2005.

Danner, J.; Nazarenko, S.; Morgan, S. E.; “The Characterization of Dendritic Polyol/Clay Nanocomposites,” Mississippi Academy of Sciences Annual Meeting, Oxford, MS, 2005.

Benson, S. D.; Cannon, G. C.; McCormick, C. L.; Morgan, S. E. “Mechanical and Interfacial Behavior of Amphipathic Natural and Synthetic Polymers” Mississippi Academy of Sciences Annual Meeting, Oxford, MS, 2005.

Misra, R.; Jones, P. J.; Morgan, S. E. “Nanotribological Studies of Polymer Surfaces via Atomic Force Microscopy” Mississippi Academy of Sciences Annual Meeting, Oxford, MS, 2005.

McWright, C.; Short, C.; Grant, A.; Benson, S. D.; Morgan, S. E. “Surface Modification Behavior of Amphipathic Fungal Proteins Isolated from Edible Fungal Sources” Mississippi Academy of Sciences Annual Meeting, Oxford, MS, 2005.

Benson, S. D.; Cannon, G. C.; McCormick, C. L.; Morgan, S. E. “Mechanical and Physicochemical Film Properties of Amphipathic Natural and Synthetic Polymers” Alliance for Graduate Education in Mississippi Annual Meeting, Jackson, MS, 2004.

Misra, R.; Jones, P. J.; Morgan, S. E. “Surface Characterization & Friction Studies of Polymers via Atomic Force Microscopy” CNSI- VEECO Polymer Summer Workshop, U. California, Santa Barbara, 2004.

Benson, S. D.; Hong, C. K.; Cannon, G. C.; McCormick, C. L., Morgan, S. E. “Interfacial Behavior of Sc3 Hydrophobin from *Schizophyllum commune*.” ACS Philadelphia, 2004.

Hong, C.K.; Benson, S.D.; Cannon, G. C., McCormick, C. L. and Morgan, S.E. “ Surface Properties of Amphipathic Films of Natural and Synthetic Polymers.” ANTEC Chicago, 2004.

Morgan, S. E.; Malkovich, N.; Hong, C. K.; and Benson, S. D. “Surface Characterization of Rigid Rod Polymers.” ANTEC Chicago, 2004.

Benson, S. D.; Stroud, P. A., Morgan, S. E.; Cannon, G. C.; and McCormick, C. L. Characterization of Assembled States of Hydrophobin from *Schizophyllum commune*. ACS New York, 2003.

Grant, A.; Yarbrough, J.; Benson, S. D.; Hong, C. K.; Cannon, G. C.; McCormick, C. L.; Morgan, S. E. "Growth and Isolation of the Hydrophobin Sc3 Secreted by the Wood-Rotting Fungus *Schizophyllum Commune*", Mississippi Academy of Sciences Annual Meeting, Biloxi, 2004.

Davis, F.; Thigpen, S.; Benson, S. D.; Hong, C. K.; Morgan, S.E. "Surface Analysis of Pluronic-Treated Surfaces Using Contact Angle Testing Methods", Mississippi Academy of Sciences Annual Meeting, Biloxi, 2004.

Benson, S. D., Hong, C. K., Morgan, S. E., McCormick, C. Ll., Cannon, G. C. "Interfacial Behavior of Hydrophobins, a Unique Class of Proteins" Mississippi Academy of Sciences Annual Meeting, Biloxi, 2004.

Benson, S. D.; Stroud, P. A., Morgan, S. E.; Cannon, G. C.; and McCormick, C. L.; "Characterization of Assembled States of Hydrophobin from *Schizophyllum Commune*", National ACS Meeting, New York, September 2003.

Morgan, S. E. "E-Auctions in Industry" Chem Connect Annual Meeting, Miami, 2001.

Morgan, S. E., "New Automotive Applications for Engineering Thermoplastics," Fourth National Graduate Polymer Conference, University of Southern Mississippi (June 2000).

Morgan, S. E.; Hasson, A.; Sowle, D.; Saito, A.; "High Flow Flame Retardant Polycarbonate Blends for Thin Wall Applications" *Proceedings Fire Retardant Chemical Association International Meeting 1995*, 147.

Morgan, S. E.; Lemmen, T.; Davis, G.; Gijzen, E.; "The Performance of Sulfonate Salt-Containing Polycarbonate Products in Flammability Testing" *Antec Proceedings 1994*, 3, 2840.

LeGrand, D. G.; McKinley, B.; McCloskey, P.; Dardaris, D.; Caraher, J.; Morgan, S.; Snow, K.; Sybert, P.; "The Effects of Endgroups and Molecular Weight on the Thermal Aging of Polycarbonate Resins" *Antec Proceedings 1994*, 2, 2067.

Murmick, P. S.; Morgan, S. E.; "Volume Fraction Normalization Technique for the Study of Drag Reduction Efficiency" *Polymer Preprints 1989*, 30(2), 256.

McCormick, C. L.; Hester, R. D.; Morgan, S. E.; Safiedinne, A.M.; "Model Water Soluble Acrylamide Copolymers for the Study of Polymeric Drag Reduction" *Polymer Preprints 1987*, 28(2).

McCormick, C. L.; Hester, R. D.; Morgan, S. E.; Safieddine, A. M. "Water Soluble Drag Reducing Copolymers" *Abstracts MS ACS Midwinter Symposium*, 1987.

McCormick, C. L.; Morgan, S. E. "Synthesis and Characterization of Acrylamide Copolymers for Drag Reduction Studies" *Abstracts SE Regional ACS Meeting*, 1986.

McCormick, C. L.; McCaleb Morgan, S. E. "Acrylamide Copolymers for Drag Reduction Studies" *Abstracts MS Academy of Sciences*, 1986.

McCormick, C. L.; McCaleb Morgan, S. E. "An Investigation of the Molecular Parameters which Relate to Drag Reduction" *Abstracts SE Regional ACS Meeting*, 1985.

McCormick, C. L.; McCaleb Morgan, S. E. "Drag Reduction in Dilute Polymer Solutions" *Abstracts MS Academy of Sciences*, 1985

INVITED PRESENTATIONS

"Nanotribomechanical Investigation of Hybrid Organic/Inorganic Nanocomposites and Protein Modified Synthetic Polymers" Eastman Chemical Company, September 2006

"Nanomechanical Properties of Hybrid Organic/Inorganic Nanocomposites and High Performance Materials" Akron University, March 2006

"Nanoprobe Investigations of Protein Modified Surfaces" Vistakon, Division of Johnson and Johnson Vision Care, August 2005

"Nanoprobe Investigations of Natural and Synthetic Polymers" Texas A& M University, April 2005

Millsaps College, March 2005, "Women in Science and Engineering"

"Surface Modification via Natural and Synthetic Polymers," University of St. Louis, Feb. 2004.

"What is a Polymer" Workshop at Mississippi Association for Gifted Children, 2003

"Polymer Blends for Conductive Applications, Rensselaer Polytechnic Institute Center for Polymer Synthesis, 2003

"Polymer Blends for Conductive Applications," Department of Chemical Engineering, Mississippi State University and Department of Chemical Engineering, and University of Mississippi, 2003

"Surface Modification via Amphipathic Proteins," Lubrizol Corporation, 2003

TEACHING

Courses Taught

Spring 2003

PSC 342L – Polymer Techniques II
PSC 492 – Special Topics
PSC 721 – Polymer Techniques II

Summer 2003

PSC 691 – Research
PSC 880 – Design for Six Sigma

Fall 2003

PSC 341L – Polymer Techniques I
PSC 720 – Polymer Techniques I
PSC 691 – Research

Spring 2004

PSC 480 – Polymer Kinetics
PSC 691 – Research

Summer 2004

PSC 492 – Independent Study
PSC 691 – Research
PSC 791 – Research

Fall 2004

PSC 341L – Polymer Techniques I
PSC 360 – Polymer Rheology
PSC 720 – Polymer Techniques I
PSC 691 – Research

Spring 2005

PSC 691 – Research

Summer 2005

PSC 880 – Introduction to Polymer Science

Fall 2005

PSC 730 – Polymer Rheology
PSC 880 – Six Sigma Black Belt Training
PSC 691 – Research

Spring 2006

PSC 361 – Polymer Processing
PSC 361L – Polymer Processing Laboratory
PSC 691 – Research

Fall 2006

PSC 341L – Polymer Techniques
PSC 720 – Polymer Techniques I
PSC 691 - Research

Other Teaching

Six Sigma, Design for Six Sigma, GE, 2001 – 2002
REU Summer Polymer Science Courses, 2003, 2004, 2005

Short Course “Characterizing Surfaces and Self-Assembling Systems”,
Waterborne, Higher Solids and Powder Coatings Symposium, 2005

Graduate Students Directed

Alp Alidedeoglu, Ph.D. advisor
Chris Harris, Ph.D. advisor
Paul J. Jones, Ph.D. advisor
Rahul Misra, Ph.D. advisor

Jun Li, post-doctoral fellow
Chang K. Hong, post-doctoral fellow

Grant Barber, committee member, Ph.D. 2003
Ried Dreher, committee member, Ph.D. 2004
William Scott Miller, committee member
Erik Heindenrich, committee member
Virginia Smith, committee member
Matthew Kellum, committee member
Andrew Lamont, committee member
Shawn McConaughy, committee member
Min Yu, committee member
Justin Chan, committee member
Alicyn Rhoades, committee member
Andrew Magenau, committee member

Undergraduate Students Directed

Fayth Davis, B.S., 2004, CIA Internship, 2004
Meghan Davis
Kendra DeVaughn, Graduate School Forensic Science
Ashley Grant, Alumni Scholarship, 2003
Kristin Hamilton
Shay Thigpen, B.S., 2005
Lacey Wahl, Outstanding Freshman Polymer Science Award, 2004
Diane Farmer
Raymond Williams
Wendy Campbell (REU 2005)
Chris Lange (REU 2003)
David Macias (REU 2004)
Michelle Newland (REU 2004)
Ashley Reed (REU 2005)
Brittany Jones, ACS Scholar 2006
Colin Andrews (REU 2006)

High School Teachers Directed

Cynthia N. McWright, Hancock High School
Clara Short, Hattiesburg High School
Kathy Hudson, Hattiesburg High School
Crystal Smith, South Jones High School

High School Students Directed

Ashley Grant, Hattiesburg High School
Camille Short, Oak Grove High School
Paul Keith, Mississippi School of Math and Science
Ian Barclay, Mississippi School of Math and Science