



## Gerald Fuller

Fletcher Jones II Professor in the School of Engineering  
Chemical Engineering

 NIH Biosketch available Online

 Curriculum Vitae available Online

### CONTACT INFORMATION

- **Administrator**

Andrea Hubbard - Administrative Associate

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### Bio

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#### BIO

The processing of complex liquids (polymers, suspensions, emulsions, biological fluids) alters their microstructure through orientation and deformation of their constitutive elements. In the case of polymeric liquids, it is of interest to obtain in situ measurements of segmental orientation and optical methods have proven to be an excellent means of acquiring this information. Research in our laboratory has resulted in a number of techniques in optical rheometry such as high-speed polarimetry (birefringence and dichroism) and various microscopy methods (fluorescence, phase contrast, and atomic force microscopy).

The microstructure of polymeric and other complex materials also cause them to have interesting physical properties and respond to different flow conditions in unusual manners. In our laboratory, we are equipped with instruments that are able to characterize these materials such as shear rheometer, capillary break up extensional rheometer, and 2D extensional rheometer. Then, the response of these materials to different flow conditions can be visualized and analyzed in detail using high speed imaging devices at up to 2,000 frames per second.

There are numerous processes encountered in nature and industry where the deformation of fluid-fluid interfaces is of central importance. Examples from nature include deformation of the red blood cell in small capillaries, cell division and structure and composition of the tear film. Industrial applications include the processing of emulsions and foams, and the atomization of droplets in ink-jet printing. In our laboratory, fundamental research is in progress to understand the orientation and deformation of monolayers at the molecular level. These experiments employ state of the art optical methods such as polarization modulated dichroism, fluorescence microscopy, and Brewster angle microscopy to obtain in situ measurements of polymer films and small molecule amphiphile monolayers subject to flow. Langmuir troughs are used as the experimental platform so that the thermodynamic state of the monolayers can be systematically controlled. For the first time, well characterized, homogeneous surface flows have been developed, and real time measurements of molecular and microdomain orientation have been obtained. These microstructural experiments are complemented by measurements of the macroscopic, mechanical properties of the films.

#### ACADEMIC APPOINTMENTS

- Professor, Chemical Engineering
- Member, Bio-X
- Member, Cardiovascular Institute

- Faculty Fellow, Stanford ChEM-H

## ADMINISTRATIVE APPOINTMENTS

- Member, Faculty Senate, (2018- present)

## HONORS AND AWARDS

- Fletcher Jones Professorship II, The Fletcher Jones Foundation (2006)
- Cox Medal for Excellence in Fostering Undergraduate Research, Stanford University (2006)
- Julian C. Smith Lectureship in Chemical and Biomolecular Engineering, Cornell University
- Pearson Lecturer in Chemical Engineering, UCSB
- Bingham Medal Award, The Society of Rheology (1997)
- Fellow, American Physical Society (1993)

## BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Board of Managers, American Institute of Physics Publishing (2017 - present)
- Fellow, American Academy of Arts and Science (2016 - present)
- Secretary, International Committee on Rheology (2017 - present)
- Elected Member, National Academy of Engineering (2005 - present)
- President, Society of Rheology (1999 - 2001)

## PROFESSIONAL EDUCATION

- PhD, Caltech (1980)

## Teaching

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### COURSES

#### 2019-20

- Fluid Mechanics: CHEMENG 120A (Win)
- Graduate Practical Training: CHEMENG 299 (Aut, Win, Spr, Sum)
- Mechanics of Soft Matter: Rheology: CHEMENG 470 (Win)
- Special Topics in Microrheology: CHEMENG 505 (Aut, Win, Spr, Sum)
- Undergraduate Honors Seminar: CHEMENG 191H (Aut, Win, Spr)

#### 2018-19

- Fluid Mechanics: CHEMENG 120A (Win)
- Graduate Practical Training: CHEMENG 299 (Sum)
- Special Topics in Microrheology: CHEMENG 505 (Aut, Win, Spr, Sum)

#### 2017-18

- Fluid Mechanics: CHEMENG 120A (Win)
- Microhydrodynamics: CHEMENG 310, ME 451D (Win)
- Special Topics in Microrheology: CHEMENG 505 (Aut, Win, Spr, Sum)

#### 2016-17

- Complex Fluid Interfaces: Capillarity and Interfacial Dynamics: CHEMENG 470 (Win)

- Fluid Mechanics: CHEMENG 120A (Win)
- Special Topics in Microrheology: CHEMENG 505 (Aut, Win, Spr, Sum)

## STANFORD ADVISEES

### Doctoral Dissertation Reader (AC)

Xingyi Shi, Anthony Yu

### Doctoral Dissertation Advisor (AC)

Suzanne Calhoun, Kiara Cui, Yogi Huang, Aadithya Kannan, Chunzi Liu, Mariana Rodriguez Hakim, Ada Undieh

### Doctoral Dissertation Co-Advisor (AC)

Amy Madl

### Doctoral (Program)

Vinny Chandran Suja

## Publications

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### PUBLICATIONS

- **Mechanical and microstructural insights of *Vibrio cholerae* and *Escherichia coli* dual-species biofilm at the air-liquid interface.** *Colloids and surfaces. B, Biointerfaces*  
Abriat, C., Enriquez, K., Virgilio, N., Cegelski, L., Fuller, G. G., Daigle, F., Heuzey, M.  
2020; 188: 110786
- **Binding partner- and force-promoted changes in alphaE-catenin conformation probed by native cysteine labeling.** *Scientific reports*  
Terekhova, K., Pokutta, S., Kee, Y. S., Li, J., Tajkhorshid, E., Fuller, G., Dunn, A. R., Weis, W. I.  
2019; 9 (1): 15375
- **Mechanical Properties of Solidifying Assemblies of Nanoparticle Surfactants at the Oil-Water Interface.** *Langmuir : the ACS journal of surfaces and colloids*  
Toor, A., Forth, J., Bochner de Araujo, S., Merola, M. C., Jiang, Y., Liu, X., Chai, Y., Hou, H., Ashby, P. D., Fuller, G. G., Russell, T. P.  
2019
- **Linking aggregation and interfacial properties in monoclonal antibody-surfactant formulations** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Kannan, A., Shieh, I. C., Fuller, G. G.  
2019; 550: 128–38
- **Spreading of rinsing liquids across a horizontal rotating substrate** *PHYSICAL REVIEW FLUIDS*  
Walls, D. J., Ylitalo, A. S., Mui, D. L., Frostad, J. M., Fuller, G. G.  
2019; 4 (8)
- **The influence of protein deposition on contact lens tear film stability** *COLLOIDS AND SURFACES B-BIOINTERFACES*  
Rabiah, N. I., Scales, C. W., Fuller, G. G.  
2019; 180: 229–36
- **Evolution of rivulets during spreading of an impinging water jet on a rotating, precoated substrate**  
Ylitalo, A. S., Walls, D. J., Mui, D. L., Frostad, J. M., Fuller, G. G.  
AMER INST PHYSICS.2019
- **The influence of protein deposition on contact lens tear film stability.** *Colloids and surfaces. B, Biointerfaces*  
Rabiah, N. I., Scales, C. W., Fuller, G. G.  
2019; 180: 229–36
- **Linking aggregation and interfacial properties in monoclonal antibody-surfactant formulations.** *Journal of colloid and interface science*  
Kannan, A., Shieh, I. C., Fuller, G. G.  
2019; 550: 128–38

- **Lymphatic endothelial cell calcium pulses are sensitive to spatial gradients in wall shear stress** *MOLECULAR BIOLOGY OF THE CELL*  
Surya, V. N., Michalaki, E., Fuller, G. G., Dunn, A. R.  
2019; 30 (7): 923–31
- **Evaporation-driven solutocapillary flow of thin liquid films over curved substrates** *PHYSICAL REVIEW FLUIDS*  
Rodriguez-Hakim, M., Barakat, J. M., Shi, X., Shaqfeh, E. G., Fuller, G. G.  
2019; 4 (3)
- **Lymphatic endothelial cell calcium pulses are sensitive to spatial gradients in wall shear stress.** *Molecular biology of the cell*  
Surya, V. N., Michalaki, E., Fuller, G. G., Dunn, A. R.  
2019: mbcE18100618
- **Carbon compositional analysis of hydrogel contact lenses by solid-state NMR spectroscopy.** *Solid state nuclear magnetic resonance*  
Rabiah, N. I., Romaniuk, J. A., Fuller, G. G., Scales, C. W., Cegelski, L.  
2019; 102: 47–52
- **Unraveling Escherichia coli's Cloak: Identification of Phosphoethanolamine Cellulose, Its Functions, and Applications.** *Microbiology insights*  
Jeffries, J., Fuller, G. G., Cegelski, L.  
2019; 12: 1178636119865234
- **Influence of interfacial elasticity on liquid entrainment in thin foam films** *PHYSICAL REVIEW FLUIDS*  
Lin, G., Frostad, J. M., Fuller, G. G.  
2018; 3 (11)
- **Phosphoethanolamine cellulose enhances curli-mediated adhesion of uropathogenic Escherichia coli to bladder epithelial cells.** *Proceedings of the National Academy of Sciences of the United States of America*  
Hollenbeck, E. C., Antonoplis, A., Chai, C., Thongsomboon, W., Fuller, G. G., Cegelski, L.  
2018
- **The shape evolution of liquid droplets in miscible environments** *JOURNAL OF FLUID MECHANICS*  
Walls, D. J., Meiburg, E., Fuller, G. G.  
2018; 852: 422–52
- **Crosslink density influences the adhesive strength of silicone hydrogel surfaces against corneal epithelial cells**  
Liu, C., Scales, C. W., Fuller, G. G.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018
- **Influence of tear-film component integration on contact lens wettability**  
Rabiah, N. I., Scales, C. W., Fuller, G. G.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018
- **Coalescence and spontaneous emulsification in the presence of asphaltenes**  
Fuller, G., Bochner, S., Merola, M., Vlassopoulos, D.  
AMER CHEMICAL SOC.2018
- **Adhesion and viscoelasticity of living tissues: The live cell monolayer rheometer (LCMR)**  
Fuller, G., Pokki, J., Merola, M., Undieh, A., Hollenbeck, E., Cegelski, L.  
AMER CHEMICAL SOC.2018
- **Monoclonal Antibody Interfaces: Dilatation Mechanics and Bubble Coalescence** *LANGMUIR*  
Kannan, A., Shieh, I. C., Leiske, D. L., Fuller, G. G.  
2018; 34 (2): 630–38
- **Droplet Coalescence and Spontaneous Emulsification in the Presence of Asphaltene Adsorption** *LANGMUIR*  
de Araujo, S., Merola, M., Vlassopoulos, D., Fuller, G. G.  
2017; 33 (40): 10501–10
- **DACH1 stimulates shear stress-guided endothelial cell migration and coronary artery growth through the CXCL12-CXCR4 signaling axis** *GENES & DEVELOPMENT*  
Chang, A. H., Raftrey, B. C., D'Amato, G., Surya, V. N., Poduri, A., Chen, H. I., Goldstone, A. B., Woo, J., Fuller, G. G., Dunn, A. R., Red-Horse, K.

2017; 31 (13): 1308–24

- **Interfacial mechanisms for stability of surfactant-laden films** *PLOS ONE*  
Bhamla, M. S., Chai, C., Alvarez-Valenzuela, M. A., Tajuelo, J., Fuller, G. G.  
2017; 12 (5)
- **Temperature controlled tensiometry using droplet microfluidics** *LAB ON A CHIP*  
Lee, D., Fang, C., Ravan, A. S., Fuller, G. G., Shen, A. Q.  
2017; 17 (4): 717-726
- **Sphingosine 1-phosphate receptor 1 regulates the directional migration of lymphatic endothelial cells in response to fluid shear stress** *JOURNAL OF THE ROYAL SOCIETY INTERFACE*  
Surya, V. N., Michalaki, E., Huang, E. Y., Fuller, G. G., Dunn, A. R.  
2016; 13 (125)
- **Impact of Compressibility on the Control of Bubble-Pressure Tensiometers** *LANGMUIR*  
Suja, V. C., Frostad, J. M., Fuller, G. G.  
2016; 32 (46): 12031-12038
- **Dynamic fluid-film interferometry as a predictor of bulk foam properties.** *Soft matter*  
Frostad, J. M., Tammaro, D., Santollani, L., Bochner de Araujo, S., Fuller, G. G.  
2016: -?
- **Placing Marangoni instabilities under arrest** *PHYSICAL REVIEW FLUIDS*  
Bhamla, M. S., Fuller, G. G.  
2016; 1 (5)
- **Mechanical Behavior of a Bacillus subtilis Pellicle** *JOURNAL OF PHYSICAL CHEMISTRY B*  
Hollenbeck, E. C., Douarche, C., Allain, J., Roger, P., Regeard, C., Cegelski, L., Fuller, G. G., Raspaud, E.  
2016; 120 (26): 6080-6088
- **Multiplexed Fluid Flow Device to Study Cellular Response to Tunable Shear Stress Gradients** *ANNALS OF BIOMEDICAL ENGINEERING*  
Ostrowski, M. A., Huang, E. Y., Surya, V. N., Poplawski, C., Barakat, J. M., Lin, G. L., Fuller, G. G., Dunn, A. R.  
2016; 44 (7): 2261-2272
- **Interfacial Rheology of Hydrogen-Bonded Polymer Multilayers Assembled at Liquid Interfaces: Influence of Anchoring Energy and Hydrophobic Interactions** *LANGMUIR*  
Le Tirilly, S., Tregouet, C., Reyssat, M., Bone, S., Geffroy, C., Fuller, G., Pantoustier, N., Perrin, P., Monteux, C.  
2016; 32 (24): 6089-6096
- **Spreading of miscible liquids** *PHYSICAL REVIEW FLUIDS*  
Walls, D. J., Haward, S. J., Shen, A. Q., Fuller, G. G.  
2016; 1 (1)
- **Growth Kinetics and Mechanics of Hydrate Films by Interfacial Rheology** *LANGMUIR*  
Leopercio, B. C., de Souza Mendes, P. R., Fuller, G. G.  
2016; 32 (17): 4203-4209
- **Nonmonotonic Elasticity of the Crude Oil-Brine Interface in Relation to Improved Oil Recovery** *LANGMUIR*  
Chavez-Miyauchi, T. E., Firoozabadi, A., Fuller, G. G.  
2016; 32 (9): 2192-2198
- **Instability and Breakup of Model Tear Films** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*  
Bhamla, M. S., Chai, C., Rabiah, N. I., Frostad, J. M., Fuller, G. G.  
2016; 57 (3): 949-958
- **Interfacial dilatational deformation accelerates particle formation in monoclonal antibody solutions** *SOFT MATTER*  
Lin, G. L., Pathak, J. A., Kim, D. H., Carlson, M., Riguerro, V., Kim, Y. J., Buff, J. S., Fuller, G. G.  
2016; 12 (14): 3293-3302
- **Nanoscale Patterning of Extracellular Matrix Alters Endothelial Function under Shear Stress.** *Nano letters*

- Nakayama, K. H., Surya, V. N., Gole, M., Walker, T. W., Yang, W., Lai, E. S., Ostrowski, M. A., Fuller, G. G., Dunn, A. R., Huang, N. F.  
2016; 16 (1): 410–19
- **Nanoscale Patterning of Extracellular Matrix Alters Endothelial Function under Shear Stress** *NANO LETTERS*  
Nakayama, K. H., Surya, V. N., Gole, M., Walker, T. W., Yang, W., Lai, E. S., Ostrowski, M. A., Fuller, G. G., Dunn, A. R., Huang, N. F.  
2016; 16 (1): 410-419
  - **Dewetting and deposition of thin films with insoluble surfactants from curved silicone hydrogel substrates.** *Journal of colloid and interface science*  
Bhamla, M. S., Balemans, C., Fuller, G. G.  
2015; 449: 428-435
  - **Multiphase flow of miscible liquids: jets and drops** *EXPERIMENTS IN FLUIDS*  
Walker, T. W., Logia, A. N., Fuller, G. G.  
2015; 56 (5)
  - **Influence of Lipid Coatings on Surface Wettability Characteristics of Silicone Hydrogels** *LANGMUIR*  
Bhamla, M. S., Nash, W. L., Elliott, S., Fuller, G. G.  
2015; 31 (13): 3820-3828
  - **Quantification of stromal vascular cell mechanics with a linear cell monolayer rheometer** *JOURNAL OF RHEOLOGY*  
Elkins, C. M., Shen, W., Khor, V. K., Kraemer, F. B., Fuller, G. G.  
2015; 59 (1): 33-50
  - **Integrated microfluidic platform for instantaneous flow and localized temperature control** *RSC ADVANCES*  
Fang, C., Lee, D., Stober, B., Fuller, G. G., Shen, A. Q.  
2015; 5 (104): 85620-85629
  - **Lung surfactants and different contributions to thin film stability** *SOFT MATTER*  
Hermans, E., Bhamla, M. S., Kao, P., Fuller, G. G., Vermant, J.  
2015; 11 (41): 8048-8057
  - **Interplay of Hydrogen Bonding and Hydrophobic Interactions to Control the Mechanical Properties of Polymer Multi layers at the Oil-Water Interface** *ACS MACRO LETTERS*  
Le Tirilly, S., Tregouet, C., Bone, S., Geffroy, C., Fuller, G., Pantoustier, N., Perrin, P., Monteux, C.  
2015; 4 (1): 25-29
  - **Molecular determinants of mechanical properties of V. cholerae biofilms at the air-liquid interface.** *Biophysical journal*  
Hollenbeck, E. C., Fong, J. C., Lim, J. Y., Yildiz, F. H., Fuller, G. G., Cegelski, L.  
2014; 107 (10): 2245-2252
  - **Influence of interfacial rheology on drainage from curved surfaces.** *Soft matter*  
Bhamla, M. S., Giacomini, C. E., Balemans, C., Fuller, G. G.  
2014; 10 (36): 6917-6925
  - **Using in-Situ Polymerization of Conductive Polymers to Enhance the Electrical Properties of Solution-Processed Carbon Nanotube Films and Fibers** *ACS APPLIED MATERIALS & INTERFACES*  
Allen, R., Pan, L., Fuller, G. G., Bao, Z.  
2014; 6 (13): 9966-9974
  - **Scaling analysis and mathematical theory of the interfacial stress rheometer** *JOURNAL OF RHEOLOGY*  
FitzGibbon, S., Shaqfeh, E. S., Fuller, G. G., Walker, T. W.  
2014; 58 (4): 999-1038
  - **Microvascular Endothelial Cells Migrate Upstream and Align Against the Shear Stress Field Created by Impinging Flow** *BIOPHYSICAL JOURNAL*  
Ostrowski, M. A., Huang, N. F., Walker, T. W., Verwijlen, T., Poplawski, C., Khoo, A. S., Cooke, J. P., Fuller, G. G., Dunn, A. R.  
2014; 106 (2): 366-374
  - **Enhanced particle removal using viscoelastic fluids** *JOURNAL OF RHEOLOGY*  
Walker, T. W., Hsu, T. T., FitzGibbon, S., Frank, C. W., Mui, D. S., Zhu, J., Mendiratta, A., Fuller, G. G.  
2014; 58 (1): 63-88

- **Corneal Cell Adhesion to Contact Lens Hydrogel Materials Enhanced via Tear Film Protein Deposition.** *PloS one*  
Elkins, C. M., Qi, Q. M., Fuller, G. G.  
2014; 9 (8)
- **Instabilities and elastic recoil of the two-fluid circular hydraulic jump** *EXPERIMENTS IN FLUIDS*  
Hsu, T. T., Walker, T. W., Frank, C. W., Fuller, G. G.  
2014; 55 (1)
- **In-Situ Quantification of the Interfacial Rheological Response of Bacterial Biofilms to Environmental Stimuli** *PLOS ONE*  
Ruehs, P. A., Boeni, L., Fuller, G. G., Inglis, R. F., Fischer, P.  
2013; 8 (11)
- **Synthesis Route for the Self-Assembly of Submicrometer-Sized Colloidosomes with Tailorable Nanopores** *CHEMISTRY OF MATERIALS*  
Bollhorst, T., Grieb, T., Rosenauer, A., Fuller, G., Maas, M., Rezwani, K.  
2013; 25 (17): 3464-3471
- **Aligned SWNT Films from Low-Yield Stress Gels and Their Transparent Electrode Performance** *ACS APPLIED MATERIALS & INTERFACES*  
Allen, R., Fuller, G. G., Bao, Z.  
2013; 5 (15): 7244-7252
- **Effect of Protein Adsorption on Dewetting and Corneal cell adhesion on Contact Lenses**  
Bhamla, S., Elkins, C., Bergsman, D., Fuller, G.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2013
- **The modulation of endothelial cell morphology, function, and survival using anisotropic nanofibrillar collagen scaffolds** *BIOMATERIALS*  
Huang, N. F., Okogbaa, J., Lee, J. C., Jha, A., Zaitseva, T. S., Paukshto, M. V., Sun, J. S., Punjya, N., Fuller, G. G., Cooke, J. P.  
2013; 34 (16): 4038-4047
- **Tracking the interfacial dynamics of PNIPAM soft microgels particles adsorbed at the air-water interface and in thin liquid films** *RHEOLOGICA ACTA*  
Cohin, Y., Fisson, M., Jourde, K., Fuller, G. G., Sanson, N., Talini, L., Monteux, C.  
2013; 52 (5): 445-454
- **Spatial patterning of endothelium modulates cell morphology, adhesiveness and transcriptional signature** *BIOMATERIALS*  
Huang, N. F., Lai, E. S., Ribeiro, A. J., Pan, S., Pruitt, B. L., Fuller, G. G., Cooke, J. P.  
2013; 34 (12): 2928-2937
- **Thermoresponsiveness of PDMAEMA. Electrostatic and Stereochemical Effects** *MACROMOLECULES*  
Niskanen, J., Wu, C., Ostrowski, M., Fuller, G. G., Hietala, S., Tenhu, H.  
2013; 46 (6): 2331-2340
- **3-Hydroxybutyric Acid Interacts with Lipid Mono layers at Concentrations That Impair Consciousness** *LANGMUIR*  
Hsu, T. T., Leiske, D. L., Rosenfeld, L., Sonner, J. M., Fuller, G. G.  
2013; 29 (6): 1948-1955
- **Disruption of Escherichia coli Amyloid-Integrated Biofilm Formation at the Air-Liquid Interface by a Polysorbate Surfactant** *LANGMUIR*  
Wu, C., Lim, J. Y., Fuller, G. G., Cegelski, L.  
2013; 29 (3): 920-926
- **Oriented, polymer-stabilized carbon nanotube films: influence of dispersion rheology** *NANOTECHNOLOGY*  
Allen, R., Bao, Z., Fuller, G. G.  
2013; 24 (1)
- **Structural and rheological properties of meibomian lipid.** *Investigative ophthalmology & visual science*  
Rosenfeld, L., Cerretani, C., Leiske, D. L., Toney, M. F., Radke, C. J., Fuller, G. G.  
2013; 54 (4): 2720-2732
- **Interfacial and Fluorescence Studies on Stereoblock Poly(N-isopropylacryl amide)s** *LANGMUIR*  
Niskanen, J., Wu, C., Ostrowski, M., Fuller, G. G., Tenhu, H., Hietala, S.  
2012; 28 (41): 14792-14798

- **Consequences of Interfacial Viscoelasticity on Thin Film Stability** *LANGMUIR*  
Rosenfeld, L., Fuller, G. G.  
2012; 28 (40): 14238-14244
- **Role of shear-thinning on the dynamics of rinsing flow by an impinging jet** *PHYSICS OF FLUIDS*  
Walker, T. W., Hsu, T. T., Frank, C. W., Fuller, G. G.  
2012; 24 (9)
- **Aligned nanofibrillar collagen regulates endothelial organization and migration** *REGENERATIVE MEDICINE*  
Lai, E. S., Huang, N. F., Cooke, J. P., Fuller, G. G.  
2012; 7 (5): 649-661
- **Extensional rheometry at interfaces: Analysis of the Cambridge Interfacial Tensiometer** *JOURNAL OF RHEOLOGY*  
Verwijlen, T., Leiske, D. L., Moldenaers, P., Vermant, J., Fuller, G. G.  
2012; 56 (5): 1225-1247
- **Molecular Structure of Interfacial Human Meibum Films** *LANGMUIR*  
Leiske, D. L., Miller, C. E., Rosenfeld, L., Cerretani, C., Ayzner, A., Lin, B., Meron, M., Senchyna, M., Ketelson, H. A., Meadows, D., Srinivasan, S., Jones, L., Radke, et al  
2012; 28 (32): 11867-11874
- **Molecular structure of interfacial human meibum films.** *Langmuir*  
Leiske, D. L., Miller, C. E., Rosenfeld, L., Cerretani, C., Ayzner, A., Lin, B., Meron, M., Senchyna, M., Ketelson, H. A., Meadows, D., Srinivasan, S., Jones, L., Radke, et al  
2012; 28 (32): 11858-11865
- **Quantitative Analysis of Amyloid-Integrated Biofilms Formed by Uropathogenic Escherichia coli at the Air-Liquid Interface** *BIOPHYSICAL JOURNAL*  
Wu, C., Lim, J. Y., Fuller, G. G., Cegelski, L.  
2012; 103 (3): 464-471
- **Isocitrate dehydrogenase 1 R132H mutation is not detected in angiocentric glioma** *ANNALS OF DIAGNOSTIC PATHOLOGY*  
Raghunathan, A., Olar, A., Vogel, H., Parker, J. R., Coventry, S. C., Debski, R., Albarracin, C. T., Aldape, K. D., Cahill, D. P., Powell, S. Z., Fuller, G. N.  
2012; 16 (4): 255-259
- **Oriented collagen as a potential cochlear implant electrode surface coating to achieve directed neurite outgrowth** *EUROPEAN ARCHIVES OF OTO-RHINO-LARYNGOLOGY*  
Volkenstein, S., Kirkwood, J. E., Lai, E., Dazert, S., Fuller, G. G., Heller, S.  
2012; 269 (4): 1111-1116
- **Assembly of submicron colloidosomes with silica nanoparticles featuring a selective permeability**  
Maas, M., Fuller, G. G.  
AMER CHEMICAL SOC.2012
- **Temperature-Induced Transitions in the Structure and Interfacial Rheology of Human Meibum** *BIOPHYSICAL JOURNAL*  
Leiske, D. L., Leiske, C. I., Leiske, D. R., Toney, M. F., Senchyna, M., Ketelson, H. A., Meadows, D. L., Fuller, G. G.  
2012; 102 (2): 369-376
- **Interfacial Rheology of Natural Silk Fibroin at Air/Water and Oil/Water Interfaces** *LANGMUIR*  
Wang, L., Xie, H., Qiao, X., Goffin, A., Hodgkinson, T., Yuan, X., Sun, K., Fuller, G. G.  
2012; 28 (1): 459-467
- **Complex Fluid-Fluid Interfaces: Rheology and Structure** *ANNUAL REVIEW OF CHEMICAL AND BIOMOLECULAR ENGINEERING, VOL 3*  
Fuller, G. G., Vermant, J.  
2012; 3: 519-543
- **Insertion Mechanism of a Poly(ethylene oxide)-poly(butylene oxide) Block Copolymer into a DPPC Monolayer** *LANGMUIR*  
Leiske, D. L., Meckes, B., Miller, C. E., Wu, C., Walker, T. W., Lin, B., Meron, M., Ketelson, H. A., Toney, M. F., Fuller, G. G.  
2011; 27 (18): 11444-11450
- **Vascular anastomosis using controlled phase transitions in poloxamer gels** *NATURE MEDICINE*



Chang, E. I., Galvez, M. G., Glotzbach, J. P., Hamou, C. D., El-Ftesi, S., Rappleye, C. T., Sommer, K., Rajadas, J., Abilez, O. J., Fuller, G. G., Longaker, M. T., Gurtner, G. C.

2011; 17 (9): 1147-U160

- **Designing a tubular matrix of oriented collagen fibrils for tissue engineering** *ACTA BIOMATERIALIA*  
Lai, E. S., Anderson, C. M., Fuller, G. G.  
2011; 7 (6): 2448-2456
- **Role of fluid elasticity on the dynamics of rinsing flow by an impinging jet** *PHYSICS OF FLUIDS*  
Hsu, T. T., Walker, T. W., Frank, C. W., Fuller, G. G.  
2011; 23 (3)
- **Preparation of Mineralized Nanofibers: Collagen Fibrils Containing Calcium Phosphate** *NANO LETTERS*  
Maas, M., Guo, P., Keeney, M., Yang, F., Hsu, T. M., Fuller, G. G., Martin, C. R., Zare, R. N.  
2011; 11 (3): 1383-1388
- **Interfacial shear rheology of highly confined glassy polymers** *SOFT MATTER*  
Srivastava, S., Leiske, D., Basu, J. K., Fuller, G. G.  
2011; 7 (5): 1994-2000
- **Editorial: dynamics and rheology of complex fluid-fluid interfaces** *SOFT MATTER*  
Fuller, G. G., Vermant, J.  
2011; 7 (17): 7583-7585
- **Influence of surface rheology on dynamic wetting of droplets coated with insoluble surfactants** *SOFT MATTER*  
Leiske, D. L., Monteux, C., Senchyna, M., Ketelson, H. A., Fuller, G. G.  
2011; 7 (17): 7747-7753
- **Thin Film Formation of Silica Nanoparticle/Lipid Composite Films at the Fluid-Fluid Interface** *LANGMUIR*  
Maas, M., Ooi, C. C., Fuller, G. G.  
2010; 26 (23): 17867-17873
- **The interfacial viscoelastic properties and structures of human and animal Meibomian lipids** *EXPERIMENTAL EYE RESEARCH*  
Leiske, D. L., Raju, S. R., Ketelson, H. A., Millar, T. J., Fuller, G. G.  
2010; 90 (5): 598-604
- **Interfacial Flow Processing of Collagen** *LANGMUIR*  
Goffin, A. J., Rajadas, J., Fuller, G. G.  
2010; 26 (5): 3514-3521
- **Charge Interaction between Particle-Laden Fluid Interfaces** *LANGMUIR*  
Xu, H., Kirkwood, J., Lask, M., Fuller, G.  
2010; 26 (5): 3160-3164
- **A double wall-ring geometry for interfacial shear rheometry** *RHEOLOGICA ACTA*  
Vandebril, S., Franck, A., Fuller, G. G., Moldenaers, P., Vermant, J.  
2010; 49 (2): 131-144
- **Surface Rheology of a Polymer Monolayer: Effects of Polymer Chain Length and Compression Rate** *LANGMUIR*  
Spigone, E., Cho, G., Fuller, G. G., Cicuta, P.  
2009; 25 (13): 7457-7464
- **Isovaleric, Methylmalonic, and Propionic Acid Decrease Anesthetic EC50 in Tadpoles, Modulate Glycine Receptor Function, and Interact with the Lipid 1,2-Dipalmitoyl-Sn-Glycero-3-Phosphocholine** *18th Annual Neuropharmacology Conference 2008*  
Weng, Y., Hsu, T. T., Zhao, J., Nishimura, S., Fuller, G. G., Sonner, J. M.  
LIPPINCOTT WILLIAMS & WILKINS.2009: 1538-45
- **Liquid Crystalline Collagen: A Self-Assembled Morphology for the Orientation of Mammalian Cells** *LANGMUIR*  
Kirkwood, J. E., Fuller, G. G.  
2009; 25 (5): 3200-3206

- **Langmuir Monolayers of Straight-Chain and Branched Hexadecanol and Eicosanol Mixtures** *LANGMUIR*  
Kurtz, R. E., Toney, M. F., Pople, J. A., Lin, B., Meron, M., Majewski, J., Lange, A., Fuller, G. G.  
2008; 24 (24): 14005-14014
- **Small Molecule, Non-Peptide p75(NTR) Ligands Inhibit A beta-Induced Neurodegeneration and Synaptic Impairment** *PLOS ONE*  
Yang, T., Knowles, J. K., Lu, Q., Zhang, H., Arancio, O., Moore, L. A., Chang, T., Wang, Q., Andreasson, K., Rajadas, J., Fuller, G. G., Xie, Y., Massa, et al  
2008; 3 (11)
- **Effect of Lysozyme Adsorption on the Interfacial Rheology of DPPC and Cholesteryl Myristate Films** *LANGMUIR*  
Nishimura, S. Y., Magana, G. M., Ketelson, H. A., Fuller, G. G.  
2008; 24 (20): 11728-11733
- **Interaction of human whole saliva and astringent dietary compounds investigated by interfacial shear rheology** *FOOD HYDROCOLLOIDS*  
Rossetti, D., Yakubov, G. E., Stokes, J. R., Williamson, A., Fuller, G. G.  
2008; 22 (6): 1068-1078
- **Surface rheology of hydrophobically modified PEG polymers associating with a phospholipid monolayer at the air-water interface** *LANGMUIR*  
Auguste, D. T., Kirkwood, J., Kohn, J., Fuller, G. G., Prud'homme, R. K.  
2008; 24 (8): 4056-4064
- **Analysis of the magnetic rod interfacial stress rheometer** *JOURNAL OF RHEOLOGY*  
Reynaert, S., Brooks, C. F., Moldenaers, P., Vermant, J., Fuller, G. G.  
2008; 52 (1): 261-285
- **Particle bridging between oil and water interfaces** *LANGMUIR*  
Xu, H., Lask, M., Kirkwood, J., Fuller, G.  
2007; 23 (9): 4837-4841
- **Mechanical properties and structure of particle coated interfaces: Influence of particle size and bidisperse 2D suspensions** *LANGMUIR*  
Monteux, C., Jung, E., Fuller, G. G.  
2007; 23 (7): 3975-3980
- **Why inhaling salt water changes what we exhale** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Watanabe, W., Thomas, M., Clarke, R., Klibanov, A. M., Langer, R., Katstra, J., Fuller, G. G., Griel, L. C., Fiegel, J., Edwards, D.  
2007; 307 (1): 71-78
- **Determining the mechanical response of particle-laden fluid interfaces using surface pressure isotherms and bulk pressure measurements of droplets** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*  
Monteux, C., Kirkwood, J., Xu, H., Jung, E., Fuller, G. G.  
2007; 9 (48): 6344-6350
- **Lipid-induced beta-amyloid peptide assemblage fragmentation** *BIOPHYSICAL JOURNAL*  
Widenbrant, M. J., Rajadas, J., Sutardja, C., Fuller, G. G.  
2006; 91 (11): 4071-4080
- **Well-controlled living polymerization of perylene-labeled polyisoprenes and their use in single-molecule Imaging** *MACROMOLECULES*  
Gavranovic, G. T., Csihony, S., Bowden, N. B., Hawker, C. J., Waymouth, R. M., Moerner, W. E., Fuller, G. G.  
2006; 39 (23): 8121-8127
- **Effects of temperature and chemical modification on polymer Langmuir films** *JOURNAL OF PHYSICAL CHEMISTRY B*  
Gavranovic, G. T., Smith, M. M., Jeong, W., Wong, A. Y., Waymouth, R. M., Fuller, G. G.  
2006; 110 (44): 22285-22290
- **Interfacial rheology and structure of straight-chain and branched hexadecanol mixtures** *INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH*  
Gavranovic, G. T., Kurtz, R. E., Golemanov, K., Lange, A., Fuller, G. G.  
2006; 45 (21): 6880-6884
- **Packing, flipping, and buckling transitions in compressed monolayers of ellipsoidal latex particles** *LANGMUIR*  
Basavaraj, M. G., Fuller, G. G., Fransaeer, J., Vermant, J.  
2006; 22 (15): 6605-6612

- **Interfacial rheology and structure of straight-chain and branched fatty alcohol mixtures** *LANGMUIR*  
Kurtz, R. E., Lange, A., Fuller, G. G.  
2006; 22 (12): 5321-5327
- **Shear surface rheology of poly(N-isopropylacrylamide) adsorbed layers at the air-water interface** *MACROMOLECULES*  
Monteux, C., Mangeret, R., Laibe, G., Freyssingas, E., Bergeron, V., Fuller, G.  
2006; 39 (9): 3408-3414
- **Shape and buckling transitions in solid-stabilized drops** *LANGMUIR*  
Xu, H., Melle, S., Golemanov, K., Fuller, G.  
2005; 21 (22): 10016-10020
- **Optics of sheared liquid-crystal polarizer based on aqueous dispersion of dichroic-dye nano-aggregates** *JOURNAL OF THE SOCIETY FOR INFORMATION DISPLAY*  
Paukshto, M., Fuller, G., Michailov, A., Remizov, S.  
2005; 13 (9): 765-772
- **Lung surfactant gelation induced by epithelial cells exposed to air pollution or oxidative stress** *AMERICAN JOURNAL OF RESPIRATORY CELL AND MOLECULAR BIOLOGY*  
Anseth, J. W., Goffin, A. J., Fuller, G. G., Ghio, A. J., Kao, P. N., Upadhyay, D.  
2005; 33 (2): 161-168
- **Two-dimensional melts: Polymer chains at the air-water interface** *MACROMOLECULES*  
Gavranovic, G. T., Deutsch, J. M., Fuller, G. G.  
2005; 38 (15): 6672-6679
- **Pickering emulsions with controllable stability** *LANGMUIR*  
Melle, S., Lask, M., Fuller, G. G.  
2005; 21 (6): 2158-2162
- **Investigation of shear-banding structure in wormlike micellar solution by point-wise flow-induced birefringence measurements** *JOURNAL OF RHEOLOGY*  
Lee, J. Y., Fuller, G. G., Hudson, N. E., Yuan, X. F.  
2005; 49 (2): 537-550
- **Rheological behavior of precursor PPV monolayers** *LANGMUIR*  
Luinge, J. W., Nijboer, G. W., Hagting, J. G., Vorenkamp, E. J., Fuller, G. G., Schouten, A. J.  
2004; 20 (26): 11517-11522
- **Shear and dilatational relaxation mechanisms of globular and flexible proteins at the hexadecane/water interface** *LANGMUIR*  
Freer, E. M., Yim, K. S., Fuller, G. G., Radke, C. J.  
2004; 20 (23): 10159-10167
- **Shear and dilational surface rheology of oppositely charged polyelectrolyte/surfactant microgels adsorbed at the air-water interface. Influence on foam stability** *JOURNAL OF PHYSICAL CHEMISTRY B*  
Monteux, C., Fuller, G. G., Bergeron, V.  
2004; 108 (42): 16473-16482
- **Connect the drops: Using solids as adhesives for liquids** *LANGMUIR*  
Stancik, E. J., Fuller, G. G.  
2004; 20 (12): 4805-4808
- **Development characteristics of drag-reducing surfactant solution flow in a duct** *RHEOLOGICA ACTA*  
Suzuki, H., Fuller, G. G., Nakayama, T., Usui, H.  
2004; 43 (3): 232-239
- **Interfacial rheology of globular and flexible proteins at the hexadecane/water interface: Comparison of shear and dilatation deformation** *JOURNAL OF PHYSICAL CHEMISTRY B*  
Freer, E. M., Yim, K. S., Fuller, G. G., Radke, C. J.  
2004; 108 (12): 3835-3844

- **Influence of subphase conditions on interfacial viscoelastic properties of synthetic lipids with gentiobiose head groups** *JOURNAL OF PHYSICAL CHEMISTRY B*  
Tanaka, M., Schiefer, S., Gege, C., Schmidt, R. R., Fuller, G. G.  
2004; 108 (10): 3211-3214
- **Coalescence of particle-laden fluid interfaces** *LANGMUIR*  
Stancik, E. J., Kouhkan, M., Fuller, G. G.  
2004; 20 (1): 90-94
- **Dynamic transitions and oscillatory melting of a two-dimensional crystal subjected to shear flow** *JOURNAL OF RHEOLOGY*  
Stancik, E. J., Hawkinson, A. L., Vermant, J., Fuller, G. G.  
2004; 48 (1): 159-173
- **Microstructure evolution in magnetorheological suspensions governed by Mason number** *PHYSICAL REVIEW E*  
Melle, S., Calderon, O. G., Rubio, M. A., Fuller, G. G.  
2003; 68 (4)
- **Interfacial rheology of graft-type polymeric siloxane surfactants** *LANGMUIR*  
Anseth, J. W., Bialek, A., Hill, R. M., Fuller, G. G.  
2003; 19 (16): 6349-6356
- **Shearing or compressing a soft glass in 2D: Time-concentration superposition** *PHYSICAL REVIEW LETTERS*  
Cicuta, P., Stancik, E. J., Fuller, G. G.  
2003; 90 (23)
- **Influence of phase transition and photoisomerization on interfacial rheology** *PHYSICAL REVIEW E*  
Yim, K. S., Fuller, G. G.  
2003; 67 (4)
- **Component stress-strain behavior and small-angle neutron scattering investigation of stereoblock elastomeric polypropylene** *MACROMOLECULES*  
Wiyatno, W., Fuller, G. G., Pople, J. A., Gast, A. P., Chen, Z. R., Waymouth, R. M., Myers, C. L.  
2003; 36 (4): 1178-1187
- **Structure and dynamics of particle monolayers at a liquid-liquid interface subjected to shear flow** *General Meeting on Non-Equilibrium Behaviour of Colloidal Dispersions*  
Stancik, E. J., Gavranovic, G. T., Widenbrant, M. J., Laschitsch, A. T., Vermant, J., Fuller, G. G.  
ROYAL SOC CHEMISTRY.2003: 145-156
- **Microstructural changes of a binary polymer blend in simple shear flow across the phase boundary** *74th Annual Meeting of the Society-of-Rheology*  
Vlassopoulos, D., Terakawa, T., Fuller, G. G.  
JOURNAL RHEOLOGY AMER INST PHYSICS.2003: 143-61
- **Dynamic response of stereoblock elastomeric polypropylene studied by rheoptics and X-ray scattering. 2. Orthogonally oriented crystalline chains** *MACROMOLECULES*  
Wiyatno, W., Pople, J. A., Gast, A. P., Waymouth, R. M., Fuller, G. G.  
2002; 35 (22): 8498-8508
- **Dynamic response of stereoblock elastomeric polypropylene studied by rheoptics and X-ray scattering. 1. Influence of isotacticity** *MACROMOLECULES*  
Wiyatno, W., Pople, J. A., Gast, A. P., Waymouth, R. M., Fuller, G. G.  
2002; 35 (22): 8488-8497
- **Surface rheological transitions in Langmuir monolayers of bi-competitive fatty acids** *LANGMUIR*  
Yim, K. S., Rahaii, B., Fuller, G. G.  
2002; 18 (17): 6597-6601
- **Development of a double-beam rheo-optical analyzer for full tensor measurement of optical anisotropy in complex fluid flow** *RHEOLOGICA ACTA*  
Takahashi, T., Shirakashi, M., Miyamoto, K., Fuller, G. G.  
2002; 41 (5): 448-455
- **Chain rotational dynamics in MR suspensions** *8th International Conference on Electro-Rheological Fluids and Magneto-Rheological Suspensions*

Melle, S., Calderon, O. G., Rubio, M. A., Fuller, G. G.  
WORLD SCIENTIFIC PUBL CO PTE LTD.2002: 2293-99

- **Structure and dynamics of particle monolayers at a liquid-liquid interface subjected to extensional flow** *LANGMUIR*  
Stancik, E. J., Widenbrant, M. J., Laschitsch, A. T., Vermant, J., Fuller, G. G.  
2002; 18 (11): 4372-4375
- **Morphology of thermoplastic elastomers: Elastomeric polypropylene** *MACROMOLECULES*  
Schonherr, H., Wiyatno, W., Pople, J., Frank, C. W., Fuller, G. G., Gast, A. P., Waymouth, R. M.  
2002; 35 (7): 2654-2666
- **Surface shear rheology of a polymerizable lipopolymer monolayer** *LANGMUIR*  
Brooks, C. F., Thiele, J., Frank, C. W., O'Brien, D. F., Knoll, W., Fuller, G. G., Robertson, C. R.  
2002; 18 (6): 2166-2173
- **Polarizable particle aggregation under rotating magnetic fields using scattering dichroism** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Melle, S., Calderon, O. G., Fuller, G. G., Rubio, M. A.  
2002; 247 (1): 200-209
- **Rotational dynamics in dipolar colloidal suspensions: video microscopy experiments and simulations results** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
Melle, S., Calderon, O. G., Rubio, M. A., Fuller, G. G.  
2002; 102 (2): 135-148
- **Rheology of glycocalix model at air/water interface** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*  
Schneider, M. F., Lim, K., Fuller, G. G., Tanaka, M.  
2002; 4 (10): 1949-1952
- **Shear-banding structure orientated in the vorticity direction observed for equimolar micellar solution** *RHEOLOGICA ACTA*  
Fischer, P., Wheeler, E. K., Fuller, G. G.  
2002; 41 (1-2): 35-44
- **Electrophoresis of DNA adsorbed to a cationic supported bilayer** *LANGMUIR*  
OLSON, D. J., Johnson, J. M., Patel, P. D., Shaqfeh, E. S., Boxer, S. G., Fuller, G. G.  
2001; 17 (23): 7396-7401
- **Isotropic-nematic phase transitions of lyotropic, two-dimensional liquid crystalline polymer solutions** *MACROMOLECULES*  
Yim, K. S., Fuller, G. G., Datko, A., Eisenbach, C. D.  
2001; 34 (20): 6972-6977
- **Time scaling regimes in aggregation of magnetic dipolar particles: Scattering dichroism results** *PHYSICAL REVIEW LETTERS*  
Melle, S., Rubio, M. A., Fuller, G. G.  
2001; 87 (11)
- **Two-dimensional physical networks of lipopolymers at the air/water interface: Correlation of molecular structure and surface rheological behavior** *LANGMUIR*  
Naumann, C. A., Brooks, C. F., Fuller, G. G., Lehmann, T., Ruhe, J., Knoll, W., Kuhn, P., Nuyken, O., Frank, C. W.  
2001; 17 (9): 2801-2806
- **Rheological properties of lipopolymer-phospholipid mixtures at the air-water interface: A novel form of two-dimensional physical gelation** *MACROMOLECULES*  
Naumann, C. A., Brooks, C. F., Wiyatno, W., Knoll, W., Fuller, G. G., Frank, C. W.  
2001; 34 (9): 3024-3032
- **Rheoptical determination of aspect ratio and polydispersity of nonspherical particles** *AICHE JOURNAL*  
Vermant, J., Yang, H., Fuller, G. G.  
2001; 47 (4): 790-798
- **Orientation dynamics of magnetorheological fluids subject to rotating external fields** *7th International Conference on Electro-Rheological Fluids and Magneto-Rheological Suspension*  
Melle, S., Rubio, M. A., Fuller, G. G.

WORLD SCIENTIFIC PUBL CO PTE LTD.2001: 758–66

- **Two-dimensional physical networks of lipopolymers at the air/water interface** *3rd International Conference on Polymer-Solvent Complexes and Intercalates*  
Frank, C. W., Naumann, C. A., Knoll, W., Brooks, C. F., Fuller, G. G.  
WILEY-VCH VERLAG GMBH.2001: 1–12
- **Birefringence and stress growth in uniaxial extension of polymer solutions** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
Sridhar, T., Nguyen, D. A., Fuller, G. G.  
2000; 90 (2-3): 299-315
- **Surface pressure-induced isotropic-nematic transition in polymer monolayers - Effect of solvent molecules** *LANGMUIR*  
Yim, K. S., Brooks, C. F., Fuller, G. G., Datko, A., Eisenbach, C. D.  
2000; 16 (9): 4319-4324
- **Non-Newtonian rheology of liquid crystalline polymer monolayers** *LANGMUIR*  
Yim, K. S., Brooks, C. F., Fuller, G. G., Winter, D., Eisenbach, C. D.  
2000; 16 (9): 4325-4332
- **On the existence of a stress-optical relation in immiscible polymer blends** *LANGMUIR*  
Van Puyvelde, P., Moldenaers, P., Mewis, J., Fuller, G. G.  
2000; 16 (8): 3740-3747
- **Structure and dynamics of magnetorheological fluids in rotating magnetic fields** *PHYSICAL REVIEW E*  
Melle, S., Fuller, G. G., Rubio, M. A.  
2000; 61 (4): 4111-4117
- **Contraction and expansion flows of Langmuir monolayers** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
OLSON, D. J., Fuller, G. G.  
2000; 89 (1-2): 187-207
- **Phase behavior and flow properties of "hairy-rod" monolayers** *LANGMUIR*  
Fischer, P., Brooks, C. F., Fuller, G. G., Ritcey, A. M., Xiao, Y. F., Rahem, T.  
2000; 16 (2): 726-734
- **Structure and dynamics of magnetorheological fluids in rotating magnetic fields** *Physical review. E, Statistical physics, plasmas, fluids, and related interdisciplinary topics*  
Melle, S., Fuller, G. G., Rubio, M. A.  
2000; 61 (4 Pt B): 4111–17
- **Transient birefringence of elastomeric polypropylene subjected to step shear strain** *MACROMOLECULES*  
Carlson, E. D., Fuller, G. G., Waymouth, R. M.  
1999; 32 (24): 8094-8099
- **Component relaxation processes within elastomeric polypropylene** *MACROMOLECULES*  
Carlson, E. D., Fuller, G. G., Waymouth, R. M.  
1999; 32 (24): 8100-8106
- **Viscoelastic properties of lipopolymers at the air-water interface: A combined interfacial stress rheometer and film balance study** *LANGMUIR*  
Naumann, C. A., Brooks, C. F., Fuller, G. G., Knoll, W., Frank, C. W.  
1999; 15 (22): 7752-7761
- **Elastomeric polypropylenes from unbridged 2-phenylindene zirconocene catalysts: Temperature dependence of crystallinity and relaxation properties** *MACROMOLECULES*  
Hu, Y. R., Carlson, E. D., Fuller, G. G., Waymouth, R. M.  
1999; 32 (10): 3334-3340
- **Characterization of the flow properties of sodium carboxymethylcellulose via mechanical and optical techniques** *RHEOLOGICA ACTA*  
Kulicke, W. M., Reinhardt, U., Fuller, G. G., Arendt, O.  
1999; 38 (1): 26-33
- **An interfacial stress rheometer to study rheological transitions in monolayers at the air-water interface** *LANGMUIR*

- 
- Brooks, C. F., Fuller, G. G., Frank, C. W., Robertson, C. R.  
1999; 15 (7): 2450-2459
- **Large-scale bundle ordering in sterically stabilized lattices** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Vermant, J., Raynaud, L., Mewis, J., Ernst, B., Fuller, G. G.  
1999; 211 (2): 221-229
  - **Dynamic light scattering during shear: measurements of diffusion coefficients** *POLYMER*  
Rusu, D., Genoe, D., Van Puyvelde, P., Peuvrel-Disdier, E., NAVARD, P., Fuller, G. G.  
1999; 40 (6): 1353-1357
  - **Electric field-induced component dynamics in a binary liquid crystal mixture studied using two-dimensional Raman scattering** *LIQUID CRYSTALS*  
Huang, K., Fuller, G. G.  
1999; 26 (1): 1-7
  - **Two-dimensional Raman study of the submolecular, electric field-induced reorientation of a nematic liquid crystal** *LIQUID CRYSTALS*  
Huang, K., Fuller, G. G.  
1998; 25 (6): 745-755
  - **Rheological and thermal properties of elastomeric polypropylene** *MACROMOLECULES*  
Carlson, E. D., Krejchi, M. T., Shah, C. D., Terakawa, T., Waymouth, R. M., Fuller, G. G.  
1998; 31 (16): 5343-5351
  - **The dynamics of two dimensional polymer nematics** *International Conference on the Dynamics of Polymeric Liquids*  
Maruyama, T., Fuller, G. G., Grosso, M., Maffettone, P. L.  
ELSEVIER SCIENCE BV.1998: 233-47
  - **Orientation in a fatty acid monolayer: Effect of flow type** *LANGMUIR*  
Maruyama, T., Lauger, J., Fuller, G. G., Frank, C. W., Robertson, C. R.  
1998; 14 (7): 1836-1845
  - **Anisotropy and orientation of the microstructure in viscous emulsions during shear flow** *LANGMUIR*  
Vermant, J., Van Puyvelde, P., Moldenaers, P., Mewis, J., Fuller, G. G.  
1998; 14 (7): 1612-1617
  - **Time-periodic flow induced structures and instabilities in a viscoelastic surfactant solution** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
Wheeler, E. K., Fischer, P., Fuller, G. G.  
1998; 75 (2-3): 193-208
  - **Rheo-optical studies of shear-induced structures in semidilute polystyrene solutions** *MACROMOLECULES*  
Kume, T., Hashimoto, T., Takahashi, T., FULLER, G. B.  
1997; 30 (23): 7232-7236
  - **Branched viscoelastic surfactant solutions and their response to elongational flow** *RHEOLOGICA ACTA*  
Fischer, P., Fuller, G. G., Lin, Z. C.  
1997; 36 (6): 632-638
  - **Electric field studies of liquid crystal droplet suspensions** *LIQUID CRYSTALS*  
DEGROOT, E. M., Fuller, G. G.  
1997; 23 (1): 113-126
  - **Optical rheometry of complex fluid interfaces** *CURRENT OPINION IN COLLOID & INTERFACE SCIENCE*  
Fuller, G. G.  
1997; 2 (2): 153-157
  - **Extensional flow of a two-dimensional polymer liquid crystal** *MACROMOLECULES*  
Maffettone, P. L., Grosso, M., FRIEDENBERG, M. C., Fuller, G. G.  
1996; 29 (26): 8473-8478
  - **Deformation and relaxation processes of mono- and bilayer domains of liquid crystalline Langmuir films on water** *LANGMUIR*  
Lauger, J., Robertson, C. R., Frank, C. W., Fuller, G. G.

1996; 12 (23): 5630-5635

- **Polarization-modulated Raman scattering measurements of nematic liquid crystal orientation** *REVIEW OF SCIENTIFIC INSTRUMENTS*  
Huang, K., Archer, L. A., Fuller, G. G.  
1996; 67 (11): 3924-3930
- **Flow-induced molecular orientation of a Langmuir film** *SCIENCE*  
Maruyama, T., Fuller, G., Frank, C., Robertson, C.  
1996; 274 (5285): 233-235
- **The dynamic birefringence of high polymers - Comments** *JOURNAL OF POLYMER SCIENCE PART B-POLYMER PHYSICS*  
Fuller, G. G.  
1996; 34 (9): 1505-1506
- **Stress tensor measurement using birefringence in oblique transmission** *RHEOLOGICA ACTA*  
Takahashi, T., Fuller, G.  
1996; 35 (4): 297-302
- **Direct visualization of flow-induced anisotropy in a fatty acid monolayer** *LANGMUIR*  
FRIEDENBERG, M. C., Fuller, G. G., Frank, C. W., Robertson, C. R.  
1996; 12 (6): 1594-1599
- **Structure and rheology of wormlike micelles** *RHEOLOGICA ACTA*  
Wheeler, E. K., IZU, P., Fuller, G. G.  
1996; 35 (2): 139-149
- **In-situ studies of flow-induced phenomena in Langmuir monolayers** *International Symposium on Ultra Materials for Picotransfer*  
Maruyama, T., Friedenber, M., Fuller, G. G., Frank, C. W., Robertson, C. R., Ferencz, A., Wegner, G.  
ELSEVIER SCIENCE SA.1996: 76-83
- **Microstructural dynamics of a homopolymer melt investigated using two-dimensional Raman scattering** *MACROMOLECULES*  
Huang, K., Archer, L. A., Fuller, G. G.  
1996; 29 (3): 966-972
- **In situ optical studies of flow-induced orientation in a two-dimensional polymer solution** *MACROMOLECULES*  
FRIEDENBERG, M. C., Fuller, G. G., Frank, C. W., Robertson, C. R.  
1996; 29 (2): 705-712
- **Dynamic response of a near-critical polymer blend solution under oscillatory shear flow** *JOURNAL OF RHEOLOGY*  
Lai, J., Fuller, G. G.  
1996; 40 (1): 153-166
- **A RHEOPTICAL STUDY OF NEAR-CRITICAL POLYMER-SOLUTIONS UNDER OSCILLATORY SHEAR-FLOW** *JOURNAL OF RHEOLOGY*  
Lai, J., Fuller, G. G.  
1995; 39 (5): 893-906
- **THE STRESS JUMP OF A SEMIRIGID MACROMOLECULE AFTER SHEAR - COMPARISON OF THE ELASTIC STRESS TO THE BIREFRINGENCE** *JOURNAL OF RHEOLOGY*  
Smyth, S. F., Liang, C. H., Mackay, M. E., Fuller, G. G.  
1995; 39 (4): 659-672
- **OPTICAL RHEOMETRY OF MULTICOMPONENT POLYMER LIQUIDS** *35th IUPAC International Symposium on Macromolecules (MACROAKRON 94)*  
Fuller, G. G.  
WILEY-V C H VERLAG GMBH.1995: 997-1003
- **RHEOPTICAL CHARACTERIZATION (FLOW-BIREFRINGENCE AND FLOW-DICHROISM) OF THE TOBACCO-MOSAIC-VIRUS** *MACROMOLECULAR CHEMISTRY AND PHYSICS*  
REINHARDT, U. T., DEGROOT, E. L., Fuller, G. G., Kulicke, W. M.  
1995; 196 (1): 63-74



- **STRUCTURE AND DYNAMICS OF CONCENTRATION FLUCTUATIONS IN A POLYMER BLEND SOLUTION UNDER SHEAR-FLOW** *JOURNAL OF POLYMER SCIENCE PART B-POLYMER PHYSICS*  
Lai, A., Fuller, G. G.  
1994; 32 (15): 2461-2474
- **PATTERN AND SEGMENT RELAXATION IN A BLOCK-COPOLYMER MELT FOLLOWING STEP SHEAR-FLOW** *MACROMOLECULES*  
Archer, L. A., Fuller, G. G.  
1994; 27 (24): 7152-7156
- **COMPONENT DYNAMICS IN MISCIBLE BLENDS OF 1,4-POLYISOPRENE AND 1,2-POLYBUTADIENE** *MACROMOLECULES*  
ZAWADA, J. A., Fuller, G. G., Colby, R. H., Fetters, L. J., Roovers, J.  
1994; 27 (23): 6861-6870
- **MEASURING COMPONENT CONTRIBUTIONS TO THE DYNAMIC MODULUS IN MISCIBLE POLYMER BLENDS** *MACROMOLECULES*  
ZAWADA, J. A., Fuller, G. G., Colby, R. H., Fetters, L. J., Roovers, J.  
1994; 27 (23): 6851-6860
- **MONOLAYERS OF PERFLUOROPOLYETHERS WITH A HYDROPHILIC HEAD GROUP** *LANGMUIR*  
Goedel, W. A., Wu, H., FRIEDENBERG, M. C., Fuller, G. G., Foster, M., Frank, C. W.  
1994; 10 (11): 4209-4218
- **INVESTIGATING MISCIBLE POLYMER BLEND DYNAMICS WITH OPTICAL AND MECHANICAL RHEOMETRY** *2nd International Discussion Meeting on Relaxations in Complex Systems*  
Fuller, G. G., ZAWADA, J. A., Colby, R. H.  
ELSEVIER SCIENCE BV.1994: 668-673
- **OPTICAL AND MECHANICAL-PROPERTIES OF A STAR DIBLOCK COPOLYMER MELT IN OSCILLATORY SHEAR-FLOW** *MACROMOLECULES*  
Archer, L. A., Fuller, G. G.  
1994; 27 (17): 4804-4809
- **SEGMENT ORIENTATION IN A QUIESCENT BLOCK-COPOLYMER MELT STUDIED BY RAMAN-SCATTERING** *MACROMOLECULES*  
Archer, L. A., Fuller, G. G.  
1994; 27 (15): 4359-4363
- **STRUCTURE AND OPTICAL ANISOTROPIES OF CRITICAL POLYMER-SOLUTIONS IN ELECTRIC-FIELDS** *JOURNAL OF CHEMICAL PHYSICS*  
Wirtz, D., WERNER, D. E., Fuller, G. G.  
1994; 101 (2): 1679-1686
- **ORIENTATION DYNAMICS OF A POLYMER MELT STUDIED BY POLARIZATION-MODULATED LASER RAMAN-SCATTERING** *JOURNAL OF RHEOLOGY*  
Archer, L. A., Huang, K., Fuller, G. G.  
1994; 38 (4): 1101-1125
- **RELAXATION DYNAMICS OF BIDISPERSE TEMPORARY NETWORKS** *MACROMOLECULES*  
Seidel, U., Stadler, R., Fuller, G. G.  
1994; 27 (8): 2066-2072
- **FORMATION OF BILAYER DISKS AND 2-DIMENSIONAL FOAMS ON A COLLAPSING EXPANDING LIQUID-CRYSTAL MONOLAYER** *LANGMUIR*  
FRIEDENBERG, M. C., Fuller, G. G., Frank, C. W., Robertson, C. R.  
1994; 10 (4): 1251-1256
- **CONCENTRATION FLUCTUATION ENHANCEMENT IN POLYMER-SOLUTIONS BY EXTENSIONAL FLOW** *MACROMOLECULES*  
VANEGMOND, J. W., Fuller, G. G.  
1993; 26 (26): 7182-7188
- **PHASE-TRANSITIONS INDUCED BY ELECTRIC-FIELDS IN NEAR-CRITICAL POLYMER-SOLUTIONS** *PHYSICAL REVIEW LETTERS*  
Wirtz, D., Fuller, G. G.

1993; 71 (14): 2236-2239

- **SCATTERING DICHROISM MEASUREMENTS OF FLOW-INDUCED STRUCTURE OF A SHEAR THICKENING SUSPENSION** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
DHAENE, P., Mewis, J., Fuller, G. G.  
1993; 156 (2): 350-358
- **INVESTIGATION OF XANTHAN GUM SOLUTION BEHAVIOR UNDER SHEAR-FLOW USING RHEOPTICAL TECHNIQUES** *MACROMOLECULES*  
Meyer, E. L., Fuller, G. G., Clark, R. C., Kulicke, W. M.  
1993; 26 (3): 504-511
- **ORIENTATION DYNAMICS OF SIDE-CHAIN POLYMERS SUBJECT TO ELECTRIC-FIELDS .1. STEADY-STATE** *ACTA POLYMERICA*  
HOFFMANN, C. L., Man, H. T., Fuller, G. G.  
1993; 44 (1): 39-49
- **FLOW-INDUCED CONCENTRATION FLUCTUATIONS IN POLYMER-SOLUTIONS - STRUCTURE PROPERTY RELATIONSHIPS** *RHEOLOGICA ACTA*  
Moldenaers, P., Yanase, H., Mewis, J., Fuller, G. G., Lee, C. S., Magda, J. J.  
1993; 32 (1): 1-8
- **ELECTRIC-FIELD INDUCED STRUCTURE IN DENSE SUSPENSIONS** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Smith, K. L., Fuller, G. G.  
1993; 155 (1): 183-190
- **ELECTRIC-FIELD-INDUCED STRUCTURE IN POLYMER-SOLUTIONS NEAR THE CRITICAL-POINT** *MACROMOLECULES*  
Wirtz, D., Berend, K., Fuller, G. G.  
1992; 25 (26): 7234-7246
- **COMPARISON OF NUMERICAL SIMULATIONS AND BIREFRINGENCE MEASUREMENTS IN VISCOELASTIC FLOW BETWEEN ECCENTRIC ROTATING CYLINDERS** *JOURNAL OF RHEOLOGY*  
Rajagopalan, D., Byars, J. A., Armstrong, R. C., Brown, R. A., Lee, J. S., Fuller, G. G.  
1992; 36 (7): 1349-1375
- **COMPONENT RELAXATION DYNAMICS IN A MISCIBLE POLYMER BLEND - POLY(ETHYLENE OXIDE) POLY(METHYL METHACRYLATE)** *MACROMOLECULES*  
ZAWADA, J. A., YLITALO, C. M., Fuller, G. G., Colby, R. H., Long, T. E.  
1992; 25 (11): 2896-2902
- **TIME-DEPENDENT SMALL-ANGLE LIGHT-SCATTERING OF SHEAR-INDUCED CONCENTRATION FLUCTUATIONS IN POLYMER-SOLUTIONS** *JOURNAL OF CHEMICAL PHYSICS*  
VANEGMOND, J. W., WERNER, D. E., Fuller, G. G.  
1992; 96 (10): 7742-7757
- **DYNAMICS OF POLYMERIC LIQUIDS USING POLARIZATION-MODULATED LASER RAMAN-SCATTERING** *POLYMER*  
Archer, L. A., Fuller, G. G., NUNNELLEY, L.  
1992; 33 (17): 3574-3581
- **OLIGOMERS AS MOLECULAR PROBES OF ORIENTATIONAL COUPLING INTERACTIONS IN POLYMER MELTS AND NETWORKS** *POLYMER*  
YLITALO, C. M., ZAWADA, J. A., Fuller, G. G., Abetz, V., Stadler, R.  
1992; 33 (14): 2949-2960
- **LINEAR INFRARED DICHROISM BY A DOUBLE MODULATION TECHNIQUE** *9TH EUROPEAN SYMP ON POLYMER SPECTROSCOPY ( ESOPS 91 )*  
Abetz, V., Fuller, G. G., Stadler, R.  
HUTHIG & WEPF VERLAG.1991: 23-40
- **3RD NORMAL STRESS DIFFERENCE AND COMPONENT RELAXATION SPECTRA FOR BIDISPERSE METLS UNDER OSCILLATORY SHEAR** *MACROMOLECULES*  
Kornfield, J. A., Fuller, G. G., Pearson, D. S.

1991; 24 (19): 5429-5441

- **INFRARED POLARIMETRY STUDIES FOR MULTICOMPONENT POLYMER MELTS** *INTERNATIONAL DISCUSSION MEETING ON RELAXATIONS IN COMPLEX SYSTEMS*  
Fuller, G. G., YLITALO, C. M.  
ELSEVIER SCIENCE BV.1991: 676-684
- **ROLE OF DIRECTOR TUMBLING IN THE RHEOLOGY OF POLYMER LIQUID-CRYSTAL SOLUTIONS** *MACROMOLECULES*  
Burghardt, W. R., Fuller, G. G.  
1991; 24 (9): 2546-2555
- **OPTICAL ANISOTROPY IN COLLOIDAL CRYSTALS** *JOURNAL OF CHEMICAL PHYSICS*  
MONOVOUKAS, Y., Fuller, G. G., Gast, A. P.  
1990; 93 (11): 8294-8299
- **TRANSIENT SHEAR-FLOW OF NEMATIC LIQUID-CRYSTALS - MANIFESTATIONS OF DIRECTOR TUMBLING** *JOURNAL OF RHEOLOGY*  
Burghardt, W. R., Fuller, G. G.  
1990; 34 (6): 959-992
- **INFRARED LINEAR DICHROISM SPECTROSCOPY BY A DOUBLE MODULATION TECHNIQUE** *POLYMER BULLETIN*  
Abetz, V., Fuller, G. G., Stadler, R.  
1990; 23 (4): 447-454
- **2-COLOR ROTARY MODULATED FLOW BIREFRINGENCE** *RHEOLOGICA ACTA*  
Abetz, V., Fuller, G. G.  
1990; 29 (1): 11-15
- **THE OPTICAL AND MECHANICAL RESPONSE OF FLEXIBLE POLYMER-SOLUTIONS TO EXTENSIONAL FLOW** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
CATHEY, C. A., Fuller, G. G.  
1990; 34 (1): 63-88
- **OPTICAL RHEOMETRY** *ANNUAL REVIEW OF FLUID MECHANICS*  
Fuller, G. G.  
1990; 22: 387-417
- **INFRARED DICHROISM MEASUREMENTS OF MOLECULAR RELAXATION IN BINARY BLEND MELT RHEOLOGY** *MACROMOLECULES*  
Kornfield, J. A., Fuller, G. G., Pearson, D. S.  
1989; 22 (3): 1334-1345
- **MECHANICAL AND OPTICAL RHEOMETRY OF POLYMER LIQUID-CRYSTAL DOMAIN-STRUCTURE** *MACROMOLECULES*  
Moldenaers, P., Fuller, G., Mewis, J.  
1989; 22 (2): 960-965
- **RHEOLOGICALLY INTERESTING POLYSACCHARIDES FROM YEASTS** *APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY*  
Petersen, G. R., Nelson, G. A., CATHEY, C. A., Fuller, G. G.  
1989; 20-1: 845-867
- **UNIAXIAL AND BIAxIAL EXTENSIONAL VISCOSITY MEASUREMENTS OF DILUTE AND SEMI-DILUTE SOLUTIONS OF RIGID ROD POLYMERS** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
CATHEY, C. A., Fuller, G. G.  
1988; 30 (2-3): 303-316
- **THE OPTICAL ANISOTROPY OF SHEARED HEMATITE SUSPENSIONS** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Johnson, S. J., Fuller, G. G.  
1988; 124 (2): 441-451
- **THE DICHROISM AND BIREFRINGENCE OF A HARD-SPHERE SUSPENSION UNDER SHEAR** *JOURNAL OF CHEMICAL PHYSICS*  
Wagner, N. J., Fuller, G. G., Russel, W. B.  
1988; 89 (3): 1580-1587

- **OPTICAL MEASUREMENTS OF PARTICLE ORIENTATION IN MAGNETIC MEDIA** *JOURNAL OF APPLIED PHYSICS*  
NUNNELLEY, L., Fuller, G. G.  
1988; 63 (5): 1687-1690
- **THE SPATIAL DEVELOPMENT OF TRANSIENT COUETTE-FLOW AND SHEAR-WAVE PROPAGATION IN POLYMERIC LIQUIDS BY FLOW BIREFRINGENCE** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
Lee, J. S., Fuller, G. G.  
1987; 26 (1): 57-76
- **CONSERVATIVE DICHOISM OF A SHEARED SUSPENSION IN THE RAYLEIGH-GANS LIGHT-SCATTERING APPROXIMATION** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Frattini, P. L., Fuller, G. G.  
1987; 119 (2): 335-351
- **EXTENSIONAL VISCOSITY MEASUREMENTS FOR LOW-VISCOSITY FLUIDS** *JOURNAL OF RHEOLOGY*  
Fuller, G. G., CATHEY, C. A., Hubbard, B., ZEBROWSKI, B. E.  
1987; 31 (3): 235-249
- **THE DYNAMICS OF COLLOIDAL PARTICLES SUSPENDED IN A 2ND-ORDER FLUID** *FARADAY DISCUSSIONS*  
Johnson, S. J., Fuller, G. G.  
1987; 83: 271-?
- **RHEOPTICAL STUDIES OF THE EFFECT OF WEAK BROWNIAN ROTATIONS IN SHEARED SUSPENSIONS** *JOURNAL OF FLUID MECHANICS*  
Frattini, P. L., Fuller, G. G.  
1986; 168: 119-150
- **FLOWING COLLOIDAL SUSPENSIONS IN NON-NEWTONIAN SUSPENDING FLUIDS - DECOUPLING THE COMPOSITE BIREFRINGENCE** *RHEOLOGICA ACTA*  
Johnson, S. J., Fuller, G. G.  
1986; 25 (4): 405-417
- **SOME EXPERIMENTAL RESULTS ON THE DEVELOPMENT OF COUETTE-FLOW FOR NON-NEWTONIAN FLUIDS** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
Chow, A. W., Fuller, G. G.  
1985; 17 (2): 233-243
- **ADSORPTION AND DESORPTION OF FLEXIBLE POLYMER-CHAINS IN FLOWING SYSTEMS** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Lee, J. J., Fuller, G. G.  
1985; 103 (2): 569-577
- **ADSORBED POLYMER LAYERS SUBJECTED TO FLOW** *AIP CONFERENCE PROCEEDINGS*  
Fuller, G. G., Lee, J. J.  
1985: 263-269
- **RHEOPTICAL RESPONSE OF RODLIKE, SHORTENED COLLAGEN PROTEIN TO TRANSIENT SHEAR-FLOW** *MACROMOLECULES*  
Chow, A. W., Fuller, G. G., Wallace, D. G., Madri, J. A.  
1985; 18 (4): 805-810
- **DYNAMICS OF RIGID DUMBBELLS IN CONFINED GEOMETRIES .2. TIME-DEPENDENT SHEAR-FLOW** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
Park, O. O., Fuller, G. G.  
1985; 18 (2): 111-122
- **SIMULTANEOUS DICHOISM AND BIREFRINGENCE MEASUREMENTS OF DILUTE COLLOIDAL SUSPENSIONS IN TRANSIENT SHEAR-FLOW** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Johnson, S. J., Frattini, P. L., Fuller, G. G.  
1985; 104 (2): 440-455

- **RHEO-OPTICAL STUDIES OF CONCENTRATED POLYSTYRENE SOLUTIONS SUBJECTED TO TRANSIENT SIMPLE SHEAR-FLOW** *JOURNAL OF POLYMER SCIENCE PART B-POLYMER PHYSICS*  
ZEBROWSKI, B. E., Fuller, G. G.  
1985; 23 (3): 575-589
- **SMALL-ANGLE LIGHT-SCATTERING AS A PROBE OF FLOW-INDUCED PARTICLE ORIENTATION** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
SALEM, A. J., Fuller, G. G.  
1985; 108 (1): 149-157
- **RHEOPTICAL RESPONSE OF RODLIKE CHAINS SUBJECT TO TRANSIENT SHEAR-FLOW .1. MODEL-CALCULATIONS ON THE EFFECTS OF POLYDISPERSITY** *MACROMOLECULES*  
Chow, A. W., Fuller, G. G.  
1985; 18 (4): 786-793
- **THE EFFECT OF SEGMENT BOUNDARY HYDRODYNAMIC INTERACTIONS ON THE DYNAMICS OF ADSORBED POLYMER-CHAINS SUBJECTED TO FLOW** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Lee, J. J., Fuller, G. G.  
1985; 107 (2): 308-313
- **RHEOPTICAL RESPONSE OF RODLIKE CHAINS SUBJECT TO TRANSIENT SHEAR-FLOW .2. 2-COLOR FLOW BIREFRINGENCE MEASUREMENTS ON COLLAGEN PROTEIN** *MACROMOLECULES*  
Chow, A. W., Fuller, G. G., Wallace, D. G., Madri, J. A.  
1985; 18 (4): 793-804
- **ELLIPSOMETRY STUDIES OF ADSORBED POLYMER-CHAINS SUBJECTED TO FLOW** *MACROMOLECULES*  
Lee, J. J., Fuller, G. G.  
1984; 17 (3): 375-380
- **DYNAMICS OF RIGID AND FLEXIBLE POLYMER-CHAINS IN CONFINED GEOMETRIES .1. STEADY SIMPLE SHEAR-FLOW** *JOURNAL OF NON-NEWTONIAN FLUID MECHANICS*  
Park, O. O., Fuller, G. G.  
1984; 15 (3): 309-329
- **THE DYNAMICS OF DILUTE COLLOIDAL SUSPENSIONS SUBJECT TO TIME-DEPENDENT FLOW-FIELDS BY CONSERVATIVE DICHOISM** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*  
Frattini, P. L., Fuller, G. G.  
1984; 100 (2): 506-518
- **FLOW-ENHANCED DESORPTION OF ADSORBED FLEXIBLE POLYMER-CHAINS** *ACS SYMPOSIUM SERIES*  
Fuller, G. G., Lee, J. J.  
1984; 240: 67-76
- **RESPONSE OF MODERATELY CONCENTRATED XANTHAN GUM SOLUTIONS TO TIME-DEPENDENT FLOWS USING 2-COLOR FLOW BIREFRINGENCE** *JOURNAL OF RHEOLOGY*  
Chow, A. W., Fuller, G. G.  
1984; 28 (1): 23-43
- **DYNAMICS OF ADSORBED POLYMER-CHAINS SUBJECTED TO FLOW - THE DUMBBELL MODEL** *JOURNAL OF POLYMER SCIENCE PART B-POLYMER PHYSICS*  
Fuller, G. G.  
1983; 21 (1): 151-157