

Paul S. Russo, Roy Paul Daniels Professor of Chemistry, Louisiana State University

Fields of Specialization: Macromolecular Chemistry, Materials Science

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Personal: Born 1954; U.S. Citizen; Married; Two Children (ages 26 & 30); No Impairments

Education:

Ph.D. in Chemistry
University of Minnesota, 1981
Thesis Advisor: Wilmer G. Miller
Thesis Title: Solution Behavior of Stiff-Chain Polymers

B.S. in Chemistry
University of Wisconsin--River Falls, 1976

Experience:

2007-present Adjunct Professor of Chemical Engineering—Louisiana State University
2002-present Roy Paul Daniels Professor of Chemistry—Louisiana State University
1995-2002 Professor of Chemistry—Louisiana State University
1988-95 Associate Professor of Chemistry—Louisiana State University
1983-88 Assistant Professor of Chemistry—Louisiana State University
1981-83 Postdoctoral Research Associate of Prof. Kenneth H. Langley (Physics) and Prof. Frank E. Karasz (Polymer Science & Engineering) at the University of Massachusetts.

Temporary Positions:

Visiting Scientist, Sandia National Laboratories, Organic Materials Division
Albuquerque, New Mexico, January - June, 1991
Visiting Scientist, Wright Research and Development Center, Materials Laboratory--Polymers
Branch. Wright Patterson Air Force Base, Dayton, Ohio, August 1989
Visiting Professor, Department of Chemistry, Kasetsart University
Bangkok, Thailand, November 2004

Honors and Awards:

Creativity Extension Award, National Science Foundation, 2003-2005
Analytical Scientist's Teamwork Award, Dow Chemical, 2002*
Program Committee Member, Chemical Education Foundation, 2003-continues[#]
Editorial Advisory Board Member, *Macromolecules*, 2006 – 2008
Member, Board of Trustees, Chemical Educational Foundation, 2007 – continues*
President, Board of Directors, Applied Polymer Technology Extension Consortium, 2010 –
continues.

*First academic to win this award

[#]First academic to serve on this committee (board)

Graduate Students and Postdocs

Overall: 8 Postdocs, 16 PhD, 6 MS
In Academia: 8
In Industry: 20
In National or Government Laboratory: 2

High School and Undergraduates

Overall: ~30 BS and High School Interns

Selected Professional Accomplishments, with much help from colleagues

Second director of LSU Macromolecular Studies Group (after Wayne Mattice)
Established Macromolecular Division within LSU Chemistry Department
Acquired equipment—virtually anything needed for studying polymers and colloids
Developed and implemented concept of four-course core curriculum in Macromolecular Systems
(Chem 4010/4011/7010 and 7011; no direct role in teaching 7010, advanced synthesis)
Awarded and directed nation's first NSF IGERT site in Macromolecular Science
Now developing regional polymer/biopolymer effort, Applied Polymer Technology Extension Consortium
Established You Be the Chemist Challenge middle school chemistry competition site in Louisiana

Edited Book

Thermoreversible Gels and Related Systems, ACS Symposium Series #350, American Chemical Society, Washington, DC, 1987.

Peer-reviewed Articles (Journal or Book Chapter)

↑ Submitted

↓ Accepted or Published

89. Self-Diffusion of a Semiflexible Polypeptide in a Magnetically Aligned Liquid Crystalline Phase, Paul S. Russo and Garrett J. Doucet, *Molecular Crystals and Liquid Crystals* 2013, 570 (1), 67-75.

88. Reformulation of etoposide with solubility-enhancing rubusoside, Fang Zhang, Gar Yee Koh, Javoris Hollingsworth, Paul S. Russo, Rhett W. Stout, Zhijun Liu, *International Journal of Pharmaceutics* 2012, 434, 453-459.

87. Asymmetric Flow Field-flow Fractionation with Multiangle Light Scattering Detection for Characterization of Cellulose Nanocrystals, Xia Guan, Rafael Cueto, Paul Russo, Yadong Qi and Qinglin Wu, *Biomacromolecules* 2012, 13, 2671-2679.

86. Synthesis and Rapid Characterization of Amine-Functionalized Silica, Erick Soto-Cantu, Rafael Cueto, Jerome Koch, Paul S. Russo, *Langmuir* 2012, 28, 5562-5569.

85. Phase Transitions in the Assembly of Multi-Valent Signaling Proteins, Pilog Li Sudeep Banjade, Hui-Chun Cheng, Soyeon Kim, Stone Chen, Liong Guo, Marc Llaguno, Javoris V. Hollingsworth, David S. King, Salman F. Banani, Paul S. Russo, Qiu-Xing Jiang, B. Tracy Nixon, and Michael K. Rosen, *Nature* 2012, 483,336–340 (15 March).

84. Characterization of the Self-Assembly of meso-Tetra(4-sulfonatophenyl)porphyrin (H₂TPPS₄) in Aqueous Solutions, Javoris Hollingsworth, Allison J. Richard, M. Graca H. Vicente, Paul S. Russo, *Biomacromolecules* 2012, 13 (1), 60–72.

83. A novel solubility-enhanced curcumin formulation showing stability and maintenance of anti-cancer activity, Fang Zhang, Gar Yee Koh, Duane P. Jeansonne, Javoris Hollingsworth, Paul S. Russo, Graca Vicente, Rhett W. Stout, Zhijun Liu, *Journal of Pharmaceutical Sciences* 2011, 100(7), 2778-2789.
82. Silica-polypeptide Composite Particles: Controlling Shell Growth, Erick Soto-Cantu, Sibel Turksen-Selcuk, Jianhong Qiu, Zhe Zhou and Paul. S. Russo, *Langmuir* 2010, 26 (19), 15604-15613.
81. Effect of Length on the Diffusion of a Rodlike Polymer at Concentrations Spanning the Isotropic-Lyotropic Transition, Garrett J. Doucet, Jian-hong Qiu, and Paul S. Russo, *J. Phys. Chem. B* 2010, 114 (14), 4777-4782.
80. Reversibility of β -Amyloid Self-assembly: Effects of pH and Added Salts Assessed by Fluorescence Photobleaching Recovery, Nadia J. Edwin, Robert P. Hammer, Robin L. McCarley and Paul S. Russo, *Biomacromolecules* 2010, 11 (2), 341-347.
79. Preparation of Organosoluble Silica-Polypeptide Particles by "Click" Chemistry, Sreelatha S. Balamurugan, Erick Soto-Cantu, Rafael Cueto and Paul S. Russo, *Macromolecules* 2010, 43(1), 62-70.
78. Craft-based IGERT Experiment in Graduate Macromolecular Studies, Kerry M. Dooley, Eugene Kennedy, Vincent J. Licata, and Paul S. Russo, *Polymer Reviews* 2008, 48 (4), 653-673 (invited article).
77. Fluorescence Photobleaching Recovery, A Primer, Paul S. Russo, Jianhong Qiu, Nadia Edwin, Youngwook Choi, Garrett J. Doucet and Daewon Sohn, in *Soft Matter Characterization*, R. Borsali and R. Pecora, eds., Springer Netherlands, 2008, Ch. 10 (invited review).
76. Surface Properties of a Series of Amphiphilic Dendrimers with Short Hydrophobic Chains, Jirun Sun, Muruganathan Ramanathan, George R. Newkome, Charles Moorefield and Paul S. Russo, *Langmuir* 2008, 24, 1858-1862.
75. Diffusion of Dextran Probes in a Self-assembled Fibrous Gel Composed of Two-dimensional Arborols, Jirun Sun, Bethany F. Lyles, Keunok Han Yu, Jaime Weddell, John Pople, Max Hetzer, Daniel De Kee and Paul S. Russo, *J. Phys. Chem.* 2008, 112, 29-35.
74. Mesophase Separation and Probe Dynamics in Protein-polyelectrolyte Coacervates, A. Basak Kayitmazer, Himadri B. Bohidar, Kevin W. Mattison, Arijit Bose, Jayashri Sarkar, Akihito Hashidzume, Paul S. Russo, Werner Jaeger and Paul L. Dubin, *Soft Matter*, 2007, 3, 1064-1076.
73. Amyloid β -Protein Aggregation Inhibition, Marcus A. Etienne, Nadia J. Edwin, Jed P. Aucoin, Paul S. Russo, Robin L. McCarley, Robert P. Hammer In "Peptide Characterization and Application Protocols" (Gregg B. Fields, ed.) Humana Press, Clifton, NJ, 2007, pp. 203-225.
72. Probe Diffusion from Dilute to Concentrated in Polyelectrolyte Solution: Salt Effect, Young-Wook Choi, Seoungyeol Lee, Kyungbae Kim, Paul S Russo, Daewon Sohn, *Journal of Colloid and Interface Science* 2007, 313(2), 469-475.
71. Matrix Fluorescence Photobleaching Recovery for Polymer Molecular Weight Distributions and Other Applications: Experimental Tests and Characterization of Dextran as a Matrix Polymer, Garrett J. Doucet, Derek Dorman, Rafael Cueto, David Neau, Paul S. Russo, Daniel De Kee and John Pople, *Macromolecules* 2006, 39(26), 9446-9455.

70. A Simple Multi-angle, Multi-correlator Depolarized Dynamic Light Scattering Apparatus. Grigor B. Bantchev, Paul S. Russo, Robin L. McCarley, Robert Hammer, *Review of Scientific Instruments*, 2006, 77(4), 043902/1-043902/6.
69. Dynamics of Poly(styrene sulfonate sodium salt) in Aqueous Solution. Rongjuan Cong, Elena Temyanko, Paul S. Russo, Nadia Edwin and Rao Uppu, *Macromolecules* 2006, 39(2), 731-739.
68. Some Structural Observations of Self-assembled, Fibrillar Gels Composed of Two-directional Bolaform Arborols. Jirun Sun, Keunok Han Yu, Paul S. Russo, John Pople, Alyssa Henry, Bethany Lyles, Robin S. McCarley, Gregory R. Baker, and George R. Newkome, in "Polymeric Nanofibers", Darrell Reneker and Hao Fong, eds. American Chemical Society, ACS Symposium Series #918, Oxford University Press: New York, 2006; Ch. 26.
67. Diffusion of Labeled Polyelectrolyte Probes in Unlabeled Polyelectrolyte Matrix Solutions. Rongjuan Cong, Elena Temyanko and Paul S. Russo, *Macromolecules* 2005, 38(26), 10627-10630.
66. Elucidating the Kinetics of β -Amyloid Fibril Formation, Nadia J. Edwin, Grigor B. Bantchev, Paul S. Russo, Robert P. Hammer and Robin L. McCarley in "New Polymeric Materials", ACS Symposium Series #916, Ljiljana S. Korugic-Karasz, William J. MacKnight and Ezio Martuscelli, eds. American Chemical Society: Washington, DC, 2005; Ch. 9, pp. 106-118.
65. A Detergent-like Mechanism of Action of the Cytolytic Toxin Cyt1A from *Bacillus thuringiensis* var. israelensis. Slobodanka D. Manceva, Marianne Pusztai-Carey, Paul S. Russo, and Peter Butko, *Biochemistry* 2005, 44(2), 589-597.
64. Rotational and Translational Diffusion of Tobacco Mosaic Virus in Extended and Globular Polymer Solutions. Randall C. Cush, Derek Dorman and Paul S. Russo, *Macromolecules* 2004, 37(25), 9577-9584.
63. Structural Changes and Aggregation of Human Influenza Virus, Jason N. Campbell, Richard Epan, Paul S. Russo, *Biomacromolecules* 2004, 5, 1728-1735.
62. A New Synthesis of Fluorescein Isothiocyanate Labeled Poly(styrenesulfonate sodium salt), Rongjuan Cong, Sibel Turksen and Paul S. Russo, *Macromolecules* 2004, 37 (12), 4731-4735.
61. Colloidal Crystals of Silica-Homopolypeptide Composite Particles, Brian Fong, Sibel Turksen, Paul S. Russo, and Wieslaw Stryjewski, *Langmuir* 2004, 20(1), 266-269.
60. Factors Affecting the Size of Aqueous Poly(vinylphenol-co-potassium styrenesulfonate)/ poly(ethylene oxide) Complexes. Rongjuan Cong; Robert Pelton; Paul S. Russo; Garrett Doucet, *Macromolecules* 2003, 36(1), 204-209.
59. NMR Investigations of the Structure of Water-soluble Poly(ethylene oxide) Complexes with Polystyrene Sulfonate Copolymers, Rongjuan Cong, Robert Pelton, Paul S. Russo, Alex D. Bain, Ioan Negulescu and Zhe Zhou, *Colloid and Polymer Science* 2003, 281(2); 150-156.
58. Self-Diffusion of a Rodlike Virus in the Isotropic Phase, Randall C. Cush and Paul S. Russo, *Macromolecules* 2002; 35(23); 8659-8662.
57. Hexagonal terpyridine – Ruthenium and Iron Macrocyclic Complexes by Stepwise and Self-Assembly Procedures, George R. Newkome, Tae Joon Cho, Charles N. Moorefield, Randy C. Cush, Paul S. Russo, Luis A. Godinez, Mary Jane Saunders, Prabhu Mohapatra, *Chem. Eur. J.* 2002, 8 [13], 2946-2954.
56. Synthesis of Paucidisperse Poly(γ -benzyl- α ,L-glutamate) Oligomers and Star Polymers with Rigid Arms, Xiaolan Wang, William H. Daly, Paul Russo, Maria Ngu-Schwemlein, *Biomacromolecules* 2001, 2, 1214-1219.
55. On the Use of Fluorescence Photobleaching Recovery with Modulation Detection to Obtain Colloidal Size Distributions, Brian Fong, Wieslaw Stryjewski, Paul S. Russo, *J. Coll. Int. Sci.* 2001, 239, 374-379.
54. Study of Rodlike Homopolypeptides by Gel Permeation Chromatography with Light Scattering

Detection: Validity of Universal Calibration and Stiffness Assessment, Elena Temyanko, Paul S. Russo and Holly Ricks, *Macromolecules* 2001, 34, 582-586.

53. Fluid-Liquid Equilibria in Poly(ethylene-co-hexene-1) + Propane: A Light-Scattering Probe of Cloud-Point Pressure, Spinodal Pressure, and Critical Polymer Concentration, Alan K. C. Chan, Paul S. Russo and Maciej Radosz, *Fluid Phase Equilibria* 2000, 173 (1), 149-158.

52. Thermoreversible Gelation of Isotropic and Liquid Crystalline Solutions of a "Sticky" Rodlike Polymer. Sarah Schmidtke, Paul S. Russo, Javier Nakamatsu, Ebru Buyuktanir, Bilge Turfan, Elena Temyanko and Ioan Negulescu, *Macromolecules* 2000, 33, 4427-4432.

51. Self- and Directed Assembly of Hexaaruthenium Macrocycles. G.R. Newkome, Tae Joon Cho, Charles N. Moorefield, Gregory R. Baker, Randall C. Cush and Paul S. Russo, *Angew.Chem.Int.Ed.Engl.* 1999, 38(24), 3717-3721.

50. Teaching Light Scattering to Exemplify and Reinforce Basic Principles, Drew S. Poche', Paul S. Russo, Brian Fong, Elena Temyanko and Holly Ricks, *J. Chem. Ed.* 1999, 76 (November), 1534-1538.

49. Self Diffusion of a Semiflexible Polymer Measured Across the Lyotropic Liquid Crystalline Phase Boundary, Paul S. Russo, Michael Baylis, Zimei Bu, Wieslaw Stryjewski, Garrett Doucet, Elena Temyanko and Debbie Tipton, *J. Chem. Phys.* 1999, 111(4), 1746-1752.

48. Organophilic Colloidal Particles with a Synthetic Polypeptide Coating, Brian Fong and Paul S. Russo, *Langmuir* 1999, 15(13); 4421-4426.

47. Hydrodynamic Studies on the Manganese-Stabilizing Protein of Photosystem II, Igor Z. Zubrzycki, Laurie K. Frankel, Paul S. Russo and Terry M. Bricker, *Biochemistry* 1998, 37(39), 13553-13558.

46. Interactions between Colloidal Poly(tetrafluoroethylene) Latex and Sodium Poly(styrene sulfonate) Tahir Jamil and Paul S. Russo, *Langmuir* 1998, 14, 264-270.

45. Observations on the Thermoreversible Gelation of Two-Directional Arborols in Water-Methanol Mixtures, Keunok H. Yu, Paul S. Russo, Laura Younger, William G. Henk, Duen-Wu. Hua, George R. Newkome, Gregory Baker, *J. Polym. Sci.—Polym. Phys.* 1997, 35, 2787-2793.

44. Rotational and Translational Diffusion of a Rodlike Virus in Random Coil Polymer Solutions, Randall C. Cush, Paul S. Russo, Zuhail Kucukyavuz, Zimei Bu, David Neau, Ding Shih, Savas Kucukyavuz, Holly Ricks, *Macromolecules* 1997, 30, 4920-4926.

43. Monolayer Properties of a Fuzzy Rod Polymer: poly(γ -stearyl-L-glutamate), Daewon Sohn, Hyuk Yu, Javier Nakamatsu, Paul S. Russo and William H. Daly, *J. Polym. Sci.--Polym.Phys.* 1996, 34, 3025-3034.

42. Thermoreversible Gelation of a Rodlike Polymer, Debbie L. Tipton and Paul S. Russo, *Macromolecules* 1996, 29(23), 7402-7411.

41. Static Light Scattering Instrument for Rapid and Time-resolved Particle Sizing in Polymer and Colloid Solutions, Lucille Smith-Wright, Aslam Chowdhury and Paul S. Russo, *Review of Scientific Instruments* 1996, 67(10), 3645-3648.

40. Polarized and Depolarized Dynamic Light Scattering of a Rodlike Polyelectrolyte in a Strong Acid, Daewon Sohn, Paul S. Russo and Daniel B. Roitman, *Ber. Bunsenges. Phys. Chem.* 1996, 100(6), 821-888.

39. Light Scattering and Fluorescence Photobleaching Recovery Study of Poly(amidoamine) Cascade Polymers in Aqueous Solution, Keunok H. Yu and Paul S. Russo, *J. Polym. Sci.--Polym. Phys. Ed.* 1996, 34, 1467-1475.

38. Light Scattering Study of Magnetic Latex Particles and Their Interaction with Polyelectrolytes, Daewon Sohn, Paul S. Russo, Alfonso Davila, Drew S. Poche' and Mark L. McLaughlin, *J. Coll. Int. Sci.* 1996, 177, 31-44.

37. Synthesis and Some Solution Properties of Poly(γ -stearyl- α ,L-glutamate), Drew S. Poche', William H. Daly and Paul S. Russo, *Macromolecules* 1995, 28, 6745-6753.
36. Self Diffusion of Rodlike Polymers in Isotropic Solutions, Zimei Bu, Paul S. Russo, Debbie L. Tipton and Ioan I. Negulescu, *Macromolecules* 1994, 27, 6871-6882.
35. Following Polymer Gelation by Depolarized Dynamic Light Scattering from Optically and Geometrically Anisotropic Latex Particles, Bernard C. Camins and Paul S. Russo, *Langmuir* 1994, 10, 4053-4059.
34. Diffusion of Dextran in Aqueous (Hydroxypropyl)cellulose, Zimei Bu and Paul S. Russo, *Macromolecules* 1994, 27, 1187-1194.
33. Light Scattering from Random Coils Dispersed in a Solution of Rodlike Polymers, Tahir Jamil, Paul S. Russo, Ioan I. Negulescu, William H. Daly, Dale W. Schaefer and Gregory Beaucage, *Macromolecules* 1994, 27, 171-178.
32. Time-resolved Fluorescence of the Single Tryptophan of Bacillus stearothermophilus Phosphofructokinase, Soon Jong Kim, Fahmida N. Chowdhury, Wieslaw J. Stryjewski, Ezzat S. Younathan, Paul S. Russo and Mary D. Barkley, *Biophysical Journal* 1993, 65, 215-226.
31. Dye Diffusion in Isotropic and Liquid Crystalline Aqueous Hydroxypropylcellulose, Mazidah B. Mustafa, Debbie L. Tipton, Mary D. Barkley, Frank D. Blum and Paul S. Russo, *Macromolecules* 1993, 26, 370-378.
30. Dynamic Light Scattering from Rigid and Nearly Rigid Rods, Paul S. Russo, in "Dynamic Light Scattering, the Method and Some Applications", W. Brown, ed., Oxford University Press: Oxford, 1993. (review)
29. Tracer Diffusion of Proteins in DNA Solutions, M. R. Wattenbarger, Victor A. Bloomfield, Zmei Bu and Paul S. Russo, *Macromolecules* 1992, 25, 5263-5265.
28. Side-chain Crystallinity and Thermal Transitions, William H. Daly, Ioan I. Negulescu, Paul S. Russo and Drew S. Poche', in Thermotropic Liquid Crystalline poly(γ -alkyl- α ,L-glutamate)s, in "Macromolecular Assemblies in Polymeric Systems", ACS Symposium Series #493, Peter Stroeve and Anna C. Balazs, eds, American Chemical Society: Washington, 1992; Ch. 23.
27. Dynamic Light Scattering from a Semiflexible Polymer at Very Low Concentrations, Tahir Jamil and Paul S. Russo, *Journal of Chemical Physics* 1992, 97, 2777-2782.
26. Thermodynamic and Dynamic Behavior of Semiflexible Polymers in the Isotropic Phase, L. Mark DeLong and Paul S. Russo, *Macromolecules* 1991, 24, 6139-6155.
25. Cascade Molecules. Synthesis of Two-directional Cascade Molecules and Formation of Aqueous Gels. George R. Newkome, Gregory R. Baker, Sadao Arai, Mary Jane Saunders, Paul S. Russo, Kevin J. Theriot, Charles N. Moorefield, L. Edward Rogers, Joseph E. Miller, T. Richard Lieux, Mary E. Murray, Buffie Phillips, and Laura Pascal, *J. Am. Chem. Soc.* 1990, 112, 8458-8465.
24. Late Stages of Phase Separation/Gelation of Isotropic Solutions of Rodlike Polymers by Video Microscopy. Aslam H. Chowdhury and Paul S. Russo, *Journal of Chemical Physics* 1990, 92(9), 5744-5750.
23. Particle Size Distribution by Zero Angle Depolarized Light Scattering, L. Mark DeLong and P. S. Russo, ACS Advances Series #227, Clara Craver and Theodore Provder, eds., American Chemical Society: Washington DC, 1990; Ch. 5, pp. 65-81.
22. Gelation of Rodlike Polymers, P. S. Russo, A. Chowdhury, M. Mustafa, in "The Materials Science and Engineering of Rodlike Polymers", Wade W. Adams, Ronald Eby and Donald McLemore, eds., Materials Research Society Symp. Proc. Vol. 134: Pittsburgh, 1989; pp. 207-222. (review)

21. Temperature Ramped Fluorescence Photobleaching Recovery for the Direct Evaluation of Thermoreversible Gels, Mazidah B. Mustafa, Debbie L. Tipton and Paul S. Russo, *Macromolecules* 1989, 22, 1500-1504.
20. Nature and Effects of Nonexponentiality in Probe Diffusion Studies by Quasielastic Light Scattering, Mazidah B. Mustafa and Paul S. Russo, *J. Coll. Int. Sci.* 1989, 129, 240-253.
19. Phase Behavior in Ternary Polypeptide/Nylon Solutions, Paul S. Russo and Tin Cao, *Mol. Cryst. Liq. Cryst.*, 1988, 157, 501-514.
18. Interaction Between Polystyrene Latex Spheres and a Semiflexible Polymer, Hydroxypropylcellulose, Paul S. Russo, Levi K. Stephens, Tin Cao and Mazidah Mustafa, *J. Coll. Int. Sci.* 1988, 122, 120-137.
17. A Perspective on Reversible Gels and Related Systems, Paul S. Russo, "Reversible Polymer Gels and Related Systems", ACS Symposium Series # 350, Paul S. Russo, ed. American Chemical Society: Washington, D.C., 1987; Ch. 1, pp. 1-21.
16. Gelation of Poly- γ -benzyl- α ,L-glutamate, Paul S. Russo, Paul Magestro and Wilmer G. Miller, "Reversible Polymer Gels and Related Systems", ACS Symposium Series #350, Paul S. Russo, ed. American Chemical Society: Washington, D.C., 1987; Ch. 11, pp. 153-180.
15. Observations of a Porous Gel Structure in Poly-p-phenylene-benzobisthiazole/97% H₂SO₄, Paul S. Russo, Mary Jane Saunders and Frank E. Karasz, *Macromolecules* 1986, 19, 2856-2859.
14. Zero Angle Depolarized Scattering of a Colloidal Polymer, P. S. Russo, L. M. Delong, Mary J. Saunders, Kenneth H. Langley, Robert W. Detenbeck and Scott Kuehl, *Analytica Chimica Acta* 1986, 189, 69-87.
13. Two-directional Cascade Molecules: Synthesis and Characterization of [9]-n-[9] Arborols, George R. Newkome, Gregory R. Baker, Mary Jane Saunders, Paul S. Russo, Vinod K. Gupta, Zhong Qi Yao, Joseph E. Miller, and Kelly Bouillion, *J. Chem. Soc., Chem. Commun.* 1986, 752-753.
12. Cascade Molecules: Synthesis and Characterization of a Benzene (9) arborol, G. R. Newkome, Zhong Qi Yao, Gregory. R. Baker, Vinod K. Gupta, Paul S. Russo and Mary Jane Saunders, *J. Am. Chem. Soc.* 1986, 108, 849-854.
11. Dynamic Light Scattering from Ternary Solutions of Semiflexible Polymers, Paul S. Russo, *Macromolecules* 1985, 18, 2733-2738.
10. Composition, Phase Behavior and Morphology in Poly(Amino acids) forming Lyotropic Liquid Crystals, Wilmer G. Miller, Paul S. Russo and Sumana Chakrabarti, *Journal of Applied Polymer Science - Symposium #41*, 495 (1985).
9. Dynamic Light Scattering from a Rodlike Polymer in Semidilute Solution, Kennet H. Langley and Paul S. Russo, in "Physical Optics of Dynamic Phenomena and Processes in Macromolecular Solutions", B. Sedlacek, ed. Walter de Gruyter & Co.: New York (1985); pp. 107-116.
8. Solubility and Properties of a Polyarylether Ketone in Strong Acids, M. T. Bishop, Frank E. Karasz, Paul S. Russo and Kenneth H. Langley, *Macromolecules* 1985, 18, 86-93.
7. Dynamic Light Scattering Study of Semidilute Solutions of a Stiff-Chain Polymer, Paul S. Russo, Kenneth H. Langley and Frank E. Karasz, *J. Chem. Phys.* 1984, 80, 5312-5325.
6. On the Nature of The Poly-(γ -benzyl- α ,L-glutamate -Dimethylformamide "Complex Phase", Paul S. Russo and Wilmer G. Miller, *Macromolecules* 1984, 17, 1324-1331.
5. Comment on The Correct Polarization Factor for Light Scattering Photometers Employing Annular Detection, Paul S. Russo, Matthew Bishop, Kenneth H. Langley and Frank E. Karasz, *Macromolecules* 1984, 17, 1289-1291.

4. The Coexistence of Liquid Crystalline Phases in Poly- γ -benzyl- α ,L-glutamate-Dimethylformamide, Paul S. Russo and Wilmer G. Miller, *Macromolecules* 1983, 16, 1690-1693.
3. A Novel Delivery Mechanism for Cerato-ulmin in Elm Trees, Paul S. Russo, Frank D. Blum, John D. Ipsen, Yusef. J. Abul-Hajj and Wilmer G. Miller, "Proceedings of the Dutch Elm Disease Symposium and Workshop" (October 1981). E. S. Kondo, Y. Hiratsuka and W. B. G. Denyer, eds. Manitoba Department of Natural Resources, Forest Protection and Dutch Elm Disease Branch, 300-530 Kenaston Blvd., Winnipeg, Manitoba, Canada R3N 1Z4; pp. 203-214.
2. The Surface Activity of the Phytotoxin Cerato-ulmin, Paul S. Russo, Frank D. Blum, John D. Ipsen, Yusef J. Abul-Hajj and Wilmer G. Miller, *Canadian Journal of Botany* 1982, 60, 1414-1422.
1. The Solubility and Surface Activity of the Ceratocystis ulmi Toxin Cerato-ulmin, Paul S. Russo, Frank D. Blum, John D. Ipsen, Yusef J. Abul-Hajj and Wilmer G. Miller, *Physiological Plant Pathology* 1981, 19, 113-126.

Extended Abstracts and Unrefereed Publications: Approximately 35

Selected Presentations (since 2000)

Presentations are verbal and contributed, unless indicated.

* = invited verbal presentation

^p = poster

Most meeting presentations do have co-presenters, but they may or may not be listed; "with..." usually indicates participation by simple collaboration; "presented by" usually indicates the presentation was made by a Russo group member.

[↑Scheduled](#)

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*218. A Renaissance in Rodlike Polymer/Colloid Systems, Department of Chemistry, U. Tennessee Knoxville, Knoxville, TN (Mar. 7, 2013).

*217. Untapped Opportunities in Analysis & Uses of Polymeric Systems, School of Polymers and High-Performance Materials, U. Southern Mississippi, Hattiesburg, MS (Feb. 26, 2013).

*216. Disease-Inspired Materials Science, Department of Materials Science and Engineering, Georgia Tech, January 17, 2013.

*215. Disease-Inspired Materials Science, Department of Chemistry Seminar, U. Southern Mississippi, Hattiesburg, MS (Nov. 2, 2012).

214. A talk by Sourav Chatterjee at the World Polymer Congress in Blacksburg, Virginia (June 2012).

213. A talk to the Lynn Wagner group meeting at Carnegie-Mellon University, Pittsburgh, PA (June 29, 2012).

212. Cylindrical Bubbles And Blobs Of The Protein *Cerato Ulmin*, Conditions For Stability And Applications, with Brad Blalock, Michael Pham, Wayne Huberty, Cornelia Rosu and Sreelatha Balamurugan. 243rd National Meeting of the American Chemical Society, San Diego, CA, March 29, 2012.

211. Possible Role of Hydrophobin-stabilized Bubbles for Inertial Confinement Fusion Targets, General Atomics, La Jolla, CA, March 28, 2012.

^P208. Fluorescent Polystyrene Sulfonate for Polyelectrolyte Studies, presented by Wayne Huberty, Xiaowei Tong, Sreelatha Balamurugan, Donghui Zhang, Paul Russo, American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.

207. Cylindrical Bubbles and Blobs of a Class II Hydrophobin, with Brad Blalock, Michael Pham, Cornelia Rosu, Wayne Huberty, Sreelatha Balamurugan, Melissa Collins and Javoris Hollingsworth. American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.

206. Understanding The Self-Assembly Of Meso-tetra(4-sulfonatophenyl)porphyrin (H_2TPPS^{4-}) in Aqueous Solutions, presented by Javoris Hollingsworth, Graca Vicente and Allison Richard, American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.

^P205. Responsive Poly (ϵ -carbobenzyloxy-L-lysine)-based Colloidal Particles: Exploring and Characterizing the Inverse α -Helix to Random Coil Transition in m-Cresol, presented by Cornelia Rosu, Sibel Turksen-Selcuk and Erick Soto-Cantu, American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.

^P204. Polypeptide-Based Colloidal Hybrids: From Cores to Fuzzy Shells, presented by Cornelia Rosu, Rafael Cueto and Sreelatha Balamurugan, 242nd National Meeting of the American Chemical Society, Denver, Colorado, August 28-September 1, 2011.

^P203. Superparamagnetic Nanoparticles Modified with Surface-Immobilized Fluorescent Conjugated Polymers, presented by Evgueni Nesterov and Sourav Chatterjee, 242nd National Meeting of the American Chemical Society, Denver, Colorado, August 28-September 1, 2011.

^P202. Phase Behavior Of Silica-Polypeptide Colloidal Particles Immersed In Liquid Crystal-Forming Polypeptides, presented by Melissa Collins and Erick Soto-Cantu, Gordon Conference on Liquid Crystals, Mount Holyoke College, June 19-24, 2011.

*201. Disease-Inspired Materials, Mississippi State University, Starkville, MS, February 4, 2011.

200. Asymmetric Flow Field Flow Fractionation of Asymmetric Particles and Polymers, with Rafael Cueto and Erick Soto-Cantu, Pacificchem, Honolulu, Hawaii, December, 2010.

*199. Polypeptide-Silica Particles: Hierarchy in Structure and Function, Particles 2010, Orlando, Florida, May 24, 2010.

198. Diffusion in Rodlike Polymer Liquid Crystals, American Physical Society March Meeting, Portland, Oregon, March 16, 2010.

*197. Learning from Polypeptides, Liquid Crystal Institute, Kent State University, March 3, 2010.

^P193-6. Four posters on Silica-Polypeptide Composite Materials, Polyelectrolytes and Self-Assembling Porphyrin Systems at the Gordon Research Conference on Colloidal, Macromolecular and Polyelectrolyte Solutions, presented by students Wayne Huberty, Melissa Collins, Cornelia Rosu and Javoris Hollingsworth, Ventura, CA Feb 2010.

- ^P192. Synthesis and characterization of protected and unprotected glylons derived from D-galactaric acid, with Cornelia Rosu, Ioan Negulescu, Roger Laine and William Daly, 238th Meeting of the American Chemical Society, Washington DC, August 16-20, 2009.
191. "Self-diffusion of aqueous polymers as a function of added salt", with Nadia Edwin, Robin McCarley, Robert Hammer and Xiaowei Tong. 237th Meeting of the American Chemical Society, Salt Lake City, Utah, March 22-26, 2009.
190. Silica-PBLG core-shell particles of controlled shell content, talk delivered by Erick Soto-Cantu. 237th Meeting of the American Chemical Society, Salt Lake City, Utah, March 22-26, 2009. (Excellence in Graduate Polymer Research Symposium).
- *189. A DIM View of Science, Argonne National Laboratory, Argonne, Illinois, October 13, 2008.
188. The Preparation of Alkyne- and Azide-Functionalized Poly(γ -benzyl-glutamate) Click Chemistry Precursors, presented by Brandon C. Curtis Sr. with Sreelatha S. Balamurugan, 64th Southwest Regional Meeting of the American Chemical Society, Little Rock, Arkansas, October 2, 2008.
- *187. Self-assembly of Fibril-forming Macromolecules: Exerting Control, Polymer Physics 2008 Conference, Xiamen, China, June 11, 2008.
- *186. Challenging Convention in Physical Polymer Characterization, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China, June 5, 2008.
- *185. Gaining Control Over Self-Assembling, Fibrillar Systems, Life-Threatening And Otherwise, Department of Chemistry, Hanyang University, Seoul, Korea, June 2, 2008.
184. Responsive Silica-Polypeptide Colloidal Particles Of Different Surface Density, presented by Erick Soto-Cantu, 235th American Chemical Society National Meeting, New Orleans, LA, April 6-10, 2008.
183. Grafting Of A Hydrophobic Polypeptide On Silica Nanoparticle By Click Chemistry, presented by Sreelatha Balamurugan, 235th American Chemical Society National Meeting, New Orleans, LA, April 6-10, 2008.
182. Magnetic Alignment Of Polypeptide-Coated Particles, with many coworkers, 235th American Chemical Society National Meeting, New Orleans, LA, April 6, 2008.
181. Magnetic Fluorescent Particle with Polypeptide Shell, presented by Sreelatha Balamurugan, American Physical Society March Meeting, New Orleans, LA, March 9-14, 2008.
- *180. Rethinking Polymer Characterization, Oak Ridge National Laboratory, Oak Ridge, Tennessee, May 28-9, 2007.
- ^P179. Effect of Length on the Diffusion of Rodlike Polymers at Concentrations Spanning the Isotropic-Liquid Crystal Transition, with Garrett Doucet, American Physical Society March Meeting, Denver, Colorado, March 5-9, 2007.
- *178. You Too Can be an IGERT Investigator, EPSCoR-ASCEND IGERT Workshop, Washington, DC, February 21, 2007.
177. Characterization of Medium-Responsive Polymers, presented by Grigor B. Bantchev et al., 62nd

Southwest Regional Meeting of the American Chemical Society, Houston, TX, October 19-22 (2006).

*176. Goring Sacred Cows: Challenging Convention in Polymer and Particle Analysis, 17th International Light Scattering Symposium, Wyatt Technology Corporation, Santa Barbara, CA, October 17, 2006.

175. Silica-Polypeptide Composite Microparticles. With Erick Soto-Cantu, Jianhong Qiu and Sibel Turksen, 232nd ACS National Meeting, San Francisco, CA, Sept. 10-14, 2006.

174. Phase Behavior Of Polypeptide-Coated Silica Particles Mixed With Helical Polypeptide. Presented by Jianhong Qiu and Erick Soto-Cantu, 232nd, ACS National Meeting, San Francisco, CA, Sept. 10-14, 2006.

173. New Solutions to Old Problems in Aqueous Macromolecular Systems: Physics, Characterization, and Medicine, Max-Planck Institute für Polymerforschung, Mainz, Germany, July 18, 2006.

*172. Hierarchical Particles with Nanoscale Functional Components, Middle Eastern Technical University, Ankara, Turkey, July 13, 2006.

171. June 18-21, "Bootstrap Dynamic Light Scattering Approach to Size and Viscosity in Complex Fluids", 80th American Chemical Society Division of Colloids & Surface Science Meeting, Boulder, Colorado, June 19, 2006.

170. Silica-Polypeptide Composite Particles, Particles 2006, Orlando, FL, May 15-16, 2006.

^P169. Growing Gold Nanoparticles In Dumbbell-Shaped Amphiphile Dendrimer Hydrogel. With Jirun Sun, 231st ACS National Meeting, Atlanta, GA, March 26-30, 2006.

168. Colloidal Particles with Silica Core and Living, Tunable Polypeptide Shell. PacifiChem 2005, Honolulu, Hawaii, December 16, 2005.

167. New Optical Methods to Characterize Macromolecules, University of Texas-Dallas, Dallas, Texas, November 16, 2005.

*166. New Solutions to Old Problems in Aqueous Macromolecular Systems: Physics, Characterization, and Medicine, University of Akron, Akron, Ohio, November 3, 2005.

*165. Putting a Speed Gun on Macromolecules: What Can We Learn from How Fast they Go, and Can We Do Something Useful with that Information? Cleveland State University, Cleveland, Ohio, All Hallows Eve, 2005.

164. Practical and Fundamental Problems in Macromolecular Science, University of Wisconsin-Stevens Point, Stevens Point, Wisconsin, October 28, 2005.

163. Thermally Responsive Silica-Living Polypeptide Composite Particles, American Chemical Society, Colloid and Surface Science Symposium, Clarkson University, Potsdam, New York, June 14, 2005.

162. Superparamagnetic Core-shell Silica-Polypeptide Composite Particles, American Physical Society National Meeting, Los Angeles, CA, March 24, 2005.

161. Diffusion of Labeled Polyelectrolytes in an Unlabeled Polyelectrolyte Matrix Solution, American Physical Society National Meeting, Los Angeles, CA, March 21, 2005.

^P160. Production Of Rodlike Particles With Continuously Variable Length, with Pavan Bellamkonda. American Chemical Society National Meeting, San Diego, CA, March 15, 2005.

159. Hierarchical Systems Of Cobalt-Silica-Homopolypeptide Core-Shell Particles, with Sibel Turksen. American Chemical Society National Meeting, San Diego, CA, March 15, 2005.

158. Self-assembly and its Inhibition of Bola-form Amphiphile Dendrimers, with Jirun Sun. American Chemical Society National Meeting, San Diego, CA, March 15, 2005.

^P157. Multiangle, Multicorrelator Fiber-optic Dynamic Light Scattering Instrument, with Grigor Bantchev. Society of Rheology National Meeting, Lubbock, TX, February 15, 2005.

156. Macromolecules for the Demented, University of Texas—Pan American, Harlingen, Texas, January 21, 2005.

*155. IGERT Possibilities. NSF Day, Norfolk State University, Norfolk, Virginia, January 5, 2005.

*154. Matrix Fluorescence Photobleaching Recovery for Macromolecular Characterization, Analytical Sciences Discussion Group, Dow Chemical, Midland, MI, October 28, 2004.

*153. Is Graduate School Worthwhile?, INSPIRE 2004 (Interstate Network of Science Programs Integrating Research and Education), University of Southern Mississippi, Hattiesburg, MS, October 16, 2004.

152. Macromolecules for the Demented, University of Wisconsin—River Falls, River Falls, WI, September 17, 2004

151. Measurements of Sodium Poly(styrene sulfonate) at Low Salt, Polyelectrolytes 2004, Polyelectrolytes 2004 Meeting, Amherst, MA, June 15, 2004.

*150. New Optical Tracer Self-Diffusion Results for Polyelectrolytes at Low Salt, Hyuk Yu Symposium, Madison, WI, May 21-22, 2004.

*149. Macromolecules for Septuagenarians, Bolaform Amphiphiles as Models of Amyloid Fibril Formers Related to Alzheimer's Disease, New Polymeric Materials, Capri (Na), Italy, October 22-24, 2003.

* 148. Diffusion and Structure of Rods and Semiflexible Polymers in Complex Fluids, University of Wisconsin—Madison, Department of Chemistry, Madison, WI, October 6, 2003.

147. Self-assembling Supramolecules & Hierarchically Structured Particulate Materials, University of Wisconsin—Stevens Point, Department of Chemistry, Stevens Point, WI, October 3, 2003.

^P 146. Bti Toxin Cyt1A in the Lipid Bilayer: Aggregation and the Membrane Damage, presented by Peter Butko and S. D. Manceva, Division of Biochemical Technology, 225th ACS National Meeting, New Orleans, LA, March 23-27, 2003.

145. Influence of Surface Chemistry on the Aggregation of beta Amyloid Protein, with Nadia Edwin, Mariah McMasters, Robin McCarley, Jed Aucoin and Robert Hammer. Colloid Division general papers. 225th ACS National Meeting, New Orleans, LA, March 23-27, 2003.

- ^P144. Characterization of β -amyloid Aggregates and Aggregation Inhibitors Using Various Techniques, with Nadia Edwin, Mariah McMasters, Robin McCarley, Jed Aucoin and Robert Hammer. Colloid Division general papers. 225th ACS National Meeting, New Orleans, LA, March 23-27, 2003.
- *143. Matrix Fluorescence Photobleaching Recovery for Molecular Weight Distributions of Aqueous Polymers, with Garrett Doucet and David Neau. Symposium on Multidetector Chromatography, 225th ACS National Meeting, New Orleans, LA, March 23-27, 2003.
142. Rigid Rod Probes of Concentrated Polymeric Solutions, with Randy Cush. Marrucci Symposium: Molecular Rheology of Concentrated Polymeric Systems, Society of Rheology 74th Annual Meeting, Minneapolis, MN, October 15, 2002.
- *141. Matrix Fluorescence Photobleaching Recovery - a Diffusion-based Method for Determining Polydispersity, with Garrett Doucet and Daniel DeKee. Session on Rheology at the Sub-Micron Scale, Society of Rheology 74th, Minneapolis, MN, Annual Meeting, October 17, 2002.
140. Fluorescence Photobleaching Recovery and Dynamic Light Scattering Studies of Polyelectrolyte Solutions, with Rongjuan Cong. Session on Stiff Chains: Biopolymers, Polyelectrolytes, and LCPs, Society of Rheology 74th Annual Meeting, October 17, 2002, Minneapolis, MN.
- ^P139. Surface Adsorption of β -amyloid Aggregate Species and Aggregation Inhibition Studies Using Atomic Force Microscopy and Dynamic Light Scattering. With J. P. Aucoin, M. L. McLaughlin, R. P. Hammer, R. L. McCarley. 224th ACS National Meeting, Boston, MA, August 18, 2002.
- ^P138. Surface-induced Aggregation of β -amyloid Protein, with Mariah McMasters et al., 223rd ACS National Meeting, Orlando, FL, April 7, 2002.
137. Mode of Action of Bacillus thuringiensis d-endotoxin Cyt1A: Detergent or Pore Former? with S. D. Manceva, M. Pusztai-Carey, and P. Butko, 66th Meeting of the Mississippi Academy of Science, Biloxi, MS, February 21-22, 2002 (Abstract published in *J. Mississippi Acad. Sci.* 47 (1): 18-19).
- ^P136. Cytolytic Action of the Toxin Cyt1A from Bacillus Thuringiensis, with S. D. Manceva, M. Pusztai-Carey, and P. Butko, 46th Meeting of the Biophysical Society, San Francisco, CA, February 23-27, 2002 (Abstract published in *Biophysics J. (Abstracts)*, 82 (1): 149a).
- ^P135. Determining the Mode of Action of Cyt1a, a d-endotoxin from Bacillus Thuringiensis, with S. D. Manceva, M. Pusztai-Carey and P. Butko, Experimental Biology 2002 Meeting, New Orleans, LA, April 20-24, 2002.
- ^P134. Links Between Flocculation Efficiency and the Structure of Complexes formed by PEO and poly(vinyl phenol-co-styrene sulfonate), with Ronjuan Cong and Robert Pelton, Gordon Research Conference on Macromolecular and Polyelectrolyte Solutions, Ventura, CA, Feb 3-8, 2002.
133. Composite Silica:Polypeptide Colloidal Particles, Materials Science Department, North Carolina State University, November 9, 2001.
132. Applications of Fluorescence Photobleaching Recovery, ACS Polymer Group, Raleigh, North Carolina, November 8, 2001.
131. Tobacco Mosaic Virus: Scourge of the Carolinas but a Friend to the Polymer Physical Chemist, Department of Chemistry, University of Wisconsin--River Falls, River Falls, WI, October 26, 2001.

130. Better than SEC's--Alternatives to Chromatography, Dow Chemical, Freeport, TX, October 31, 2001.
129. Integrative Graduate Education Research Training, Dow Chemical, Freeport, TX, October 30, 2001.
128. Probing Complex Fluids with Polarization Contrast-matched Scattering, with R. C. Cush, ACS National Meeting, Chicago, IL, August 26-30, 2001.
- ^P127. Electrostatic Layer-by-Layer Nano-Assembly on Biological Microtemplates, with H. A. Ai, M. Fang, R. Cush and S. A. Jones, Y. Lvov, The Second Louisiana Conference on Microfabrication & Materials Science, Baton Rouge, LA, August 20-22, 2001.
126. Assays and Methodologies for Reliable and Replicable Analysis of Beta-Amyloid Peptide Using Dynamic Light Scattering and Atomic Force Microscopy, with J. Aucoin, R. Hammer, R.L. McCarley, M. L. McLaughlin, 53rd Annual Meeting of the Southeast Region of the American Chemical Society (SERMACS 01) Savannah, GA, September 23-26, 2001.
- ^P125. Characterization of Self-Assembling Two-Directional Arborol Gels and a Fluorescent Analog, with Bethany Lyles, ACS National Meeting, San Diego, CA, April 3, 2001.
- ^P124. Peptide Aggregation Associated with Alzheimer's Disease: Fibril Formation from A β (10-35), with Robin McCarley, Jed P. Aucoin, Robert P. Hammer, Mark L. McLaughlin, ACS National Meeting, San Diego, CA, April 3, 2001.
- ^P123. Interaction between Poly (Styrene-co-Sodium Styrene Sulfonate) with Poly (ethylene Oxide) and its Application as Flocculant, with Rongjuan Cong, Robert Pelton, Alex Bain and Frank Zhou. Experimental NMR Conference, Orlando, FL, March 11-16, 2001.
- ^P122. Using a Rod-like Virus to Probe Polysaccharide Solutions, with Randy Cush, Biophysical Society National Meeting, Boston, MA, February 20, 2001.
- ^P121. Changes in the Morphology of Influenza Virus as Measured by Dynamic Light Scattering, Biophysical Society National Meeting, Boston, MA, February 20, 2001.
- ^P120. Using Tracer Diffusion to Obtain Molar Mass Distributions. with G. D. Doucet, D. Neau, Polymers West 2001 Gordon Research Conference, Ventura, CA, January 7-12, 2001.
- ^P119. Study of Rodlike Homopolyptides by Light Scattering: Validity of Universal Calibration and Stiffness Assessment, with E. Temyanko, H. Ricks, Polymers West 2001 Gordon Research Conference, Ventura, CA, January 7-12, 2001.
118. Self-assembling Systems: Supramolecules, Gels and Analytical Tools for their Characterization. Chemistry Department, Southwest Texas State University, San Marcos, Texas, November 20, 2000.
- ^P117. Silica-Polypeptide Composite Particles, with Brian Fong and Wieslaw Stryjewski, Polymers East Gordon Conference, Connecticut College, June 10-15, 2000.
116. Gelation of a "Sticky" Rodlike Polymer, with Sarah Schmidtke, Javier Nakamatsu and Ioan Negulescu, ACS Polymeric Materials: Science & Engineering, Symposium on Molecularly Ordered Networks, San Francisco, California, March 29, 2000.

Earlier talk titles and locations available on request.

Synergistic Activities

- ❑ Co-chairman of Symposium on "Reversible Polymeric Gels," National ACS Meeting, New York, NY, April, 1986.
- ❑ Chairman of Symposium "Frontiers in Polymer Analysis," Louisiana State University, Baton Rouge, February, 1988.
- ❑ Co-chairman of "Symposium and Tutorial on the Analytical Characterization of Polymers," ACS Southwest Regional Meeting, Baton Rouge, LA, December 6, 1989.
- ❑ Co-chairman of "Mass Spectral Methods in Macromolecular Systems," Combined ACS Southeast/Southwest Regional Meeting, New Orleans, LA, December 5-7, 1990.
- ❑ Co-chairman of General Polymer Session, Combined ACS Southeast/Southwest Regional Meeting, New Orleans, LA, December 5-7, 1990.
- ❑ Co-organizer, 4th Annual Southeastern Graduate Polymer Conference, Baton Rouge, LA, March 22 - 24, 1992.
- ❑ Co-organizer, "Symposium on Macromolecules and the New Microscopy," ACS National Meeting, San Francisco, CA, April 6-10, 1992.
- ❑ Member and elected President of the Board of Directors, Louisiana Applied Polymer Technology Extension Consortium. Following legislation enacted under a previous administration, APTEC is awaiting two board members from Louisiana Governor Bobby Jindal; after these appointees are named, everything is set for incorporation as a 501-3c corporation, which aligns the polymer teaching and research resources of 10 Louisiana universities with the needs of existing and emergent industrial partners.
- ❑ Reviewer for:
 - Macromolecules; Biopolymers; International Journal of Biological Macromolecules;
 - Biomacromolecules, Analytica Chimica Acta; Langmuir, Carbohydrate Research; American Chemical Society Petroleum Research Fund; Journal of the American Chemical Society;
 - Journal of Physical Chemistry; Polymer; Nature; Journal of Chemical Physics, Journal of Polymer Science, Journal of Virological Methods, Colloid and Polymer Science-USA, National Science Foundation; American Chemical Society.

Grants and Contracts: ~\$13M total, ~\$9.3M as main PI or intellectual driving force

Current Support

1. Hybrid Silica-Polypeptide Particles: Properties, Transitions and Superstructures, National Science Foundation Division of Materials Research, \$420,000, 6/2010-5/2013.
2. The Science and Technology of Dispersants as Related to Deep Sea Oil Releases (part of ~\$10M Gulf of Mexico Research Institute consortium with >40 investigators at >20 institutions. Consortium PI: Vijay John, Tulane University) Russo award for study of natural protein surfactants and managed as individual PI, \$230,400, 10/2011 – 09/2014.
3. Oral Paclitaxel Solubilized and Bioenhanced by Food Compound for Cancer Therapy, NIH/NCI, Zhijun Liu (PI), Paul Russo, Rhett Stout, Peiyang Yang, Fang Zhang, Gar Yee Koh (co-PIs). \$108,750 total; Russo portion about 25%, 7/17/2012 – 6/30/2014.

Past Support

1. Purchase of Thermal Analysis Equipment. Louisiana Center for Energy Studies, \$11,000 (8/84 - 6/85)
2. Light Scattering Analysis of the Microemulsion Molecular Weight Method. Louisiana Center for Energy Studies, \$17,175 (8/85-6/86)
3. Purchase of Light Scattering Equipment. National Science Foundation, Instrumentation for Materials Research, \$98,719 (10/84-9/86)
4. Study of Semidilute Solutions of Highly Extended Polymers. American Chemical Society--Petroleum Research Fund, \$15,000 (6/84-6/86)
5. Kinetics and Structure of Polymer Gels by Light Scattering. Research Corporation, \$10,000 (5/84 - 8/86)
6. Macromolecular Development Program. Louisiana Center for Energy Studies, \$75,000 (8/85 - 6/89). (continuation of award originally made to Prof. Wayne L. Mattice).
7. Purchase of Solid State and Pulsed Field Gradient NMR. National Science Foundation--Chemical Instrumentation Program, \$386,000 (1987-89; part of a multi-investigator effort; Leslie G. Butler was main PI).
8. Dynamics of Semiflexible Chains in Complex Solution. National Science Foundation, Division of Materials Research, \$173,000 (1/86-12/89).
9. Characterization of Fractionated Polyethylenes by Dynamic Light Scattering: Comparison to Gel Permeation Chromatography/Low Angle Light Scattering. Louisiana Educational Quality Support Fund, \$85,414 (7/1/89 - 6/30/91). (Collaboration with Dow and Ethyl).
10. Enhancement of LSU Polymer Analysis Laboratory. Louisiana Educational Quality Support Fund, \$282,739 (7/1/90 - 6/30/91). co-investigators: J. Collier, W. H. Daly (LSU).
11. Research Experience for Undergraduates. National Science Foundation, \$8,000 (1990).
12. Modern Experimental Biophysical Chemistry. Louisiana Stimulus for Excellence in Research (LaSER), \$465,000. Shared with three other PIs. My share was \$125,000 (1/87 - 1/92).
13. Dynamic Behavior of Complex Solutions Containing Semiflexible Polymers. National Science Foundation, \$198,000 (2/15/90 - 2/14/93)
14. Light Scattering of Amorphous Materials. Sandia National Laboratory, \$10,250 (1991).
15. Surface & Flow Characterization Equipment. Louisiana Educational Quality Support Fund, \$144,000 (6/1/92-5/30/93). John R. Collier was PI; I was one of 4 co-investigators.
16. Improved Optical Measurements in LSU's Polymer Analysis Laboratory, Louisiana Educational Quality Support Fund, \$37,000 (7/93 - 6/94).
17. Dynamic Aspects of Rodlike Polymer Solutions and Gels. National Science Foundation, \$298,765 (5/93 - 4/96).
18. Physical Mechanism of Action of Lytic Peptides. National Science Foundation, EPSCoR Advanced Program Development Cluster. \$2.1 Million (4/92 - 3/96). Mary Barkley (Chemistry & Biochemistry, LSU) is PI; I am one of 7 co-investigators.

19. Synthesis, Characterization and Processing of Rigid Polypeptides of Unusual Geometry. NSF Materials Synthesis and Processing Initiative, \$411,000 (9/92 - 8/95). co-PI's are Bill Daly and John Collier; I was lead PI for submission.
20. Polymer Analysis, Dow Chemical Corporation, \$26,000 (6/93 - 5/96).
21. Acquisition of an Ultracentrifuge, NSF Biological Instrumentation, \$98,374 (3/95 - 2/96). co-PI's are Mary Barkley, Jeffrey Nelson and Kathleen Morden.
22. Enhancement of the LSU Polymer Analysis Laboratory: Louisiana Educational Quality Support Fund, \$43,500 (6/96 - 5/97).
23. Light Scattering in Complex Ternary Polymer Solutions: U.S. - Turkey Cooperative Research. NSF Division of International Programs, \$30,390 (6/95 - 12/98).
24. Dynamics of Rodlike Polymers in Complex Media: NSF Division of Materials Research, \$299,997 (9/96 - 12/99). Co-investigator: Ioan Negulescu, LSU.
25. Acquisition of a Versatile Thermal Analysis System, Louisiana Board of Regents, \$110,000 (6/99 - 9/00). Co-PI's: W. H. Daly, I. Negulescu.
26. Synthesis and Characterization of Composite Polypeptide-Silica Colloidal Particles, American Petroleum Society--Petroleum Research Fund, \$60,000 (6/99 - 5/01).
27. Protein Structure and Function in Late-life Disorders, National Institutes of Health, \$1,200,000 (5/00 - 4/05). Main investigator: Bob Hammer, LSU. Other investigators: Robin McCarley and Mark McLaughlin, LSU. My portion is approximately 25% of the total.
28. Mechanism of Action of the Insecticidal Toxin CYT1A, Biophysical and Biochemical Approach, U.S. Department of Agriculture (sub-contract from U. Southern Mississippi) \$16,000 (7/00 - 6/03). Main Investigator: Peter Butko, U. Southern Mississippi.
29. Pattern Fluorescence Photobleaching Recovery in Fibers and Films, National Science Foundation (sub-contract from the National Textiles Center, North Carolina State University) \$60,000 (7/00 - 6/02). Main Investigator: Alan Tonelli.
30. Complex Fluids with Extended, Rigid Components, National Science Foundation, \$567,500 (6/00 - 5/06).
31. Development of a Silica-Polypeptide Composite Particle Nanoscale Interdisciplinary Research Team, LSU Office of Research, \$38,938 (7/05 - 6/06).
32. Acquisition of a Light Scattering System for Research and Education at the Polymer/Colloid Interface (as co-PI; PI =Rafael Cueto), \$277,472 (9/05 - 8/06).
33. Applied Polymer Technology Consortium, NASA (via Tulane subcontract), \$146,000 (1/06-12/07). I am the lead representative on the LSU campus; three other investigators are involved.
34. Teaching Craft for Macromolecular Creativity, National Science Foundation--IGERT program. \$3,363,364 (8/00 - 7/08, including supplemental award for student travel to Brazil). I was the lead investigator, but this project involved some 20 faculty and additional off-campus participants. It was the largest non-EPSCoR NSF award in LSU history.
35. Silica-polypeptide Composite Particles, National Science Foundation, \$400,000, 6/2006 - 7/2010.
36. Macromolecular Development Fund. Dow Chemical, \$30,000 (open period).
37. Macromolecular Development Fund II. Dow Chemical, \$25,000 (open period).
38. Macromolecular Development Fund III. Islet Technologies \$2,000 (open period).
39. Polymer Phenomena Research Support Fund. Islet Technologies \$12,000 (open period).
40. Dow Chemical Award for Excellence in Macromolecular Studies, \$10,000 (permanent endowment).
41. Optical Tracer Self Diffusion Studies of Polyelectrolytes at Losw Salt, American Chemical Society Petroleum Research Fund, \$80,000, 8/2006-9/2009.
42. Hard X-rays for Materials Science at CAMD, \$270,000, 6/2009-6/2011 (Amitava Roy, PI)
43. Visualizing Polymer Physical Chemistry, Louisiana Board of Regents, \$10,000, 6/2009 - 2/2011.

Theses/Dissertations Directed: 16 Ph.D.; 6 M.S.; 7 Ph.D. in progress (includes co-advised).

Where are they now? General Electric (via Union Carbide and Dow), Fox-Chase Cancer Center (via

Yale and NIST), Chevron, Buckeye Technology, Hanyang University (via U. Wisconsin and U. Toronto), Teaching High School in Korea via Kunsan Nat'l. U., U.S. Geological Survey, Shaw Group, Syngenta, Amitech, Colgate, NIST(2), University of Tennessee/ORNL, LSU Audubon Sugar Institute.

Significant Contributions to Dissertations for Students of Colleagues

As IGERT director, supported 24 PhD students (3 academic careers, 21 industry or government)
Substantial contribution to ~6 other students

Undergraduates and High School Students Directed: ~30.

Where did they go? Emory (2), Stanford, Purdue, Minnesota, Drexel, Mississippi State, University of South Carolina, Florida State, Northwestern, UC-Berkeley, University of Washington-Seattle, University of Maryland, private industry in Maryland.

Experience and *selected accomplishments*

- Chairman, Physical Chemistry Division
- Chairman, Macromolecular Chemistry Division. *Succeeded in launching this new “nondivision” of the LSU Chemistry Department, which has its own cumulative exam program and seminar (now grown to an interdepartmental program).*
- Seminar Committee
- ACS Project SEED Coordinator
- Faculty-Shop Liaison
- Coates Best Thesis Selection Committee
- Coordinator for Student Affiliates of the American Chemical Society (SAACS). *Helped this group of dedicated undergraduate students launch a website, occasionally run interference for them, make suggestions (establish bylaws, align timing of elections to the academic seasons, etc.). Their hard work led to an Outstanding Chapter designation in 2005, and they were the only chapter of 32 nation-wide to be located at a large university. This suggests they have found a “home” in Chemistry, similar to that one might find in the smaller colleges that usually win Outstanding designation. The Chapter again received an Outstanding designation this in 2007, and they are considering novel fund-raising mechanisms integrated with leadership/business training. My activities here are integrated with involvement in the Chemical Education Foundation; for example, SAACS agreed to help write questions and study materials used by tens of thousands of middle school children preparing for the You Be The Chemist Challenge. This is surely a factor in their selection as an Outstanding chapter, and the members also got to attend the national competition at the Chemical Heritage Foundation in Philadelphia.*
- College Shops and Analytical Services Committee. *This is an easy job when the appropriate oversight in the Dean's office is a physics or physical chemistry professor. Sometimes, when a biological scientist is involved, a bit of reassurance on the importance of the shops is needed. This job also involves arbitrating differences that can arise regarding priority of jobs submitted to the shops, or helping non-traditional users understand how to get the most out of the shops.*
- Director and co-Director, LSU Macromolecular Studies Group. *MSG is effectively a social club with the purpose of advancing knowledge about polymers and biopolymers. Financially independent of LSU, MSG serves investigators from a wide range of departments, plus industrial clientele. It writes joint grants, both for research and equipment, promotes students and hosts seminar speakers. It was the first macromolecular (polymer/biopolymer) program to receive an IGERT award. The current focus is on directing statewide polymer-relevant resources towards economic development through the Applied Polymer Technology Extension Consortium.*
- College Teaching Award Selection Committee
- College Visitors Committee
- Communication Across the Curriculum Committee

- Courses and Curriculum Committee. *Served on this committee as the College of Basic Sciences was reorganizing six biologically related departments into a single department with an enormous service load. You can just imagine the havoc.*
- Undergraduate Advisor. *I was one of a half-dozen faculty entrusted to advise the department's undergraduates in matters of curriculum, career choice, etc.*
- Undergraduate Affairs Committee Chair. *Using well-timed and adequately documented meetings, with equitable delegation of workload among a devoted committee, modernized the LSU Chemistry curriculum to include new options in materials science, polymer science, and chemical education.*
- LSU Materials Science Workshop Committee
- Department Infrastructure Committee
- Member, Campus Materials Task Force. *Worked with faculty in a variety of departments about how to develop Materials Science & Engineering at LSU, at first with almost no new resources and now with substantial investments in recognition of the importance and realities of interdisciplinary endeavors.*
- Member, Inter-campus Materials Task Force. *This task force was charged with creating a single program among several Louisiana campuses. Although this effort was torpedoed by Hurricane Katrina, it was a good exercise in working with the best minds in materials science from a large city campus in the LSU system (the University of New Orleans) and from historically black Southern University, which belongs to another academic system.*
- Member, Chancellor's Task Force on Administrative Policy. *Through self-study and investigation of peer universities, new ways were found to conduct research as efficiently as possible within the mandates of state policy and regulations, many of which are not exactly designed with research in mind! Realigned the reporting structure of the Office of Sponsored Projects. Secured a 50% increase in indirect costs returned to investigators (or their immediate academic unit). Researchers and members of the financial arm of the university reached a much better understanding of the challenges faced by the other side.*
- Board of Directors, Louisiana Applied Polymer Technology Extension Consortium. *Primary contact to Louisiana government, business plan design (joint with others), call annual meeting.*
- Elected member and chairperson, College of Basic Sciences Policy Committee. *Used and directed the creation of web technology to find meeting times for a large group, permitting more regular meetings without the usual barrage of e-mails. This technology is spreading across campus. Dissemination of meeting minutes via website. Found previously lost by-laws. Defined College workload policy. Created a strong subcommittee structure to focus on across-campus issues, intra-college issues, and strategic planning.*
- Elected member, Faculty Senate Grievance Committee
- Awards, Standards and Honors Committee (College of Basic Sciences). *Attempt to divine which of the amazing students nominated for the College's most distinguished awards is the most amazing. Example: do we go for the student who spent summer in the Congo bringing water and shelter to the desperate or various Katrina rebuilders? And what about the student who involved disadvantaged youth in biking? The solution seems to be more awards.*
- Faculty Awards Committee (Department of Chemistry). *Acquired quantitative data to find the best features of faculty who tend to be rather understated about their accomplishments, in order that they may be promoted and put forth for awards fairly. This is viewed as an exercise in department conviviality, as we do have a curious mixture of shameless self promoters and shy, quiet types.*
- Space Committee. *To work through a temporary shortage, I have advocated creation of core and shared space. In this model, each faculty member "controls" a certain amount of space designed expressly for their needs. They also are assigned group locations, to be shared with faculty whose research needs are closely related. As group size and funding rises and falls, faculty responsible for shared spaces work to ensure the best use of space, secure in the knowledge that they always have a core lab.*

Courses Taught and selected outcomes

- Undergraduate Physical Chemistry (Quantum Mechanics/Spectroscopy and Thermodynamics/Statistical Mechanics)
- Grad/Undergrad Physical Chemistry of Polymers
- General Freshman Chemistry I and II (science/engineering majors)
- Foundations of Freshman Chemistry (usually non-majors): *I am one of the few tenured professors who chooses to teach this “general education” course. It is my favorite because it serves students as they are in transit between high school and college. It is emphasized that Freshman year is not grade 13. Much effort goes into making students think critically and exercising the brain is as important as discovering chemistry. For example, students are given positive encouragement to work without calculators. Clues to good education are taken from the Harry Potter book series, too (and examples of bad education from that same series are ignored). I instituted the first highly successful recitation section into any LSU Chemistry course in modern memory. This was received very favorably by students.*
- Graduate Polymer Chemistry & Laboratory
- Theoretical Chemistry (Advanced Thermodynamics)
- Polymer Dynamics
- Light Scattering
- Two new integrated lab-lecture, team-taught courses for macromolecular studies (including biological, synthetic, physical and engineering aspects): *These courses have tightly integrated the research and teaching side of polymer science. They are truly interdisciplinary and teach practical skills (programming, statistics, soldering) as well as modern knowledge and historical background. Seminar, lab, demonstrations, and “live fire” data from our own labs or sent by colleagues all play a role. Students participate in teaching activities. These courses are strongly influenced by IGERT. After some effort, found a dedicated space for these labs.*
- Science & Technology in Service to the Community: *This was a summer course required of IGERT trainees and open to NSF-REU students and others. With help from many participants around campus, it taught critical thinking, ethics, group dynamics, elementary statistics and even career planning/financial sense. I am very pleased that this course lives on under the new management of a friend in Mechanical Engineering, who directs LSU’s second IGERT site (devoted to Computational Fluid Dynamics). While it is the nature of IGERT to be a little bit iconoclastic, the CFD-IGERT has taught us all good lessons about how to use the existing structures within a university to best advantage; in this case, they got the course listed through the Honors College, which neatly solved the “who gets teaching credit” question and simultaneously made it possible and attractive for a spectrum of students to take the course.*
- Minicourse on nanotechnology (at Kasetsart University, Bangkok, Thailand): *This ten-day course was taught to the first cadre of students in an emerging Industrial Chemistry program directed by an alumnus of LSU.*
- Small-angle X-ray Scattering of Soft Materials (current assignment)

Industrial Relationships

A number of jobs come through the Polymer Analysis Laboratory, a "work for hire" type facility designed to serve local and not-so-local industry with special services, particularly emphasizing experiments not commonly available in the industrial environment. Clients have included Shell Development Co. (Houston), Georgia Gulf (Louisiana); Dow (Louisiana, Texas and California Divisions), Allied (Louisiana); Albemarle (Louisiana), the former Union Carbide (West Virginia), Borden (Louisiana), U. S. Air Force (Ohio), Lion Copolymer (Louisiana), Texaco (New York), MagnaFlow (Louisiana), Islet (Minnesota).

Older talks and presentations (even older ones are available on request):

*115. Self Diffusion of Rodlike Polymers in Liquid Crystals and Even More Complicated Systems, NATO Advanced Study Institute, "Polymer-Colloids 99", L'Ecole de Physique, Les Houches, France, October 14-24, 1999. (invited short talk, with partial financial support).

^P114. Translational and Rotational Diffusion of a Rodlike Virus through Polymer Solutions, with R. Cush, NATO Advanced Study Institute, "Polymer-Colloids 99", L'Ecole de Physique, Les Houches, France, October 14-24, 1999.

113. Formation and Properties of Polyelectrolyte-Colloid Coacervates", 73rd Colloid and Surface Science Symposium, with P. Dubin, Y.F. Wang, K. Kaibara, K. Kimura, H. Hoffmann, Y.-P. Wen, K.W. Mattison, and Y. Wang. Massachusetts Institute of Technology, June 1999.

^P112. Rotational and Translational Diffusion of a Rodlike Virus in Linear and Highly-Branched Polymer Solutions, with R. Cush, American Physical Society National Meeting, Atlanta, Georgia, March 23, 1999.

^P111. Self Diffusion of a Semiflexible Polymer Measured Across the Lyotropic Liquid Crystalline Phase Boundary, with G. Doucet, M. Baylis, Z. Bu, W. Stryjewski, E. Temyanko, D. Tipton, American Physical Society National Meeting, Atlanta, Georgia, March 23, 1999.

110. Self Diffusion Measurements in Polymer Solutions: Can Real Physical Chemistry be Practical? University of Southern Mississippi, October 2, 1998.

*109. Magnetic Latex and Other Optically Anisotropic Particles: Probes of Complex Polymer Solutions, University of New Orleans, New Orleans, April 24, 1998.

^P108. Synthesis and Characterization of Silica-Polypeptide Composite Colloids, with B. Fong, Gordon Conference on Macromolecular, Colloidal and Polyelectrolyte Solutions, Ventura, California, February 10, 1998.

^P107. Rotational and Translational Diffusion of a Rodlike Virus in Random Coil Polymer Solutions, with Randy Cush, Gordon Conference on Macromolecular, Colloidal and Polyelectrolyte Solutions, Ventura, California, February 10, 1998.

*106. Applications of Fluorescence Photobleaching Recovery to Physical and Analytical Chemistry of Polymers. Department of Chemistry, Middle East Technical University, Ankara, Turkey. December 19, 1997.

*105. Depolarized Dynamic Light Scattering in Complex Polymer Solutions. Department of Chemistry, Middle East Technical University, Ankara, Turkey. December 18, 1997.

*104. Depolarized Dynamic Light Scattering in Ternary Systems: Complex Solutions Studied by Probe Diffusion with Good Contrast, No Labeling and No Refractive Index Matching, 32nd Midwest Regional ACS Meeting, Tan-Tar-A Resort, Missouri, October 30, 1997.

*103. Diffusion in Complex Solutions: Of Course It Is Important, but Could it Also Be Useful? Department of Polymer Science and Engineering, University of Massachusetts, Amherst, Massachusetts, October 17, 1997.

*102. Putting Probe Diffusion to Work. Department of Chemistry, Indiana University Purdue University at Indianapolis, Indianapolis, Indiana, October 8, 1997.

*101. Diffusion in Complex Polymer Solutions: New Insights to Polymer Physics and New Possibilities for Polymer Characterization. IX National Polymer Congress, Saltillo, Mexico, October 28, 1996. (Plenary Lecture)

100. Inhomogeneous Monolayer Properties of poly(γ -stearyl- α ,L-glutamate) at the Air/Water Interface, with D. Sohn, H. Yu, J. Nakamatsu, W.H. Daly, American Physical Society National Meeting, St. Louis, Missouri, March 18, 1996.

*99. Diffusion Measurements for Physical and Analytical Chemistry of Macromolecules and Antimicrobials, North Carolina State University, February 7, 1996.

98. Dynamic Light Scattering from Polyelectrolytes, with D. W. Sohn and D. B. Roitman, Polyelectrolytes '95, Potsdam, Germany, September 18-22, 1995.

*97. Physical Properties of Poly(n-Alkylglutamates), with F. H. Roos, J. Nakamatsu, L. G. Butler, I. Negulescu and W. H. Daly, The Intersociety Polymer Conference, Baltimore, Maryland, October 7-10, 1995.

*96. Optical Methods for Polymer Dynamics: Applications to Systems of Possible Relevance in Biotechnology and Medicine, University of Missouri--Kansas City, September 7, 1995.

P95. Dynamics of poly(γ -stearyl- α , L glutamate) Monolayers at the Air/Water Interface, with D. Sohn, Nakamatsu, W. H. Daly and H. Yu, 210th National ACS Meeting, Chicago, Illinois, August 20-24, 1995.

P94. Interactions of Amphipathic Peptides with Phospholipid Vesicles, with S. M. Bishop, L. Smith-Wright, T. Jamil and M. D. Barkley, 14th American Peptide Symposium, Columbus, Ohio, June 18-23, 1995.

P93. The Interactions of Lytic Peptide Analogues with Liposomes: Binding and Membrane Permeability Studies, with T. Jamil, S. M. Bishop and M. D. Barkley, 39th Biophysical Society Meeting, San Francisco, California, February 12-16, 1995.

P92. Self Diffusion of a Rodlike Polymer Measured Across the Lyotropic Liquid Crystalline Transition, with Z. Bu, S. Bush and D. Ward, Polymers West Gordon Conference, Ventura, California, January 9-13, 1995.

* 91. Self Diffusion of Rodlike Polymers, Utah State University, Logan, Utah, October 31, 1994.

90. Self Diffusion of Rodlike Polymers in Isotropic and Liquid Crystalline Solutions with Z. Bu, S. Bush and D. Ward, 35th IUPAC International Symposium on Macromolecules, Akron, OH, July 13, 1994.

* 89. Optical Methods for the Study of Polymer-Polymer and Polymer-Colloid Interactions, Union Carbide Corporation, Charleston, West Virginia, July 11, 1994.

* 88. Light Scattering from Random Coil Polymers in Ternary Solutions Containing Rods. NSF Workshop on Light Scattering and Coil Collapse, Istanbul, Turkey, May 15-19, 1994.

* 87. Diffusion of Rodlike Polymers: Reptation in the Rigor Mortis Limit, Institute of Materials Science, University of Connecticut, March 21, 1994.

* 86. Diffusion in Isotropic and Liquid Crystalline Hydroxypropylcellulose, ACS National Meeting, Anselm Payen Award Symposium honoring Derek Gray, San Diego, CA March 15, 1994.

* 85. Diffusion in Isotropic and Liquid Crystalline Solutions of Semiflexible Polymers, Stanford University, Stanford, CA, March 11, 1994.

* 84. Dynamics of Rigid Rod Polymers, Gordon Conference on Macromolecular and Polyelectrolyte Solutions, Oxnard, CA, February 6-12, 1994.

* 83. Static and Dynamic Light Scattering from a Ternary Coil/Rod/Solvent System, with T. Jamil, W.H. Daly, D.W. Schaefer, G. Beaucage, 1993 Prague Meetings on Macromolecules, 33rd Microsymposium, "Optics and Dynamics of Polymers", Prague, Czech Republic, July 12 - 15, 1993.

82. Light Scattering in a Molecular Composite Precursor Solution, McNeese State University, Lake Charles, LA, May 6, 1993.

* 81. Light Scattering Study of the Effect of Salt and Polyelectrolyte on Magnetic Latex Particles, with D. Sohn, Symposium on Polyelectrolytes, ACS National Meeting, Denver, CO, March 31, 1993.

p80. Dynamic Light Scattering in Gels, with D.L. Tipton, ACS National Meeting, Denver, CO, March 29, 1993.

P79. Light Scattering from a Ternary Random Coil/Rigid Rod/Solvent System, with T. Jamil and W. H. Daly, ACS National Meeting, Denver, CO, March 29, 1993.

P78. Self Diffusion of Semiflexible Polymers, with Z. Bu, D. L. Tipton, D. S. Poche', I. Negulescu, W. H. Daly, ACS National Meeting, Denver, CO, March 29, 1993.

P77. Polymeric Rigid Rod/Flexible Coil Molecular Blends, with I. I. Negulescu, T. Jamil, and W. H. Daly, ACS National Meeting, Denver, CO, March 29, 1993.

*76. Gelation of Rodlike Polymers, Symposium "Growth Kinetics of Random Systems" in the Division of Condensed Matter Physics, American Physical Society National Meeting, Seattle, WA, March 22, 1993.

P75. Light Scattering Characterization of a Ternary Random Coil/Rigid Rod Solution, with T. Jamil, D. S. Poche', I. Negulescu, J. Nakamatsu, W. H. Daly, American Physical Society National Meeting, Seattle, WA, March 24, 1993.

74. Self Diffusion of Semiflexible Rods in Dilute and Concentrated Isotropic Solutions, with Z. Bu and D.L. Tipton, American Physical Society National Meeting, Seattle, WA, March 22, 1993.

P73. Scaling Behavior of Rodlike Polymer Gels, with D.L. Tipton, Networks 92 Conference, San Diego, CA, September 2, 1992.

72. Transport in Isotropic and Liquid Crystalline Polymer Solutions, University of Minnesota, Minneapolis, MN, July 3, 1992.

- * 71. Weird and Wonderful Things for a Polymer Chemist to Do with an Optical Microscope, Akron Polymer Lecture Group, Akron, OH, May 1, 1992.
- * 70. Characterization of Gels by Optical Methods, Glidden Paint Co., Brecksville, OH, May 1, 1992.
69. Weird and Wonderful Things for a Polymer Chemist to Do with an Optical Microscope, Macromolecular Science Department, Case Western Reserve University, Cleveland Ohio, April 30, 1992.
68. Optical Microscopy and Related Techniques Applied to Studies of Rodlike Polymer Solutions, with D. L. Tipton, Z. Bu. Symposium on Macromolecules and the New Microscopies, American Chemical Society National Meeting, San Francisco, CA, April 9, 1992.
- * 67. Studies of Latex-Polymer and Magnetic Latex-Polymer Interactions by Optical Methods, with D. Sohn, M. B. Mustafa and D. L. Tipton, Symposium on Colloid-Polymer Interactions, American Chemical Society National Meeting, San Francisco, CA, April 7, 1992.
- ^p66. Diffusion in Solutions Containing Semirigid Polymers, with Z. Bu, M. Mustafa, Gordon Conference on Macromolecular and Polyelectrolyte Solutions, Oxnard, CA, February 17-21, 1992.
65. Light Scattering from Magnetic Latex Particles, with D. Sohn and L. M. DeLong, Symposium on Complex Fluids, Materials Research Society National Meeting, Boston, MA, December 2-6, 1991.
- * 64. Altered States: Gels and Liquid Crystals of Rodlike Polymers, Center for Materials Characterization, University of North Texas, Denton, TX, October 28, 1991.
- * 63. Thermodynamics of Rodlike Polymer Solutions, with L. M. DeLong, ACS National Meeting, Symposium on Polymer Thermodynamics, Atlanta, GA. April 18, 1991.
- * 62. Probe Diffusion in Aqueous Hydroxypropylcellulose, with M. Mustafa, SPIE National Meeting, Symposium on Photon Correlation Spectroscopy in Multicomponent Systems, Los Angeles, CA. January 23, 1991.

Extended abstracts until about 2003—I stopped keeping track of them after that

28. Physical Properties of Arborol Gels, Jirun Sun, Keunok Yu, Paul Russo, John Pople, *ACS Polymer Preprints* 2003, 44(2), 170.
27. Peptide Aggregation Associated with Alzheimer's Disease: Fibril Formation from A β (10-35). Robin L. McCarley, Jed P. Aucoin, Paul S. Russo, Robert P. Hammer, Mark L. McLaughlin, *ACS Polymeric Materials: Science and Engineering* 2001, 84, 451.
26. Probing Complex Fluids With Polarization Contrast-matched Scattering, Randall C. Cush and P. S. Russo, *ACS Polymeric Materials: Science and Engineering* 2001, 85, 83.
25. Gelation of a "Sticky" Rodlike Polymer, Sarah Schmidtke, Paul Russo, Javier Nakamatsu and Ioan Negulescu, *ACS Polymeric Materials: Science & Engineering* 2000, 82, 326-327.
24. Light Scattering Studies of PTFE Latex in Polyelectrolyte Solutions, Tahir Jamil and Paul S. Russo, *ACS Polymeric Materials: Science & Engineering* 1994, 71, 366-367.
23. Static and Dynamic Light Scattering of a Random Coil Polymer in Rodlike Polymer Solution, Tahir Jamil, Paul S. Russo, William H. Daly, Ioan Negulescu, *Macromolecular Symposia* 1994, 79, 81-85.
22. Dynamic Light Scattering in Gels, Debbie L. Tipton and Paul S. Russo, *ACS Polymer Preprints* 1993, 34(1), 630-631.
21. Light Scattering from a Ternary Random Coil/Rigid Rod/Solvent System, Tahir Jamil, William H. Daly and Paul S. Russo, *ACS Polymer Preprints* 1993, 34(1), 628-629.
20. Self Diffusion of Semiflexible Polymers, Zimei Bu, Debbie L. Tipton, Drew S. Poche', Ioan Negulescu, William H. Daly and Paul S. Russo, *ACS Polymer Preprints* 1993, 34(1), 632.
19. Polymeric Rigid Rod/Flexible Coil Molecular Blends, Ioan I. Negulescu, Tahir Jamil, Paul S. Russo, William H. Daly, *ACS Polymer Preprints* 1993, 34(1), 635-636.
18. Light Scattering Study of the Effect of Salt and Polyelectrolyte on Magnetic Latex Particles, Daewon Sohn and Paul S. Russo, *ACS Polymer Preprints* 1993, 34(1), 1034-1035.
17. Rigid Rod Star Polymers Derived from γ -stearyl- α -L-glutamate, William H. Daly, Drew S. Poche', Paul S. Russo, in "Macromolecular Preprints '92, Third Euro-American Conference in the United Kingdom on Functional Polymers and Biopolymers" (1992).
16. Synthesis and Properties of Rod-Like Polypeptide Stars, William H. Daly, Drew S. Poche', Paul S. Russo, and Ioan Negulescu, *ACS Polymer Preprints* 1992, 33(1), 188-189.
15. Optical Microscopy and Related Techniques Applied to Studies of Rodlike Polymer Solutions, Debbie L. Tipton, Zimei Bu, and Paul S. Russo, *ACS Polymer Preprints* 1992, 33(1), 781.
14. Diffusion of Spherical Probes in Aqueous Systems Containing the Semiflexible Polymer, Hydroxypropylcellulose, Mazidah Mustafa and Paul S. Russo, in "Photon Correlation in Multicomponent Systems, SPIE Proceedings #1430", K. S. Schmitz, ed., Society for Photo-optical Instrumentation Engineers, Bellingham, WA, pp. 132-141 (1991).
13. Synthesis and Thermal Behavior of Linear and Star-Branched Poly(γ -stearyl- α ,L-glutamate), Drew S. Poche', William H. Daly and Paul S. Russo, *ACS Polymer Preprints* 1990, 31(2), 418-419.
12. Solution Characterization of Linear and Star-branched Semiflexible Polymers of γ -stearyl-- α ,L-glutamate, Drew S. Poche', Paul S. Russo, and William H. Daly, *ACS Polymer Preprints* 1990, 31(2), 639-640.
11. Static and Dynamic Light Scattering from Semiflexible Chains in Concentrated Isotropic Solutions, L. Mark DeLong and Paul S. Russo, *ACS Polymer Preprints* 1990, 31(2), 118-119.

10. Thermodynamics and Molecular Dynamics of Rodlike Polymer Solutions, L. Mark DeLong and Paul S. Russo, in "Proceedings of the 46th Annual Technical Conference of The Society of Plastics Engineers" (1990).
9. Dye Diffusion in Aqueous Hydroxypropylcellulose Solutions, Mazidah B. Mustafa and Paul S. Russo, *ACS Polymer Preprints* 1990, 31(1), 580-581.
8. Particle Size Distribution of TiO₂ by Zero Angle Depolarized Light Scattering, L. Mark DeLong and Paul S. Russo, *Polymeric Materials: Science and Engineering* 1998, 59, 169.
7. Efficient LaPlace Inversion for Quasielastic Light Scattering Data Using Only a Microcomputer, Paul S. Russo, Kermin Guo and L. Mark DeLong, in "Proceedings of the 46th Annual Technical Conference of The Society of Plastics Engineers" (1988, pp. 983-1009).
6. Direct Observation of the Gelation of Rodlike Polymers, Aslam H. Chowdhury and Paul S. Russo, *Polymeric Materials: Science and Engineering* 1988, 59, 1045.
5. Microcellular Foams From Two Rodlike Polymers, Mazidah Mustafa and Paul S. Russo, *Polymeric Materials: Science and Engineering* 1988, 59, 1053-1062.
4. Temperature Ramped Fluorescence Photobleaching Recovery for the Direct Evaluation of Thermoreversible Gels, Paul S. Russo, Mazidah Mustafa, Debbie Tipton, Jeffrey Nelson and D. Fontenot, *Polymeric Materials: Science and Engineering* 1988, 59, 605.
3. Diffusion of Latex Spheres in Aqueous Solutions of Hydroxypropylcellulose, Paul S. Russo, Mazidah Mustafa, Tin Cao and Leroy Stephens, *ACS Polymer Preprints* 1987, 28(1), 350.
2. Studies on Rodlike Polymer Gels, Wilmer G. Miller, M. Youngquist, Sumana Chakrabarti, H. Zhao and Paul S. Russo, *ACS Polymer Preprints* 1986, 27(1), 233-234.
1. Kinetics of Gelation of Rodlike Polymers by Light Scattering and Optical Microscopy, Paul S. Russo, Paul Magestro, Mazidah Mustafa, Mary J. Saunders and Wilmer G. Miller, *ACS Polymer Preprints* 1986, 27(1), 229-230.