

# Matthew Z. Yates

206 Gavett Hall  
Department of Chemical Engineering  
University of Rochester  
Rochester, NY 14627  
(585) 273-2335  
E-mail: myates@che.rochester.edu

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## Professional Experience

<b>University of Rochester</b> Associate Professor of Chemical Engineering Assistant Professor of Chemical Engineering Scientist at the Laboratory for Laser Energetics Director of the Chemical Engineering Graduate Program	<b>Rochester, NY</b> 2006-present 2001-2006 2002-present 2004-2006
<b>Los Alamos National Laboratory</b> Postdoctoral Fellow Advisor: Dr. T. Mark McCleskey	<b>Los Alamos, NM</b> 1999-2001
<b>University of Texas</b> Research and Teaching Assistant	<b>Austin, TX</b> 1994-1999

## Education

<b>The University of Texas</b> Ph.D., Chemical Engineering Advisor: Prof. Keith P. Johnston	<b>Austin, TX</b> 1999
M.S., Chemical Engineering	1998
<b>Tulane University</b> B.S., Chemical Engineering Magna Cum Laude with Honors in Chemical Engineering	<b>New Orleans, LA</b> 1994

## Honors and Awards

<b>NSF International Research Fellowship</b>	Max-Planck Institute of Colloids and Interfaces Potsdam, Germany 2001-2003
<b>Director's Fellowship</b>	Los Alamos National Laboratory Los Alamos, NM 1999-2001
<b>Harold Levey Alumni Award</b>	Tulane University School of Engineering 1999
<b>Society of Plastics Engineers Endowed Presidential Scholarship</b>	The University of Texas 1996

## Research Interests

Advanced Materials, Supercritical Fluids, Microencapsulation, Colloidal Assembly, Fuel Cell Membranes, Synthesis and Applications of Zeolites and Molecular Sieves

## Teaching Interests

Thermodynamics, Colloid and Surface Science, Nanotechnology, Energy and the Environment

## University and Departmental Service

University Administrative Committee, 2006 – present

Chemical Engineering Representative on University Graduate Studies Committee, August 2004 – present

Director of the Graduate Program, August 2004 – August 2006

Organizer of Chemical Engineering Departmental Seminar Series, August 2002 – August 2004

## Journal Articles (reverse chronological order)

Liu, D.; Yates, M. Z. "Microstructural Engineering of Hydroxyapatite Membranes to Enhance Proton Conductivity" *Adv. Funct. Mater.* **2009**, in press.

Wei, X.; Yates, M. Z. "Electric-field aligned Nafion/Polystyrene-b-poly(ethylene-ran-butylene)-b-polystyrene (SEBS) composite membranes for direct methanol fuel cells" *J. Power Sources* **2009**, in press.

Yin, W.; Yates, M. Z. "Encapsulation and Sustained Release from Biodegradable Microcapsules made by Emulsification/Freeze Drying and Spray/Freeze Drying" *Journal of Colloid and Interface Science* **2009**, *336*, 155-161.

Liu, D.; Yates, M. Z. "Electric Field Processing to Control the Structure of Poly(vinylidene fluoride) Composite Proton Conducting Membranes" *Journal of Membrane Science* **2009**, *326*, 539-548.

Liu, D.; Yates, M. Z. "Tailoring the Structure of S-PEEK/PDMS Proton Conductive Membranes through Applied Electric Fields" *Journal of Membrane Science* **2008**, *322*, 256-264.

Yin, W.; Yates, M. Z. "Effect of Interfacial Free Energy on the Formation of Polymer Microcapsules by Emulsification/Freeze-Drying" *Langmuir*, **2008**, *24*, 701-708.

Liu, D.; Yates, M. Z. "Fabrication of Size-Tunable TiO<sub>2</sub> Tubes Using Rod-Shaped Calcite Templates" *Langmuir*, **2007**, *23*, 10333-10341.

Yin, W.; Liu, H.; Yates, M. Z.; Du, H.; Jiang, F.; Guo, L.; Krauss, T. D. "Fluorescent Quantum Dot-Polymer Nanocomposite Particles by Emulsification/Solvent Evaporation" *Chemistry of Materials*, **2007**, *19*, 2930-2936.

Yin, W.; Dong, Z.; Chen, X.; Finn, N.; Yates, M. Z. "Hydrophobic Ion Pairing to Enhance Encapsulation of Water-Soluble Additives into CO<sub>2</sub>-Swollen Polymer Microparticles" *Journal of Supercritical Fluids* **2007**, *41*, 293-298.

Lin, J-C. and Yates, M. Z. "Growth of Oriented Molecular Sieve Thin Films from Aligned Seed Layers" *Chemistry of Materials* **2006**, *18*, 4137-4141.

Liu, D.; Yates, M. Z. "Formation of Rod-Shaped Calcite Crystals by Microemulsion-Based Synthesis" *Langmuir* **2006**, *22*, 5566-5569.

## Journal Articles (continued)

Huang, Y-J. and Yates, M. Z. "Copper Etching by Water-in-Oil Microemulsions" *Colloids and Surfaces A: Physicochemical and Engineering Aspects* **2006**, *281*, 215-220.

Liu, H.; Finn, N.; Yates, M. Z. "Encapsulation and Sustained Release of a Model Drug, Indomethacin, Using CO<sub>2</sub>-Based Microencapsulation" *Langmuir* **2005**, *21*, 379-385.

Lin, J-C.; Yates, M. Z. "Altering the Crystal Morphology of Silicalite-1 through Microemulsion-Based Synthesis" *Langmuir* **2005**, *21*, 2117-2120

Baker, G. A.; Campbell, M. L.; Yates, M. Z.; McCleskey, T. M. "Carbon Dioxide Assisted Loading of Polymer Microspheres toward Sustained Release Materials" *Langmuir* **2005**, *21*, 3730-3732.

Lin, J-C.; Yates, M. Z.; Trajkovska Petkoska, A.; Jacobs, S. "Electric Field Driven Assembly of Oriented Molecular Sieve Films" *Advanced Materials*, **2004**, *16*, 1944-1948.

Lin, J-C.; Dipre, J. T.; Yates, M. Z. "Novel Aluminum Phosphate-5 Crystal Morphologies Synthesized by Microwave Heating of a Water-in-Oil Microemulsion" *Langmuir*, **2004** *20*, 1039-1042.

Liu, H.; Yates, M. Z. "Dual Function Surfactants for Carbon Dioxide Based Microencapsulation" *Langmuir* **2003**, *19*, 1106-1113.

Lin, J-C.; Dipre, J. T.; Yates, M. Z. "Microemulsion Directed Synthesis of Molecular Sieve Fibers" *Chemistry of Materials*, **2003** *15*, 2764-2773.

Liu, H.; Yates, M. Z. "Development of a Carbon Dioxide Based Microencapsulation Technique for Aqueous and Ethanol-Based Latexes" *Langmuir* **2002**, *18*, 6066-6070.

Yates, M. Z.; Ott, K. C.; Birnbaum, E. R.; McCleskey, T. M. "Hydrothermal Synthesis of Molecular Sieve Fibers: Using Microemulsions to Control Crystal Morphology" *Angew. Chem. Int. Ed.* **2002**, *41*, 476-478.

Campbell, M. L.; Apodaca, D. L.; Yates, M. Z.; McCleskey, T.; Birnbaum, E. R. "Metal Extraction From Heterogeneous Surfaces Using Carbon Dioxide Microemulsions" *Langmuir*, **2001**, *17*, 5458-5463.

Yates, M. Z.; Apodaca, D. L.; Campbell, M. L.; Birnbaum, E. R.; McCleskey, T. M. "Metal Extractions using Water in Carbon Dioxide Microemulsions" *Chemical Communications*, **2001**, *1*, 25-26.

Shim, J. J.; Yates, M. Z.; Johnston, K. P. "Latexes Formed by Rapid Expansion of Polymer/Carbon Dioxide Suspensions into Water. 1. Hydrophilic Surfactant in Supercritical CO<sub>2</sub>" *Industrial & Engineering Chemistry Research*, **2001**, *40*, 536-543.

Yates, M. Z.; Birnbaum, E. R.; McCleskey, T. M. "Colored Polymer Microparticles through Carbon Dioxide-Assisted Dyeing" *Langmuir*, **2000**, *16*, 4757-4760.

Yates, M. Z.; Shah, P.; Johnston, K. P.; Lim, K. T.; Webber, S. E. "Steric Stabilization of Colloids in Dense Carbon Dioxide with Poly(dimethylsiloxane): Effect of Cosolvent" *Journal of Colloid and Interface Science*, **2000**, *227*, 176-184.

Li, G.; Yates, M. Z.; Johnston, K. P.; Howdle, S. M. "In-Situ Investigation of the Mechanism of Dispersion Polymerization in Supercritical Carbon Dioxide" *Macromolecules*, **2000**, *33*, 4008-4014.

Li, G.; Yates, M. Z.; Johnston, K. P.; Lim, K. T.; Webber, S. E. "Trifunctional Ambidextrous Surfactants for Latexes in Supercritical Carbon Dioxide and Water" *Macromolecules*, **2000**, *33*, 1606-1612.

Calvo, L.; Holmes, J.; Yates, M. Z.; Johnston, K. P. "Steric Stabilization of Inorganic Suspensions in Supercritical Carbon Dioxide" *Journal of Supercritical Fluids*, **2000**, *16*, 247-260.

Shim, J. J.; Yates, M. Z.; Johnston, K. P. "Polymer Coatings by Rapid Expansion of Suspensions from Supercritical Carbon Dioxide" *Industrial Engineering and Chemistry Research*, **1999**, *38*, 3655-3662.

## Journal Articles (continued)

Sengupta, T.; Yates, M. Z.; Papadopoulos, K. D. "Metal Complexation With Surface-Active Kemp's Triacid" *Colloids Surfaces A: Physicochem. Eng. Aspects*, **1999**, *148*, 259-270.

Yates, M. Z.; Li, G.; Shim, J. J.; Maniar, S.; Johnston, K. P.; Lim, K. T.; Webber, S. "Ambidextrous Surfactants for Water-dispersible Polymer Powders From Dispersion Polymerization in Supercritical Carbon Dioxide" *Macromolecules*, **1999**, *32*, 1018-1026.

Harrison, K. L.; da Rocha, S. R. P.; Yates, M. Z.; Johnston, K. P.; Canelas, D. A.; DeSimone, J. M. "Interfacial Activity of Polymeric Surfactants at the Poly(styrene)-Carbon Dioxide Interface" *Langmuir*, **1998**, *14*, 6855-6863.

Canelas, D. A.; Betts, D. E.; DeSimone, J. M.; Yates, M. Z.; Johnston, K. P. "Poly(vinyl acetate) and Poly(vinyl acetate-co-ethylene) Latexes via Dispersion Polymerizations in Carbon Dioxide" *Macromolecules*, **1998**, *31*, 6794-6805.

O'Neill, M. L.; Yates, M. Z.; Johnston, K. P.; Smith, C. D.; Wilkinson, S. P. "Dispersion Polymerization in Supercritical CO<sub>2</sub> with a Siloxane-based Macromonomer: 2. The Particle Formation Regime" *Macromolecules*, **1998**, *31*, 2848-2856.

O'Neill, M. L.; Yates, M. Z.; Johnston, K. P.; Smith, C. D.; Wilkinson, S. P. "Dispersion Polymerization in Supercritical CO<sub>2</sub> with a Siloxane-based Macromonomer: 1. The Particle Growth Regime" *Macromolecules*, **1998**, *31*, 2838-2847.

Yates, M. Z.; O'Neill, M. L.; Johnston, K. P.; Webber, S.; Canelas, D. A.; Betts, D. E.; DeSimone, J. M. "Emulsion Stabilization and Flocculation in CO<sub>2</sub>: 2. Dynamic Light Scattering" *Macromolecules*, **1997**, *30*, 5060-5067.

O'Neill, M. L.; Yates, M. Z.; Harrison, K. L.; Johnston, K.P.; Canelas, D. A.; Betts, D. E.; DeSimone, J.M.; Wilkinson, S. P. "Emulsion Stabilization and Flocculation in CO<sub>2</sub>: 1. Turbidimetry and Tensiometry" *Macromolecules*, **1997**, *30*, 5050-5059.

Mawson, S.; Yates, M. Z.; O'Neill, M. L.; Johnston, K.P. "Stabilized Polymer Microparticles by Precipitation with a Compressed Fluid Antisolvent. 2. Poly(propylene oxide)- and Poly(butylene oxide)-Based Copolymers" *Langmuir*, **1997**, *13*, 1519-1528.

## Book Chapters

Johnston, K. P.; da Rocha, S. R. P.; Lee, C. T.; Li, G.; Yates, M. Z. "Colloid and Interface Science for Carbon Dioxide-Based Pharmaceutical Processes" In *Supercritical Fluid Technology for Drug Development*, York, P., Kimpella, U. B., Shekunov, B. Y., Ed., Marcell Dekkar: New York, **2004**.

Johnston, K. P.; da Rocha, S. R. P.; Holmes, J. D.; Jacobson, G. B.; Lee, C. T.; Yates, M. Z. "Interfacial Phenomena with Carbon Dioxide-Soluble Surfactants" In *Green Chemistry Using Liquid and Supercritical Carbon Dioxide*, Desimone, J. M., Tumas, W. Ed., **2003**.

Johnston, K. P.; Holmes, J.; Jacobson, G.; Lee, T., Li, G.; Yates, M. Z. "Reactions and Synthesis in Microemulsions and Emulsions in Carbon Dioxide" In *Reactions and Synthesis in Surfactant Systems*, Texter, J., Ed., Marcel Dekker: New York, **2001**.

Johnston, K. P.; Jacobson, G. B.; Lee, C. T.; Meredith, C.; Da Rocha, S. R. P.; Yates, M. Z.; DeGrazia, J.; Randolph, T. W. "Microemulsions, Emulsions, and Latexes in Supercritical Fluids" In *Chemical Synthesis in Supercritical Fluids*, Jessop, P., Leitner, W. Ed., Wiley-VCH Publishers: Weinheim, **1999**.

## Patents

McCleskey, T. M.; Yates, M. Z. "Incorporation of Additives into Polymers" **2003**, US 6,599,962

Tumas, W.; Ott, K. C.; McCleskey, T. M.; Yates, M. Z.; Birnbaum, E. R. "Microporous Crystals and Synthesis Schemes" **2005**, US 6,949,238.

Yates, M. Z.; Lin, J-C. "Microporous Crystals and Methods of Making Thereof" Application Number WO2004070784.

Yates, M. Z.; Liu, D. "Ion-/Proton-Conducting Apparatus and Method" full US patent application **Feb. 2009**.

## Invited Presentations (as principal investigator)

Yates, M. Z. "Nanoengineering Materials for Drug Delivery, Sensing, and Fuel Cell Membranes", **2007**, Yeungnam University, Daegu, Korea

Yates, M. Z. "Colloidal Engineering and Assembly", **2007**, Georgia Institute of Technology, Atlanta, GA

Yates, M. Z. "Colloidal Engineering and Assembly", **2006**, Tulane University Department of Chemical Engineering, New Orleans, LA

Yates, M. Z. "Colloidal Engineering and Assembly", **2006**, University of Texas Department of Chemical Engineering, Austin, TX

Yates, M. Z. "Microencapsulation through Hybrid Aqueous/Supercritical Carbon Dioxide Processing of Polymer Colloids", **2006**, Particles 2006 - Medical/Biochemical Diagnostic, Pharmaceutical, and Drug Delivery Applications of Particle Technology, Orlando, FL

Yates, M. Z. "Colloidal Engineering and Assembly", **2005**, University of Cincinnati Department of Chemical and Materials Engineering, Cincinnati, OH

Yates, M. Z.; Lin, J-C. "Electric Field Driven Formation of Thin Films of Aligned Rod Shaped Particles", **2005**, 79<sup>th</sup> ACS Colloid and Surface Science Symposium, Potsdam, NY

Yates, M. Z.; Fin, N.; Liu, H. "Microencapsulation of Pharmaceuticals using Compressed Carbon Dioxide Swelling of Biodegradable Colloids", **2005**, 79<sup>th</sup> ACS Colloid and Surface Science Symposium, Potsdam, NY

Yates, M. Z. "Colloidal Engineering and Assembly: New Materials for Optoelectronics, Controlled Release, and Membranes", **2004**, Kodak Research and Development, Rochester, NY

Yates, M. Z.; Liu, H.; Bonino, C.; Du, K.; Krauss, T. D. "Encapsulation of Quantum Dots into Polymer Microspheres", **2004**, Northeast Regional ACS Meeting, Rochester, NY

Yates, M. Z. "Synthesis and Assembly of Optically Functional Particles", **2003**, Optoelectronic Applications of Quantum Dots and Nanoparticles, Grasmere, England

Yates, M. Z.; Liu, H. "Colored and Fluorescent Polymer Particles via Carbon Dioxide Assisted Microencapsulation", **2003**, Particles 2003: Imaging, Marking, and Printing Applications of Particle Technology, Toronto, Canada.

Yates, M. Z.; Liu, H. "Development of a Carbon Dioxide Based Microencapsulation Technique", **2002**, Particles 2002: Medical/Biochemical Diagnostic, Pharmaceutical, and Drug Delivery Applications of Particle Technology, Orlando, FL.

Yates, M. Z.; Liu, H. "Development of a Carbon Dioxide Based Microencapsulation Process", **2002**, Equifase 2002 Conference, Iguassu Falls, Brazil.

## Conference Presentations (presenter listed as first author)

Yates, M. Z.; Liu, D. "Hydrogen Membrane Fuel Cells with Nanoengineered Proton-Conducting Layer", **2008**, AIChE Annual Meeting, Philadelphia, PA

Liu, D.; Fink, D.; Yates, M. Z. "Novel Proton Conducting Ceramic Thin Films for Intermediate Temperature Hydrogen Membrane Fuel Cells", **2008**, AIChE Annual Meeting, Philadelphia, PA

Yin, W.; Yates, M. Z. "Biodegradable Microcapsules Via Emulsification/freeze Drying", **2008**, AIChE Annual Meeting, Philadelphia, PA

Yates, M. Z.; Wei, X.; Liu, D. "Improved Performance of Composite Proton Conducting Membranes in Fuel Cells through Electric Field Control of Membrane Structure", **2008**, AIChE Annual Meeting, Philadelphia, PA

Yates, M. Z.; Liu, D.; Wei, X. "Tailoring the Structure of Composite Proton Conducting Membranes through Applied Electric Fields", **2007**, AIChE Annual Meeting, Salt Lake City, UT

Yates, M. Z.; Yin, W.; Liu, H.; Du, H.; Jiang, F.; Guo, L.; Krauss, T. D. "Fluorescent Quantum Dot-Polymer Nanocomposite Particles By Emulsification/solvent Evaporation", **2007**, AIChE Annual Meeting, Salt Lake City, UT

Yates, M. Z.; Yin, W. "Role Of Interfacial Free Energy In The Formation Of Polymer Microcapsules By Emulsification/freeze Drying", **2007**, AIChE Annual Meeting, Salt Lake City, UT

Yates, M. Z.; Liu, D.; Wei, X. Kim, Y-G. "Tailoring the Structure of Composite Proton Conducting Membranes through Applied Electric Fields", **2007**, ACS Annual Meeting, Boston, MA

Yates, M. Z.; Yin, W. "Hollow Polymer Shells through Emulsification/Freeze Drying Followed by Near Critical Solvent Processing", **2007**, ACS Annual Meeting, Boston, MA

J.-C. Lin, D. Liu, M. Z. Yates "Electric Field-Directed Assembly of Inorganic Particles in Composite Thin Films", **2005**, AIChE Annual Meeting, Cincinnati, OH

W. Yin, Z. Dong, X. Chen, N. Finn, M. Z. Yates "Microencapsulation of Hydrophilic Additives into Colloidal Polymers with the Aid of Compressed Carbon Dioxide", **2005**, AIChE Annual Meeting, Cincinnati, OH

Yates, M. Z.; Lin, J.-C. "Electric Field Directed Assembly of Rod-Shaped Particles into Oriented Thin Films", **2005**, ACS National Meeting, San Diego, CA.

Yates, M. Z.; Liu, H.; Finn, N. "Microencapsulation of Pharmaceuticals into Biodegradable Colloids using Supercritical Carbon Dioxide", **2005**, ACS National Meeting, San Diego, CA.

Yates, M. Z.; Lin, J.-C. "Electric Field Driven Assembly of Rod-Shaped Particles into Oriented Thin Films", **2004**, AIChE Annual Meeting, Austin, TX.

Yates, M. Z.; Liu, H. "Microencapsulation of Pharmaceuticals into Biodegradable Colloids using Supercritical Carbon Dioxide", **2004**, AIChE Annual Meeting, Austin, TX.

Yates, M. Z.; Lin, J.-C. "Hydrothermal Microemulsion-Directed Synthesis of Molecular Sieves", **2003**, AIChE Annual Meeting, San Francisco, CA.

Yates, M. Z.; Wolfe, C.; Caruso, F. "Formation of Colloidal Crystals from Core-Shell Composite Particles", **2002**, AIChE Annual Meeting, Indianapolis, IN.

Liu, H.; Yates, M. Z. "Dual Function Surfactants for Compressed Carbon Dioxide Assisted Microencapsulation", **2002**, AIChE Annual Meeting, Indianapolis, IN.

Yates, M. Z.; Dipre, J. T.; Ott, K. C.; Birnbaum, E. R.; McCleskey, T. M. "Hydrothermal Synthesis of Molecular Sieve Fibers: Using Microemulsions to Control Crystal Morphology", **2001**, AIChE Annual Meeting, Reno, NV.

## Conference Presentations (presenter listed as first author, continued)

Yates, M. Z.; Birnbaum, E. R.; McCleskey, T. M. "CO<sub>2</sub>-Facilitated Impregnation of Aqueous Latexes" **2000**, AIChE Annual Meeting, Los Angeles, CA.

Yates, M. Z.; Campbell, M. L.; Apodaca, D. L.; McCleskey, T. M.; Birnbaum, E.R. "Metal Extractions Using Water in Carbon Dioxide Microemulsions" **2000**, 42<sup>nd</sup> Rocky Mountain Conference on Analytical Chemistry, Broomfield, CO.

Yates, M. Z.; Birnbaum, E. R.; McCleskey, T. M. "Colored Polymer Microparticles through Carbon Dioxide-Assisted Dyeing" **2000**, 74<sup>th</sup> ACS Colloid and Surface Science Symposium, Bethlehem, PA.

Birnbaum, E. R.; Yates, M. Z.; Apodaca, D. L.; McCleskey, T. M. "Metal Removal from Contaminated Surfaces using Water/CO<sub>2</sub> Microemulsions" **2000**, 219<sup>th</sup> ACS National Meeting, San Francisco, CA.

Shim, J. J.; Yates, M. Z.; Johnston, K. P. "Latexes Formed by Rapid Expansion of Polymer/CO<sub>2</sub> Suspensions into Water" (poster) **2000**, 5<sup>th</sup> International Symposium on Supercritical Fluids, Atlanta, GA.

Yates, M. Z.; Johnston, K. P.; Lim, K. T.; Webber, S. E. "Steric Stabilization of Colloids in Carbon Dioxide with Poly(dimethylsiloxane): Effect of Cosolvents" **1999**, AIChE Annual Meeting, Dallas, TX.

Li, G.; Yates, M. Z.; Johnston, K. P. "Ambidextrous Surfactants for Polymer Latexes in Either Carbon Dioxide or Water" **1999**, AIChE Annual Meeting, Dallas, TX.

Li, G.; Yates, M. Z.; Johnston, K. P. "Dispersion Polymerization of Methyl Methacrylate in Supercritical CO<sub>2</sub> with Siloxane-based Surfactants" **1999**, AIChE Spring Meeting, Houston, TX.

Yates, M. Z.; Li, G.; Shim, J. J.; Maniar, S.; Johnston, K. P.; Lim, K. T.; Webber, S. "Dispersion Polymerization in Supercritical Carbon Dioxide Using Novel Siloxane-based Block and Graft Copolymer Surfactants" **1998**, AIChE Annual Meeting, Miami Beach, FL.

O'Neill, M. L.; Smith, C. D.; Wilkinson, S. P.; Yates, M. Z.; Johnston, K. P. "Dispersion Polymerization in Supercritical Carbon Dioxide: Characterization of the Particle Formation Stage by Turbidimetry" **1998**, ACS Annual Meeting, Boston, MA.

Yates, M. Z., O'Neill, M. L., Maniar, S., Johnston, K. P., Smith, C. D.; Wilkinson, S. P. "Turbidimetry Study of Dispersion Polymerizations in Supercritical Carbon Dioxide" **1997**, AIChE Annual Meeting, Los Angeles, CA.

Johnston, K. P.; Harrison, K. L.; O'Neill, M. L.; Yates, M. Z. "Molecular Design of Dispersions in Supercritical Fluids" **1997**, 4<sup>th</sup> International Symposium on Supercritical Fluids, Sendai, Japan.

Yates, M. Z.; O'Neill, M. L.; Johnston, K. P.; Betts, D. E.; Canelas, D. A.; DeSimone, J. M. "Light Scattering Study of Sterically Stabilized Emulsions in Supercritical Carbon Dioxide" **1996**, AIChE Annual Meeting, Chicago, IL.

O'Neill, M. L.; Yates, M. Z.; Johnston, K. P.; Wilkinson, S. P.; DeSimone, J. M. "Polymer Stabilized Emulsions in Supercritical Carbon Dioxide" **1996**, American Chemical Society Spring Meeting, New Orleans, LA.

## Professional Activities

### **American Institute of Chemical Engineers**

Associate Member, 1995-present

Session Chairman at the Fall National Meeting, 2002-present

Programming Chairman for High Pressure (Area 1f) sessions at the Fall National Meeting, 2004

### **American Chemical Society**

Member, 1996-present

**Reviewer for Journals:** *Langmuir, Advanced Materials, Chemistry of Materials, Journal of Physical Chemistry, Journal of the American Chemical Society, Chemical Communications, Chemical Reviews, Journal of Colloid and Interface Science, Journal of the American Oil Chemists' Society, Industrial & Engineering Chemistry Research, Powder Technology, Catalysis Communications and Journal of Supercritical Fluids*

**Reviewer for Proposals:** National Science Foundation, Department of Energy, Petroleum Research Foundation, Australian Research Council and U. S. Civilian Research and Development Foundation