

1. "Automobile Emissions Abatement and Fuels Policy", R. K. Prud'homme, *American Scientist*, **62**, (2), 191-199, (1974).
2. "The Dilatational Properties of Suspensions of Gas Bubbles in Incompressible Newtonian and Non-Newtonian Fluids", R. K. Prud'homme and R. B. Bird, *Journal of Non-Newtonian Fluid Mechanics*, **3**, (3), 261-279, (1978).
3. "Senior Thesis Research at Princeton", R. K. Prud'homme, *Chemical Engineering Education*, 130-132, Summer 1981.
4. "Thixotropy of Polydimethylsiloxane Polymer/Fumed Silica Filler Semiconductor Encapsulation Compounds", Robert K. Prud'homme and Edward M. Chan, Proceedings IUPAC Macro 82, Amherst, MA, July (1982).
5. "Rheological Effects of Interactions between Polymers and Association-Forming Solutes", Robert K. Prud'homme, Proceedings IUPAC Macro 82, Amherst, MA, July (1982).
6. "Characterization of Concentrated Polymer Solutions at High Temperature and Pressure", Robert K. Prud'homme and William D. Richards, Proceedings IUPAC Macro 82, Amherst, MA, July (1982).
7. "Molecular-Size Determination of Xanthan Polysaccharide", Robert K. Prud'homme, Gail Froiman, and David A. Hoagland, *Carbohydrate Research*, **106**, (2), 225-233, (1982).
8. "Rheology of Solutions of Interacting Micelles and Polymer Chains", J. T. Uhl and R. K. Prud'homme, *Chemical Engineering Communications*, **16**, (1-6), 45-52, (1982).
9. "Surface Tensions of Concentrated Xanthan and Polyacrylamide Solutions with Added Surfactants", R. K. Prud'homme and R. E. Long, *Journal of Colloid and Interface Science*, **93**, (1), 274-276, (1983).
10. "Orientation of Rigid Macromolecules during Hydrodynamic Chromatography Separations", R. K. Prud'homme and D. A. Hoagland, *Separation Science and Technology*, **18**, (2), 121-134, (1983).
11. "On the Anomalous Normal Stresses of Polyacrylamide Solutions Reported by Boger and Cable", J. T. Uhl and R. K. Prud'homme, *Rheologica Acta*, **22**, (2), 243-244, (1983).
12. "Rheological Monitoring of the Formation of Polyacrylamide/Cr⁺³ Gels", R. K. Prud'homme, J. T. Uhl, J. P. Poinatte, and F. Halverson, *Society of Petroleum Engineers Journal*, **23**, (5), 804-808, (1983).
13. "Rheology Enhancement by Molecular Association Complexes", R. K. Prud'homme and J. T. Uhl, *Society of Petroleum Engineers Journal*, **24**, (4), 431-434, (1984).
14. "Rheology Enhancement by Molecular Association Complexes", R. K. Prud'homme and Jonathan T. Uhl, SPE of AIME (1984).
15. "Rheological Characterization of Fracturing Fluids", R.K. Prud'homme, A. Chu, and J. Kramer, Proceedings Am. Petrol. Instit. 1984 Annual Mtng., April 2, 1984, G1-G36 (1984).

16. "Rheology and Gelation Kinetics of Guar Gels", R. K. Prud'homme, Alice Chu and Jeffrey Kramer, presented at the 1984 National AIChE Meeting, Anaheim, CA, May 20-23 (1984).
17. "Kinetics of Polymer/Metal-Ion Gelation", R. K. Prud'homme and J. T. Uhl, Proceedings of SPE/DOE 4th Symp. on Enhanced Oil Recovery, Tulsa, OK April 15, 1984, SPE/DOE #12640, 121-128 (1984).
18. "Deformation of Macromolecules During Analysis by Hydrodynamic Chromatography", D. Hoagland and R. K. Prud'homme, Proceedings 1984 National AIChE Meeting, Anaheim CA, May 20, 1984, (1984).
19. "Gelation Kinetics and Rheology of Metal-Ion Crosslinked Polymer Solutions", R. K. Prud'homme, J. T. Uhl, and A. Chu, ACS Polym. Materials Sci. and Engr. Proceed., ACS Annual Mtng., Philadelphia, PA, Aug. 1984, (1984).
20. "Rheology of Self-Associating Concentrated Xanthan Solutions", T. Lim, J. T. Uhl, and R. K. Prud'homme, *Journal of Rheology*, **28**, (4), 367-379, (1984).
21. "Effect of Elasticity on Mixing Torque Requirements for Rushton Turbine Impellers", R. K. Prud'homme and E. Shaqfeh, *AIChE Journal*, **30**, (3), 485-486, (1984).
22. "Hydrodynamic Chromatography of High Molecular Weight Water Soluble Polymers", D.A. Hoagland, K.A. Larson, R.K. Prud'homme, in Modern Methods of Particle Size Analysis, H. G. Barth, ed., John Wiley and Sons, NY (1984).
23. "Orientation and Deformation of Macromolecules During Flow Through Porous-Media", D. A. Hoagland and R. K. Prud'homme, *Journal of Rheology*, **28**, (4), 495-496, (1984).
24. "The Effect of Fluid Elasticity on Power Consumption and Mixing Times in Stirred Tanks", D. J. Collias and R. K. Prud'homme, *Chemical Engineering. Science*, **40**, (8), 1495- 1505, (1985).
25. "Homogeneous Nucleation Temperatures for Concentrated Polystyrene/Benzene Solutions", R. K. Prud'homme, W. J. Gregory and R. P. Andres, *Journal of Polymer Science: Polymer Symposium*, **72**, 263-275, (1985).
26. "Taylor-Aris Dispersion Arising from Flow in a Sinusoidal Tube", D.A. Hoagland and R.K. Prud'homme, *AIChE Journal*, **31**, (2), 236-244, (1985).
27. "Automated System for the Characterization of Liquid Foam", G. J. Besio, G. Oyler, and R. K. Prud'homme, *Reviews of Science Instrumentation*, **56**, (5), 746-751, (1985).
28. "The Determination of Non-Ionic and Partially Hydrolyzed Polyacrylamide Molecular-Weight Distributions Using Hydrodynamic Chromatography" M. A. Langhorst, F. W. Stanley, S. S. Cutie, J. H. Sugarman, L. R. Wilson, D. A. Hoagland, and R. K. Prud'homme, *Abstr. Pap. Amer. Chem. Soc.*, **190**, 94, (1985).
29. "Rheology and Molecular Structure of HPG Gels", J. Kramer, A. Chu, and R.K. Prud'homme, Proceedings of 61st Annual Tech. Conf. Soc. Petrol. Engrs., New Orleans, LA, Oct. 5, 1986, SPE 15632, 1-6 (1986).

30. "Freeze-Etch TEM of Aqueous Polymer Gel Network Morphology", J.A.N. Zasadzinski, and R. K. Prud'homme, Proceedings of 44th Annual Meeting Electron Microscopy Soc. Am., 796-797 (1986).
31. "Microcapillary Flow Analysis of Polymer Microgels, Particles, and Molecules", J.H. Sugarman, R.K. Prud'homme, M.A. Langhorst, F.W. Stanley, Jr., Polym. Mat. Sci. and Engr. Preprints, ACS, Los Angeles, CA, (1986).
32. "Laminar Compressible Flow in a Tube", R.K. Prud'homme, T.W. Chapman, J.R. Bowen, *Appl. Sci. Resch.*, **43**, 67-74, (1986).
33. "Polymer-Chain Segment Orientation During Stress-Relaxation", B. D. Lawrey, R. K. Prud'homme, and J. T. Koberstein, *J. Polym. Sci. Part B-Polymer Phys.*, **24**, (1), 203-208, (1986).
34. "Flotation", R. K. Prud'homme, in Stagewise and Mass Transfer Operations, AIChE Modular Instruction Series B6.10, 70-86, (1986).
35. "The Interpretation of Screen-Factor Measurements", T. Lim, J. T. Uhl, and R. K. Prud'homme, *Soc. Petrol. Engrs. Reservoir Engineering.*, 272-276, (1986).
36. "The Viscosity of Concentrated Polymer Solutions Containing Low Molecular Weight Solvents", William D. Richards and Robert K. Prud'homme, *J. Appl. Polym. Sci.*, **31**, (3), 763-776 (1986).
37. "Mixing in the Process Industries", (invited book review) R.K. Prud'homme, *Chemical Engr. Sci.*, **41**, 2509 (1986).
38. "Transmission Electron Microscopy of Gel Network Morphology: Relating Network Microstructure to Mechanical Properties", Joseph A. N. Zasadzinski, Alice Chu, and Robert K. Prud'homme, *Macromolecules*, **19**, (12), 2960-2964 (1986).
39. "Determination of Nonionic and Partially Hydrolyzed Polyacrylamide Molecular Weight Distributions Using Hydrodynamic Chromatography", Martin A. Langhorst, Frederick W. Stanley, Jr., Sergio S. Cutie, Jeffrey H. Sugarman, Larry R. Wilson, David A. Hoagland, and Robert K. Prud'homme, *Analytical Chem.*, **58**, (11), 2242-2247 (1986).
40. "Detection of Microgels in Polyacrylamide Solutions Using Microcapillary Flow Analysis", Jeffrey H. Sugarman, Robert K. Prud'homme, Martin A. Langhorst and Frederick W. Stanley, Jr., *J. of Appl. Poly. Sci.*, **33**, (3), 693-702 (1987).
41. "Rheological Characterization of Fracturing Fluids", R.K. Prud'homme, Am. Petroleum Instit., Prod. Research Advisory Comm., Dallas, TX, PRAC 46-86 (1987).
42. "Detection of Microgels in EOR Polymers Using Microcapillary Flow", J.H. Sugarman, R.K. Prud'homme, in Water Soluble Polymers for Petroleum Recovery, G.A. Stahl and D.N. Schulz, eds., Plenum Press, NY, 343-52 (1988).
43. "Interpretation of Dynamic Oscillatory Measurements for Characterization of Well Completion Fluids", SPE International Symposium on Oilfield Chemistry held in San Antonio, TX, February 4-6 (1987).
44. "In-Plane Radial Fluid Flow Characterization of Fibrous Media", D.E. Hirt, K.L. Adams, R.K. Prud'homme, L. Rebenfeld, *J. Thermal Insulation*, **10**, 153-172 (1987).

45. "Rheology of Hydroxypropyl-Guar Gels", J. Kramer, R.K. Prud'homme, V. Constien, S. Knoll, ACS Polym. Materials Sci. and Engr. Proceed., **57**, ACS Annual Meeting, New Orleans, LA, Sept. (1987).
46. "The Phase Behavior of Dispersions Containing Associative Thickener", M. Santore, W. Russel, R.K. Prud'homme, ACS Materials Sci. and Engr. Proceed., **57**, ACS Annual Mtng., New Orleans, LA, Sept. (1987).
47. "Foam Flow in Fiber Networks", D. Hirt, L. Rebenfeld, R.K. Prud'homme, Notes on Research, Textile Research Instit., Princeton, NJ, **400** (1987).
48. "Characteristics of Metal-Polymer Interactions in Fracturing Fluid Systems", J. Kramer, R.K. Prud'homme, L.R. Norman, J.M. Sandy, Soc. Petroleum Engrs. paper: Soc. Petrol. Engrs. 16914, (1987).
49. "Characterization of Foam Cell Size and Foam Quality Using Factorial Design Analyses", D.E.Hirt, R.K. Prud'homme, L. Rebenfeld, , **8**, 55-73 (1987).
50. "Analysis of Radius Variations in Microcapillaries Using the Velocity of a Viscous Polymer Plug and Fluorescence Photobleaching Velocity Detection", J. H. Sugarman, and R.K. Prud'homme, *J. Chromatogr.*, **389**, (1), 236-239 (1987).
51. "Effect of Photobleaching on the Output of an On-Column Laser Fluorescence Detector", Jeffrey H. Sugarman, and Robert K. Prud'homme, *I&EC Research*, **26**, (7), 1449-1454 (1987).
52. "Electric Birefringence Measurements of Native, Denatured, and Renatured Xanthan", Gregory J. Besio, Ian M. Leavesley, Robert K. Prud'homme, and Raymond Farinato, *J. Appl. Polym. Sci.*, **33**, (3), 825-834 (1987).
53. "Molecular Network Model for the Rheology of Gelling Polymer-Solutions", A.S. Chu, and R.K. Prud'homme, *J. Non-Newtonian Fluid Mech.*, **22**, (2), 207-218 (1987).
54. "A Rheometer for Concentrated Polymer-Solutions Containing Volatile Solvents", W.D. Richards, and R.K. Prud'homme, *Polym. Engr. and Sci.*, **27**, (4), 294- 302 (1987).
55. "Measurement of the Viscosity of Guar Gum Solutions to $50,000 \text{ s}^{-1}$ Using a Parallel Plate Rheometer", J. Kramer, J.T. Uhl, R.K. Prud'homme, *Polym. Engr. and Sci.*, **27**, (8), 598-602 (1987).
56. "Comparison of the Rheology of Polymer Melts in Shear, and Biaxial and Uniaxial Extensions", S.A. Khan, R.K. Prud'homme, R.G. Larson, *Rheologica Acta*, **26**, (2), 144-151 (1987).
57. "Formation of Colloidal TiO_2 from Organotitanate Solutions Used to Produce Cross-Linked Polymer Gels", J. Kramer, R.K. Prud'homme, P. Wiltzius, *J. Colloid Interf. Sci.*, **118**, (1), 294-296 (1987).
58. "Response of an Elastic Bingham Fluid to Oscillatory Shear", A.S. Yoshimura, and R.K. Prud'homme, *Rheologica Acta*, **26**, (5), 428-436 (1987).
59. "A Comparison of Techniques for Measuring Yield Stresses", A.S. Yoshimura, R.K. Prud'homme, H.M.Princen, A.D. Kiss, *J. Rheology*, **31**, (8), 699-710 (1987).

60. "Molecular Shape in Homogeneous Flows: Predictions of the Rouse Model", D. A. Hoagland, and R. K. Prud'homme, *J. Non-Newtonian Fluid Mech.*, **27**, (2), 223-243 (1988).
61. "Reproducible Rheological Measurements on Crosslinked Fracturing Fluids", R.K. Prud'homme and S. Ellis, Princeton University and V.G. Constien, * Dowell Schlumberger; and S. Knoll, Aqualon, Inc., SPE 63rd Annual Technical Conference and Exhibition held in Houston, TX, October 2-5 SPE 18210, 307-315 (1988).
62. "Laboratory Preparation and Rheological Characterization of Crosslinked Fracturing Fluids", R.K. Prud'homme, Soc. Petrol. Engrs. SPE paper #20637 (1988).
63. "Analysis of Water-Soluble Polymers Using Hydrodynamic Chromatography", D. A. Hoagland, and R. K. Prud'homme, *J. Appl. Polym. Sci.*, **36**, (4), 935-955 (1988).
64. "Melt Rheology of Filled Thermoplastics", S.A. Khan and R.K. Prud'homme, *Rev. in Chem. Engr.*, **4**, 205-70 (1988).
65. "Ellipsometric Observation of the Adsorption of Sodium Dodecyl Sulfate", Gregory J. Besio, Robert K. Prud'homme, and Jay B. Benziger, *Langmuir*, **4**, (1), 140-44 (1988).
66. "Effect of Elongational Flow on Polymer Adsorption", G. J. Besio, R. K. Prud'homme, and J. B. Benziger, *Macromolecules*, **21**, (4) 1070-1074 (1988).
67. "Wall Slip Corrections for Couette and Parallel Disk Viscometers", A.S. Yoshimura, R.K. Prud'homme, *J. Rheology*, **32**, (6) 53-67 (1988).
68. "Wall Slip Effects on Dynamic Oscillatory Measurements", A.S. Yoshimura, R.K. Prud'homme, *J. Rheology*, **32**, 575-84 (1988).
69. "Viscosity Measurements in the Presence of Wall Slip in Capillary, Couette, and Parallel-Disk Geometries", A.S. Yoshimura, R.K. Prud'homme, *Soc. Petroleum Engrs. Reservoir Engr.*, **3**, 735-42, May (1988).
70. "A New Technique to Study Foam Flow Through Porous Media: Radial Flow in Fibrous Mats", D.E. Hirt, R.K. Prud'homme, L. Rebenfeld, *AIChE J.*, **34**, (2), 326-328 (1988).
71. "Comparison of Galactomannan Crosslinking with Organotitanates and Borates", J. Kramer, R.K. Prud'homme, P. Wiltzius, P. Mirau, S. Knoll, *Colloid & Polymer Sci.*, **266**, (2), 145-155 (1988).
72. "Orientation and Relaxation of Nonlinear Elastic Dumbbells in Electric Fields: Modeling Transient Electric Birefringence", Sunil Nath, John S. Bowers, and Robert K. Prud'homme, *J. Chem. Phys.*, **89**, (9), 5943-5949 (1988).
73. "Rheology of Concentrated Microgel Solutions", R. J. Ketz, R. K. Prud'homme, W. W. Graessley, *Rheologica Acta*, **27**, (5), 531-539 (1988).
74. "Rheological Monitoring of Gelation Kinetics of Silica Sols", S.A. Khan, Bell Communications Research, E.M. Rabinovich, AT&T Bells Labs, R.K. Prud'homme, PU, M.J. Sammon and N.J. Kopylov AT&T Bell Labs, *Mat. Res. Symp. Proc.*, Volume 121 (1988).

75. "Production of Monodisperse 5 to 40 Micron Polystyrene Spheres", Robert K. Prud'homme and J. Chiang, *J. Colloid Interf. Sci.*, **122**, (1), 283-287 (1988).
76. "Diffusion of Polymers Through Polyacrylamide Gels", Robert K. Prud'homme, L. Haggerty and J. H. Sugarman, *Polymer*, **29**, (6), 1058-1063 (1988).
77. "Rheology of Gelation of Fluorine Doped Ceramic Sols", in Better Ceramics Through Chemistry III, Robert K. Prud'homme, S.A. Khan, E.M. Rabinovich, M.J. Sammon, and N.J. Kopylov (C.J. Brinker, D.E. Clark, D.R. Ulrich, eds., Mater. Res. Soc. Proc., Reno, NV 1988).
78. "Rheology of the Gelation of Fluorine-Doped Silica Sols", S.A. Khan, R. K. Prud'homme, E.M. Rabinovich & M.J. Sammon, *J. Non-Crystalline Solids*, **110**, (2-3), 153-162 (1989).
79. "Effects of Shear History on the Rheology of Hydroxypropyl Guar Gels", R. K. Prud'homme, V. Constien, and S. Knoll, in Polymers in Aqueous Media: Performance Through Association, J.E. Glass, ed., A.C.S. Advances in Chemistry Series No. 223, A.C.S., N.Y., pp. 89-112 (1989).
80. "Rheology of Fracturing Fluids", J. Cameron, R.K. Prud'homme, in Recent Advances in Hydraulic Fracturing, Soc. Petrol. Engrs. Monograph Series, vol 12, J. Gidley, ed., Soc. Petrol. Engrs., Richardson, TX, pp. 177-209 (1989).
81. "Solids Formation After the Expansion of Supercritical Mixtures", R.S. Mohamed, D.S. Halverson, P. G. Debenedetti, and R.K. Prud'homme, in Supercritical Fluid Science and Technology, A.C.S. Symp. Ser. No. 406, K.P. Johnston and J.M.L. Penninger, eds., A.C.S., N.Y., pp. 356-378 (1989).
82. "Hydrodynamic Chromatography as a Probe of Polymer Dynamics during Flow through Porous Media", David A. Hoagland, and Robert K. Prud'homme, *Macromolecules*, **22**, (2), 775-781 (1989).
83. "Effects of Process Conditions on Crystals Obtained from Supercritical Mixtures", R. S. Mohamed, P. G. Debenedetti, and R.K. Prud'homme, *AIChE Journal*, **35**, (2), 325-328 (1989).
84. "Measurement of the Modulus and Yield Strength of Soft Gels: Experiments and Numerical Simulation", K. Goodrich, A.S. Yoshimura, and R.K. Prud'homme, *J. Rheology* **33**, (2), 317 (1989).
85. "A Two-Component Model for Phase Behavior of Dispersions Containing Associative Polymer", Maria M. Santore, William B. Russel, and Robert K. Prud'homme, *Macromolecules*, **22**, (3), 1317-1325 (1989).
86. "Foam Bubble Size Measured Using Image Analysis Before and After Passage Through a Porous Medium", S.P. Gido, D.E. Hirt, S.M. Montgomery, R.K. Prud'homme & L. Rebenfeld, *J. of Dispersion Science and Technology*, **10**, (6), 785-793 (1989).
87. "Flow Behavior of a Surfactant-Oil-Water System", Yasufumi Otsubo and Robert K. Prud'homme", *Colloids and Surfaces*, **40**, (1-2), 125-136 (1989).
88. "Experimental Study of Foam Flow in Fibrous Materials", Douglas E. Hirt, Robert K. Prud'homme and Ludwig Rebenfeld, *Tappi Journal*, **73**, (2), 147-151 (1990).

89. "Rheological Characterization", R.K. Prud'homme, in Electronic Materials Handbook, vol. 1, Packaging, A.S.M. International, Materials Pk. OH , pp. 838-853 (1990).
90. "A One-Component Model for the Phase Behavior of Dispersions Containing Associate Polymers", Maria M. Santore, William B. Russel, and Robert K. Prud'homme, *Macromolecules*, **23**, (16), 3821-3832 (1990).
91. "Experimental and Theoretical Study of Phase Transitions Induced in Colloidal Dispersions by Associative Polymers", M.M. Santore, W.B. Russel, and R.K. Prud'homme, *Faraday Discuss. Chem. Soc.* , **90**, 323-333 (1990).
92. "Dynamic Surface Tension of Hydrocarbon and Fluorocarbon Surfactant Solutions Using the Maximum Bubble Pressure Method", Robert K. Prud'homme, D. Hirt, B. Miller, and L. Rebenfeld, *Colloids and Surfaces*, **44**, 101-117 (1990).
93. "Rheology of a Xanthan Broth at Low Stresses and Strains", Maria M. Santoro and Robert K. Prud'homme, *Carbohydrate Polymers*, **12**, (3), 329-335 (1990).
94. "Effect of Dynamic Surface Tension on Foam Flow Through Fibrous Materials", D.E. Hirt and Robert K. Prud'homme, *Textile. Res. J.* **61**, 47-57 (1990).
95. "Solution Rheology", R.K. Prud'homme, in *Polymers as Rheology Modifiers*, J.E. Glass, ed., A.C.S. Symp. Ser.No. 462, Robert K. Prud'homme, D. N. Schulz and J. E. Glass eds., A.C.S., N.Y., pp. 18-47 (1991).
96. "Rheological Measurements", Polymers as Rheology Modifiers, R.K. Prud'homme, American Chemical Society, Chapter 2 (1991).
97. "Drop Production in Couette and Media Mill Devices", 109-24, D.I. Collias and Robert K. Prud'homme, *Chemical Engineering Communications*, **109**, 109-24 (1991).
98. "Instabilities in Multi-hole Converging Flow of Viscoelastic Fluids", K. W. Koelling and Robert K. Prud'homme, *Rheologica Acta*, **30**, (6), 511-522 (1991).
99. "The Interaction Between Spinning Conditions and Fiber Morphology for Solution Spinning", K.W. Koelling, J. Bric, R.K. Prud'homme and S. Ruetsch, Proceedings of Fiber Producer Conference, May (1991).
100. "Applications of Supercritical Fluids in the Controlled Release of Drugs", Jean W. Tom, Gio-Bin Lim, Pablo G. Debenedetti and Robert K. Prud'homme, *Supercritical Fluid Engineering Science: Fundamentals and Applications*, **514**, Chapter 19, AIChE Symposium 1991 Annual Meeting, Los Angeles, California, November 17-22 (1991).
101. "Rheology of Semi-Dilute Ionomer Solutions", Richard J. Ketz, Jr.*, William W. Graessley, and Robert K. Prud'homme, Dept. of Chemical Engineering, Princeton University, Princeton, NJ 08544 *(Present Address: Rohm & Haas Company, Spring House, PA), ACS National meeting Atlanta, Georgia (1991).
102. "Rheology of Semi-Dilute Ionomer Solutions", Richard J. Ketz, Jr.*, William W. Graessley, and Robert K. Prud'homme, *ACS Polymer Chem Papers*, **32**, (1) 613-614 (1991).

103. "Relationship between Poly (Acrylic Acid) Gel Structure and Synthesis", in Polyelectrolyte Gels, R. Harland and R.K. Prud'homme, eds., A.C.S.Symposium Series, A.C.S., N.Y. with Yu-Ling Yin and F. Stanley (1992).
104. "Diagnostic Techniques of Mixing Effectiveness: The Effect of Shear and Elongation in Drop Production in Mixing Tanks", Dimitris I. Collias and Robert K. Prud'homme, *Chemical Engineering Science*, **47**, (6), 1401-1410 (1992).
105. "Ionomer Melt Rheology", R. A. Register and R.K. Prud'homme, Synthesis, Structure, Properties & Applications, (1992).
106. "An Assessment of the Pade-Laplace Method for Transient Electric Birefringence Decay Analysis", J.S. Bowers, R. K. Prud'homme, and R.S. Farinato *Computers and Chemistry*, **16**, (3), 249-259 (1992).
107. "Quantitative Measurement of Voids Formed During Liquid Impregnation of Nonwoven Multifilament Networks Using an Optical Visualization Technique", A. D. Mahale and Robert K. Prud'homme, *Polym. Sci. and Engr.* **32**, 319-326 (1992).
108. "Low Field Theory of Polymer Transient Electric Birefringence", John S. Bowers and Robert K. Prud'homme, *Journal of Chemical Physics*, **96**, (9), 7135-7143 (1992).
109. "Rheology of Guar and HPG Cross-Linked by Borate", Subramanian Kesavan and Robert K. Prud'homme, *Macromolecules*, **25**, (7) 2026-2032 (1992).
110. "Flow Behavior of Oil-in-Water Emulsions", Y. Otsubo and Robert K. Prud'homme, *Soc. of Rheology, Japan* **20**, 125-131 (1992).
111. "Synthesis of a Novel Hydrogel Bases on a Coordinate Covalent Polymer Network", B.W. Pfennig, A.B. Bocarsly and Robert K. Prud'homme, *American Chemical Society*, **115**, (7), 2661-2665 (1993).
112. "Behavior of Low Molecular Weight Model Heur Associative Polymers in Concentrated Surfactant Systems", A. P. Mast, R. K. Prud'homme and J. E. Glass, *Langmuir*, **9**, (3), 708-715 (1993).
113. "Filter-Cake Formation of Fracturing Fluids", Robert K. Prud'homme and J.K. Wang, *Society of Petroleum Engineers*, 537-546 (1993).
114. "Electric Birefringence of Flexible Polymers in High Fields: Brownian Dynamics Simulation", R. Blake Goff, Steven F. Karel, and Robert K. Prud'homme, *Journal of Chemical Physics*, **100**, (3), 2289-2297 (1994).
115. "Fourier Transform Mechanical Spectroscopy of the Sol-Gel Transition in Zirconium Alkoxide Ceramic Gels", M. In and Robert K. Prud'homme, *Rheol Acta*, **32**, 556-565 (1993).
116. "Characterization of Voids Formed During Liquid Impregnation of Non-woven Multifilament Glass Networks as Related to Composite Processing", A. D. Mahale, R.K. Prud'homme and Ludwig Rebenfeld, *Composites Manufacturing*, **4**, 199-207 (1993).

117. "Crosslinked Borate HPG Equilibria and Rheological Characterization", *Society of Petroleum Engineers, Inc.*, Subramanian Kesavan, R.K. Prud'homme and M.D. Parris, SPE International Symposium on Oilfield Chemistry held in New Orleans, LA, March 2-5, (1993).
118. "What We Know and What We Don't Know About Polyelectrolyte Gels", Robert K Prud'homme and Yu-Ling Yin, *ACS Symposium Series, ACS, N.Y., Polymer Preprints*, **35**, (2) (1994).
119. Structure and Flow in Surfactant Solutions, Craig A. Herb and Robert K. Prud'homme, Eds. ACS Symposium Series 578, Chicago, Illinois, August 22-27 (1994).
120. "Inhomogeneous Flows of Guar/Metal Ion Gels Observed by Laser Doppler Anemometry and Rheological Measurements", Dimitris I. Collias and Robert K. Prud'homme, *J. Rheol.*, **38**, (2), 217-230 (1994).
121. "The Use of Opposed Nozzles Configuration in the Measurements of the Extensional Rheological Properties of Emulsions", Mark R. Anklaam, Gregory G. Warr and Robert K. Prud'homme, *J. Rheology.*, **38**, (4), 797-810 (1994).
122. "Effect of Drop Size Distribution on the Flow Behavior of Oil-in-Water Emulsions", Y. Otsubo and R. K. Prud'homme, *Rheologica Acta*, **33**, (4), 303-306 (1994).
123. "Elongational Flow of Solutions of Rodlike Micelles", Robert K. Prud'homme and Gregory G. Warr, *Langmuir*, **10**, (10), 3419-3426 (1994).
124. "Influence of Strain and Medium Composition on Filtration of Escherichia coli Suspensions", Biotechnology and Bioengineering, **44**, 539-548, B.H. Junker, S. Timberlake, F.J. Bailey, J. Reddy, R. Prud'homme and Gbewonyo, K. (1994).
125. "Rheology of Oil-in-Water Emulsions", Y. Otsubo and Robert K. Prud'homme, *Rheologica Acta*, **33**, (1), 29-37 (1994).
126. "Salt Partitioning in Polyelectrolyte Gel-Solution Systems", Polymers of Biological & Biomedical Significance, ACS Seminar Series 540, Chapter, 13 , 159-170 Yu-Ling Yin and Robert K. Prud'homme (1994).
127. "Shear Thinning in Ternary Bicontinuous and Water-in-Oil Microemulsions", Mark R. Anklaam, Robert K. Prud'homme and Gregory G. Warr, *AIChE Journal*, **41**, (3), 677-682 (1995).
128. Foams, Theory Measurements, and Applications, Robert K. Prud'homme and Saad A. Khan, Eds., Marcel Dekker, New York (1995).
129. "Experimental Results on Foam Rheology", Robert K Prud'homme and Saad A. Khan in Foams, Theory Measurements, and Applications, 217-241 (1995).
130. "Foams in Mineral Flotation and Separation Processes", Robert K Prud'homme and Gregory G. Warr in Foams, Theory Measurements, and Applications, 511-553 (1995).
131. "Composites for Bone Replacement and Reinforcement Using Patterned Biomineralization", Submitted to Department of Defense Women's Health Research Program, Ilhan A. Aksay and Robert K. Prud'homme, November 15, 1995 (1995).

132. "Degradable Alkoxide-Crosslinked Hydrogels", A. Grosse-Sommer, M. IN and R. K. Prud'homme, *Journal of Polymer Science: Part A: Polymer Chemistry*, **34**, (8), 1447-1453 (1996).
133. "Ceramics Processing with Biogenic Additives", Ilhan A. Aksay, James T. Staley and Robert K. Prud'homme, in *Biomimetics Materials Chemistry*, VCH Publishers, **13**, 361-378 (1996).
134. "Degradable Phosphazene-Crosslinked Hydrogels", Anahi Grosse-Sommer and Robert K. Prud'homme, *Journal of Controlled Release*, **40**, (3), 261-267 (1996).
135. "Smart Materials Systems Through Mesoscale Patterning", I.A. Aksay, J.T. Groves, S.M. Gruner, P.C.Y. Lee, R.K. Prud'homme, W.-H Shih, S. Torquato and G.M. Whitesides, *Smart Materials Technologies and Biomimetics*, SPIE Proc., **2716**, 280-291 (1996).
136. "Structure and Rheology Studies of Poly(oxyethylene-oxypropylene-oxyethylene) Aqueous Solution", Robert K. Prud'homme, Guangwei Wu, and Dieter K. Schneider, *Langmuir*, **12**, (20), 4651-4659 (1996).
137. "Fabrication of Cellular Materials", I.A. Aksay, R.K. Prud'homme, and R. Garg, *Smart Materials Technologies and Biomimetics*, SPIE Proc., **2716**, 331-334 (1996).
138. "Meso-Scale Smart Materials Fabrication Technologies of the Future", I.A. Aksay, R.K. Prud'homme, and G.M. Whitesides, Proc. 1996 Int'l Congress on Transportation Electronics (SAE, Warrendale, PA) 497-501 (1996).
139. "Ion Exchange Chromatography Laboratory: Experimentation and Numerical Modeling", Mark R. Anklam, Robert K. Prud'homme and Bruce A. Finlayson, *Chemical Engineering Education*, **31**, 1, 26-31 (1997).
140. "Coating Rheology: Component Influences on the Rheological Response and Performance of Water-Borne Coatings in Roll Applications", J. Edward Glass and Robert K. Prud'homme, *Liquid Film Coating*, Edited by S.F. Kistler and S.M. Schweizer, Chapman & Hall, Chapt. 5, 137-182 (1997).
141. "Melt Rheology", R.A. Register and Robert K. Prud'homme, *Ionomers: Synthesis, Structure, Properties and Applications*, Edited by M.R. Tant, K. A. Mauritz and G.L. Wilkes, Blackie Academic & Professional, Chapt. 5, 208-260 (1997).
142. "Multilayer Electromechanical Composites with Controlled Piezoelectric Coefficient Distribution", I.A. Aksay, R.K. Prud'homme, J.S. Vartuli, D.L. Milius, X. Li, W.Y. Shih, W.-H Shih, *Smart Materials Technologies and Biomimetics*, SPIE Proc. **3040**, 93-98 (1997).
143. "A Theoretical Study of Gemini Surfactant Phase Behavior", Kristine M. Layn, Pablo G. Debenedetti, and Robert K. Prud'homme, *Journal of Chemical Physics*, **109**, (13), 5651-5658 (1998).
144. "Confinement of Polysoaps in Membrane Lyotropic Phases", Y. Yang, R. Prud'homme, K. M. McGrath, P. Richetti, and C. M. Marques, *Physical Review Letters*, **80**, (12), 2729-2732 (1998).
145. "3-D Sterolithography of Ceramic Materials as Orthopaedic Implants". Rajeev Garg, Robert K. Prud'homme and I.A. Aksay, AICHE Proceedings of the Topical Conference on Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering, November 17-19, Los Angeles, CA (1997).

146. "Rapid Prototyping Techniques for Bone Implant", R. Garg, R.K. Prud'homme and I.A. Aksay, presented at the ICCE/5 Fifth International Conference on Composites Engineering, July 5-11, Las Vegas (1998).
147. "Effect of Solvent Quality on the Behavior of κ -carrageenan", Srividya Ramakrishnan and Robert K. Prud'homme, *Polymer Preprints, Division of Polymer Chemistry, ACS*, **39**, n2, 95-96, August (1998).
148. "Absorption Length for Photon Propagation in Highly Dense Colloidal Dispersions", Rajeev Garg, Robert K. Prud'homme, Ilhan A. Aksay, Feng Liu and Robert R. Alfano, *Journal of Materials Research*, **13**, (12), 3463-3467, December (1998).
149. "Optical Transmission in Highly Concentrated Dispersions", Rajeev Garg, Robert K. Prud'homme, Ilhan A. Aksay, Feng Liu, and Robert R. Alfano, *Journal of the Optical Society of America*, **15**, (4), 932-935 (1998).
150. "Quantifying Deformation in Gel Swelling: Comparison of Experimental Data with Simulations", submitted to *AIChE Journal*, E. Achilleos, R.K. Prud'homme, K.N. Christodoulou, K.R. Gee and Y.G. Kevrekidis (1998).
151. "Confinement of Hydrophobically Modified Polyacrylates into Nonionic Surfactant Lyotropic Bilayers", Y. Yang, C.M. Marques, P. Richetti and R.K. Prud'homme, *Proc. ACS, Div. Polym Materials: Science & Engineering*, **78**, Aug 23-27, 1998, Boston, MA (1998).
152. "Rheology of Hydrophobically Modified Polymers with Spherical and Rod-Like Surfactant Micelles", Santipharp Panmai, Robert K. Prud'homme and Dennis G. Peiffer, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **147**, (1-2) 3-15 (1999).
153. "A New Strictly Alternating Comblike Amphiphilic Polymer Based on PEG: Part 1: Synthesis and Associative Behavior of a Low Molecular Weight Sample", C. Heitz, S. Pendharkar, R. K. Prud'homme, and J. Kohn, *Macromolecules*, **32**, (20), 6652-6657 (1999).
154. "A New Strictly Alternating Comblike Amphiphilic Polymer Based on PEG: Part 2: Associative Behavior of a High Molecular Weight Sample and Interaction with SDS", C. Heitz, R. K. Prud'homme, and J. Kohn, *Macromolecules*, **32**, (20), 6658-6667 (1999).
155. "Confinement of Polysoaps in Nonionic Surfactant Lyotropic Bilayers", Y. Yang, Robert K. Prud'homme, P. Richetti, and C.M. Margues", *American Chemical Society*, Chapter 11, 169-179 (1999).
156. "Disjoining Pressure and Film Tension in Comb-Graft Copolymer-Stabilized Oil Films", M. R. Anklam, D. A. Saville, and R. K. Prud'homme, *Langmuir*, **15**, (21), 7299-7307 (1999).
157. "Electric-Field-Induced Rupture of Polymer-Stabilized Oil Films", M. R. Anklam, D. A. Saville and R. K. Prud'homme, *Colloid & Polymer Science*, **277**, (10), 957-964 (1999).
158. "Interaction of Hydrophobically Modified Polymers and Surfactant Lamellar Phase", B.S. Yang, J. Lal, C. Marques, P. Richetti and Robert K. Prud'homme, Presented at the 1999 AIChE Annual Meeting, Self-Assembly in Solution II Dallas, Texas, October 31-November 5 (1999).

159. "Behavior of κ -Carrageenan in Glycerol and Sorbitol Solutions", S. Ramakrishnan and R. K. Prud'homme, *Carbohydrate Polymers*, **43**, (4), 327-332 (2000).
160. "Effect of Solvent Quality and Ions on the Rheology and Gelation of κ -Carrageenan". Srividya Ramakrishnan and Robert K. Prud'homme, *Journal of Rheology*, **44**, (4), 885-896 (2000).
161. "Quantifying Deformation in Gel Swelling: Experiments and Simulations", Evdokia C. Achilleos, Robert K. Prud'homme, Ioannis G. Kevrekidis, Kostas N. Christodoulou and Kyle R. Gee, *AIChE Journal*, **46**, (11), 2128-2139 (2000).
162. "Dynamic Deformation Visualization in Swelling of Polymer Gels", Evdokia C. Achilleos, Robert K. Prud'homme, Kostas N. Christodoulou, Kyle R. Gee and Ioannis G. Kevrekidis, *Chemical Engineering Science*, **55**, (17), 3335-3340 (2000).
163. "Enzymatic Degradation of Guar and Substituted Guar Galactomannans" Yu Cheng and Robert K. Prud'homme, *Biomacromolecules*, **1**, (4), 782-788 (2000).
164. "Stability and Behavior of a Comb-graft Copolymer Stabilizing a Thin Oil Emulsion Film" Mark R. Anklam, Dudley A. Saville and Robert K. Prud'homme, *Polymers for Advanced Technologies*, **12**, (1-2), 70-84 (2001).
165. "Dissolution and Gelation of κ - Carrageenan" Srividya Ramakrishnan and Robert K. Prud'homme, Polymers from Renewable Resources, Edited by Richard A. Gross and Carmen Scholz, American Chemical Society, Chapt. (2001).
166. "Cure Depth in Photopolymerization: Experiments and Theory" Jim H. Lee, Robert K. Prud'homme, and Ilhan A. Aksay, *Journal of Materials Research*, **16**, (12), 3536-3544 (2001).
167. "Interaction of Hydrophobically Modified Polymers and Surfactant Lamellar Phase", Bing-Shiou Yang, Jyotsana Lal, Philippe Richetti, Carlos M. Marques, William B. Russel, and Robert K. Prud'homme, *Langmuir*, **17**, (19), 5834-5841 (2001).
168. "Interaction of Surfactant Lamellar Phase and a Strictly Alternating Comb-Graft Amphiphilic Polymer Based on PEG", Bing-Shiou Yang, Jyotsana Lal, Joachim Kohn, John S. Huang, William B. Russel, and Robert K. Prud'homme, *Langmuir*, **17**, (21), 6692-6698 (2001).
169. "Stabilization of Phosphatidylserine/Phosphatidylethanolamine Liposomes with Hydrophilic Polymers Having Multiple "Sticky Feet", Melinda L. Hwang, Robert K. Prud'homme, Joachim Kohn, and James L. Thomas, *Langmuir*, **17**, (25), 7713-7716 (2001).
170. "Rheology and Rheological Techniques" Norman J. Wagner and Robert K. Prud'homme, *Current Opinion in Colloid and Interface Science*, **6**, (5-6), 421-422 (2001).
171. "Investigating the Microenvironments of Inhomogeneous Soft Materials with Multiple Particle Tracking", M. T. Valentine, P. D. Kaplan, D. Thota, J. C. Crocker, T. Gisler, R. K. Prud'homme, M. Beck, and D. Weitz, *Physical Review E*, **64**, (6), art. no. 061506, Part 1 Dec. (2001).
172. "Interactions between Hydrophobically Modified Polymers and Surfactants: A Fluorescence Study" Santipharp Panmai, Robert K. Prud'homme, Dennis G. Peiffer, Steffen Jockusch, and Nicholas J. Turro, *Langmuir*, **18**, (10), 3860-3864 (2002).

173. "Characterization and Intermolecular Interactions of Hydroxypropyl Guar Solutions" Yu Cheng, Kirk M. Brown, and Robert K. Prud'homme, *Biomacromolecules*, **3**, (3), 456-461 (2002).
174. "Interaction of Paraffin Wax Gels with Random Crystalline/Amorphous Hydrocarbon Copolymers" Henry S. Ashbaugh, Aurel Radulescu, Robert K. Prud'homme, Dietmar Schwahn, Dieter Richter, and Lewis J. Fetters, *Macromolecules*, **35**, (18), 7044-7053 (2002).
175. "Gelation of "Catanionic" Vesicles by Hydrophobically Modified Polyelectrolytes" Henry S. Ashbaugh, Kathleen Boon and Robert K. Prud'homme, *Colloid and Polymer Science*, **280**, (9), 783-788 (2002).
176. "Flow Improvement of Waxy Oils Mediated by Self-Aggregating Partially Crystallizable Diblock Copolymers" Henry S. Ashbaugh, Lewis J. Fetters, Douglas H. Adamson and Robert K. Prud'homme, *Journal of Rheology*, **46**, (4), 763-776 (2002).
177. "Diffusion of Mesoscopic Probes in Aqueous Polymer Solutions Measured by Fluorescence Recovery after Photobleaching" Yu Cheng, Robert K. Prud'homme, and James L. Thomas, *Macromolecules*, **35**, (21), 8111-8121 (2002).
178. "Measurement of Forces between Galactomannan Polymer Chains: Effect of Hydrogen Bonding" Yu Cheng, Robert K. Prud'homme, John Chik, and Donald C. Rau, *Macromolecules*, **35**, (27), 10155-10161 (2002).
179. "Preparation and Characterization of Molecular Weight Fractions of Guar Galactomannans Using Acid and Enzymatic Hydrolysis", Yu Cheng, Kirk M. Brown, and Robert K. Prud'homme, *Intl. J. Biological Macromolecules*, **31**, (1-3), 29-35 (2002).
180. "Neutron Spin-Echo Study of Dynamics of Hydrophobically Modified Polymer-Doped Surfactant Bilayers" Bing-Shiou Yang, Jyotsana Lal, Mihaela Mihailescu, Michael Monkenbusch, Dieter Richter, John S. Huang, Joachim Kohn, William B. Russel and Robert K. Prud'homme, *Langmuir*, **18**, (1), 6-13 (2002).
181. "Detection of Water-Ice Transition Using a Lead Zirconate Titanate/Brass Transducer" Xiaoping Li, Wan Y. Shih, James Vartuli, David L. Milius, Robert K. Prud'homme, Ilhan A. Aksay and Wei-Heng Shih, *Journal of Applied Physics*, **92**, (1), 106-111 (2002).
182. "Dynamics of Hydrophobically Modified Polymer Doped Surfactant Bilayers: A Neutron Spin Echo Study" B.-S. Yang, J. Lal, M. Mihailescu, M. Monkenbusch, D. Richter, J. S. Huang, W. B. Russel, and R. K. Prud'homme, Neutron Spin Echo Spectroscopy, Basics, Trends and Applications, F. Mezei, C. Pappas, and T. Gutberlet, (Eds.): Lecture Notes in Physics 601, pp.312-324, Springer-Verlag Berlin Heidelberg (2002).
183. "Mechanism for Rapid Self-Assembly of Block Copolymer Nanoparticles", Brian K. Johnson and Robert K. Prud'homme, *Physical Review Letters*, **91**, (11), 118302 (2003).
184. "Chemical Processing and Micromixing in Confined Impinging Jets" Brian K. Johnson and Robert K. Prud'homme, *AIChE Journal*, **49**, (9), 2264-2282 (2003).
185. "Flash NanoPrecipitation of Organic Actives and Block Copolymers using a Confined Impinging Jets Mixer", Brian K. Johnson and Robert K. Prud'homme, *Australian Journal of Chemistry*, **56**, (10), 1021-1024 (2003).

186. "Association of Hydrophobically-Modified Poly(ethylene glycol) with Fusogenic Liposomes", Debra T. Auguste, Robert K. Prud'homme, Patrick L. Ahl, Paul Meers and Joachim Kohn, *Biochimica et Biophysica ACTA*, **1616**, (2), 184-195 (2003).
187. "Latex Composite Membranes: Structure and Properties of the Discriminating Layer", S. Ramakrishnan, C. J. McDonald, R. K. Prud'homme, J. D. Carbeck, *Journal of Membrane Science*, **231**, (1-2), 57-70 (2004).
188. "Crystallization of Long-Chain *n*-Paraffins from Solutions and Melts as Observed by Differential Scanning Calorimetry", Xuhong Guo, Brian A. Pethica, John S. Huang, and Robert K. Prud'homme, *Macromolecules*, **37**, (15), 5638-5645 (2004).
189. "Crystallization of Mixed Paraffin from Model Waxy Oils and the Influence of Micro-Crystalline Poly(ethylene-butene) Random Copolymers", Xuhong Guo, Brian A. Pethica, John S. Huang, Robert K. Prud'homme, Douglas H. Adamson, and Lewis J. Fetters, *Energy & Fuels*, **18**, (4), 930-937 (2004).
190. "Differential Scanning Calorimetry Studies of Clathrate Hydrate Formation", Y. F. Zhang, P. G. Debenedetti, R. K. Prud'homme, and B. A. Pethica, *Journal of Physical Chemistry B*, **108**, (43), 16717-16722, Oct 28, (2004).
191. "Diffusion of Compact Macromolecules through Polymer Meshes: Mesh Dynamics and Probe Dynamics", R. Biehl, X. Guo, R. K. Prud'homme, M. Monkenbusch, J. Allgeier, and D. Richter, *Physica B*, **350**, (1-3), 76-78, (2004).
192. "Effects of Organic Solvents on the Scission Energy of Rodlike Micelles", Wanwipa Siriawatwechakul, Terry LaFleur, Robert K. Prud'homme, and Phillip Sullivan, *Langmuir*, **20**, (21), 8970-8974, Oct 12, (2004).
193. "Fluctuations of Bare Membranes and Their Modification on Incorporation of Polymers Having Equally Spaced Anchors", X. S. Hu, R. Biehl, R. K. Prud'homme, M. Monkenbusch and J. Lal, *Physica B-Condensed Matter*, **350**, (1-3), 217-219, Jul 15, (2004).
194. "Model Associative Polymer Networks Generated by Inclusion Interaction between Polymers with Cyclodextrin and Hydrophobic Grafts", X. Guo, A. A. Abdala, R. K. Prud'homme, S. F. Lincoln, and S. A. Khan, *Polymer Preprints*, **45**, (2), 602-603, (2004).
195. "Diffusion of Protein in Polymer Solutions: A Comparison between Neutron Spin-Echo Spectroscopy and NMR Measurements", X. Guo, R. Biehl, C. R. Pacheco, M. Monkenbusch, D. Richter, L. Fu, and R. K. Prud'homme, *Polymer Preprints*, **45**, (2), 788-789, (2004).
196. "Preparation of Biocompatible Hydrogel Adhesives Controlled by Rheological Method", X. Guo, R. K. Prud'homme, F. Deng, S. J. Leth, N. Nunalee, and K. R. Shull, *Polymer Preprints*, **45**, (2), 604-605, (2004).
197. "Influence of Micro-Crystalline Poly(ethylene-butene) Random Copolymers on Wax Gelation of Black Oils", X. Guo, B. A. Pethica, D. A. Adamson, J. Tinsley, J. S. Huang, and R. K. Prud'homme, *Preprints-American Chemical Society, Division of Petroleum Chemistry*, **49**, (4), 388-389, (2004).
198. "Synthesis of Poly(ethylene-butene) Random Copolymers with Hydroxylic Grafts and Effect of Polar Groups on Deposition of Wax and Asphaltenes from Crude Oil", X. Guo, D. A. Adamson,

- J. Tinsley, B. A. Pethica, J. S. Huang, and R. K. Prud'homme, *Preprints-American Chemical Society, Division of Petroleum Chemistry*, **49**, (3), 272-273, (2004).
199. "Syneresis of Carrageenan Gels: NMR and Rheology", S. Ramakrishnan and R. K. Prud'homme, *Journal of Soft Materials*, **2**, (2-3), 145-153, (2004).
200. "Novel Associative Polymer Networks Based on Cyclodextrin Inclusion Compounds", X. Guo, A. A. Abdala, B. L. May, S. F. Lincoln, S. A. Khan, and R. K. Prud'homme, *Macromolecules*, **38**, (7), 3037-3040 (2005).
201. "Interaction of Paraffin Wax Gels with Ethylene/Vinyl Acetate Co-Polymers", H. S. Ashbaugh, X. Guo, D. Schwahn, R. K. Prud'homme, D. Richter, and L. J. Fetters, *Energy and Fuels*, **19**, (1), 138-144 (2005).
202. "Polymer-Protected Liposomes: Association of Hydrophobically-Modified PEG with Liposomes", D. Auguste, P. Ahl, P. Meers, J. Kohn, and R. K. Prud'homme, in Polymeric Drug Delivery I – Particulate Drug Carriers, Svenson, S. (Ed.), *ACS Symposium Series*, **923**, pp.95-120, American Chemical Society, Washington, DC, (2006).
203. "Effect of Hydrophobically Modified Polymers on Shear-Induced Multilamellar Vesicles" B. S. Yang, W. B. Russel, and R. K. Prud'homme, *Langmuir*, **21**, (22), 10038-10045, (2005).
204. "pH Triggered Release of Protective Poly(Ethylene Glycol)-b-Polycation Copolymers from Liposomes", D. T. Auguste, S. P. Armes, K. R. Brzezinska, T. J. Deming, J. Kohn, and R. K. Prud'homme, *Biomaterials*, **27**, (12), 2599-2608, (2006).
205. "Effect of Cooling Rate on Crystallization of Model Waxy Oils with Microcrystalline Poly(ethylene butene)", X. Guo, J. S. Huang, D. H. Adamson, and R. K. Prud'homme, *Energy & Fuels*, **20**, (1), 250-256 (2006).
206. "NanoPrecipitation of Pharmaceuticals Using Mixing and block Copolymer Stabilization", B. K. Johnson, W. Saad, and R. K. Prud'homme in Polymeric Drug Delivery Volume II – Polymeric Matrices and Drug Particle Engineering, Svenson, S. (Ed.), *ACS Symposium Series*, **924**, Submitted (2005).
207. "Accurate Prediction of Clathrate Hydrate Phase Equilibria Below 300 K from a Simple Model", Y. Zhang, P. G. Debenedetti, R. K. Prud'homme, and B. A. Pethica, *Journal of Petroleum Science and Engineering*, **51**, 45-53, (2006).
208. "Oxygen-Driven Unzipping of Graphitic Materials", J.-L. Li, K. N. Kudin, M. J McAllister, R. K. Prud'homme, I. A. Aksay, and R. Car, *Physical Review Letters*, **96**, (17), 176101, (2006).
209. "Functionalized Single Graphene Sheets Derived from Splitting Graphite Oxide", H. C. Schniepp, J.-L. Li, M. J. McAllister, H. Sai, M. Herrera-Alonso, D. H. Adamson, R. K. Prud'homme, R. Car, D. A. Saville, and I. A. Aksay, *Journal of Physical Chemistry B*, **110**, (17), 8535-8539 (2006).
210. "Rheological Control by Modulating Hydrophobic and Inclusion Associations in Modified Poly(acrylic acid) Solution", X. Guo, A. A. Abdala, B. L. May, S. F. Lincoln, S. A. Khan, and R. K. Prud'homme, *Polymer*, **47**, (9), 2976-2983. (2006).

211. "Preparation of Aggregation Stable Block Copolymer Nanoparticles for Simultaneous Drug Delivery and Imaging", M. E. Gindy and R. K. Prud'homme, Technical Proceedings of the 2006 NSTI Nanotechnology Conference and Trade Show, Volume 2, Chapter 6: Medical Imaging through Nanotechnology, 448-450.
212. "Kinetics of Enzymatic Depolymerization of Guar Galactomannan, S.Mahammad, R. K. Prud'homme, G. W. Roberts, and S. A. Khan, *Biomacromolecules*, **7**, (9), 2583-2590 (2006).
213. "Beyond Carbon Nanotubes: TEGO Nanoplates for Polymer Nanocomposites", R. K. Prud'homme, L. C. Brinson, T. Ramanathan, A. A. Abdala, S. Stankovich, D. A. Dikin, M. Herrera-Alonso, R. D. Piner, D. H. Adamson, J. Liu, R. S. Ruoff, S. T. Nguyen, and I. A. Aksay, *Science*, Submitted September, (2005).