

CURRICULUM VITAE

Personal Information

Richard H. Moore
Ph.D. Candidate

Georgia Institute of Technology
School of Chemical and Biomolecular Engineering
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Educational Background

in progress Ph.D. Chemical Engineering
Georgia Institute of Technology, Atlanta, GA

2004-2006 M.S. Chemical Engineering
Bucknell University, Lewisburg, PA
Thesis: Hygroscopicity of Atmospheric Aerosols

2000-2004 B.S. Chemical Engineering
Bucknell University, Lewisburg, PA

Awards

3rd Place Winner, 2003 AIChE Student Poster Competition, Separations
President's Fellowship, Georgia Institute of Technology

Research Experience

2004-2006 Environmental scanning electron microscopy (ESEM)
analysis of the hygroscopic properties of laboratory-
generated particulates of atmospheric-relevance

Humidified tandem differential mobility analysis (HTDMA)
analysis of complex multi-component organic aerosols with
comparison to UNIFAC

2003 Development of a graphical user interface in Matlab and
Java for a numerical model of the transport of O₂ and NO
through tissue

2002 Characterization of the adhesion of Al-Zr-glycine to fabric
using SEM and particle electrophoresis as part of semester-
long, project-based elective course on surface chemistry with
the financial support of Proctor and Gamble

Teaching Experience	2006	Session Co-chair, Sustainability in Chem. Eng. Education AICHE Annual Conference, San Francisco, CA
	2005	Assisted in curriculum development and implementation of a three-week laboratory module for undergraduate engineering students on the design of a tennis shoe polymer
	2002-2006	Undergraduate/Graduate teaching assistant in a variety of undergraduate chemical engineering and general chemistry courses

Professional Affiliations Associate Member, Sigma Xi Scientific Research Society
American Institute of Chemical Engineers (AIChE)
American Society for Engineering Education (ASEE)
Former Member, Engineers Without Borders – USA, Bucknell Chapter

Publications

Moore, R. H., Raymond, T. M. “HTDMA Analysis of Multicomponent Dicarboxylic Acid Aerosols with Comparison to UNIFAC and ZSR.” (*in preparation*)

Vigeant, M. A., **Moore, R. H.** “Sneakers as a First-Step in Chemical Engineering.” *Proceedings of the American Society for Engineering Education Annual Conference & Exposition*. Chicago, IL. 2006.

Presentations

Moore, R. H., Raymond, T. M. “The influence of increasing chemical complexity on the hygroscopic properties of multicomponent dicarboxylic acid aerosols.” American Institute of Chemical Engineers Annual Conference. San Francisco, CA, November 16, 2006.

Vigeant, M. A., **Moore, R. H.** “Using Sneakers to Step into Chemical Engineering.” American Institute of Chemical Engineers Annual Conference. San Francisco, CA, November 13, 2006.

Raymond, T. M., **Moore, R. H.**, Richardson, M. “Interactions of Chemical Components in Complex Aerosols and the Effects on Water Uptake.” 7th International Aerosol Conference. St. Paul, MN, September 10-15, 2006.

Moore, R.H., Raymond, T. M. “Investigating the Role of Inorganic Particulates in Cloud Formation Using Environmental Scanning Electron Microscopy: Implications for Global Cooling.” Kalman-Posner Research Symposium. Bucknell University, March 28, 2006. (Poster Presentation)

Moore, R. H., Raymond, T. M. “Hygroscopicity of Multi-Component Organic Aerosols Using an Environmental Scanning Electron Microscope.” American Institute of Chemical Engineers Annual Conference. Cincinnati, OH, October 30 – November 4, 2005.

Raymond, T. M., **Moore, R. H.** “Hygroscopicity of Multi-Component Organic Aerosols Using an Environmental Scanning Electron Microscope.” American Association for Aerosol Research Annual Conference. Austin, TX, October 17-21, 2005.

McEwan, M. E. **Moore, R. H.**, Vigeant, M. A. “Solving the Armpit Stain Problem: Adhesion Mechanisms Between Al-Zr-Glycine and Fabric.” American Institute of Chemical Engineers Annual Conference. San Francisco, CA, November 16-21, 2003.
(Poster Presentation - 3rd Place Winner, Separations Division)

Moore, R. H., Baish, J. W. “Numerical Modeling of Gas Transport in Tissue Using Matlab and Java.” Bucknell Engineering Undergraduate Research Symposium. Bucknell University, October 18, 2003. (Poster Presentation)