

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

EDUCATION

Dartmouth College, Hanover, NH

Ph.D., Physical Chemistry, June, 1998

Research: Photoinduced Intermolecular Electron Transfer in Condensed Media

Thesis: *A Study of Charge Transfer in Cyanoanthracene/Methyl-Substituted Benzene Exciplexes*

Advisor: Charles L. Braun

Tufts University, Medford, MA

B.S. Engineering, concentration in chemical engineering, May 1988

B.A. Soviet Eastern European Studies, May 1988

Cum laude graduate

Coursework at Austro-American Institute in Vienna, Austria, Fall 1987

Language study at Pushkin Institute of Russian Language in Moscow, Russia, Summer 1987

POSITIONS HELD

Visiting Research Scientist, Max Planck Institute for Polymer Research, Mainz, DE

(2015-2016)

Chair of Programs in Environmental Science and Studies (2012-2014)

Acting Chair of Policy Studies Program, Lafayette College (2011-2012)

Associate Professor, Department of Chemistry Lafayette College (2011-Present)

Assistant Professor, Department of Chemistry Lafayette College (2004-2011)

Visiting Research Scientist, University of New South Wales, Sydney, AU (2007)

Lecturer, Yale University, New Haven, CT (2004)

Research Scientist Yale University, New Haven, CT (2002-2004)

Camille and Henry Dreyfus Postdoctoral Fellow in Environmental Chemistry (2000-2002)

Advisors: Menachem Elimelech and Gaboury Benoit

Instructor in Chemistry, Phillips Exeter Academy, Exeter, NH (1998-2000)

Research Associate, Dartmouth College, Hanover, NH (summer 1999)

Graduate Student Dartmouth College, Hanover, NH (1993-1998)

Instructor of Chemistry and Physics, Phillips Academy, Andover, MA (1989-1993)

PEER –

REVIEWED

PUBLICATIONS

Gambinossi, F., Defnet, E.*, Ferri, J.K., and Mylon, S.E, Aggregation kinetics of stimulus response polymer coated gold nanoparticles are driven by Hofmeister effects, *Colloids and Interface Science Communications*, (2016), DOI: 10.1016/j.colcom.2016.02.002

Estupiñán, D., Bannwarth, M.D., Mylon, S.E., Landfester, K., MuñozEspí, R., and Crespy, D. Multifunctional clickable and protein-repellent magnetic silica nanoparticles, *Nanoscale* (2015), DOI: 0.1039/c5nr08258g.

Gambinossi, F., Mylon, S.E., and Ferri, J.K., Aggregation kinetics and colloidal stability of functionalized nanoparticles, *Advances in Colloid and Interface Science*, (2014), DOI: 10.1016/j.cis.2014.07.015.

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

Gambinossi, F., Chanana, M., Mylon, S.E., and Ferri, J.K., Stimulus-responsive Au@ (MeO(2)MA_x-co-OEGMA_y) nanoparticles stabilized by non-DLVO interactions: implications of ionic strength and copolymer(X;Y) fraction on aggregation kinetics, *Langmuir*, (2014), 30, 1748-1757.

Gambinossi, F. Chanana, M., Mylon, S.E., and Ferri, J.K., Programming nanoparticle aggregation kinetics with poly(MeO(2)MA-co-OEGMA) copolymers, *Soft Matter*, (2013), 9, 11046-11053.

Liu, Y., Zhang, C., Hu, D., Kuhlenschmidt, M., Kuhlenschmidt, T, Mylon, S.E., Kong, R., Bhargava, R. and Nguyen, T.H., Role of collector alternating charged patches on transport of *Cryptosporidium parvum* oocyst in a patchwise charged heterogeneous micromodel, *Environmental Science and Technology* (2013) 47, 2670-2678.

Chowdhury, I., Walker, S.L., and Mylon, S.E., Aggregate Morphology of nano-TiO₂: Role of Primary particle Size, Solution Chemistry and Organic Matter, *Environmental Science: Processes and Impacts*, 2013, 15, 275-282.

Goetsch, H.E., Mylon, S.E., Butler, S., Zilles, J.L., and Nguyen, T.H., Oxytetracycline Interactions at the Soil-Water Interface: Effects of Environmental Surfaces on Natural Transformation and Growth Inhibition of *Azobacter Vinelandii*, *Environmental Toxicology and Chemistry*, 2012, 31, 1-8.

Lu, N., Mylon, S.E., Kong, R., Bhargava, R., Zilles, J.L., and Nguyen, T. H., Interactions between Dissolved Natural Organic Matter and Adsorbed DNA and their Effect on Natural Transformation of *Azotobacter vinelandii*, *Science of the Total Environment*, 2012, 426, 430-435.

Nguyen, T.H., Easter, N., Gutierrez, L., Huyett, L.*, Defnet, E.*, Mylon, S.E., Ferri, J.K., and Ai Vet, N., The RNA Core Weakly Influences the Interactions of the Bacteriophage MS2 at Key Environmental Interfaces. *Soft Matter*, 2011, 7, 10449-10456.

Mylon, S.E., Sun, Q. and Waite, T.D., Process Optimization in the use of Zero-Valent Iron Nanoparticles for Oxidative Transformations. *Chemosphere*, 2010, 81(1), 127-131.

Buettner, K. M.*, Rinciog, C. I.* and Mylon, S.E, Aggregation Kinetics of Cerium Oxide Nanoparticles in Monovalent and Divalent Electrolytes, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 2010, 366 (1), 74-79.

Gutierrez, L, Mylon, S.E., Nash, B. and Nguyen, T.H., Deposition and Aggregation Kinetics of Rotavirus in Divalent Cation Solutions, *Environmental Science & Technology*, 2010, 44 (12), 4552-4557.

Lenhart, J.J., Heyler, R.*, Walton, E.M.* and Mylon, S.E., The Influence of Dicarboxylic Acid Structure on the Stability of Colloidal Hematite, *Journal of Colloid and Interface Science*, 2010, 345(2) 556-560.

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

Mylon, S.E., Rinciog, C. I.*, Schmidt, N., Gutierrez, L., Wong, G. C. L. and Nguyen, T. H., Influence of Salts and Natural Organic Matter on the Stability of Bacteriophage MS2, *Langmuir*, 2010, 26(2), 1035-1042.

Duesterberg, C.K., Mylon, S.E., and Waite, T. D., pH Effects on Iron-Catalyzed Oxidation using Fenton's Reagent, *Environmental Science & Technology*, 2008, 42 (22), 8522-8527.

Huang, Y.H., Saiers, J. E., Harvey, J. W., Noe, G.B., and Mylon, S.E., Advection, Dispersion, and Filtration of Fine Particles within Emergent Vegetation of the Florida Everglades, *Water Resources Research*, 2008, 44 (4), W04408.

Findley, B R. and Mylon, S E. Integrating Statistical Mechanics with Experimental Data from the Rotational–Vibrational Spectrum of HCl into the Physical Chemistry Laboratory, *J. Chem. Educ.* 2008, 85, 1670.

Dimick, P.S*, Kney, A., Tavakoli, J., Mylon, S.E., Zhao D., A Comparison of Metal-Loaded DOW3N Ion Exchangers for Removal of Perchlorate from Water, *Separation Science and Technology*, 2008, 43 (9-10), 2343-2362.

Chen, K.L., Mylon, S.E., and Elimelech, M., Enhanced Aggregation of Alginate-Coated Iron Oxide (Hematite) Nanoparticles in the Presence of Calcium, Strontium, and Barium Cations, *Langmuir*, 2007, 23 (11), 5920-5928.

Twining, B.S., Mylon, S.E, and Benoit, G., Potential Role of Copper Availability in Nitrous Oxide Accumulation in a Temperate Lake, *Limnology & Oceanography*, 52 2007, (4), 1354–1366.

Hu, H., Mylon, S.E, and Benoit, G., Volatile Organic Sulfur Compounds in a Stratified Freshwater Lake, *Chemosphere*, 2007, 67 (5), 911-919.

Hu, H., Mylon, S.E, and Benoit, G., Distribution of the Thiols Glutathione and 3-Mercaptopropionic Acid in Connecticut Lakes. *Limnology & Oceanography*, 2006, 51 (6), 2763-2774.

Chen, K.L., Mylon, S.E., and Elimelech, M., Aggregation Kinetics of Alginate-Coated Hematite Colloids in Monovalent and Divalent Electrolytes, *Environmental Science & Technology*, 2006, 40 (5), 1516-1523.

Mylon, S.E., Chen, K.L., and Elimelech, M., Influence of Natural Organic Matter and Ionic Composition on the Kinetics and Structure of Hematite Colloid Aggregation: Implications to Iron Depletion in Estuaries, *Langmuir*, 2004, 20 (21), 9000-9006.

Saiers, J.E., Harvey, J.W., Mylon, S.E., Surface-water transport of suspended matter through wetland vegetation of the Florida everglades. *Geophys. Res. Lett.*, 2003, 30(19), 1987

Mylon, S.E., Twining, B.S., Fisher, N. and Benoit, G., Predicting Bioavailability of Cd, Cu, and Pb in Fresh Waters Based on Measurements of Trace Metal Complexation. *Environmental Science & Technology*, 2003, 37, 1261-1267.

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

Mylon, S.E., Hu, H. and Benoit, G., Unsuitability of Cr(II) Reduction for the Measurement of Sulfides in Oxidic Water Sample, *Anal. Chem.*, 2002, 74, 661-663.

Mylon, S.E. and Benoit, G., Subnanomolar Detection of Acid Labile Sulfides by the Classical Methylene Blue Method Coupled to HPLC. *Environmental Science & Technology*, 2001 35, 4544-4548.

Mylon, S.E., Smirnov, S.N. and Braun, C.L.; Exciplex Dipole Moments: Cyanoanthracenes Acceptors and Methylbenzene Donors, *J. Phys. Chem.*, 1998, 102, 6558-6584.

Smirnov, S.N., Braun, C.L., Ankner-Mylon, S. E., Grzeskowiak, K.N., Greenfield, S.R. and Wasielewski, M.R., Photoinduced Charge Separation: Dipoles, Exciplexes and Ion Pairs, *Mol. Cryst. Liq. Cryst.* 1996, 283, 243-248.

Grzeskowiak, K.N., Ankner-Mylon, S. E., Smirnov, S.N. and Braun, C.L., Exciplex Dipole Moments: Excited Cyanoanthracenes in Neat Methylbenzene Solvents, *Chem. Phys. Lett.*, 1996, 257, 89-92.

* Lafayette College Undergraduate

**ADDITIONAL
PUBLICATIONS**

P.S. Dimick*, A. Kney, J. Tavakoli, S.E. Mylon, *What's the Buzz about Perchlorate in Water Updates*, a publication of the Pennsylvania Section of the American Water Works Association.

**INVITED
SEMINARS**

Nanoparticle Surface Chemistry in Aquatic Environments: Big effects on small particles, December, 2012, College of Nanoscale Science and Engineering at the State University of New York at Albany, 2012

Nanoparticle Surface Chemistry in Aquatic Environments: Big Effects on Small Particles, Department of Chemistry, Amherst College 2010

The application of zero valent iron nanoparticles to environmental contaminant degradation: A new look at a small particle, St. Michaels College Department of Chemistry Seminar, 2009.

Oxidative Transformations using Zero Valent Nanoparticles: A New Look at a Small Particle. The Center of Advanced Materials for the Purification of Water with Systems (WaterCAMPWS) at the University of Illinois, 2009.

Oxidative Transformations using Zero Valent Nanoparticles: A New Look at a Small Particle, Environmental Engineering and Chemistry Seminar Series at Johns Hopkins University, Baltimore, MD. 2008

Reduced Sulfur and Organic Ligands in Connecticut Fresh Waters: Who's Really Important? Environmental Sciences: Water, Gordon Research Conference. Plymouth, NH 2006

Trace Metal Complexation in Freshwaters as a Predictor of Bioavailability Yale Institute for Biospheric Studies, New Haven,

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

**CONFERENCE
PRESENTATIONS**

F.Gambinossi, S.E.Mylon, and J.K.Ferri (2015) *Fine control of aggregation state of bio-compatible polymer functionalized nanoparticles: Theory and Experiment*, International Chemical Congress of Pacific Basin Societies, PACIFICHEM. (oral presentation)

F.Gambinossi, M.Chanana, S.E.Mylon, and J.K.Ferri (2014) *Stimulus-responsive nanoparticles stabilized by non-DLVO interactions: Implications of ionic strength and copolymer (x:y) fraction on aggregation kinetics*, 248th ACS National Meeting, San Francisco, CA (oral presentation)

S. Zeiders* and S. E. Mylon (2013) *Revisiting perchlorate remediation using zero valent iron nanoparticles*, Gordon Research Conference: Environmental Nanotechnology (poster presentation)

F.Gambinossi, M.Chanana, S.E.Mylon, and J.K.Ferri (2013) *Programmable thermoresponsive polymers for Interfacial Stabilization*, Conference on Smart and Green Interfaces, Prague, Czech Republic (oral presentation)

F.Gambinossi, M.Chanana, E.Defnet*, S.E.Mylon, and J.K.Ferri, (2012) *Role of nanoparticles and surface rheology in tailoring the stability of fluid interfaces*, The 86th ACS Colloids and Surface Science Symposium, New Baltimore, MD (oral presentation)

E. Defnet*, M. Chanana, J.K.Ferri, and S.E. Mylon (2012) *Aggregation and air/water interfacial deposition behavior of stimulus responsive functionalized gold nanoparticles*. The 243th ACS National Meeting, San Diego, CA. (poster presentation)

I.Chowdhury, S.Pokhrel, L. Madler, S.E. Mylon and S.L.Walker (2012) *Transport of nano-TiO₂ aggregate in porous media: Influence of primary particle size and heterogeneity in nanoparticle aggregate* The 243th ACS National Meeting, San Diego, CA. (oral presentation)

J.K.Ferri, S.E.Mylon and M.Chanana, (2012) *Toward stimulus-responsive control of foam and emulsion stability using thermoresponsive nanoparticles*, The 243th ACS National Meeting, San Diego, CA. (oral presentation)

T.H. Nguyen, N. Easter, L. Gutierrez, E. Defnet*, S. E. Mylon, L. M. Huyett*, J. K. Ferri, N. Ai Viet, (2011) *Toward Developing A Model for Understanding the Interactions of Soft Nanoparticles at Key Environmental Interfaces*, Gordon Research Conference: Environmental Nanotechnology (poster presentation)

J. K. Ferri, S. E. Mylon, and S. L. Walker, (2010) *Mechanics of Escherichia coli D21g biofilms at the aqueous-air interface*, International Chemical Congress of Pacific Basin Societies, PACIFICHEM. (oral presentation)

J. K. Ferri, S. E. Mylon, and S. L. Walker, (2010) *Mechanics of Escherichia coli D21g biofilms at the aqueous-air interface*, Gordon Research Conference, Environmental Sciences: Water. (poster presentation)

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

J. Shoemaker, A. Merino, D. Zhao, A. Kney, and S.E.Mylon, (2010) *Rapid Destruction of Perchlorate on Ion Exchange Resins using Stabilized Zero-Valent Iron Nanoparticles*. World Environmental and Water Resources Congress 2010: Challenges of Change, Providence, RI (oral presentation)

J. J. Lenhart, S.E. Mylon, R Heyler*, E. M. Walton*, Yu Sik Hwang, (2010) *Evaluating the stability of nano-sized hematite in the presence of dicarboxylic acids*, The 239th ACS National Meeting, San Francisco, CA. (oral presentation)

C. I. Rinciog*, S.E. Mylon, N. Schmidt and L. A. Gutierrez G. Wong and T. H. Nguyen (2010) *Influence of natural organic matter on the stability of bacteriophage MS2*, The 239th ACS National Meeting, San Francisco, CA. (poster presentation)

S.E. Mylon, T. H. Nguyen, C. I. Rinciog*, and L. A. Gutierrez, N. Schmidt and G. Wong (2009) *Influence of solution chemistry on the aggregation kinetics of bacteriophage MS2*, National Meeting for the Association of Environmental Engineering and Science Professors (AEESP), Iowa City, IA. (oral presentation)

C.R. Szczepanski*, S.B. Crown*, S.E. Mylon, and P.A. Darcy, (2009) *Rheology and Characterization of Reverse Micelles*, The 83th ACS Colloids and Surface Science Symposium, New York, NY. (poster presentation)

S.E. Mylon, T. H. Nguyen, C. I. Rinciog*, and L. A. Gutierrez, Nathan Schmidt and G. Wong (2009) *Influence of solution chemistry on the aggregation kinetics of bacteriophage MS2*, The 83th ACS Colloids and Surface Science Symposium, New York, NY. (oral presentation)

L. A. Gutierrez, S.E Mylon, and T. H. Nguyen, (2009) *Role of Divalent Cations on Adsorption Kinetics of Bacteriophage MS2 and Rotavirus to Natural Organic Matter*, The 83th ACS Colloids and Surface Science Symposium, New York, NY. (oral presentation)

J. K. Ferri, S. E. Mylon, and S. L. Walker, (2009) *Mechanics of Escherichia coli D21g biofilms at the aqueous-air interface.* , The 83th ACS Colloids and Surface Science Symposium, New York, NY. (oral presentation)

S. E. Mylon, T. H. Nguyen, C. I. Rinciog*, and L. A. Gutierrez, (2009) *Influence of solution chemistry on the aggregation kinetics of bacteriophage MS2*, The 237th ACS National Meeting, Salt Lake City, UT. (oral presentation)

J. K. Ferri, S. E. Mylon, and S. L. Walker, (2009) *Elastic moduli of Escherichia coli D21g biofilms under chemostatic conditions at the aqueous-air interface.* , The 237th ACS National Meeting, Salt Lake City, UT. (oral presentation)

S. E. Mylon, Q. Sun, and T. D. Waite, (2008) *Production of Reactive Oxygen Species from Zero-Valent Iron Nanomaterials*. 235TH American Chemical Society National Meeting, New Orleans, LA. (poster presentation)

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

S. E. Mylon, Q. Sun, T. D. Waite, (2008) *Production of Reactive Oxygen Species from Zero-Valent Iron Nanomaterials*. Gordon Research Conference, Environmental Sciences: Water. (poster presentation)

T. D. Waite, Q. Sun and S. E. Mylon, (2008) *Oxidative Transformations Mediated By Nanoparticulate Zero Valent Iron*. This talk was a keynote presentation at the US-EPA's International Environmental Nanotechnology Conference, Chicago, IL.

N. M. Waters, J. O. Drummond, and S. E. Mylon, (2008) *Atrazine in the Environment: Convergent Evolution of How Investigations into Endocrine Disruptors can Integrate and Inform Interdisciplinary Learning, Teaching and Scholarship*, Patriot League STEM Conference, Lafayette College. (oral presentation)

P. A. Darcy, S. E. Mylon, and J. K. Ferri, (2008) *Characterization of Reverse Micelles: Undergraduate Research in an Interdisciplinary Environment*, Patriot League STEM Conference, Lafayette College. (oral presentation)

S. E. Mylon, L. Caslake, A. Kney, and J. Tavakoli, (2008) *A Multidisciplinary Research Project for the Development of a Novel System for the Separation and Destruction of Perchlorate from Contaminated Waters*, Patriot League STEM Conference, Lafayette College. (oral presentation)

K. Buettner* and S.E. Mylon *The Stability of Cerium Oxide Nanoparticles* (2007) *EOS Trans. AGU*, Fall Meeting Supplement, Abstract H51G-0656 (poster presentation)

J. Callahan*, N. Cumbal, H. Fink*, A. Goergen*, D. Goldberg*, K. Merriam*, L. Caslake. A.D. Kney, J. Tavakoli, S.E. Mylon, (2007), *A Novel System for the Separation and Destruction of Perchlorate from Contaminated Waters* *EOS Trans. AGU*, Fall Meeting Supplement, Abstract H33E-1684. (poster presentation)

B. Findley, and S. E. Mylon, (2007) *Integrating statistical mechanics with experimental data from the rotational -vibrational spectrum of HCl into the physical chemistry laboratory*, 234TH American Chemical Society National Meeting, Boston, MA. (poster presentation)

K. Buettner, and S. E. Mylon, (2007) *Electrokinetic Properties and Aggregation Kinetics of Cerium Oxide Nanoparticles: An Intercomparison across Particle Size*, 233TH American Chemical Society National Meeting, Chicago, IL. (poster presentation)

K.L. Chen, S. E. Mylon, and, M. Elimelech (2006) *Mechanism of Enhanced Aggregation of Alginate-Coated Hematite Nanoparticles in the Presence of Calcium, Strontium, and Barium Cations*, Annual Meeting American Society of Chemical Engineers, San Francisco, California. (oral presentation)

S. E. Mylon, K. L. Chen, , M. Elimelech (2006) *Enhanced Aggregation of Colloidal Hematite Resulting from the Adsorption of Alginate: Influence of Divalent Cations on Gel-Network Formation*, Annual Meeting of the Geological Society of America. (poster presentation)

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

B.S. Twining, S.E Mylon, and G. Benoit (2006) Potential role of Cu availability in nitrous oxide accumulation in a temperate lake. Gordon Research Conference in Environmental Sciences: Water. Plymouth, NH (poster presentation)

K. L. Chen, S. E. Mylon, M. Elimelech (2006) Enhanced Aggregation of Alginate-Coated Hematite Nanoparticles: Influence of Divalent Cations on Gel-Network Formation, 80TH ACS Colloid and Surface Science Symposium, Boulder, CO. (oral presentation)

J. Tavakoli, A. D. Kney, S. E. Mylon, L. Caslake, P.S. Dimick*, and S. M. Presciutti* (2006) A Hybrid Technology for Removal and Destruction of Perchlorate from Contaminated Water Systems, 2nd International Water Conference, Porto, Portugal. (oral presentation)

J. Jenkins*, P. Dimick*, J. Tavakoli, A.D. Kney, S.E. Mylon, and L.F. Caslake (2006) Development of a Perchlorate Removal Process Using Polymeric Ligand Exchange, 5th Battelle International Conference on Remediation of Chlorinated and Recalcitrant Compounds. (poster presentation)

B. Hecht*, K. Kohen*, J. Tavakoli, A.D. Kney, S.E. Mylon, and L.F. Caslake (2006) Development of a Perchlorate Remediation Process Using Ion Exchange and Microbial Reduction 5th Battelle International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, CA. (poster presentation)

A. Goergen*, K.L. Chen, M. Elimelech, and S. E. Mylon, (2006) Influence of alginate on the electrokinetic properties and aggregation kinetics of hematite nanoparticles, 231TH ACS National Meeting, Atlanta, GA. (poster presentation)

K. Buettner*, B. Twining, S. E. Mylon, (2006) Potential Cu limitation of denitrification by inorganic polysulfide clusters, 231TH ACS National Meeting, Atlanta, GA. (poster presentation)

S. E. Mylon, S. M. Presciutti*, A. D. Kney, and J. Tavakoli, (2005) Microbial reduction of perchlorate from ion-exchange regenerate, 230TH ACS National Meeting, Washington, DC. (oral presentation)

A. D. Kney, P.S. Dimick*, S. E. Mylon, and J. Tavakoli, (2005) Perchlorate removal from contaminated water using DOW 3N based ligand exchangers, 230TH ACS National Meeting, Washington, DC. (oral presentation)

K.L. Chen, S. E. Mylon, and M. Elimelech, (2005) Influence of alginate and ionic composition on aggregate structure of hematite colloids, 230TH ACS National Meeting, Washington, DC. (oral presentation)

K.L. Chen, S. E. Mylon, and M. Elimelech, (2005) Aggregation of alginate-coated hematite nanoparticles in monovalent and divalent electrolytes 230TH ACS National Meeting, Washington, DC. (oral presentation)

K. L. Chen, S. E. Mylon, and M. Elimelech (2005) Enhanced Aggregation of Alginate-Coated Hematite Nanoparticles, Annual Meeting American Society of Chemical Engineers, Cincinnati, OH. (oral presentation)

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

S. A. Morton III, P. S. Dimick*, A. Baker*, A. D. Kney, S. E. Mylon (2005) Forwarding Green Chemical Engineering Education and Research through a Student Run Organization: the Society of Environmental Engineers and Scientists, Annual Meeting American Society of Chemical Engineers, Cincinnati, OH. (poster presentation)

J. Tavakoli, S. M. Presciutti*, P. Dimick*, A. Kney, S.E. Mylon (2005) Bioremediation of Perchlorate Contaminated Groundwater 31ST Northeast Bioengineering Conference, Hoboken, NJ. (oral presentation)

S. M. Presciutti* and S.E. Mylon (2005) Microbial Reduction of Perchlorate from Ion-Exchange Regenerant Solutions Using A Packed-Bed Bioreactor 19TH NCUR MEETING, Lexington, VA. (oral presentation)

K.L. Chen, S.E. Mylon, and M. Elimelech, (2005) Influence of Solution Chemistry on the Aggregation Kinetics of Alginate-Coated Hematite Colloids, 229TH ACS National Meeting, San Diego, CA. (oral presentation)

B. Twining, S. E. Mylon, K. Buettner*, and Benoit, G. (2005) Potential Cu limitation of denitrification by reduced sulfur species in natural waters, 229TH ACS National Meeting, San Diego, CA. (oral presentation)

A. Baker*, K. Przyuski*, A. D. Kney and S. E. Mylon (2005) Surface characterization of a novel material for Arsenic removal, 79TH ACS Colloid and Surface Science Symposium, Postdam, NY. (oral presentation)

K.L. Chen, S. Mylon, and M. Elimelech,(2005) Aggregation Kinetics of Alginate-Coated Hematite Colloids in Divalent Electrolytes, 79TH ACS Colloid and Surface Science Symposium, Postdam, NY. (oral presentation)

K.L. Chen, S. Mylon, and M. Elimelech, (2005) Influence of Alginate and Ionic Composition on the Stability of Hematite Colloids, 79TH ACS Colloid and Surface Science Symposium, Postdam, NY. (oral presentation)

P. S. Dimick*, A. Baker*, L. Vanzler*, A.D. Kney, S.A Morton III, S. E. Mylon (2005) Developing a student lead undergraduate environmental research organization: The Society of Environmental Engineers and Scientists, 8th ACS Green Chemistry and Engineering Conference, Washington, DC. (poster presentation)

J. Jenkins*, B. Hecht*, K. Kohen*, P. Dimick*, J. Tavakoli, A.D. Kney, S.E. Mylon, and L.F. Caslake, (2005) Development of a perchlorate remediation process using ion exchange and microbial reduction. Regional Microbiology Educators Network Symposium, Swarthmore College, Swarthmore, PA. (poster presentation)

S.E. Mylon, K.L. Chen (2004) Influence of Natural Organic Matter and Ionic Composition on the Kinetics and Structure of Hematite Colloid Aggregation: Implications to Iron Depletion in Estuaries. 228th ACS National Meeting, Philadelphia, PA. (oral presentation)

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

S.E. Mylon, K.L. Chen, M. Elimelech (2004) Influence of Natural Organic Matter and Ionic Composition on the Kinetics and Structure of Hematite Colloid Aggregation: Implications to Iron Depletion in Estuaries. 78th ACS Colloid and Surface Science Symposium, New Haven, CT. (oral presentation)

B.S. Twining, S.E Mylon, and G. Benoit (2004) Potential Cu limitation of denitrification by reduced sulfur species in natural waters. Gordon Research Conference in Environmental Bioinorganic Chemistry. Lewiston, ME (poster presentation)

H. Hu, S.E. Mylon, and G. Benoit: (2003) Thiols in a Connecticut Stratified Freshwater Lake. American Geophysical Union National Meeting, San Francisco, CA. (oral presentation)

S.E. Mylon, H. Hu., and G. Benoit: (2003) Volatile Reduced Sulfur Compounds: Detection and Quantification in a Stratified Freshwater Lake. American Geophysical Union National Meeting, San Francisco, CA. (poster presentation)

J.W. Harvey, J.E Saiers, J.T. Newlin, S.E. Mylon: (2003) Solute Transport and Surface-Subsurface Exchange in the Everglades Characterized by a tracer Release in Surface Water. American Geophysical Union National Meeting, San Francisco, CA. (oral presentation)

S.E. Mylon., G. Benoit., and M. Elimelech: (2003) Influence of Natural Organic Matter and Ionic Composition on Aggregation Kinetics of Hematite particles: Implications to Iron Depletion in Estuaries. 226th ACS National Meeting, New York City, NY. (poster presentation)

J.W. Harvey, J.E Saiers, J.M. Krest, S.E. Mylon, J.T. Newlin, C. Taylor, and E. Gaiser: (2003) Characterizing Transport Processes in the Everglades: Goals, Approaches, and Preliminary Results from a Tracer Release in the FIU/SERC Experimental Flumes. Greater Everglades Ecosystem Restoration (GEER) Conference, Palm Harbor, Fl. (oral presentation)

H. Hu, S.E .Mylon, and G. Benoit : (2002) *Quantification of Volatile Reduced Sulfur Compounds in Connecticut Surface Waters Influenced by Long Island Sound*. Long Island Sound Research Conference, Bristol, CT. (oral presentation)

S.E. Mylon, B. Twining, N. Fisher and G. Benoit: (2002) Predicting Trace Metal Bioavailability in Fresh Waters based on Complexation Characteristics to Dissolved Organic Matter. American Society of Limnology and Oceanography Summer Meeting: Inter-disciplinary Linkages in Aquatic Sciences and Beyond, Victoria, British Columbia. (oral presentation)

S.E. Mylon and G. Benoit: (2001) Silver Binding in Humic Substances. National Synchrotron Light Source Activity Report 2001. (poster presentation)

S.E. Mylon and G. Benoit: (2001) *Subnanomolar Measurement of Acid Labile Sulfides in fully oxygenated waters via methylene blue formation and HPLC Separation and Detection*. International Conference on the Biogeochemistry of Trace Elements, Guelph, Ontario. (oral presentation)

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

S.E. Mylon and G. Benoit: (2001) Subnanomolar Detection of Acid Labile Sulfides by the classical methylene blue method coupled to HPLC, American Chemical Society National Meeting, San Diego, CA. (poster presentation)

S.E. Mylon, S.N. Smirnov and C.L. Braun: (1997) Exciplex Dipole Moments: Cyanoanthracenes Acceptors and Methylbenzene Donors, American Chemical Society National Meeting, San Francisco, CA. (poster presentation)

S. Verma, K.G. Snetsinger, R.F. Pueschel, and S. Ankner-Mylon (1992) Chlorine in Stratospheric Aerosol Droplets, American Geophysical Union National Meeting, San Francisco, CA. (poster presentation)

*Lafayette College Undergraduate

FUNDING

Air Products Corporations for support of SEES activities. **\$ 5000/yr** (2008-2014)

Instrumentation Grant from the McCutcheon foundation: **\$40,000** (2013)

The Ludwick Family Foundation to fund an Environmental Coordinator: **\$100,000** (2013)

Lafayette College Advanced Study Grant. **\$1424** (2012)

EPA: P3 award: Expanding a Food Waste Compositing Facility at Lafayette College as an Institutional Model in the Lehigh Valley Region, co-PI with Professors Kney and Greenleaf. **\$10,000**. (09/10-05/11)

Mellon Course Development Grant for Cross-Disciplinary Team Teaching:
co-PI with Professor Ferri **\$7000** (2009)

Pennsylvania Department of Environmental Protection grant to expand the college's composting initiative: co- PI with Professors Kney and others, **\$45,000** (2010)

Lafayette College Fund For Faculty Innovation **\$24,330** (1/1/2009- 12/31/2010)

ENVIRON Foundation. **\$ 7000**

Lafayette College Fund For Faculty Innovation **\$21,000** (01/07-01/08)

NSF: International Research and Education in Engineering. **\$25,020**. (09/06-12/07)

NSF: Acquisition of Instruments to Enhance Undergraduate Research Opportunities in Colloidal and Complex Fluid Science co-PI with Professors Ferri and Darcy. **\$143,200**. (07/06-07/10)

Lafayette College Research Grant for Travel and support for ongoing research at Yale University. **\$1250**. (2006)

NSF: An Innovative Hybrid Technology for the Removal and Destruction of Perchlorate from Aqueous Systems Using Polymeric Ligand Exchange Technology and a Packed Bed Bio-

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

Reactor: co-PI with Professors Kney, Tavakoli and Caslake. **\$199,999**. (06/06-06/10)

EPA: P3 award: The Characterization and Implementation of an Enhanced Activated Alumina for the Removal of Dissolved Arsenic at the Point of Entry, co-PI with Professors Kney and Morton. **\$10,000**. (09/05-06/06)

Lafayette College Research Grant with Professors Tavakoli, Kney, and Caslake **\$3925**. (2005)

Lafayette College EXCEL Research Scholar Grants: Multiple grants (2004-present)

COURSES TAUGHT Chemistry 121: General Chemistry Term I
Chemistry 122: General Chemistry Term II
Chemistry 252: Environmental Chemistry
Chemistry 311: Introduction to Physical Chemistry
Chemistry 324: Physical Chemistry II (Quantum Mechanics and Kinetics)
Chemistry 326: Physical Chemistry II (Quantum Mechanics and Kinetics) w/ Lab
Chemistry 391 and 392: Independent Research
Chemistry 393 and 394: Independent Study
Chemistry 468: Advanced Physical Chemistry
Chemistry 495 and 496: Senior Honors Thesis
FYS 191: Crossroads of the 21st Century
INDS 211: Interdisciplinary Seminar Series in the Life Sciences
PSTD 400: Policy Studies Internship

INSTITUTIONAL SERVICE Chair of Programs in Environmental Science and Environmental Studies (7/12- 7/14)

Interim Chair of Policy Studies Program (7/11- 7/12)

Co-coordinator of the Interdisciplinary Seminar Series in the Life Sciences (2007-2013)

Committee Service includes: Environmental Science and Studies Program Steering Committee (2012), Search Committees in Chemistry (2011-2012), Chemical and Biomolecular Engineering (2011-2012) and Environmental Studies (2011-12), Academic Progress Committee (2009-2012), Policy Studies Advising Committee (2009- Present) , Environmental Science/Studies Initiative to the Life Sciences Sub Committee (2006-Present), Environmental Science Minor Steering Committee (2005-Present), Faculty Compensation Committee (2006-2007)

Participant in a two-day curricular development workshop on environmental studies (2008)

Faculty Advisor: Society of Environmental Engineers and Scientists (SEES), a Lafayette College student research and service group (2004- 2014), Lafayette Ski and Snowboard Club (2005-Present)

First-Year Student Orientation Discussion Leader (2006, 2008, 2011, 2012)

Department of Chemistry Senior Honors Theses Advised at Lafayette College:
Steven Prescuitti (2005) *Mircobial Reduction of Perchlorate from Ion-Exchange Regenerant Solutions Using A Packed-Bed Bioreactor*

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

Katherine Buettner (2007) *The Stability of Cerium Oxide Nanoparticles*
Stephen Gadomski (2011) *Analysis of Low-Molecular Weight Thiols Found in Merrill Creek Reservoir*
Emily Defnet (2013) *Aggregation Kinetics of Stimulus-Responsive Polymer Coated Gold Nanoparticles: An Examination of Hofmeister Effects*

Senior Honors Theses co-advisor or committee member at Lafayette College:

Emma Flaherty (2012) *Trace Metal Limitation in Freshwaters: Factors that Affect Copper Acquisition in Paracoccus denitrificans* (co-adviser)
Melissa Haber (2012) (committee member)
Laura Goldber (2012) (committee member)
Lauren Huyett (2011) *Adsorption of Bacteriophage MS2 at the Air-Water Interface as a Model for Soft Nanoparticle Behavior* (committee member)
Melissa Gordon (2011) *Breaking the Mold* (committee member)
Marcel, Naguiat (2010) *Scale-up and Optimization of MS2 Production* (committee member)
Ashley Cramer (2010) *Effect of Substrate Mechanics on Cellular Function and Phenotype* (committee member)
Hilary White (2010) *Reconstruction of the Paleoclimatic Evolution of the Plio-Pleistocene North Atlantic Ocean* (committee member)
Hannah Fink (2009) *Atrazine, desethyl atrazine, and 17 β -estradiol ecotoxicity: Experimental evidence and chemical assays for endocrine disruption in the common scud, Hyalella azteca* (co-adviser with Nancy Waters and committee member)
Caroline R. Szczepanski (2009) *Rheology and Characterization of Reverse Micelles* (committee member)
Briana Hecht (2008) *Towards hyperelastic, autodegradable protein nanomaterials: Investigation of structure on interfacial gels and nanomembranes* (committee member)
Scott Crown (2008) *Rheology and Characterization of Reverse Micelles for use in Halophilic Enzyme Studies* (co-adviser with Patricia Darcy and committee member)
Eric Fox (2006) *The Kinetics of Formation for Selected Alkyl Imidazolium Based Room Temperature Ionic Liquids* (committee member)

Independent Study and Independent Research Students: I have supervised twenty students for course credit in this capacity since 2004

Public Presentations at Lafayette College

Nanoparticles in the Environment for Lafayette College Student ACS Division (2006)
The Science of Food, a brown bag discussion with four other Lafayette Professors (2008)
Trace Metal Limitation in Natural Aquatic Systems: Can Copper become the new Iron for Academic Research Committee Works in Progress Series (2010)
The application of zero valent iron nanoparticles to environmental contaminant degradation: A new look at a small particle: Department of Geology Brown Bag (2010)

Chemistry Department Assessment Coordinator and Institutional Liaison (2010-2013)

Chemistry Department Secretary 2004-2005

Steven E. Mylon, Associate Professor
Department of Chemistry
Lafayette College

**PROFESSIONAL
SOCIETY
MEMBERSHIPS**

Professional society memberships include: American Chemical Society, American Geophysical Union, Association of Environmental Engineers and Science Professors

**PROFESSIONAL
SERVICE**

Newsletter Editor for AEESP (2015-Present)

Session Organizer and Chair for *AGU National Meeting (2003)*, *ACS Colloids and Surfaces Meeting (2004)*, and *ACS Colloids and Surfaces Meeting (2005)*, , Session Chair for *ACS Colloids and Surfaces Meeting (2009)*, *ACS Spring National Meeting (2012)*, *Pacificchem (2015)*

Peer review for journals: *Environmental Science and Technology*, *Langmuir*, *Geochimica et Cosmochimica Acta*, *Water Research*, *Journal of Nanoparticle Research*, *Journal of Colloid and Interface Science*, *Colloids and Surfaces –A & B*, *Applied Geochemistry*, *The Journal of Plankton Research*, and *Geophysical Research Letters*, *Journal of Environmental Management*, *Journal of Environmental Monitoring*, *Journal of Chemical Education*.

Peer Review for Granting Agencies: *National Science Foundation: 3 review panels and numerous ad hoc reviews.*

United States-Israel Bi-national Science Foundation and Swiss National Science Foundation

Review of textbooks and textbooks: Pearson, Oxford, Freeman, and Wiley Publishing.

Contributor to the Royal Society of Chemistry's Online Periodic Table, *Chemistry in its Elements*. (sulfur, copper and cadmium)

AWARDS

Thomas Roy and Lura Forest Jones Faculty Lecture Award
Camille and Henry Dreyfus Postdoctoral Fellowship in Environmental Chemistry
National Research Council Postdoctoral Fellowship (*declined*)

PERSONAL

Proficient in German
Extensive travel in the United States, Eastern, Central and Western Europe, and Australia
Interests include reading, traveling, Nordic and alpine skiing, running, cycling, camping, gourmet cooking, alternative country music, and microbrews.
Birthplace: Syracuse, NY, US citizen.