

NAME & TITLE: John L. Ferry, Professor, Graduate Director for Chemistry and Biochemistry

CONTACT: Department of Chemistry and Biochemistry, University of South Carolina,
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PROFESSIONAL PREPARATION:	Degree	Date
University of Illinois Urbana-Champaign, Chemistry	BS	1990
University of North Carolina Chapel Hill, Environmental Sciences and Engineering	MS	1993
University of North Carolina Chapel Hill, Environmental Sciences and Engineering	PhD	1996
University of Texas Austin, Chemistry, Post-doctoral		1996-1998

PROFESSIONAL APPOINTMENTS:

2011-present Professor, Department of Chemistry and Biochemistry, University of South Carolina, Columbia SC.

2004-2011 Associate Professor, Department of Chemistry and Biochemistry, University of South Carolina, Columbia SC

1998-2004 Assistant Professor, Department of Chemistry and Biochemistry, University of South Carolina, Columbia SC

1996-1998 Post-doctoral researcher, University of Texas, Austin, Department of Chemistry and Biochemistry (Marye Anne Fox advising)

1990-1996 Graduate research assistant, University of North Carolina, Chapel Hill, Department of Environmental Sciences and Engineering (William H. Glaze advising)

1987-1990 Undergraduate research assistant, University of Illinois, Urbana, Institute of Environmental Studies (Richard A. Larson advising)

HONORS Michael J. Mungo Award for Undergraduate Teaching, 2012
UNC School of Public Health Alumni Research Award 1998
Hoechst Celanese Award for Graduate Research 1994

SELECTED PEER-REVIEWED PUBLICATIONS

1. Murphy, S. A.; Meng, S.; Solomon, B. M.; Dias, D.; Shaw, T. J.; Ferry, J. L., Hydrous Ferric Oxides in Sediment Catalyze Formation of Reactive Oxygen Species during Sulfide Oxidation. *Frontiers in Marine Science*, **2016**, *3*, 227-236, 10.3389/fmars.2016.00227.
2. Dias, D.M.C.; Copeland, J.M.; Milliken, C.L.; Shi, X.; Ferry, J.L.; Shaw, T.J.; Production of Reactive Oxygen Species in the Rhizosphere of a Spartina-Dominated Salt Marsh Systems. *Aquatic Geochemistry*, **2016**, *22*, (5-6), 573-591, 10.1007/s10498-016-9307-1.
3. Murphy, S. A.; Solomon, B. M.; Meng, S.; Copeland, J. M.; Shaw, T. J.; Ferry, J. L., Geochemical Production of Reactive Oxygen Species From Biogeochemically Reduced Fe. *Environmental Science & Technology* **2014**, *48*, (7), 3815-3821 10.1021/es4051764.
4. Chandler, G. T.; Schlekot, C. E.; Garman, E. R.; He, L.; Washburn, K. M.; Stewart, E. R.; Ferry, J. L., Sediment Nickel Bioavailability and Toxicity to Estuarine Crustaceans of Contrasting Bioturbative Behaviors - An Evaluation of the SEM-AVS Paradigm. *Environmental Science & Technology* **2014**, *48*, (21), 12893-12901 10.1021/es5025977.
5. Burns, J. M.; Pennington, P. L.; Sisco, P. N.; Frey, R.; Kashiwada, S.; Fulton, M. H.; Scott, G. I.; Decho, A. W.; Murphy, C. J.; Shaw, T. J.; Ferry, J. L., Surface Charge Controls the Fate of Au Nanorods in Saline Estuaries. *Environmental Science & Technology* **2013**, *47*, (22), 12844-12851 10.1021/es402880u.
6. Burns, J. M.; Cooper, W. J.; Ferry, J. L.; King, D. W.; DiMento, B. P.; McNeill, K.; Miller, C. J.; Miller, W. L.; Peake, B. M.; Rusak, S. A.; Rose, A. L.; Waite, T. D., Methods for reactive oxygen species (ROS) detection in aqueous environments. *Aquatic Sciences* **2012**, *74*, (4), 683-734 10.1007/s00027-012-0251-x.

7. Burns, J. M.; Craig, P. S.; Shaw, T. J.; Ferry, J. L., Short-Term Fe Cycling during Fe(II) Oxidation: Exploring Joint Oxidation and Precipitation with a Combinatorial System. *Environmental Science & Technology* **2011**, *45*, (7), 2663-2669.10.1021/es102748p.
8. Burns, J. M.; Craig, P. S.; Shaw, T. J.; Ferry, J. L., Combinatorial Parameter Space As an Empirical Tool for Predicting Water Chemistry: Fe(II) Oxidation Across a Watershed. *Environmental Science & Technology* **2011**, *45*, (9), 4023-4029.10.1021/es103631f.
9. Frey, R. L.; He, L.; Cui, Y.; Decho, A. W.; Kawaguchi, T.; Ferguson, P. L.; Ferry, J. L., Reaction of N-Acylhomoserine Lactones with Hydroxyl Radicals: Rates, Products, and Effects on Signaling Activity. *Environmental Science & Technology* **2010**, *44*, (19), 7465-7469.10.1021/es100663e.
10. Ferry, J. L.; Craig, P.; Hexel, C.; Sisco, P.; Frey, R.; Pennington, P. L.; Fulton, M. H.; Scott, I. G.; Decho, A. W.; Kashiwada, S.; Murphy, C. J.; Shaw, T. J., Transfer of gold nanoparticles from the water column to the estuarine food web. *Nature Nanotechnology* **2009**, *4*, (7), 441-444.10.1038/nnano.2009.157.
11. Walse, S. S.; Pennington, P. L.; Scott, G. I.; Ferry, J. L., The fate of fipronil in modular estuarine mesocosms. *Journal of Environmental Monitoring* **2004**, *6*, (1), 58-64.10.1039/b307304a.

SYNERGISTIC ACTIVITIES: My synergistic activities are focused on teaching and outreach. I teach analytical chemistry, instrumental analysis and graduate level environmental chemistry class. Problem solving is divided between fundamental science and the communication/containment of uncertainty through the application of ASTM, EPA and OSHA standard methods and statistical techniques. The analytical and instrumental classes feature labs I have designed that incorporate field sampling in addition to laboratory based analyses.

COLLABORATORS OUTSIDE OF USC (LAST FOUR YEARS):

Dr. William J. Cooper, UC-Irvine	Dr. D. Whitney King, Colby College
Dr. Kris McNeill, EAWAG	Dr. T. David Waite, UNSW, Aus
Dr. William L. Miller, UGA	Dr. Barrie M. Peake, U of Otago, NZ
Dr. Andrew L. Rose, SCU, Aus	Dr. I. Geoffrey Scott, NOAA
Dr. Paul L. Pennington, NOAA	Dr. Michael J. Fulton, NOAA
Dr. Catherine J. Murphy, UI-Urbana	Dr. P. Lee Ferguson, Duke

ADVISORS:

Undergraduate research advisors: Prof. Richard A. Larson, UIUC, Emeritus
 Thesis advisor: Prof. William H. Glaze, UNCCH, Emeritus
 Post-doctoral advisor: Prof. Marye Anne Fox, UC San Diego.

STUDENTS/POSTDOCS ADVISED (1998-PRESENT):

Pre-college: Nicholas Hansell; Lisa Kistler

Undergraduate: Rita Cuthbertson; W. Hamp Henley; Erica Kaneff; Shital Patel; LaTasha Thomas; Ashley Jones; Natasha MacDonald; Anne Cooper-Ellefson; Laura Sima; Byron Farnum; Amy Cuthbertson; Stephen Timko; Lindesy Allen, Micheal Caleb Bagley

Graduate students (current): Benson Solomon, Meagan Smith, Fan Wang, Sam Putnam

Graduate students (graduated): Quincy L. Ford, MS; Li Kong, PhD; R. Ruya Ozer, PhD; Spencer Walse, PhD; Kelly Hefner, MS; Chunlian Shi, MS; Garrison Reese, MS; Trey Rahn, MS; Lijian He, PhD; Justina Burns (nee Fisher), PhD; Preston Craig*, PhD; Rebecca Frey, PhD; Rebekkah Dudgeon*, MS; Joy Ihekeawazu, PhD; Sarah Murphy, PhD; Shengnan Meng PhD,

* indicates co-advised

Post-Doctoral: Dr. R. Scott Reese; Dr. Idil Arslan; Dr. Justina M. Burns