Dr. Shangping Xu

Assistant Professor, Department of Geosciences, University of Wisconsin-Milwaukee

Professional Preparation:

Peking University, Beijing, China, Environmental Sciences, B.S., 1996

Princeton University, Princeton, NJ, Environmental Engineering and Water Resources, M.S., 2002

Princeton University, Princeton, NJ, Environmental Engineering and Water Resources, Ph.D., 2005

Appointments:

1999-2005 Research Assistant, Department of Civil and Environmental Engineering, Princeton University

2005-2006 Research Associate, School of Forestry and Environmental Studies, Yale University

2006-present Assistant Professor, Department of Geosciences, UW-Milwaukee

Professional service

Reviewer for Journal of Environmental Quality, Environmental Geochemistry and Health, Environmental Science and Technology, Water Resources Research, Department of Energy

Research Interests

Colloid filtration in both saturated and unsaturated soil
Transport and fate of colloid-bound emerging contaminants on a watershed scale
Roles of wetland systems in flood control and water quality improvement
Behavior and toxicity of nanoparticles in the environment

Teaching

GEO 106, The Earth Environmental, Fall, 2006; Spring, 2008.

GEO 697, Environmental Surface Hydrology, Spring, 2007.

GEO 697, Water Resources, Fall, 2007.

GEO 697, Biogeochemistry of Soils, Spring, 2008

GEO 400, Water Quality, Fall, 2008

GEO 562, Environmental Surface Hydrology, Spring, 2009

GEO 749, Biogeochemistry of Soil, Spring, 2009

Professional Affiliations

American Chemistry Society, American Geophysical Union, American Water Resources Association

Publications

Xu S., J. E. Saiers, Colloid straining within water-saturated porous media: effects of colloid-size nonuniformity, *Water Resources Research*, 2008, in review.

Xu S., Q. Liao, J.E. Saiers. Straining of nonspherical colloidal particles in saturated porous media. *Environmental Science & Technology*, 2008, 42(2): 771-778.

Xu S., D.L. Mauzerall, and P.R. Jaffé. A process-based model for methane emissions from flooded rice paddy systems. *Ecological Modelling*, 2007, 205(3-4): 475-491.

Xu S., B. Gao, J.E. Saiers. Straining of colloidal particles in saturated porous media. *Water Resources Research*, 2006, 42(12): W12S16.

Xu S., P.R. Jaffé. Effects of plants on the removal of Cr(VI) in wetland sediments. *Journal of Environmental Quality*, 2006, 35(1): 334-341.

Xu S., A.C. Leri, S.C.B. Myneni, and P.R. Jaffé. Uptake of bromide by two wetland plants (Typha latifolia L. and Phragmites australis (Cav.) Trin. ex Steud). *Environmental Science & Technology*, 2004, 38(21): 5642-5648.

Xu S., S. Tao. Coregionalization analysis of heavy metals in the surface soil of Inner Mongolia. *The Science of the Total Environment*, 2004, 320(1): 73-87.

Tao S., S. Xu, J. Cao, and R. Dawson. Bioavailability of apparent fulvic acid complexed copper to fish gills. *Bulletin of Environmental Contamination and Toxicology*, 2000, 64(2): 221-227.

Tao S., T. Liang, C. Liu, and S. Xu. Uptake of copper by neon tetras (Paracheirodon innesi) in the presence and absence of particulate and humic matter. *Ecotoxicology*. 1999, 8(4): 269-275.

Conference Presentations

Jaffé, P.R., H.J. Choi, S. Xu, and P.L. Kallin, “Simulating and monitoring the biogeochemical dynamics of trace-metal in wetland Sediments,” SETAC 21st Annual Meeting, Nashville, Tennessee, November 12-16, 2000,

Jaffé P.R., H.J. Choi, and S. Xu, “Biogeochemical dynamics of trace metals in wetland sediments; simulations and seasurements,” 7th Symposium of Biogeochemistry of Wetlands, Durham, NC, June 17-20, 2001.

Jaffé P.R., S. Xu, and H.J. Choi, “Biogeochemical dynamics of trace metals in wetland sediments; field, laboratory and numerical simulation studies,” 17th Annual Conference on Contaminated Soils, Sediments and Water, Amherst, MA, October 22-24, 2001.

Jaffé, P.R., and S. Xu. “Trace-metal dynamics in wetland sediments; laboratory measurements and numerical simulations,” Abstracts of the 12th Annual V.M. Goldschmidt Conference, Davos, Switzerland, Geochimica et Cosmochimica Acta, Vol. 66, No. 15A p. A361.

Xu, S. and P.R. Jaffé, “Dynamics of heavy metals in wetland sediments: effects of plants,” 34th Mid-Atlantic Industrial and Hazardous Waste Conference, Rutgers University, New Brunswick, NJ, September 20-21, 2002.

Xu, S. and P.R. Jaffé, “The effect of plants on the dynamics of heavy metals in wetland sediment,” 18th Annual International Conference on Contaminated Soils, Sediments and Water, University of Massachusetts, Amherst, MA, October 21-24, 2002.

Jaffé, P.R., S. Xu, and H.J. Choi, “The effect of plants on the dynamics of heavy metals in wetland sediments,” invited paper for the workshop on Biogeochemical Controls on the Mobility and Bioavailability of Metals in Soils and Groundwater, Monte Verita, Switzerland, March 2003.

Saiers, J.E., S. Xu, and B. Gao, “Colloid mobilization and deposition in unsaturated porous media”, Annual Meeting of the Geological Society of America, Salt Lake City, Utah, October 16–19, 2005.

Walczak, J., S. Xu, “Transport of Tetracycline Resistant *Escherichia Coli* in Saturated and Unsaturated Porous Media”, Annual Meeting of the American Water Resources Association (Wisconsin), Stevens Point, WI, March, 2009

Probcan A., S. Xu, “Colloid straining in saturated heterogeneous porous media”, Fall Meeting of the American Geophysical Union, San Francisco, December 15-18, 2008