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EMPLOYMENT

- 7/00-present Professor, Department of Chemical Engineering, University of California, Berkeley, California 94720.
- 7/00-present 5/09-present Faculty Senior Scientist
7/00-5/09 Faculty Associate Scientist
Materials Sciences Division and Environmental Energy Technologies
Division, Lawrence Berkeley National Laboratory, Berkeley, California
94720.
- 08/92-6/00 9/98-6/00 Professor
9/96-8/98 Associate Professor
1/92-8/96 Assistant Professor
Department of Chemical Engineering and Chemistry
Polytechnic University, Brooklyn, New York 11201.
- 07/90 - 12/91 Post-doctoral researcher, Exxon Research and Engineering
Company, Annandale, New Jersey.
Advisors: David J. Lohse and William W. Graessley
- 04/88 - 06/90 Post-doctoral researcher, Department of Chemical Engineering
and Materials Science, University of Minnesota.
Advisors: Matthew Tirrell and Timothy P. Lodge

EDUCATION

- PhD, Chemical Engineering (May, 1988)
Rensselaer Polytechnic Institute
Advisor: E. Bruce Nauman
- MS, Chemical Engineering (May, 1984)
Clarkson University
Advisor: Shankar Subramanian
- B Tech, Chemical Engineering (May, 1982)
Indian Institute of Technology at Kanpur, India
Advisor: K.S. Gandhi

AWARDS

- Fellow of the Neutron Scattering Society of America, 2014.
- R&D 100, awarded by R&D Magazine for the development of "Nanostructured Polymer Electrolytes for Rechargeable Lithium Batteries" developed jointly by Lawrence Berkeley National Laboratory and Hany B. Eitouni and Mohit Singh of Seeo, Inc., 2008.
- Charles M.A. Stine Award, American Institute of Chemical Engineers Award for Materials Engineering and Science, 2005.
- Fellow of the American Physical Society, 2001.
- Hendrick C. Van Ness Lectureship, Rensselaer Polytechnic Institute, 1998.
- Camille Dreyfus Teacher-Scholar Award, 1998.
- John H. Dillon Medal, American Physical Society Award for Polymer Physics, 1997.
- Engineer of the Year, American Institute of Engineers of Indian Origin, 1997.
- 3M Non-Tenured Faculty Award, 1996.
- Sigma Xi Distinguished Faculty Research Award, Polytechnic University, 1995.
- National Science Foundation Young Investigator Award, 1994.

Students Awards and Recognition

- Scott A. Mullin, *winner*, Padden Award, Student Award Symposium, Division of Polymer Physics, American Physical Society, 2011.
- Enrique D. Gomez, *finalist*, Padden Award, Student Award Symposium, Division of Polymer Physics, American Physical Society, 2008.
- Megan L. Ruegg, *winner*, ICI Student Award, Division of Polymeric Materials Science and Engineering and Division of Polymer Chemistry, American Chemical Society, 2006.
- Hany B. Eitouni, *finalist*, Padden Award, Student Award Symposium, Division of Polymer Physics, American Physical Society, 2006.
- Timothy Rappl, *winner*, Neutron Scattering Society of America's prize for outstanding student research, 2004.
- Amy A. Lefebvre, *finalist*, ICI Student Award, Student Award Symposium, Division of Polymeric Materials Science and Engineering, American Chemical Society, 1999.
- Horng J. Dai, *finalist*, Padden Award, Division of Polymer Physics, Student Award Symposium, American Physical Society, 1997.
- Nitash P. Balsara, *finalist*, Sherwin-Williams Student Award, Division of Polymeric Materials Science and Engineering and Division of Polymer Chemistry, American Chemical Society, 1987.

REFERED PUBLICATIONS

196. "Nonflammable Perfluoroether-based Electrolytes for Lithium Batteries", D.H.C. Wong, J. Thelen, Y. Fu, D. Deavux, A.A. Pandya, V. Battaglia, N.P. Balsara, J.M. DeSimone, *Proceedings of the National Academy of Sciences*, accepted, **2014**.

195. "Crystallization in Sequence-Defined Peptoid Diblock Copolymers Induced by Microphase Separation", J. Sun, A.A. Teran, X. Liao, N.P. Balsara, R.N. Zuckermann, *Journal of the American Chemical Society*, vol. 136, p. 2070-2077, **2014**. DOI: 10.1021/ja412123y

194. "Detection of Subsurface Structures Underneath Dendrites formed on Cycled Lithium Metal Electrodes", K.J. Harry, D.T. Hallinan, D.Y. Parkinson, A.A. MacDowell, N.P. Balsara, *Nature Materials*, vol. 13, p. 69-73, **2014**. DOI: 10.1038/natmat3793

193. "Thermodynamics of Block Copolymers with and without Salt", A.A. Teran, N.P. Balsara, *Invited Feature Article, Journal of Physical Chemistry B*, vol. 118, p. 4-17, **2014**. DOI: 10.1021/jp408079z

192. "Insights on the Study of Nafion Nanoscale Morphology by Transmission Electron Microscopy", S. Yakovlev, N.P. Balsara, K.H. Downing, *Membranes (An Open Access Journal)* vol. 3, p. 424-439, **2013**. DOI: 10.3390/membranes3040424

191. "Relationship between Segregation Strength and Permeability of Ethanol/Water Mixtures through Block Copolymer Membranes", A.E. Ozcam, N. Petzetakis, A. Silverman, A.K. Jha, N.P. Balsara, accepted, *Macromolecules*, vol. 46, p. 9652-9658, **2013**. DOI: 10.1021/ma401957s

190. "Nanoscale Phase Separation in Sequence-Defined Peptoid Diblock Copolymers", J. Sun, A.A. Teran, X. Liao, N.P. Balsara, R.N. Zuckermann, *Journal of the American Chemical Society*, vol. 135, p. 14119-14124, **2013**. DOI: 10.1021/ja404233d

189. "Polymer Electrolytes", D.T. Hallinan, N.P. Balsara, *Annual Review of Materials Research*, vol. 43, p. 503-525, **2013**. DOI: 10.1146/annurev-matsci-071312-121705

188. "Effect of Supercritical Carbon Dioxide on the Thermodynamics of Model Blends of Styrene-Acrylonitrile Copolymer and Poly(methylmethacrylate) Studied by Small-Angle Neutron Scattering", S. Inceoglu, N.P. Young, A. Jackson, S.R. Kline, S. Costeaux, N.P. Balsara, *Macromolecules*, vol. 46, p. 6345-6356, **2013**. DOI: 10.1021/ma401090q

187. "Nanocomposites of Titanium Dioxide and Polystyrene-poly(ethylene oxide) Block Copolymers as Solid-State Electrolytes for Lithium Metal Batteries", I. Gurevitch, R. Buonsanti, A.A. Teran, B. Gludovatz, R.O. Ritchie, J. Cabana, N.P. Balsara, *Journal of the Electrochemical Society*, vol. 160(9), A1611-A1617, **2013**. DOI: 10.1149/2.117309jes

186. "Design of a Humidity Controlled Sample Stage for Simultaneous Conductivity and Synchrotron X-ray Scattering Measurements", A. Jackson, K.B. Beers, X.C. Chen, A. Hexamer, J.A. Pople, J.B. Kerr, N.P. Balsara, *Review of Scientific Instruments*, vol. 84, 075114, **2013**. DOI: 10.1063/1.4815981
185. "Phase Behavior of Ionic Block Copolymers Studied by a Minimal Lattice Model with Short-Range Interactions", P. Knychala, M. Dziecielski, M. Banaszak, N.P. Balsara, *Macromolecules*, vol. 46, p. 5724-5730, **2013**. DOI: 10.1021/ma400078y
184. "Electrochemically Oxidized Electronic and Ionic Conducting Nanostructured Block Copolymers for Lithium Battery Electrodes", S.N. Patel, A.E. Javier, N.P. Balsara, *ACS Nano*, vol. 7, no. 7, p. 6056-6068, **2013**. DOI: 10.1021/nn4018685
183. "First-order Disorder-to-Lamellar Phase Transition in Lithium Salt-Doped Block Copolymers", I. Nakamura, N.P. Balsara, Z.G. Wang, *ACS Macro Letters*, vol. 2, p. 478-481, **2013**. DOI: 10.1021/mz4001404
182. "Ionic Conductivity in the Metal-Organic Framework UiO-66 by Dehydration and Insertion of Lithium *tert*-Butoxide", R. Ameloot, M. Aubrey, B.M. Wiers, A. P. Gomora-Figueroa, S.N. Patel, N.P. Balsara, J.R. Long, *Chemistry, European Journal, Communication*, vol. 19, p. 5533-5536, **2013**. DOI:10.1002/chem.201300326
181. "Effect of Thermal History on the Ionic Conductivity of Block Copolymer Electrolytes", S.A. Mullin, A.A. Teran, R. Yuan, N.P. Balsara, *Journal of Polymer Science, Polymer Physics Edition*, web publication, **2013**. DOI: 10.1002/polb.23290
180. "Effect of Non-Solvent Exposure on Morphology of Mesoporous Semicrystalline Block Copolymer Films", D.T. Wong, C. Wang, J.A. Pople, N.P. Balsara, *Macromolecules*, vol. 46, p. 4411-4417, **2013**. DOI: 10.1021/ma400051x
179. "Comparing the Energy Content of Batteries, Fuels, and Materials", N.P. Balsara, J. Newman, *Journal of Chemical Education*, vol. 90(4), p. 446-452, **2013**. DOI: 10.1021/ed3004066
178. "Influence of Bound Ion on the Morphology and Conductivity of Anion-Conducting Block Copolymers", G. Sudre, S. Inceoglu, P. Cotanda, N.P. Balsara, *Macromolecules*, vol. 46, p. 1519-1527, **2013**. DOI: 10.1021/ma302357k
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176. "Study of Gas Permeabilities through Polystyrene-*block*-Poly(ethylene oxide) Copolymers", M. Minelli, M. Baschetti, D.T. Hallinan, N.P. Balsara, *Journal of Membrane Science*, vol. 432, p. 83-89, **2013**. DOI: 10.1016/j.memsci.2012.12.038

175. "Lithium Metal Stability in Batteries with Block Copolymer Electrolytes", D.T. Hallinan, S.A. Mullin, G.M. Stone, N.P. Balsara, *Journal of the Electrochemical Society*, vol. 160(3), A464-A470, **2013**. DOI: 10.1149/2.0303jes
174. "Deciphering the Three-Dimensional Morphology of Block Copolymer Thin Films by Transmission Electron Microscopy", F.I. Allen, P. Ercius, M.A. Modestino, R.A. Segalman, N.P. Balsara, A.M. Minor, *Micron*, vo. 44, p. 442-450, **2013**. DOI: 10.1016/j.micron.2012.09.010
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171. "Thermoreversible Changes in Alignment and Crosslinked Block Copolymer Melts Studied by Two Color Depolarized Light Scattering", J.D. Wilbur, E.D. Gomez, M.W. Ellsworth, B.A. Garetz, N.P. Balsara, *Macromolecules*, vol. 45(18), p. 7590-7598, **2012**. DOI: 10.1021/ma300860g
170. "Morphology and Thermodynamic Properties of a Copolymer with an Electronically Conducting Block: Poly(3-ethylhexylthiophene-*block*-Poly(ethylene oxide))", S.N. Patel, A.E. Javier, K.M. Beers, J.A. Pople, R.A. Segalman, N.P. Balsara, *Nano Letters*, vol. 12(9), p. 4901-4906, **2012**. DOI: 10.1021/nl302454c
169. "Structure-Conductivity Relationship for Peptoid-Based PEO-Mimetic Polymer Electrolytes", J. Sung, G.M. Stone, N.P. Balsara, R.N. Zuckermann, *Macromolecules*, vol. 45(12), p. 5151-5156, **2012**. DOI: 10.1021/ma300775b
168. "Limits of Spatial and Compositional Resolution of Electron Energy Loss Spectroscopy of Soft Materials", S. Yakovlev, N.P. Balsara, K.H. Downing, *Ultramicroscopy*, vol. 116, p. 39-46, **2012**. DOI: 10.1016/j.ultramicro.2012.03.003
167. "Master Curve Captures the Effect of Domain Morphology on Ethanol Pervaporation Through Block Copolymer Membranes", A.K. Jha, S.L. Tsang, A.E. Ozcam, R.D. Offeman, N.P. Balsara, *Journal of Membrane Science*, vol. 401-204, p. 125-131, **2012**. DOI: 10.1016/j.memsci.2012.01.037
166. "Discontinuous Changes in Ionic Conductivity of a Block Copolymer Electrolyte through an Order-Disorder Transition", A.A. Teran, S.A. Mullin, D.T. Hallinan, N.P. Balsara, *ACS Macro Letters*, vol. 1, p. 305-309, **2012**. DOI: 10.1021/mz200183t

165. "Simultaneous Conduction of Electronic Charge and Lithium Ions in Block Copolymers", S.N. Patel, A.E. Javier, G.M. Stone, S.A. Mullin, N.P. Balsara, *ACS Nano*, vol. 6, p. 1589-1660, **2012**. DOI: 10.1021/nn2045664
164. "Relationship Between Morphology and Conductivity of Block Copolymer-Based Battery Separators", D.T. Wong, S.A. Mullin, V.S. Battaglia, N.P. Balsara, *Journal of Membrane Science*, vol. 394-395, p. 175-183, **2012**. DOI: 10.1016/j.memsci.2011.12.037
163. "Current-Induced Formation of Gradient Crystals in Block Copolymer Electrolytes", S.A. Mullin, G.M. Stone, A.A. Teran, D.T. Hallinan, A. Hexemer, N.P. Balsara, *Nano Letters*, vol. 12, p. 464-468, **2012**. DOI: 10.1021/nl203826s.
162. "Resolution of the Modulus versus Adhesion Dilemma in Solid Polymer Electrolytes for Rechargeable Lithium Metal Batteries", G.M. Stone, S.A. Mullin, A.A. Teran, D.T. Hallinan, A.M. Minor, A. Hexemer, N.P. Balsara, *Journal of the Electrochemical Society*, vol. 159 (3), p. A222-A227, **2012**. DOI: 10.1149/2.030203jes.
161. "Direct Imaging of Nanoscale Acidic Clusters in a Polymer Electrolyte Membrane", S.Yakovlev, X. Wang, P. Ercius, N.P. Balsara, K.H. Downing, *Journal of the American Chemical Society*, vol. 113 (51), p. 20700-20703, **2011**. DOI: 10.1021/ja209240d.
160. "Effect of Lithium Polysulfides on the Morphology of Block Copolymer Electrolytes", A.A. Teran, N.P. Balsara, *Macromolecules*, vol. 44, p. 9267-9275, **2011**. DOI: 10.1021/ma202091z.
159. "Counterion Condensation in Nafion", K.M. Beers, D.T. Hallinan, X. Wang, J.A. Pople, N.P. Balsara, *Macromolecules*, vol. 44, p. 8866-8870, **2011**. DOI: 10.1021/ma2015084
158. "Thermodynamics of Ion-Containing Polymer Blends and Block Copolymers", I. Nakumara, N.P. Balsara, Z-G. Wang, *Physical Review Letters*, vol. 107, art. 198301, **2011**.
157. "Effect of Molecular Weight on Conductivity of Polymer Electrolytes", A.A. Teran, M.H. Tang, S.A. Mullin, N.P. Balsara, *Solid State Ionics*, vol. 203, p. 18-21, **2011**. DOI: 10.1016/j.ssi.2011.09.021.
156. "A Solid Lithium Electrolyte via Addition of Lithium Isopropoxide to a Metal-Organic Framework with Open Metal Sites", B.M. Wiers, N.P. Balsara, J.R. Long, *Journal of the American Chemical Society (Communication)*, vol. 113, pg. 14522-14525, **2011**. DOI: 10.1021/ja205827z.
155. "Simultaneous Electron and Ion Conduction in a Block Copolymer: Application in Lithium Battery Electrodes", A.J. Javier, S.N. Patel, D.T. Hallinan, V. Srinivasan, N.P. Balsara, *Angewandte Chemie (Communication)*, vol. 50, pg. 9848-9851, **2011**. DOI: 10.1002/anie.201102953

154. "Phase Diagrams of Blends of Polyisobutylene and Deuterated Polybutadiene as a Function of Chain Length", A.J. Nedoma, P. Lai, A. Jackson, M.L. Robertson, N.S. Wanakule, N.P. Balsara, *Macromolecules*, vol. 44, pg. 3077-3084, **2011**.
153. "Effect of Nanoscale Morphology on Selective Ethanol Transport Through Block Copolymer Membranes", A.K. Jha, L. Chen, R.D. Offeman, N.P. Balsara, *Journal of Membrane Science*, vol. 373, pg 112-120, **2011**.
152. "Salt Diffusion Coefficients in Block Copolymer Electrolytes", S.A. Mullin, G.M. Stone, A. Panday, N.P. Balsara, *Journal of the Electrochemical Society*, vol. 158, pg. A619-627, **2011**.
151. "Conductivity and Water Uptake in Block Copolymers Containing Protonated Polystyrene Sulfonate and its Imidazolium Salt", X. Wang, K. M. Beers, J.B. Kerr, N.P. Balsara, *Soft Matter*, vol. 47, pg. 647-650, **2011**.
150. "Proton Conduction in Materials with Conducting Domains with Widths less than 6 nm", N.P. Balsara, K.B. Beers, *European Polymer Journal*, vol. 42, pg. 559-562, **2011**.
149. "Similarity of the Signatures of the Initial Stages of Phase Separation in Metastable and Unstable Polymer Blends", A.J. Patel, T.J. Rappl, N.P. Balsara, *Physical Review Letters*, vol. 106, 035702:1-4, **2011**.
148. "Chemical Mapping of a Block Copolymer Electrolyte by Low-Loss EFTEM Spectral Imaging and Principle Component Analysis", F.I. Allen, M. Watanabe, Z.H. Lee, N.P. Balsara, A.M. Minor, *Ultramicroscopy*, vol. 111, pg. 239-244, **2011**.
147. "Minimization of Focused Ion Beam Damage in Nanostructured Polymer Thin Films", S. Kim, M.J. Park, N.P. Balsara, G. Liu, A.M. Minor, *Ultramicroscopy*, vol. 111, pg. 191-199, **2011**.
146. "Measurement and Analysis of the Angular Guided-Wave Depolarized Light Scattering Patterns from Block Copolymer Thin Films", Z. Fang, M.C. Newstein, B.A. Garetz, N.P. Balsara, *Macromolecules*, vol. 43, pg. 10071-10077, **2010**.
145. "Comparing the Effect of Adding Imidazolium and Lithium Salts on the Thermodynamics of Block Copolymer Electrolytes", N.S. Wanakule, J.M. Virgili, A.A. Teran, N.P. Balsara, Z.-G., Wang, *Macromolecules*, vol. 43, pg. 8282-8289, **2010**.
144. "Confinement Effects on Watery Domains in Hydrated Block Copolymer Electrolyte Membranes", S.Y. Kim, M.J. Park, N.P. Balsara, *Macromolecules*, vol. 43, pg. 5306-5314, **2010**.
143. "Phase Behavior of Off-Critical A/B/A-C Blends", A.J. Nedoma, P. Lai, A. Jackson, M.L. Robertson, N.P. Balsara, *Macromolecules*, vol. 43, pg. 5306-5314, **2010**.

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141. "Ionic Liquid Distribution in Ordered Block Copolymer Solutions", J.M. Virgili, A.J. Nedoma, R.A. Segalman, N.P. Balsara, *Macromolecules*, vol. 43, pg. 3750-3756, **2010**.
140. "Phase Behavior of Asymmetric Multicomponent A/B/A-C Blends with Unequal Homopolymer Molecular Weights", A.J. Nedoma, P. Lai, A. Jackson, M.L. Robertson, N.S. Wanakule, N.P. Balsara, *Macromolecules*, vol. 43, pg. 3549-3555, **2010**.
139. "Dynamic Signatures of Microphase Separation in a Block Copolymer Melt Determined by X-ray Photon Correlation Spectroscopy and Rheology", A.J. Patel, S. Mochrie, S. Narayanan, A. Sandy, H. Watanabe, N.P. Balsara, *Macromolecules*, vol. 43, pg. 1515-1523, **2010**.
138. "Anisotropic Proton Conduction in Block Copolymer Electrolyte Membranes at Equilibrium with Humid Air", M.J. Park, N.P. Balsara, *Macromolecules*, vol. 43, pg. 292-298, **2010**.
137. "Microphase Separation in Sulfonated Block Copolymers Studied by Monte-Carlo Simulations", P. Knychala, M. Banaszak, M.J. Park, N.P. Balsara, vol. 42, pg. 8925-8932, *Macromolecules*, **2009**.
136. "Order-Disorder Transitions in Block Copolymer Electrolytes at Equilibrium with Humid Air", M.J. Park, A. Jackson, N.P. Balsara, vol. 42, pg. 6808-6815, *Macromolecules*, **2009**.
135. "Ionic Conductivity of Block Copolymer Electrolytes in the Vicinity of Order-Disorder and Order-Order Transitions", N.S. Wanakule, A. Panday, S.A. Mullin, E. Glann, A. Hexamer, N.P. Balsara, vol. 42, pg. 5642-5651, *Macromolecules*, **2009**.
134. "Effect of Molecular Weight and Salt Concentration on Conductivity of Block Copolymer Electrolytes", A. Panday, S. Mullin, E.D. Gomez, N.S. Wanakule, V.L. Chen, A. Hexamer, J. Pople, and N.P. Balsara, vol. 42, pg. 4632-4637, *Macromolecules*, **2009**.
133. J.M. Virgili, A. Hexemer, J.A. Pople, N.P. Balsara, R.A. Segalman, "Phase Behavior of Polystyrene-block-Poly(2-vinyl pyridine) Copolymers in Selective Ionic Liquid Solvents", vol. 42, pg. 4604-4613, *Macromolecules*, **2009**.
132. "Effect of Ion Distribution of Conductivity of Block Copolymer Electrolytes", E.D. Gomez, A. Panday, E.H. Feng, V. Chen, G.M. Stone, A.M. Minor, C. Kisielowski, K.H. Downing, O. Borodin, G.D. Smith, N.P. Balsara, *Nano Letters*, vol. 9, pg. 1212-1216, **2009**.

131. "Control of Domain Orientation in Block Copolymer Electrolyte Membranes at the Interface with Humid Air", M.J. Park, S. Kim, A.M. Minor, A. Hexemer, N.P. Balsara, *Advanced Materials*, vol. 21, pg. 203-208, **2008**.
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127. "Phase Behavior of Symmetric Sulfonated Block Copolymers", M.J. Park, N.P. Balsara, *Macromolecules*, vol. 41, pg. 3678-3687, **2008**.
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125. "Characterization of Micron-Sized Periodic Structures in Multicomponent Polymer Blends by Ultra-Small-Angle Neutron Scattering and Optical Microscopy", N.S. Wanakule, A.J. Nedoma, M.L. Robertson, Z. Fang, A. Jackson, B.A. Garetz, N.P. Balsara, *Macromolecules*, vol. 41, pg. 471-477, **2008**.
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19. "The Effect of Saturation on the Thermodynamics of Polystyrene-Polyisoprene Block Copolymers", N.P. Balsara, C.C. Lin, H.J. Dai, R. Krishnamoorti, *Macromolecules*, vol. 27, pg. 1216-1220, **1994**.
18. "Small Angle Neutron Scattering from Partially Deuterated Polymers and their Blends", N.P. Balsara, D.J. Lohse, W.W. Graessley, R. Krishnamoorti, *Journal of Chemical Physics*, vol. 100, pg. 3905-3910, **1994**.

17. "The Compositional Dependence of the Thermodynamic Interactions in Blends of Model Polyolefins", R. Krishnamoorti, W.W. Graessley, N.P. Balsara, D.J. Lohse, *Journal of Chemical Physics*, vol. 100, pg. 3894-3904, **1994**.
16. "Thermodynamic Interactions and Correlations in Mixtures of Two Homopolymers and a Block Copolymer", N.P. Balsara, S.V. Jonnalagadda, C.C. Lin, C.C. Han, R. Krishnamoorti, *Journal of Chemical Physics*, vol. 99, pg. 10011-10020, **1993**.
15. "Thermodynamics of Random Copolymer Mixtures by SANS", D.J. Lohse, N.P. Balsara, L. J. Fetters, D.N. Schulz, J.A. Sissano, W.W. Graessley, R. Krishnamoorti, pg. 175-183 in '*Advances in Polyolefins*', T.C. Chung, ed., Plenum, New York, **1993**.
14. "Birefringence and Diffraction of Light in Ordered Block Copolymer Materials", B.A. Garetz, M.C. Newstein, H.J. Dai, S.V. Jonnalagadda, N.P. Balsara, *Macromolecules*, vol. 26, pg. 3151-3155, **1993**.
13. "Effect of Deuterium Substitution on Thermodynamic Interactions in Polymer Blends", W.W. Graessley, R. Krishnamoorti, N.P. Balsara, L.J. Fetters, D.J. Lohse, D.N. Schulz, J.A. Sissano, *Macromolecules*, vol. 26, pg. 1137-1143, **1993**.
12. "Thermodynamic Interactions in Model Polyolefin Blends Obtained by Small Angle Neutron Scattering", N.P. Balsara, L.J. Fetters, N. Hadjichristidis, D.J. Lohse, C.C. Han, W.W. Graessley, R. Krishnamoorti, *Macromolecules*, vol. 25, pg. 6137-6147, **1992**.
11. "Relationship Between Birefringence and the Structure of Ordered Block Copolymer Materials", N.P. Balsara, B.A. Garetz, H.J. Dai, *Macromolecules*, vol. 25, pg. 6072-6074, **1992**.
10. "Birefringence Detection of the Order-to-Disorder Transition in Block Copolymer Liquids", N.P. Balsara, D. Perahia, C.R. Safinya, M. Tirrell, T.P. Lodge, *Macromolecules*, vol. 25, pg. 3896-3901, **1992**.
9. "Dynamic Light Scattering from Microstructured Block Copolymer Solutions", N.P. Balsara, P. Stepanek, M. Tirrell, T.P. Lodge, *Macromolecules*, vol. 24, pg. 6227-6230, **1991**.
8. "Diffusion in Microstructured Block Copolymer Solutions", N.P. Balsara, C.E. Eastman, M. Foster, T.P. Lodge, M. Tirrell, *die Makromolekulare Chemie, Macromolecular Symposium*, vol. 45, pg. 213-235, **1991**.
7. "Micelle Formation of BAB Triblock Copolymers in Solvents that Preferentially Dissolve the A Block", N.P. Balsara, M. Tirrell, T.P. Lodge, *Macromolecules*, vol. 24, pg. 1975-1986, **1991**.
6. "Phase Equilibria and the Landau-Ginzburg Functional", E.B. Nauman, N.P. Balsara, *Fluid Phase Equilibria*, vol. 45, pg. 229-250, **1989**.

5. "Compositional Quenching: A Process for Forming Polymer-in-Polymer Microdispersions and Cocontinuous Networks", E.B. Nauman, M. Ariyapadi, N.P. Balsara, J. Furno, T. Grocela, S.H. Liu, R. Mallikarjun, *Chemical Engineering Communications*, vol. 66, pg. 29-55, **1988**.
4. "Periodic Minimizing Solutions of the Landau-Ginzburg Functional", E.B. Nauman, N.P. Balsara, *Quarterly of Applied Mathematics*, vol. 46, pg. 375-379, **1988**.
3. "The Entropy of Inhomogeneous Polymer-Solvent Systems", N.P. Balsara, E.B. Nauman, *Journal of Polymer Science, Polymer Physics Edition*, vol. 26, pg. 1077-1086, **1988**.
2. "A Novel Approach to Polymeric Microdispersions", E.B. Nauman, S.T. Wang, N.P. Balsara, *Polymer*, vol. 27, pg. 1637-1640, **1986**.
1. "The Influence of Buoyancy on Thermophoretic Deposition of Aerosol Particles in a Horizontal Tube", N.P. Balsara, R.S. Subramanian, *Journal of Colloid and Interface Science*, vol. 118, pg. 3-14, **1986**.

PATENTS

11. D.T. Wong, N.P. Balsara, "Block Copolymer Battery Separator", filed by the Regents of the University of California, September 20, 2013. U.S. patent application serial no. 14/006,576.
10. A.E.K. Javier, N.P. Balsara, S.N. Patel, D.T. Hallinan, "Block Copolymer with Simultaneous Electric and Ionic Conduction for Use in Lithium Ion Batteries", filed by the Regents of the University of California, March 22, 2012. Published as US 8552144B2 on Oct 8, 2013.
9. A.E. Oszcam, A.K. Jha, N.P. Balsara, "Styrene-Siloxane Triblock Copolymers as Membranes for Selective Transport of Alcohols and Other Organic Compounds in Aqueous Mixtures", filed by the Regents of the University of California, November 11, 2011
8. N.P. Balsara, A.K. Jha, L. Chen, "Nanostructured Polymer Membranes for Selective Alcohol Transport", filed by the Regents of the University of California, March 12, 2010. US Patent Application 61/313618. Published as US 8440765B2 on May 14, 2013.
7. M. Singh, I. Gur, H.B. Eitouni, N.P. Balsara, "Multiple Electrolyte Electrochemical Cells," filed by Seo, Inc., November 6, 2009. US Patent Application 13/128232.
6. N.P. Balsara, H.B. Eitouni, I. Gur, W. Hudson, M. Singh, "Protected Lithium Metal Electrodes for Rechargeable Batteries," filed by Seo, Inc., April 21, 2009. US Patent Application 12/988474.
5. W. Hudson, H.B. Eitouni, M. Singh, N.P. Balsara, I. Gur, "Electrodes with Solid Polymer Electrolytes," filed by Seo, Inc., February 13, 2009. US Patent Application 12/867665.
4. N.P. Balsara, H.B. Eitouni, I. Gur, M. Singh, W. Hudson, "Gel Polymer Electrolytes for Batteries," filed by Seo, Inc., January 16, 2009. US Patent Application 12/812214.
3. M. Singh, I. Gur, H.B. Eitouni, N.P. Balsara, "A Solid Electrolyte Material Manufacturable by Polymer Processing Methods," filed by Seo Inc., November 14, 2008. US Patent Application 12/271829.
2. S. Mullin, A. Panday, N.P. Balsara, M. Singh, H.B. Eitouni, E.D. Gomez, "High Elastic Modulus Polymer Electrolytes," filed by the Regents of the University of California on April 3, 2007. US Patent Application 12/225934. Published as US 20090263725 A1.
1. M.J. Park, N.P. Balsara, "Nanostructured Polymer Membranes for Proton Conduction", filed by the Regents of the University of California on February 12, 2008. US Patent Application 61/065560.

STUDENTS

Post Doctoral Research Scientists

Current Post Docs:

1. Sebnem Inceoglu, Synthesis of Block Copolymers for Selective Ion and Alcohol Transport, January 2011-present.
2. Inna Gurevitch, Synthesis and Characterization of Block Copolymer/Ceramic Composite Electrolytes, November 2011-present.
3. Chelsea Chen, Synthesis and Characterization of Proton-Conducting Membranes, May 2012-present.
4. Nikos Petzetakis, Synthesis and Characterization of Membranes for Biofuel Purification, November 2012-present.
5. Pepa Cotanda, Synthesis and Characterization of Membranes for Artificial Photosynthesis, December 2012-present.
6. Irune Villaluenga, Synthesis and Characterization of Composite Solid Electrolytes, January 2013-present.
7. Didier Devaux, Characterization of Solid Electrolytes and Electrodes, February 2013-present.
8. Mahesh Bhatt, Block Copolymers for Simultaneous Electron and Ion Transport, December 2013.

Graduated Post Docs:

14. Anna E. Javier, Block Copolymers for Electron and Ion Transport, June 2010-December 2013.13. Dan Hallinan, Block Copolymer Electrolytes for Lithium Batteries, July 2009-December, 2012 (Florida State University).
12. Guillaume Sudre, Characterization of Block Copolymers for Selective Hydroxide Ion Transport, February 2011-December 2012 .
11. Evren Oscam, Optimized Membranes for Selective Alcohol Transport, December 2010-November 2012. (3M, Minnesota)
10. Ashish K. Jha, Characterization of Membranes for Selective Transport of Alcohol, December 2008-July 2011. (Clorox, Pleasanton, California)
9. Xin Wang, Ion Transport in Hydrated Polymers, August 2007-January, 2011. (DSM, China)
8. Liang Chen, Synthesis of Membranes for Selective Transport of Alcohol, July 2009-July 2010. (Dow Chemicals, Midland, MI)
7. Ashutosh Panday, Nanostructured Block Copolymer Electrolytes, December 2006-July 2009.
6. Moon-Jeong Park, Synthesis and Characterization of Fuel Cell Membranes, January 2006-February 2009. (Postech, Pohang, Korea)
5. Ed Feng, "Simulations and Field Theory of Polymers", January 2006-June 2008. (Lawrence Livermore National Lab)
4. Mohit Singh, "Synthesis and Characterization of Polymer Electrolytes", March 2004-September, 2006. (Seeo, Inc., Hayward, CA)

3. Gregg Wilmes, "Nanolithography using Templated Block Copolymers", January 2004-July 2006. (Eastern Michigan University)
2. Kyungyoul Baek, "Synthesis of Nanostructured Fuel Cell Membranes", March 2004-March 2006. (Korean Institute of Science and Technology)
1. Yumi Matsumiya, "Characterization of Polymer Electrolytes", August 2002-December 2003. (Institute for Chemical Research, Kyoto University, Japan)

Current PhD Students:

Nicholas Young, Katherine Harry, Chae-Young Shin, Jacob Thalen, Kevin Wijuk, Douglas Greer, Adriana Rojas, Alex Wang, Mahati Chintapali, Rita Donyang Wang, Danielle Pesko, Ksenia Timachova

Graduated PhD Students:

25. Alexander A. Teran, November 2013 (Leyden Energy, California)
24. Shrayesh N. Patel, "Simultaneous Electron and Ion Transport in Block Copolymers, May 2013 (UC Santa Barbara)
23. David T. Wong, "Mesoporous Block Copolymer Separators", December 2012, (ITRI, Taiwan)
22. Keith M. Beers, "Characterization of Self-Assembly and Charge Transport in Model Polymer Electrolyte Membranes", November 2012. (Exponent, Boston, MA)
21. Greg M. Stone, March 2012. (Malvern Instruments, Houston, TX)
20. Scott A. Mullin, "Morphology and Ion Transport in Block Copolymer Electrolytes", December 2011. (Seeo, Inc., Hayward, CA)
19. Nisita Wanakule, "Ion-Containing Block Copolymers", December, 2010. (ESPCI, Paris, France)
18. Alisyn J. Nedoma, "Phase Behavior in Blends of Asymmetrical Polyolefins", August, 2010. (Imperial College, London, UK)
17. Justin Virgili, co-advised by R.A. Segalman, "Studies of Block Copolymer Thin Films and Mixtures with an Ionic Liquid", August 2009. (Dow Chemicals, Midland, MI)
16. Jeffrey D. Wilbur, "Guided Wave Depolarized Light Scattering", January 2008. (Dow Chemicals, Midland, MI)
15. Amish J. Patel, "Dynamic Studies of a Block Copolymer Melt", December 2007. (University of Pennsylvania, Philadelphia, PA)
14. Enrique D. Gomez, "Electron Microscopy of Soft Matter", December 2007. (Pennsylvania State University, State College, PA)
13. David A. Durkee, co-advised by Alex Bell, "Soft Materials for Nanostructured Catalysts", August, 2007
12. Megan L. Ruegg, "Designing Surfactants for the Organization of Immiscible Polymers", August, 2007. (University of Houston, Houston, TX)
11. Hany B. Eitouni, "Electrochemical Self-Assembly of Organometallic Block Copolymers", December, 2005. (Seeo, Inc., Hayward, CA)
10. Benedict J. Reynolds, co-advised by C.J. Radke, "Dynamics of Block Copolymer Adsorption", May 2005.
9. Hyeok Hahn, "Block Copolymers and Nanotechnology", May 2004 (Amyris, Inc., Berkeley, CA)

8. Amy A. Lefebvre, "Initial Stages of Phase Separation in Polymer Blends Near the Limit of Metastability", June, 2002. (Arkema Inc., Philadelphia, PA)
7. Joon Hyun Lee, "Thermodynamics and Surfactancy of Block Copolymers in Multicomponent Polyolefin Blends", June, 2002.
6. Mei Y. Chang, "Analysis of Microstructure in Ordered Block Copolymer Materials", July, 2000.
5. Won G. Kim, "Kinetics of the Disorder-to-Order Transition in a Block Copolymer Melt", June, 2000.
4. Hao Wang, "Microstructure and Ordering Kinetics of Block Copolymers under Shear Flow", June, 1999.
3. Horng J. Dai, "Grain Structure and Ordering Kinetics in Block Copolymers", June, 1998.
2. Hyun S. Jeon, "Thermodynamics and Morphology in Complex Polymer Fluids", January, 1997.
1. Chen C. Lin, "Thermodynamics in Block Copolymers and Multicomponent Polymer Blends, October, 1996.

MS Students

9. C. Eswaran "Synthesis of Model Block Copolymers by Glove Box and High Vacuum Anionic Polymerization", June 2000.
8. Jatin U. Mody, "The Effect of Cross-linking on the Order to Disorder Transition of a Diblock Copolymer, July, 1999.
7. Amy A. Lefebvre, "Nucleation in Multicomponent Polymer Blends", June, 1999.
6. Arvind Rajaram, "Dynamic and Static Light Scattering from Graft Copolymer Solutions", December, 1998.
5. Arvindakshan Krishnan, "Measurement of the Order Parameter in Symmetric Diblock Copolymers, May, 1997.
4. Feridun Demir, "Dynamic Light Scattering from Block Copolymer Solutions", May, 1997.
3. S.V. Jonnalagadda, "Synthesis of Block Copolymers by Anionic Polymerization, June, 1995.
2. Praveen K. Kesani, "Synthesis and Characterization of Block Copolymers, February, 1995.
1. Horng J. Dai, "Birefringence and Diffraction of Light in Ordered Block Copolymer Materials", August, 1994.

VISITING SCHOLARS

Dr. Ching-Chen Wu (Green Energy and Environment Laboratories, Industrial Technology Research Institute, Taiwan), January 2012-December 2012

Dr. Andrew Jackson (National Institute of Standards and Technology, Gaithersburg, MD), May 2011-October 2011.

Dr. Wen-Sheng Chang (Green Energy and Environment Laboratories, Industrial Technology Research Institute, Taiwan) September, 2010-August 2011.

Professor Sung-Yun Yang (Chungam National University, South Korea) February, 2010-February, 2011.

INVITED LECTURES

227. Invited Lectures on "Soft Materials for Batteries", Summer School on "Soft Matter-from Fundamental Aspects to Industrial Perspectives", Corsica, France, August 1, **2014**.
226. Invited Lecture, "X-ray Studies of Sulfur Lithium Metal Electrodes", Symposium on "Scalable Energy Storage Beyond Li-ion", Argonne National Laboratory, Argonne, Illinois, June 3, **2013**.
225. Invited Lecture, "Block Copolymers for All-Solid Lithium Batteries", ExxonMobil Chemical Company, Baytown, Texas, May 9, **2014**.
224. Invited Lecture, "Polymers for Simultaneous Electron and Ion Transport", Special Symposium Honoring Professors Frank Bates and Tim Lodge, University of Minnesota, Minneapolis, April 12, **2014**.
223. Departmental Colloquium, "Block Copolymers for All-Solid Lithium Batteries", Department of Chemical Engineering, Tulane University, New Orleans, Louisiana, March 28, **2014**.
222. Invited Lecture, "Polymers for Simultaneous Electron and Ion Transport", Division of Energy and Fuels, Semi-Annual Meeting of the American Chemical Society, Dallas, Texas, March 16, **2014**.
221. Departmental Colloquium, "Block Copolymers for All-Solid Lithium Batteries", Department of Chemical Engineering, Columbia University, New York, New York, March 11, **2014**.
220. Invited Seminar, "Block Copolymers for Selective Transport of Neutral and Charged Species", 3M Tech Forum on Filtration and Separation, St. Paul, Minnesota, February 17, **2014**.
219. Departmental Colloquium, "Block Copolymers for All-Solid Lithium Batteries", Department of Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, Pennsylvania, February 7, **2014**.
218. Department Colloquium, "Nanostructured Block Copolymers for Lithium Batteries", Department of Chemical and Biological Engineering, University of Colorado, Boulder, December 10, **2013**.
217. Keynote Speaker, "Polymers for All-Solid Lithium Batteries", Polypore Technology Summit, November 21, **2013**.
216. Invited Lecture, "Block Copolymers for All-Solid Lithium Batteries", Division of Energy Storage Materials and Technology, Industrial Technology Research Institute, Hsinchu, Taiwan, November 19, **2013**.
215. Invited Lecture, "Characterization of Simultaneous Electron and Ion Transport in Polymers", Pacific Polymer Conference, Kaohsiung, Taiwan, November 18, **2013**.
214. Keynote Lecture, "Block Copolymers for All-Solid Lithium Batteries", Grid-Scale Battery Technology, Taiwan Bureau of Energy Special Symposium, Taipei, Taiwan, November 18, **2013**.
213. Invited Lecture, "Effect of Lithium Salt Addition on Self-Assembly of Block Copolymer Electrolytes", Polymers for Energy Storage and Generation, Annual Meeting of the American Institute of Chemical Engineers, San Francisco, California, November 5, **2013**.
212. Polymer Seminar Series, "Nanostructured Block Copolymers for Lithium Batteries", Massachusetts Institute of Technology, Cambridge, Massachusetts, September 25, **2013**.

211. Invited lecture at Dow Chemicals, "Effect of Supercritical CO₂ on Thermodynamics of Polymer Blends", Midland Michigan, August 27, **2013**
210. Departmental Colloquium, "Nanostructured Block Copolymers for Lithium Batteries", Department of Materials Science and Engineering, University of California, Santa Barbara, May 3, **2013**.
209. Invited Lecture, "Nanostructured Block Copolymer Membranes as Lithium Battery Electrolytes", Annual Meeting of the American Physical Society, Baltimore Maryland, March 18, **2013**.
208. Departmental Colloquium, "Proton Transport in Polymer Electrolyte Membranes", Department of Chemical Engineering, Ohio State University, Columbus, Ohio, March 7, **2013**.
207. Invited Lecture, "Proton Transport in Hydrated Block Copolymer Membranes", Advances in Materials for Proton Exchange Membrane Fuel Cells Systems, Asilomar, California, February 19, **2013**.
206. Invited Lecture, "Nanostructured Block Copolymer Membranes for Biofuel Production", Annual Meeting of the American Institute of Chemical Engineers, Pittsburgh, Pennsylvania, October 30, **2012**.
205. Physics Colloquium, "Block Copolymers for All-Solid Lithium Batteries", Physics Department of Physics and Astronomy, Simon Frazer University, British Columbia, Canada, October 26, **2012**.
204. Physics Colloquium, "Block Copolymers for All-Solid Lithium Batteries", Physics Department of Physics and Astronomy, University of Victoria, British Columbia, Canada, October 24, **2012**.
203. Invited Lecture, "Block Copolymer Electrolytes for All-Solid Lithium Batteries", Annual Meeting of the Electrochemical Society, Honolulu, Hawaii, October 8, **2012**.
202. Invited Lecture, "Neutron Scattering Studies of CO₂ Foaming in Polymers", Dow Chemicals, Midland, Michigan, September 24, **2012**.
201. Departmental Seminar, "Nanostructured Polymers for Lithium Battery Electrodes and Electrolytes", Department of Chemical and Biomolecular Engineering, University of Delaware, Newark, Delaware, September 7, **2012**.
200. Plenary Lecture, "Characterization of Block Copolymer Electrolytes", International Symposium on Polymer Electrolytes, Selfoss, Iceland, August 26, **2012**.
199. Invited Lecture, "Effect of Ionic Clusters on Proton Transport", Fuel Cell Gordon Conference, Smithfield, Rhode Island, August 5, **2012**.
198. Invited Lecture, "Simultaneous Electron and Ion Transport in Block Copolymers", IUPAC World Polymer Congress, Blacksburg, Polymer Physics, Blacksburg, Virginia, June 26, **2012**.
197. Keynote Lecture, "Nanostructured Block Copolymer Electrolytes for Lithium Batteries", Nanotech Conference and Expo, Santa Clara, California, June 19, **2012**.
196. Departmental Seminar, "Nanostructured Electrolytes for Lithium Batteries", Department of Physics, Boston University, May 4, **2012**.
195. Invited Lecture. "Role of Block Copolymers in All-Solid Rechargeable Batteries", Joint Meeting of the International Battery Association and Pacific Power Source Symposium, Big Island, Hawaii, January 9, **2012**.
194. Invited Lecture, "Next Generation Battery Technology: EHS Impact", California Industrial Hygiene Council Conference, San Francisco, California, December 6, **2011**.

193. Invited Lecture, "Simultaneous Electron and Ion Conduction in a Block Copolymer", Session in Honor of Professor Matthew Tirrell's 60th Birthday, Annual Meeting of the American Institute of Chemical Engineers, Minneapolis, Minnesota, October 17, **2011**.
192. Plenary Lecture, "Microstructured Block Copolymer Membranes for Lithium Batteries and Alcohol Separation", Session on Emerging Areas in Polymer Science and Engineering, Annual Meeting of the American Institute of Chemical Engineers, Minneapolis, Minnesota, October 17, **2011**.
191. Invited Lecture, "Block Copolymers for Lithium Batteries", Sustainable Energy Education and Research Center, University of Tennessee, Knoxville, Tennessee, September 27, **2011**.
190. Invited Lecture, "Solid-State Batteries", American Vacuum Society, Northern California Chapter, San Jose, California, September 21, **2011**.
189. Invited Lecture, "Characterization of Microstructured Block Copolymer Electrolytes for Lithium Batteries", Annual Meeting of the American Chemical Society, Denver, Colorado, August 28, **2011**.
188. Invited Lecture, "Block Copolymer Membranes for Rechargeable Lithium Batteries", First International Symposium on Colloids and Materials, Amsterdam, Holland, May 8, **2011**.
187. Invited Lecture, "Ionic Conductivity of Model Block Copolymer Electrolyte Membranes in Contact with Humid Air", Polymers for Energy Delivery and Storage Session, Annual Meeting of the American Chemical Society, Anaheim, California, March 27, **2011**.
186. Invited Lecture, "Characterization of Microstructured Block Copolymer Electrolytes for Lithium Batteries", Fundamental Topics in the Physics and Theory of Novel Polymeric Systems, Annual Meeting of the American Chemical Society, Anaheim, California, March 27, **2011**.
185. Department Seminar, "Block Copolymers for Lithium Batteries", Department of Chemistry and Biochemistry, Santa Clara University, Santa Clara, California, February 11, **2011**.
184. Invited Lecture, "Block Copolymer Electrolytes for Lithium Batteries", Materials Research Outreach Program, University of California, Santa Barbara, February 3, **2011**.
183. Invited Lecture, "Block Copolymers for Lithium Batteries", Symposium on "Functional Block Copolymer Assemblies", International Chemical Congress of Pacific Basin Societies, December 17, **2010**.
182. Invited Seminar, "Water Clusters and Proton Transport in Fuel Cell Membranes Studied by SANS", Spallation Neutron Source, Oak Ridge National Laboratory, Oak Ridge, Tennessee, November 11, **2010**.
181. Invited Lecture, "Polymers for Lithium Batteries", Eighth Hellenic Polymer Society Symposium honoring Professor Nikos Hadjichristidis, Crete, Greece, October 24, **2010**.
180. Invited Lecture, "Solid-State Batteries with Lithium Metal Electrodes", Symposium on "Scalable Energy Storage Beyond Li-ion: Materials Perspective", Oak Ridge National Laboratory, Oak Ridge, Tennessee, October 7, **2010**.
179. Invited Participant, "Advanced Materials and Devices for Stationary Electrical Energy Storage Workshop", Objective: Provide guidance on research themes necessary for enabling grid storage, US Department of Energy, Office of Electricity and Advanced Research Projects Agency-Energy (ARPA-E), Albuquerque, New Mexico, July 21, **2010**.
178. Invited Lecture, "Dry Block Copolymer Electrolytes for Lithium Batteries", International Meeting on Lithium Batteries, Montreal, Canada, June 30, **2010**.

177. Invited Lecture, "Ion Transport in Block Copolymers", Gordon Research Conference, Polymer Physics, Mount Holyoke, Massachusetts, June 29, **2010**.
176. Materials Research Lecture, "Batteries, Fuel Cells, and a Start-up", Department of Chemical Engineering, California Institute of Technology, Pasadena, California, May 6, **2010**.
175. Departmental Seminar, "Batteries, Fuel Cells, and a Start-up", Department of Chemical Engineering, University of Illinois, Urbana, Illinois, May 5, **2010**.
174. Departmental Seminar, "Keeping Fuel Cell Membranes Wet at Elevated Temperatures", Highlands Seminar Series, Department of Chemistry, Virginia Polytechnic Institute, Blacksburg, Virginia, April 2, **2010**.
173. Invited Lecture, "Ion Transport in Block Copolymers", Annual Meeting of the American Chemical Society, San Francisco, California, March 23, **2010**.
172. Invited Lecture, "Imaging the Electrode-Electrolyte Interface in Lithium Polymer Batteries", Annual Meeting of the American Physical Society, Portland, Oregon, March 16, **2010**.
171. Invited Lecture, "Batteries, Fuel Cells, and a Start-up", Gordon Conference on Colloidal, Macromolecular and Polyelectrolyte Solutions, Ventura, California, February 22, **2010**.
170. Invited Lecture, "Batteries, Fuel Cells, and a Start-up", Golden Jubilee Symposium on Fabrication on Small Scales, Indian Institute of Technology, Kanpur, December 10, **2009**.
169. Departmental Seminar, "Batteries, Fuel Cells, and a Start-up", Department of Chemical Engineering, Yale University, New Haven, Connecticut, November 18, **2009**.
168. Invited Lecture, "Polymers for Electrochemical Applications", Defense Advanced Research Projects Agency (DARPA), Defense Sciences Research Council Meeting, Washington DC, November 4, **2009**.
167. Invited Lecture, "Batteries and Electrochemical Energy Storage", Meeting to Establish Vision of Lawrence Berkeley National Lab in area of Clean Energy, Santa Cruz, California, October 12, **2009**.
166. Plenary Lecture, International Symposium on Nano Structures, Fall Meeting of the Korean Polymer Society, Gwangju, South Korea, "Block Copolymer Electrolytes for Lithium Batteries", October 7, **2009**.
165. Invited talk, Annual Meeting of the American Chemical Society, Washington DC, Symposium on Polymers in Membrane Technology, "Keeping Fuel Cell Membranes Wet at Elevated Temperatures", August 19, **2009**.
164. Invited talk, Annual Meeting of the American Chemical Society, Washington DC, Symposium on Metal-Containing and Metallo-Supramolecular Polymers and Materials, "Block Copolymer Electrolytes for Lithium Batteries", August 18, **2009**.
163. Invited Lecture, Gordon Research Conference, Chemistry and Physics of Liquids, Holderness, New Hampshire, "Batteries, Fuel Cells, and a Start-up", August 3, **2009**.
162. Invited Lecture, NSF Sponsored Panel on Challenges and Opportunities in Manufacturing and Materials Processing, "Lithium Battery Manufacturing in the Emerging Energy Landscape", San Francisco, California, July 21, **2009**.
161. Invited Panel Discussion titled "Hot Technology, Cool Science" at the Berkeley Repertory Theater, "Battery-powered Commute?", Berkeley, California, May 6, **2009**.
160. Provost's Colloquium on Energy, University of Pennsylvania, Lecture 1: "Batteries, Fuel Cells, and the Energy Landscape", Lecture 2: "Fuel Cell Membranes that get Wetter as the Surrounding Air gets Hotter", April 23 and 24, **2009**.

159. Keynote Lecture, Australian Colloid and Interface Symposium, "Fuel Cell Membranes that get Wetter as the Surrounding Air gets Hotter", Adelaide, Australia, February 3, **2009**.
158. Keynote Lecture, The XVth International Congress on Rheology, "Independent Control over the Mechanical and Electrical Properties of Solid Polymer Electrolytes", Monterey, California, August 5, **2008**.
157. Invited Lecture, US-Poland Nanotechnology Workshop Sponsored by the US National Science Foundation, "Phase Behavior of Ion-Containing Block Copolymers", June 4, **2008**.
156. Invited Lecture, High Polymer Research Group Conference on Energy, Sustainability, and the Environment, "Block Copolymer Electrolytes for Batteries and Fuel Cells", Devon, England, April 28, **2008**.
155. Invited Lecture, Surface Science and Catalysis Seminar, Lawrence Berkeley National Laboratory, Berkeley, California, "Polymer Membranes the get Wetter as the Surrounding Air gets Hotter", March 20, **2008**.
154. Invited Lecture, Annual Meeting of the American Physical Society, New Orleans, Louisiana, "Block Copolymer Electrolytes for Batteries and Fuel Cells", March 13, **2008**.
153. Departmental Seminar, Department of Materials Science and Engineering, University of California, Berkeley, "Block Copolymer Electrolytes for Batteries and Fuel Cells", March 6, **2008**.
152. Departmental Seminar, Department of Chemistry, University of Wisconsin, Madison, Wisconsin, "Block Copolymer Electrolytes for Batteries and Fuel Cells", February 26, **2008**.
152. Departmental Seminar, Department of Chemical Engineering, University of California, Riverside, California, "Block Copolymer Electrolytes for Fuel Cells", February 15, **2008**.
151. Invited Lecture, Corporate Research, Arkema, Inc., King of Prussia, Pennsylvania, January 2, **2008**.
150. Departmental Seminar, Department of Chemical Engineering, North Carolina State University, Raleigh, North Carolina, "Block Copolymer Electrolytes for Batteries and Fuel Cells", November 19, **2007**.
149. Invited Lecture, Users Meeting for Spallation Neutron Source and Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, Tennessee, "Ion Transport in Block Copolymer Electrolytes", October 9, **2007**.
148. Departmental Seminar, Department of Chemical Engineering, University of Oklahoma, Norman, Oklahoma, "Ion Transport in Block Copolymers", September 5, **2007**.
147. Invited Lecture, The Science and Technology of Well-Controlled Polymer Assemblies, "Block Copolymer Electrolytes for Lithium Battery Applications", Kyoto University, Japan, June 11, **2007**.
146. Departmental Seminar, Department of Chemical Engineering, Drexel University, Norman, Oklahoma, "Block Copolymer Electrolytes for Lithium Battery Applications", May 11, **2007**.
145. Invited Lecture, Workshop on Kinetics and Dynamics in Soft Condensed Matter, Argonne National Laboratory, "Structural Characterization of Block Copolymer Thin Films using Resonant Soft X-ray Scattering", May 7, **2007**.
144. Invited Lecture, Mini Symposium on Development and Characterization of New Functional NanoMaterials based on Block Copolymers, Annual Meeting of the Korean Society of Polymer Science, "Block Copolymer Electrolytes for Lithium Battery Applications", April 12, **2007**.

143. Invited Lecture, Department of Chemical Engineering, Seoul National University, Korea, "Balanced Block Copolymer Surfactants for Organizing Immiscible Polymers", April 10, **2007**.
142. Invited Lecture, Department of Chemical Engineering, Korea Advanced Institute of Science and Technology, Daejeon, Korea, "Block Copolymer Electrolytes for Lithium Battery Applications", April 10, **2007**.
141. Invited Lecture, Department of Chemical Engineering, Postech-Pohang University of Science and Technology, Pohang, Korea, "Block Copolymer Electrolytes for Lithium Battery Applications", April 9, **2007**.
140. Invited Lecture, Dow Chemicals, Midland, Michigan, "Balanced Block Copolymer Surfactants for Organizing Immiscible Polymers", February 9, **2007**
139. Invited Lecture, International Conference on Nucleation and Growth, Nehru Center for Advanced Scientific Research, Bangalore, India, "Nucleation and Growth in Polymer Blends", January 20, **2007**.
138. Invited Lecture, Indian Institute of Technology, Bombay, "Block Copolymer Electrolytes for Lithium Battery Applications", December 28, **2006**.
137. Invited Lecture, Annual Meeting of the Materials Research Society, Boston, Massachusetts, Symposium on Electron Microscopy across Hard and Soft Materials, "Imaging Nanostructured Block Copolymer Electrolytes using Electron Microscopy", November 28, **2006**. (Lecture delivered by my PhD student Enrique Gomez.)
136. Invited Lecture, Annual Meeting of the American Chemical Society, San Francisco, California, Symposium on Block Copolymers as Nanoscale Materials, "Nanostructured Block Copolymer Electrolytes", September 13, **2006**.
135. Invited Lecture, Annual Meeting of the American Chemical Society, San Francisco, California, Symposium on Block Copolymers as Nanoscale Materials, "Fluctuation Relaxation in Multicomponent Systems Containing Micelles and other Aggregates", September 11, **2006**.
134. Invited Lecture, Gordon Research Conference, Polymer Physics, New London, Connecticut, "Ion-Containing Block Copolymers", July 26, **2006**.
133. Invited Lecture, US-Poland Nanotechnology Workshop Sponsored by the US National Science Foundation, "Ion-Containing Block Copolymer Nanostructures", June 19, **2006**.
132. Invited Lecture, American Conference on Neutron Scattering, Chicago, Illinois, "Phase Behavior of Polymer Blends Stabilized by Balanced Surfactants", June 26, **2006**.
131. Invited Lecture, "Scattering from Polymers", Los Alamos Neutron Science Center-Neutron School, May 19, **2006**.
130. Departmental Seminar, Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, "Ion-Containing Block Copolymers", April 14, **2006**.
129. Invited Lecture, Annual Meeting of the American Chemical Society, Atlanta, Georgia, Cooperative Research Award in Polymer Science and Engineering Symposium honoring Richard Spontak and Steven Smith, "Ion-containing Block Copolymer Nanostructures", March 27, **2006**.
128. Departmental Seminar, Department of Chemical Engineering, Princeton University, "Neutron Scattering and Monte Carlo Determination of the Variation of the Critical Nucleus Size with Quench Depth", December 14, **2005**.

127. Invited Lecture, Workshop on Directed Self-Assembly of Nanoscale Structures, University of California, Los Angeles, California, November 9, **2005**.
126. Invited Lecture, Annual Meeting of the American Institute of Chemical Engineers, Charles A. Stine Award Lecture, "Ion-Containing Polymer Nanostructures", Cincinnati, Ohio, November 2, **2005**.
125. Keynote Speaker, Joint Chemical Engineering Meeting, China/USA/Japan, Conference on Nanotechnology, Beijing, China, "Ion-Containing Polymer Nanostructures", October 11, **2005**.
124. Invited Lecture, European Discussion Meeting in Polymer Physics-Polymer Crystallization, Waldau, Germany, "Formation of the Critical Nucleus in Phase Separating Polymer Blends, October 5, **2005**.
123. Invited Lecture, Workshop on Soft X-ray Scattering from Soft and Hard Matter, Lawrence Berkeley National Laboratory, Berkeley, California, September 30, **2005**.
122. Invited Lecture, Materials Research Using Neutrons (Symposium to honor Mike Rowe and Jack Rush), National Institute of Science and Technology, "A Universal Mechanism of Phase Separation", Gaithersburg, Maryland, September 9, **2005**.
121. Invited Lecture, Annual Meeting of the American Chemical Society, Washington, D.C., Preparing for the Bright Future of Neutron Scattering in the US, Analytical Chemistry Division, "Small Angle Neutron Scattering Studies of the Initial Stages of Phase Separation", September 1, **2005**.
120. Invited Lecture, Annual Meeting of the American Chemical Society, Washington, D.C., Scattering from Polymers Symposium, Polymer Materials Science and Engineering Division, "Designing Balanced Surfactants for Organizing Immiscible Polymers", August 30, **2005**.
119. Plenary Lecture, Inaugural Users Meeting for Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, Tennessee, "Challenges and Opportunities in Polymer Nanoscience", May 23, **2005**.
118. Invited Lecture, Prospects in New Materials Science (Workshop to foster new US-Japan collaborations in materials science), Kyoto University, Kyoto, Japan, "Ion-Containing Polymer Nanostructures", April 25-27, **2005**.
117. Departmental Seminar, Department of Chemical Engineering, Purdue University, Indiana, "Diffusion and Equilibration of Surfactants for Polymer-Polymer Interfaces", April 12, **2005**.
116. Invited Lecture, Annual Meeting of the American Physical Society, Los Angeles, California, "Functional Microstructures from Iron-Containing Block Copolymers", March, **2005**.
115. Departmental Seminar, Department of Chemical Engineering, Indian Institute of Technology, Kanpur, India, "Characterization and Design of Surfactants for Polymer-Polymer Interfaces", January 6, **2005**.
114. Departmental Seminar, Department of Chemical Engineering, Indian Institute of Science, Bangalore, India, "Characterization and Design of Surfactants for Polymer-Polymer Interfaces", January 3, **2005**.
113. Invited Lecture, "Characterization and Design of Surfactants for Polymer-Polymer Interfaces", Complex Fluids Symposium, National Chemical Laboratory, Pune, India, January 1, **2005**.

112. Invited Lecture, "Searching for the Critical Nucleus in Phase Separating Polymer Blends", Joint meeting of the American Institute of Chemical Engineers and the Indian Institute of Chemical Engineers, Mumbai, India, December 28, **2004**.
111. Departmental Seminar, Department of Chemical Engineering, Pennsylvania State University, State College, Pennsylvania, December 7, **2004**.
110. Invited Lecture, Polymer Science Lecture Series, University of Akron, Akron, Ohio, "Searching for the Critical Nucleus in Phase Separating Polymer Blends", September 9, **2004**.
109. Invited Lecture, Mini-Symposium on Bioinspired Dry Adhesive Pads for Climbing, Sponsored by the Defense Advanced Research Projects Agency (DARPA), July 16, **2004**.
108. Invited Lecture, Gordon Research Conference, Complex Fluids, New London, New Hampshire, "Initial Stages of Nucleation in Phase Separating Polymer Blends", July 5, **2004**.
107. Invited Lecture, American Conference on Neutron Scattering, College Park, Maryland, "Searching for the Critical Nucleus in Phase Separating Polymer Blends", June 7, **2004**.
106. Invited Lecture, Materials Research Society Meeting, Symposium on Nucleation Phenomena-Mechanisms, Dynamics, and Structure, "Searching for the Critical Nucleus in Phase Separating Polymer Blends", San Francisco, California, April 13, **2004**.
105. Departmental Seminar, Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, Minnesota, "Does Conventional Nucleation Occur during Phase Separation in Polymer Blends", March 2, **2004**.
104. Invited Lecture, Boston Scientific, Minneapolis, Minnesota, "Balanced Surfactants for Organizing Immiscible Materials", March 1, **2004**.
103. Departmental Seminar, Department of Polymer Science and Engineering, University of Massachusetts, Amherst, November 21, **2003**.
102. Departmental Seminar, Department of Polymer Science and Engineering, University of Massachusetts, Lowell, November 20, **2003**.
101. Departmental Seminar, Department of Chemical Engineering, University of California at Santa Barbara, October 23, **2003**.
100. Departmental Seminar, Department of Chemistry, University of California at Los Angeles, October 6, **2003**.
99. Invited Lecture, Tyco Electronics, Menlo Park, California, September 24, **2003**.
98. Invited Lecture, Physical Chemistry Division of the American Chemical Society, September 7, **2003**.
97. Invited Lecture, Soft Matter and Biophysics Workshop, Organized by Brookhaven National Laboratory, Stony Brook, New York, September 5, **2003**.
96. Invited Lecture, Gordon Research Conference, Chemistry and Physics of Liquids, August 6, **2003**.
95. Invited Lecture, Institut fur Festkoperforschung, Forschungszentrum Julich, Germany, July 17, **2003**.
94. Invited Lecture, Department of Physics, University of Freiburg, Germany, July 15, **2003**.
93. Invited Lecture, ESPCI, Paris, July 5, **2003**.
92. Invited Lecture, College de France, Paris, July 4, **2003**.
91. Invited Lecture, Institut de Physique, University of Strasbourg, France, July 2, **2003**.
90. Invited Lecture, Structured Fluids and Soft Solids Symposium, ACS Colloid and Surface Science Symposium, June 18, **2003**.
89. Invited Lecture, Nucleation Symposium, ACS Colloid and Surface Science Symposium, June 17, **2003**.

88. Invited Lecture, Workshop on Nanotechnology in Mechanical Engineering, National Science Foundation, June 15, 2003.
87. Annual Meeting of the American Physical Society, Austin, Texas, March, **2003**.
86. Department of Chemical Engineering, Washington University, Saint Louis, Missouri, February, **2003**.
85. Departmental Seminar, Department of Chemical Engineering, University of Washington, Seattle, January, **2003**.
84. Materials Research Society, Boston, Massachusetts, December, **2002**.
83. Annual Meeting of the Society of Rheology, Nagaoka, Japan, **2002**.
82. Fourth Kyoto Symposium on Rheology, Japan, October, **2002**.
81. Departmental Seminar, Department of Chemical Engineering, University of Texas, Austin, September, **2002**.
80. Discussion leader, Gordon Research Conference, Polymer Physics, Newport, Rhode Island, August, **2002**.
79. Invited Lecture, Department of Materials Science, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, July, **2002**.
78. Invited Lecture, Max Plank Institute for Polymers, Mainz, Germany, July, **2002**.
77. Departmental Seminar, Department of Physical Chemistry, University of Cologne, Germany, July, **2002**.
76. Invited Lecture, Department of Physics, University of Freiburg, Germany, July, **2002**.
75. Invited Lecture, Annual Meeting of the Division of Colloids, American Chemical Society, Ann Arbor, Michigan, June, **2002**.
74. Invited Lecture, Annual Meeting of the American Chemical Society, Orlando, April **2002**.
73. Invited Lecture, Bend Research Inc., Bend Oregon, January, **2002**.
72. Departmental Seminar, Department of Chemical Engineering, California Institute of Technology, Pasadena, California, January, **2002**.
71. Invited Lecture, Annual Meeting on Photonic Materials, Cornell University, Ithaca, New York, January, **2002**.
70. Invited Lecture, Golden Gate Polymer Forum, Mountain View, California, December, **2001**.
69. Discussion Leader, Elastomers Gordon Conference, New London, New Hampshire, August, **2001**.
68. Invited Lecture, Wright Patterson Air Force Base, Dayton, Ohio, April, **2001**.
67. Invited Lecture, ExxonMobil Chemical Company, Baytown, Texas, March, **2001**.
66. Departmental Seminar, Department of Chemical Engineering, North Carolina State University, Raleigh, March, **2001**.
65. Invited Lecture, Flory Symposium, Stanford University, California, Departments of Chemistry and Chemical Engineering, February **2001**.
64. Invited Lecture, Stanford Linear Accelerator Laboratory, Soft X-Ray Speckle: Nanoscale Dynamics in Liquids and Solids, October, **2000**.
63. Departmental Seminar, Department of Textile Engineering, Georgia Institute of Technology, Atlanta, October **2000**.
62. Departmental Seminar, Department of Chemical Engineering, Tulane University, New Orleans, Louisiana, September **2000**,
61. Invited Lecture, ExxonMobil Company, Annandale, New Jersey, July **2000**.

59. Invited Lecture, National Research Council of Solid State Physics, Gaithersburg, Maryland, July **2000**.
60. Invited Lecture, Gordon Research Conference, Polymer Physics, New London, Connecticut, July, **2000**.
58. Invited Lecture, Gordon Research Conference, Polymers (East), New London, Connecticut, June **2000**.
57. Invited Lecture, Annual Meeting of the American Chemical Society, San Francisco, March **2000**.
56. Invited Lecture, Exxon Research and Engineering Company, Annandale, New Jersey, November **1999**.
55. Invited Lecture, Dow Chemical Company, Midland, Michigan, November **1999**.
54. Departmental Seminar, Department of Chemical Engineering, Louisiana State University, Baton Rouge, November **1999**.
53. Departmental Seminar, Department of Chemical Engineering, Massachusetts Institute of Technology, September **1999**.
52. Departmental Seminar, Department of Materials Science and Engineering, University of Maryland, College Park, October **1999**.
51. Departmental Seminar, Department of Chemical Engineering, Johns Hopkins University, September **1999**.
50. Departmental Seminar, Department of Chemical Engineering, University of California, Berkeley, August **1999**.
49. Invited Lecture, Annual Meeting of the American Chemical Society, New Orleans, August **1999**.
48. Invited Lecture, Gordon Research Conference, Chemistry of Supramolecules and Assemblies, August **1999**.
47. Invited Lecture, Gordon Research Conference, Elastomers, July **1999**.
46. Departmental Seminar, Department of Chemistry, Carnegie Mellon University, May **1999**
45. Departmental Seminar, Department of Chemical Engineering, University of Rhode Island, February **1999**.
44. Departmental Seminar, Department of Materials Science and Engineering, Northwestern University, April **1999**.
43. Invited Lecture, Annual Meeting of the Rubber Division of the American Chemical Society, April **1999**.
42. Departmental Seminar, Department of Chemical Engineering, Princeton University, March **1999**.
41. Departmental Seminar, Department of Chemical Engineering, City College of New York, September **1998**.
40. Departmental Seminar, Department of Materials Science and Engineering, North Carolina State University, October **1998**.
39. Invited Lecture, Meeting on Unifying Principles for Engineering Soft Materials, Risø National Laboratory, Denmark, June **1999**.
38. Invited Lecture, Exxon Corporate Research Laboratories, Clinton, New Jersey, April **1998**.
37. Invited Lecture, American Chemical Society, Division of Polymer Materials Science and Engineering, Dallas, March **1998**.

36. Departmental Seminar, Department of Materials Science and Engineering, Cornell University, Ithaca, New York, February **1998**.
35. Invited Lecture, Goodyear Tire Company, Akron, Ohio, February **1998**.
34. Departmental Seminar, Department of Chemical Engineering, University of Pennsylvania, Philadelphia, Pennsylvania, January **1998**.
33. Invited Lecture, Department of Chemical Engineering, Indian Institute of Technology, Bombay, December **1997**.
32. Invited Lecture, Royal Society-Unilever Forum on Structure and Dynamics of Materials in the Mesoscopic Domain, National Chemical Society, India, December **1997**.
32. Departmental Seminar, Department of Chemistry, University of North Carolina, Chapel Hill, North Carolina, November **1997**.
31. Departmental Seminar, Department of Chemical Engineering, University of California at Los Angeles, October **1997**.
30. Departmental Seminar, Department of Chemical Engineering, Columbia University, October **1997**.
29. Departmental Seminar, Department of Macromolecular Science, Case Western Reserve University, September **1997**.
28. Invited Lecture, Cold Neutron Research Center, National Institute of Standards and Technology, Gaithersburg, Maryland, September **1997**.
27. Invited Lecture, International Conference on Neutron Scattering, Toronto, August **1997**.
26. Invited Lecture, Exxon Chemical Company, Baytown, Texas, June **1997**.
25. Departmental Seminar, Department of Chemical Engineering, University of Connecticut, Storrs, April **1997**.
24. Departmental Seminar, Department of Materials Science and Engineering, Stevens Institute of Technology, Hoboken, April **1997**.
23. Departmental Seminar, Department of Chemistry, University of North Carolina at Chapel Hill, March **1997**.
22. Invited Lecture, National Meeting of the American Physical Society, Kansas City, March **1997**.
21. Invited Lecture, National Meeting of the Materials Research Society, Boston, December **1996**.
20. Invited Lecture, Rubber Science Hall of Fame, lecture honoring the induction of G. Kraus to the Rubber Science Hall of Fame, University of Akron, Akron, Ohio, November **1996**.
19. Departmental Seminar, Department of Chemical Engineering, Columbia University, May **1996**.
18. Invited Lecture, Gordon Conference on Colloidal, Macromolecular and Polyelectrolyte Solutions, Ventura, California, February **1996**.
17. Departmental Seminar, Department of Textile Engineering, North Carolina State University, Raleigh, January **1996**.
16. Departmental Seminar, Department of Chemical Engineering, University of California, Berkeley, November **1995**.
15. Departmental Seminar, Department of Materials Science and Engineering, University of Illinois, Urbana-Champaign, November **1995**.
14. Invited Lecture, Mitsubishi Chemicals, Yokkaichi, Japan, June **1995**.
13. Invited Lecture, Faculty of Macromolecular Science, Kyoto University, Japan, June **1995**.

12. Invited Lecture, Faculty of Macromolecular Science, Osaka University, Japan, June **1995**.
11. Invited Lecture, Department of Chemical Engineering, Kyoto Institute of Technology, Japan, June **1995**.
10. Departmental Seminar, Department of Materials Science and Engineering, University of Pennsylvania, January **1995**.
9. Departmental Seminar, Department of Chemical Engineering, University of California at Santa Barbara, January **1995**.
8. Invited Lecture, Polymers Division, National Institute of Standards and Technology, Gaithersburg, Maryland, January **1995**.
7. Invited Lecture, National Meeting of the American Physical Society, Division of Condensed Matter Physics, San Jose, California, March **1995**.
6. Departmental Seminar, Department of Materials Science and Engineering, Massachusetts Institute of Technology, November **1994**.
5. Invited Lecture, 3M Company, St. Paul Minnesota, November **1994**.
4. Departmental Seminar, Department of Polymer Science and Engineering, University of Massachusetts, October **1994**.
3. Departmental Seminar, Department of Materials Science and Engineering, Pennsylvania State University, September **1994**.
2. Invited Lecture, National meeting of the American Chemical Society, Chicago, August **1993**.
1. Departmental Seminar, Department of Chemical Engineering, Rensselaer Polytechnic Institute, September **1992**.

Visiting Professorships

Kyoto University (Japan), Summer 1995

University of Freiburg (Germany), Summer 2002

Louis Pasteur University in Strasbourg (France), Summer 2003

Professional Society Membership

Electrochemical Society

American Physical Society

American Chemical Society

American Institute of Chemical Engineers

Society of Rheology (Japan)

Editorial Boards of Journals

Macromolecules (2000-2003)

Journal of Polymer Science, Part B: Polymer Physics (2000-present)

Journal of the Society of Rheology, Japan (US editor) (2000-present)

Progress in Polymer Science (2002-present)

Recent Institutional and Professional Service

Elected Chair of the Division of Polymer Physics of the American Physical Society, 2014.

Member of the Executive Committee of the Division of Polymer Physics of the American Physical Society, 2012-2015.

Conference Theme Co-organizer, American Chemical Society National Meeting in Dallas, Spring 2014.

Co-chair of the Program Committee for the Annual Meeting of the American Conference on Neutron Scattering, 2011-2012.

Chair of University of California Faculty Senate Committee, Student Diversity and Academic Development, 2009-2011.

Founding Chair of the Users Committee, National Center for Neutron Research at the National Institute of Standards and Technology in Gaithersburg, Maryland, 2002-2008.

Member of the Executive Committee of the Division of Polymer Physics of the American Physical Society (Elected Member-at-Large by the division), 2004-2006.

Member of the Experimental Facilities Advisory Committee, Spallation Neutron Source being built at Oak Ridge National Laboratory, 2002-2005.

Programming Chair for the Division of Polymer Physics of the American Physical Society for the annual March meeting in 2004 (45 symposia, including 7 invited symposia and 5 focused topic sessions).

Programming Chair for Thermodynamics and Transport Phenomena Symposia (50 symposia) for the annual AIChE meeting in 2002.