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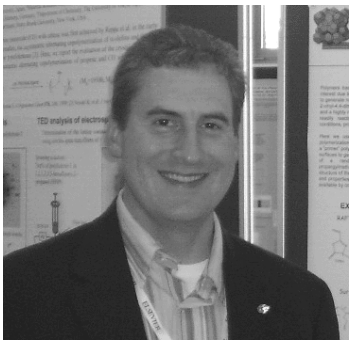

Education

University of Wisconsin, Madison, WI	Chemical Engineering	B.S., 1990
University of Minnesota, Minneapolis, MN	Chemical Engineering	Ph.D., 1996

Professional Experience

2011-present Professor, Department of Chemistry and Department of Chemical and Biomolecular Engineering

2007–present Senior Research Staff Scientist, Center for Nanophase Materials Sciences, Oak Ridge National Laboratory

2008–2012 Group Leader, Macromolecular Nanomaterials Group, Center for Nanophase Materials Sciences, Oak Ridge National Laboratory

2007–2011 Associate Professor and UT/ORNL Joint Faculty Member, Dept of Chemistry, University of Tennessee-Knoxville

2001–2007 Associate Professor, Dept of Chemical & Biomolecular Engineering, Clemson University

1996–2001 Assistant Professor, Dept of Chemical & Biomolecular Engineering, Clemson University

Professional and Synergistic Activities

2006–present Member, Sigma Xi, American Chemical Society, American Institute for Chemical Engineers, and American Physical Society

2006–2007 President, User's Executive Committee, Center for Nanophase Materials Science, ORNL

2002 Visiting Research Scholar, Institute for Microsystems Technology, University of Freiburg, Germany

2001–2006 Topic Leader for Surface Modification Research Group, Center for Advanced Engineering Fibers and Films, Clemson University

<u>American Chemical Society</u>

2011 Symposium Co-Organizer and Co-Chair, Mark Senior Scholar Award: Symposium in Honor of Jimmy Mays (part of POLY programming at 2011 Fall National Meeting, Denver, CO).

2008 Member, Strategic Planning Committee, Polymeric Materials: Science and Engineering

2008 Symposium Co-Organizer and Co-Chair, Polymer Surfaces and Interfaces – Loops, Branches and Brushes (part of PMSE programming at 235th National Meeting, New Orleans).

<u>American Institute of Chemical Engineers</u>

2010 –2011 Chair, Area 8a - Polymers (part of the Materials Engineering and Sciences Division)

2009-2010 Vice-Chair for Programming, Area 8a - Polymers (part of the Materials Engineering and Sciences Division)

2011 Symposium Organizer and Co-Chair, Structure and Properties in Polymers I

2010 Symposium Organizer and Co-Chair, Nanoscale Structure in Polymers II

2010 Symposium Organizer and Co-Chair, Thin Films and Interfaces I

Honors and Awards

2006-2007	Visiting Scientist, Center for Nanophase Materials Sciences, Oak Ridge National Laboratory
2006-2007	President, User's Executive Committee, Center for Nanophase Materials Science, Oak Ridge National Laboratory
2000-2006	Undergraduate Coordinator, Department of Chemical Engineering, Clemson University
2001-2006	Topic Leader, "Surface Modification" research group, Center for Advanced Engineering Fibers and Films, Clemson University (an NSF-funded Engineering Research Center)
2002	Murray-Stokely Award for Excellence in Teaching, Clemson University (Highest teaching honor in College of Engineering and Science)
2002	Visiting Research Scholar, Institute for Microsystems Technology, University of Freiburg, Germany
2000, 2001	Clemson University Board of Trustees Award for Faculty Excellence
2000	Dow Outstanding Young Faculty Award
1999	DuPont Young Investigator Award
1999	Prince Award for Innovation in Teaching, Clemson University
1999	Alumni Master Teacher, Clemson University (University's highest award for teaching excellence)

Research Interests

Principal research activities focus on understanding assembly-structure-property relationships of ultrathin polymer films and polymeric materials in solution. Our desire and goal as scientists is to understand the design rules whereby controllable, precise syntheses coupled with the ability to manipulate the organization of soft matter lead to new and useful structures, properties and products. To respond to this challenge, we routinely study polymer layers that straddle phase boundaries, analyzing the nanoscale structure and responsiveness using a combination of a direct force measurement method, neutron scattering or scanning probe microscopy. More recently we have developed expertise in examining the dynamics of assembly using a specialized form of ellipsometry and characterizing solution structure using light scattering. Our fundamental research efforts into the thermodynamics, kinetics and transport of polymers at surfaces and interfaces contribute to the central goal, and in so doing, impact the development of biomaterial or adhesive coatings, sensors, drug delivery vehicles, and nanocomposites for energy conversion technologies.

Graduate Students and Postdoctoral Researchers

Graduate Students (19 total, current students listed)

8/2008-present Chaitra Deodhar (pursuing Ph.D. degree)
8/2009-present W. Michael Kochemba (pursuing Ph.D. degree)
8/2010-present Camille Kite (pursuing M.S. degree)
8/2011-present Kamlesh Bornani (pursuing Ph.D. degree)
8/2011-present Jesse Davis (pursuing Ph.D. degree)
8/2012-present Zachary Siebers (UT Distinguished Energy Fellow) (pursuing Ph.D. degree)

Postdoctoral Researchers (6 total)

Dr. Jung Fong Kang
Dr. José Alonzo
Dr. Erick Soto-Cantu
Dr. Jeremiah Woodcock
Dr. Nathan Ramanathan
Dr. Xu Wang

PUBLICATIONS – BOOK CHAPTERS & INVITED REVIEWS

1. Rahane, S. B.; Kilbey, S. M. II "Polymer Brushes by Surface-Initiated Iniferter-MediatedPolymerization" In *Polymer Brushes: Substrates, Technologies and Properties*, Mittal, V., Ed.;CRC Press: New York, **2012**; Chapter 12.

2. Ramanathan, M.; Kilbey, S. M. II; Ji, Q.; Hill, J. P.; Ariga, K. "Materials Self-assembly and Fabrication in Confined Spaces", *J. Mater. Chem*. **2012**, *22*, 10389-10405.

3. Kilbey, S. M. II; Ankner, J. F. "Neutron Reflectivity as a Tool to Understand Polyelectrolyte Brushes", *Curr. Opin. Colloid Int. Sci.* **2012**, *17*, 83-89.

PUBLICATIONS – RESEARCH ARTICLES

1. Ramanathan, M.; Kilbey, S. M. II; Darling, S. B. "Process Controlled Multiscale Morphologies in Metal-containing Block Copolymer Thin Films", *J. Nanosci. & Nanotech.* **2012** (accepted).

2. Kochemba, W. M.; Pickel, D. L.; Sumpter, B. G.; Chen, J.; Kilbey, S. M. II "In-situ formation of pyridyl-functionalized poly(3-hexylthiophene)s via quenching of the Grignard metathesis polymerization: Toward ligands for semiconductor quantum dots", *Chem. Mater*. **2012** (accepted).

3. Hinestrosa, J. P.; Uhrig, D.; Pickel, D. L.; Mays, J. W.; Kilbey, S. M. II "Hydrodynamics of Polystyrene–Polyisoprene Miktoarm Star Copolymers in a Selective and a Non-Selective Solvent", *Soft Matter* **2012**, 8(39), 10061-10071.

4. Lokitz, B. S.; Wei, J.; Hinestrosa, J. P.; Ivanov, I.; Browning, J. F.; Ankner, J. F.; Kilbey, S. M. II; Messman, J. M. "Manipulating Interfaces through Surface Confinement of Poly(glycidyl methacrylate)-block-poly(vinyldimethylazlactone), a Dually Reactive Block Copolymer", *Macromolecules* **2012**, *45*, 6438-6449.

5. Kumar, R.; Sumpter, B. G.; Kilbey, S. M. II "Charge Regulation and Local Dielectric Function in Planar Polyelectrolyte Brushes", *J. Chem. Phys.* **2012**, *136*, 234901.

6. Chen, J.; Yu, X.; Hong, K.; Messman, J. M.; Pickel, D. L.; Xiao, K.; Dadmun, M. D.; Mays, J. W.; Rondinone, A. J.; Sumpter, B.; Kilbey, S. M. II "Ternary Behavior and Systematic Nanoscale Manipulation of Domain Structures in P3HT/PCBM/P3HT-b-PEO Films", *J. Mater. Chem*. **2012,** *22*(26), 13013-13022. (featured on inside front cover)

7. Kochemba, W. M.; Kilbey, S. M. II; Pickel, D. L. "End-group Composition of Poly(3-hexylthiphene)s Prepared by In Situ Quenching of the GRIM Polymerization: Influence of Additives and Reaction Conditions", *J. Polym. Sci.: Part A. Poly. Chem.* **2012**, *50*(14), 2762-2769.

8. Alonzo, J.; Chen, J.; Messman, J.; Yu, X.; Hong, K.; Deng, S.; Swader, O.; Dadmun, M.; Ankner, J. F.; Britt, P.; Mays, J. W.; Malagoli, M.; Sumpter, B. G.; Brédas, J. L.; Kilbey, S. M. II "Assembly and Characterization of Well Defined High Molecular Weight Poly(pphenylene) Polymer Brushes", *Chem. Mater*. **2011**, *23*(19), 4367-4374.

9. He. Z.; Xiao, K.; Durant, W.; Hensley, D. K.; Anthony, J. E.; Hong, K.; Kilbey, S. M. II; Chen, J.; Li, D. "Enhanced Performance Consistency in Nanoparticle/TIPS Pentacene-Based Organic Thin Film Transistors", *Adv. Funct. Mater.* **2011**, *21*(19), 3617-3623.

10. Soto-Cantu, E.; Lokitz, B. S.; Hinestrosa, J. P.; Deodhar, C.; Messman, J. M.; Ankner, J. F.; Kilbey, S. M. II "Versatility of Alkyne-Modified Poly(Glycidyl Methacrylate) Layers for Click Reactions", *Langmuir* **2011**, *27*, 5986-5996.

11. Verduzco, R.; Botiz, I.; Dimasi, E.; Pickel, D. L.; Hong, K.; Kilbey, S. M.; Darling, S. B. "Polythiophene-block-Polyfluorene and Polythiophene-block-Poly(fluorene-cobenzothiadiazole): Insights into Crystallization of All-Conjugated Block Copolymers", *Macromolecules* **2011**, *44*, 530–539.

12. He, L.; Hinestrosa, J. P.; Pickel, J. M.; Zhang, S.; Bucknall, D. G.; Kilbey, S. M.; Mays, J. W.; Hong, K. "Fluorine-Containing ABC Linear Triblock Copolymers: Synthesis and Selfassembly in Solutions", *J. Poly. Sci.: Part A.: Polym. Chem.* **2011**, *49*, 414-422.

13. Hinestrosa, J. P.; Alonzo, J.; Osa, M.; Kilbey, S. M. II "Solution Behavior of Polystyrene-Polyisoprene Miktoarm Block Copolymers in a Selective Solvent for Polyisoprene", *Macromolecules* **2010**, 43, 7294-7304.

14. Verduzco, R.; Luchette, P.; Hong, S. H.; Harden, J.; DiMasi, E.; Palfy-Muhoray, P.; Kilbey, S. M. II; Sprunt, S.; Gleeson, J. T.; Jakli, A. "Bent-Core Liquid Crystal Elastomers", *J. Mater. Chem*. **2010**, *20*, 8488-8495.

15. Ankner, J. F.; Browning, J. F.; Halbert, C. E.; Lokitz, B. S.; Carmichael, J. R.; Kilbey, S. M.; Rother, G.; Wesolowski, D. J. "Neutron Reflectivity Sample Cells for Geochemically Relevant Environments", *Geochim. Cosmochim. Ac*. **2010**, *74*(12), A25-A25.

16. de Castro, S.; Maruoka, H.; Hong, K.; Kilbey, S. M.; Hechler, B.; Gachet, C.; Harden, T. K.; Jacobson, K. "Functionalized Congeners of P2Y1 Receptor Antagonists: 2-Alkynyl (N)-Methanocarba 2′-Deoxyadenosine 3′,5′-Bisphosphate Analogues and Conjugation to a Polyamidoamine (PAMAM) Dendrimer Carrier", *Bioconj. Chem*. **2010**, *21*, 1190-1205.

17. Rahane, S. B.; Metters, A. T.; Kilbey, S. M. II "Modeling of Reinitiation Ability of Polymer Layers Grown by Surface-Initiated Photoiniferter-Mediated Photopolymerization", *J. Poly. Sci. Part A: Polym. Chem.* **2010**, *48*, 1586-1593.

18. Tosh, D. K.; Yoo, L. S.; Chinn, M.; Hong, K.; Kilbey, S. M. II; Barrett, M. O.; Fricks, I. P.; Harden, T. K.; Gao, Z.-G.; Jacobson, K. A. "Polyamidoamine (PAMAM) Dendrimer Conjugates of "Clickable" Agonists of the A3 Adenosine Receptor and Coactivation of the P2Y14 Receptor by a Tethered Nucleotide", *Bioconj. Chem*. **2010**, *21*, 372-384.

19. Lokitz, B. S.; Messman, J. M.; Hinestrosa, J. P.; Alonzo, J.; Verduzco, R.; Brown, R. H.; Osa, M.; Ankner, J. F.; Kilbey, S. M. II "Dilute Solution Properties and Surface Attachment of RAFT Polymerized 2-Vinyl-4,4-Dimethylazlactone (VDMA)", *Macromolecules*, **2009**, *42*, 9018-9026.

20. Hinestrosa, J. P.; Alonzo, J.; Mays, J.; Kilbey, S. M. II "Role of Surface Reorganization on Preferential Adsorption of Macromolecular Ensembles at the Solid/Fluid Interface", *Macromolecules* **2009**, 42, 7913–7918.

21. Messman, J. M.; Lokitz. B. S.; Pickel, J. M.; Kilbey, S. M. II "Highly Tailorable Materials based on 2-Vinyl-4,4-dimethyl azlactone: (Co) Polymerization, Synthetic Manipulation and Characterization", *Macromolecules* **2009**, *42*, 3933-3941.

22. Alonzo, J.; Mays, J. W.; Kilbey, S. M. II "Forces of Interaction between Surfaces Bearing Looped Polymer Brushes in Good Solvent", *Soft Matter* **2009**, 5, 1897-1904.

23. Barringer, J. E.; Messman, J. M.; Banaszek, A. L.; Meyer, H. M. III; Kilbey, S. M. II "Immobilization of Biomolecules on Poly(vinyldimethylazlactone)-Containing Surface Scaffolds", *Langmuir* **2009**, 25, 262-268.

24. Rahane, S. B.; Kilbey, S. M. II; Metters, A. T. "Kinetic Modeling of Surface-Initiated Photoiniferter-Mediated Photopolymerization of Methyl Methacrylate in Presence of

Tetraethylthiuram Disulfide", *Macromolecules* **2008**, *41*, 9612-9618.

25. Uhrig, D.; Hong, K.; Mays, J. W.; Kilbey, S. M.; Britt, P. F. "Synthesis and Characterization of an ABC Miktoarm Star Terpolymer of Cyclohexadiene, Styrene, and 2-Vinylpyridine", *Macromolecules* **2008**, *41*, 9480-9482.

26. Ankner, J. F.; Tao, X.; Halbert, C. E.; Browning, J. F.; Kilbey, S. M. II; Swader, O. A.; Dadmun, M.; Kharlampieva, E.; Sukhishvili, S. A. "The SNS Liquids Reflectometer", *Neutron News* **2008**, *19*,14-16.

27. Rahane, S. B.; Floyd, J. A.; Metters, A. T. Kilbey, S. M. II "Swelling Behaviour of Multiresponsive Poly(methacrylic acid)-block-poly(N-isopropylacrylamide) Brushes Synthesized Using Surface-Initiated Photoiniferter-Mediated Photopolymerization", *Advanced Functional Materials* **2008**, *18*, 1232-1240. *(Featured on issue cover)*

28. Huang, Z.; Alonzo, J.; Liu, M.; Lay, M.; Ji, H.; Zhang, Y.; Yin, F.; Smith, G. D.; Mays, J. W.; Kilbey, S. M. II; Dadmun, M. D. "Density Profile of "Looped" Triblock Copolymer Brushes at the Liquid-Solid Interfaces By Neutron Reflectivity Measurements", *Macromolecules* **2008**, *41*, 1745-1752.

29. Ji, H.; Sakellariou, G.; Advincula, R. C.; Smith, G. D.; Kilbey, S. M. II; Dadmun, M. D.; Mays, J. W. "Synthesis and Characterization of Well-defined [Polystyrene-b-poly(2-vinylpyridine)]n Star-Block Copolymers with Poly(2-vinylpyridine) Corona Blocks", *J. Poly. Sci.: Part A. Polym. Chem*. **2007**, 45(17), 3949-3955.

30. Yin, F.; Bedrov, D.; Smith, G. D.; Kilbey, S. M. II "A Langevin Dynamics Simulation Study of the Tribology of Polymer Loop Brushes", *J. Chem. Phys*. **2007**, *127*, 084910.

31. Ji, H.; Farmer, B. S.; Nonidez, W. K.; Advincula, R. C.; Smith, G. D.; Kilbey, S. M. II; Dadmun, M. D.; Mays, J. W. "Anionic Synthesis of Epoxy End-Capped Polymers", *Macromol. Chem. Phys.* **2007**, *208*, 807-814.

32. Sankhe, A. Y.; Husson, S. M.; Kilbey, S. M. II "Direct Polymerization of Surface-Tethered Polyelectrolyte Layers in Aqueous Solution via Surface-Confined ATRP", *J. Poly. Sci. Part A.: Polym. Chem.* **2007**, *45*, 566-575.

33. Rahane, S. B.; Metters, A. T.; Kilbey, S. M. II "Impact of Added Tetraethyliuram Disulfide Deactivator on the Kinetics of Growth and Reinitiation of Poly(methyl methacrylate) Brushes Made by Surface-Initiated Photoiniferter-Mediated Photopolymerization", *Macromolecules* **2006**, *39*, 8987-8991.

34. Alonzo, J.; Huang, Z.; Liu, M.; Mays, J. W.; Toomey, R. G.; Dadmun, M. D.; Kilbey, S. M. II "Looped Polymer Brushes Formed by Self Assembly of Poly(2-vinylpyridine)-polystyrenepoly(2-vinylpyridine) Triblock Copolymers at the Solid-Fluid Interface. 1. Kinetics of Preferential Adsorption", *Macromolecules* **2006**, *39*, 8434-8439.

35. Sankhe, A. Y.; Husson, S. M.; Kilbey, S. M. II "Effect of Catalyst Deactivation on Polymerization of Electrolytes by Surface-Confined Atom Transfer Radical Polymerization in Aqueous Solutions", *Macromolecules* **2006,** *39*, 1376-1383.

36. Forster, A. M.; Mays, J. W.; Kilbey, S. M. II "Effect of Temperature on the Shearing of Polystyrene Brushes", *Journal of Polymer Science: Part B- Polymer Physics* **2006**, *44*, 649-654.

37. Samadi, A.; Husson, S. M.; Liu, Y.; Luzinov, I.; Kilbey, S. M. II "Low Temperature Growth of Thick Polystyrene Brushes via ATRP", *Macromolecular Rapid Communications* **2005**, *26*, 1829-1834.

38. Rahane, S. B.; Kilbey, S. M. II; Metters, A. T. “Kinetics of Photoiniferter-Mediated Photopolymerization”, *Macromolecules* **2005**, *38*, 8202-8210.

39. Haining, J. Nonidez, W. K.; Advincula, R. C.; Smith, G. D.; Kilbey, S. M. II; Dadmun, M. D.; Mays, J. W. “MALDI-TOF MS Characterization of Carboxyl-End-Capped Polystyrenes Synthesized Using Anionic Polymerization”, *Macromolecules* **2005**, *38*, 9950-9956.

40. Sankhe, A. Y.; Booth, B.; Wiker, N.; Kilbey, S. M. II “Inkjet Printing for Patterned Polymer Interfaces”, *Langmuir* **2005**, *21*, 5332 -5336.

41. Tian, P.; Uhrig, D.; Mays, J. W.; Watanabe, H. Kilbey, S. M. II “Role of Branching on the Structure of Polymer Brushes Formed From Comb Copolymers”, *Macromolecules* **2005**, *38*, 2524-2529.

42. Schorr, P. A.; Kwan, T. C. B.; Kilbey, S. M. II; Shaqfeh, E. S. G.; Tirrell, M. “Shear Forces Between Tethered Polymer Chains as a Function of Compression, Sliding Velocity and Solvent Quality”, *Macromolecules* **2003**, *36*, 389-398.

43. Kang, J. F.; Perry, J. D.; Tian, P.; Kilbey, S. M. II “Growth and Morphology of Polythiophene on Thiophene-Capped Monolayers: 1. Single Component Monolayers”, *Langmuir* **2002**, *18*, 10196-10201.

44. Forster, A.; Kilbey, S. M. II “Effect of Solvent Quality on the Frictional Forces Between Polymer Brushes”, in *Polymer Interfaces and Thin Films,* C.W. Frank, Ed. Materials Research Society Symposium Proceedings, 710 (2002).

45. Sankhe, A.; Husson, S.; Kilbey, S. M. II “Polymerization of Poly(itaconic acid) on Surfaces by Atom Transfer Radical Polymerization in Aqueous Solution”, in *Polymer Interfaces and Thin Films,* C.W. Frank, Ed. Materials Research Society Symposium Proceedings, 710 (2002).

46. Kang, J. F.; Harrison, K. E.; Kilbey, S. M. II “Surface Structure and Electrochemical Polymerization of Mixed, Thiophene-Capped Monolayers”, in *Organic Optoelectronic Materials, Processing and Devices*, S. Moss, Ed. Materials Research Society Symposium Proceedings, 708 (2002).

47. Harrison, K. E.; Kang, J. F.; Haasch, R.; Kilbey, S. M. II “Surface Structure and Composition of Thiophene-bearing Monolayers”, *Langmuir* **2001**, *17*, 6560-6568.

48. Kilbey, S. M. II ; Watanabe, H.; Tirrell, M. “Structure and Scaling of Polymer Brushes Near the Theta Condition”, *Macromolecules* **2001**, *34*, 5249-5259.

49. Lodha, A.; Kilbey, S. M. II; Ramamurthy, P. C.; Gregory, R. V. “Effect of Annealing on Electrical Conductivity and Morphology of Polyaniline Films”, *Journal of Applied Polymer Science* **2001**, *82*, 3602-3610.

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51. Sullivan, J. T.; Harrison, K. E.; Mizzell, J. P. III; Kilbey, S. M. II “Contact Angle and Electrochemical Characterization of Multicomponent, Thiophene-Capped Monolayers”, *Langmuir* **2000**, *16*, 9797-9803.

52. Kilbey, S. M. II; Schorr, P.; Tirrell, M. “Frictional Behavior of Self-Assembled Polymer Brushes” in *Molecular Interactions and Time-Space Organization in Macromolecular Systems*,

53. Morishima, Y., Norisuye, T., Tashiro, K., eds., Springer-Verlag, Berlin, 187-195 (**1999**).

54. Kilbey, S. M. II; Schorr, P.; Tirrell, M. “Effect of Solvent Condition on the Dynamic Response of Polymer Brushes” in *Dynamics of Small Confining Systems IV*, J.M. Drake, G.S.

55. Grest, J. Klafter, R. Kopelman, Eds. Materials Research Society, Pittsburgh, PA (**1999**).
Kilbey, S. M. II; Bates, F. S.; Tirrell, M.; Yoshizawa, H.; Hill, R.; Israelachvili, J. “Force and Friction Measurements Reflecting Structural Changes in Diblock Copolymeric Liquids”, *Macromolecules* **1995**, *28*, 5626-5631.

OTHER WRITTEN CONTRIBUTIONS

1. Kilbey, S. M. II; Rahane, S. B.; Floyd, J. A.; Metters, A. T. “Synthesis and Swelling Behavior of Photopolymerized Poly(N-isopropylacrylamide) and Poly(methacrylic acid) Brushes”, in *Proceedings of the 34th Annual International Waterborne, High-Solids and Powder Coatings Symposium*, **2007,** 67-76.

2. Messman, J. M.; Banaszek, A.; Barringer, J.; Mays, J. W.; Kilbey, S. M. II “Synthesis, Assembly, and Bio-functionalization of Stimuli-Responsive Polymer Brushes”, in *Proceedings of the 34th Annual International Waterborne, High-Solids and Powder Coatings Symposium*, **2007**, 77-88.

3. Hirt, D. E.; Cox, C. L.; Bruce, D. A.; Gooding, C. H.; Harrison, G. M.; Husson, S. M.; Kilbey, S. M. II ; Rice, R. W.; Switzer, D. M. “Using a Hierarchical Model of Cognition to Enhance Polymer Education”, *ANTEC 2004 – Proceedings of the 62nd Annual Technical Conference & Exhibition, Chicago, Society of Plastics Engineers*, **2004**, *50*, 3580-3584.

4. Switzer, D.M.; Husson, S.M.; Bruce, D.A.; Gooding, C.H.; Harrison, G.M.; Hirt, D.E.; Kilbey, S. M. II; Rice, R.W. “Implementing and Assessing a Hierarchical Cognitive Model to Educate Engineering Undergraduates”, *Proceedings of ASEE Annual Conference*, Nashville, June 22-25, **2003**.

5. Hirt, D.E.; Bruce, D.A.; Gooding, C.H.; Haile, J.M.; Harrison, G.M.; Husson, S.M.; Kilbey, S. M. II; Rice, R.W.; Switzer, D.M. “Applying a Hierarchical Model of Mental Growth to Educate Undergraduate Engineering Students: Preliminary Assessment”, *Proceedings of ASEE Annual Conference*, Montreal, June 16-19, **2002**.

6. Kilbey, S. M. II; Tirrell, M.; Bates, F. S. “Shearing of Block Copolymer Brushes”, *Proceedings of the First Joint Topical Conference on Processing, Structure, and Properties of Polymeric Materials*, AIChE Press, **1996**.

7. Numerous preprints submitted in conjunction with presentations given at National Meetings of the American Chemical Society and published in the Proceedings of the PMSE and POLY Divi