

Domenic J. Tiani

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EDUCATION

Doctor of Philosophy in Analytical Chemistry, Department of Chemistry, University of Arizona, Tucson, AZ; 2002.

Bachelor of Art in Chemistry, Summa Cum Laude, North Carolina State University, Raleigh, NC; 1995.

University of Pittsburgh, Pittsburgh, PA; 1990-1991

Westminster College, New Wilmington, PA: 1988-1990

PROFESSIONAL EXPERIENCE

- August 2003 – Present **Research Assistant Professor, Department of Chemistry,** University of North Carolina at Chapel Hill. Undergraduate chemical education, curriculum development, lab development, and chemical research with undergraduate students. Teach freshman general chemistry (CHEM 102), freshman seminar (CHEM 70), sophomore analytical methods (CHEM 241), and intermediate analytical chemistry (CHEM 441 and 441L). **Faculty Coordinator for the Undergraduate Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds (CHEM 241L), the Honors Analytical Methods Lab (CHEM 245L) and the Advanced Polymer Synthesis Laboratory (CHEM 520L), Department of Chemistry,** University of North Carolina at Chapel Hill. Supervise operation of undergraduate lab course, lab curriculum development, teaching assistant training and supervision.
- August 2005 – Present **Faculty Advisor,** Carolina Pre-Medical Association at UNC. Bring in speakers, organize panel discussions, address advising questions, and advise executive board members. An organization for students run by students interesting in attending Medical School.
- January 2006 – Present **Departmental Advisor,** Academic advisor for chemistry majors. Meet with rising juniors, juniors, rising seniors, and senior chemistry majors every semester regarding their major coursework.
- August 2009 – May 2012 **Covenant Mentor,** Mentor and advise Carolina Covenant Scholars. University of North Carolina at Chapel Hill.
- August 2009 – Present **C-STEP (Carolina Student Transfer Excellence Program)**

- Faculty Mentor**, Mentor and adviser for incoming transfer students. University of North Carolina at Chapel Hill.
- August 2010 – Present **Academic Adviser for the Health Professions, Health Professions Advising Office**, University of North Carolina at Chapel Hill. Meet with pre-health students (pre-pharmacy, pre-med, pre-dent, public health...), advise students with how to prepare for all the various health professions and how to be a competitive applicant. Select, train and supervise undergraduate peer advisers for work in the Health Professions Advising Office. Maintain the Pre-Health Advising Website for the Health Professions Advising Office. Attend regional and national health advising conferences to stay current with all the health professions.
- August 2006 – December 2008 **GANN Mentor**, Mentored 4 graduate students accepted into the GANN Program in different semesters. Discuss teaching methods with graduate students, provide feedback on practice lectures, allow graduate students to teach a portion of my analytical methods class, provide feedback on their lectures, discuss how to write exam questions, and allow them to write actual exam questions based on the material they presented in their lectures.
- August 2004 – July 2007 **Academic Advisor for the Sciences**, University of North Carolina at Chapel Hill.
- August 2005 – August 2006 **High School Student Research Mentor**, Work with local high school students on research projects. Provide equipment, chemicals, guidance, scientific discussion to student as they carry out a research project they have developed.
- January 2004 – May 2005
January 2009 - Present **Faculty Coordinator for the Advanced Polymer Synthesis Laboratory (CHEM 520L), Department of Chemistry**, University of North Carolina at Chapel Hill. Supervise operation of undergraduate lab course, lab curriculum development, teaching assistant training and supervision.
- January 2008 – May 2008 **Faculty Coordinator for the Intermediate Analytical Chemistry (CHEM 441L) Laboratory, Department of Chemistry**, University of North Carolina at Chapel Hill. Supervise operation of undergraduate lab course, lab curriculum development, teaching assistant training, instrument maintenance, and TA supervision.
- August 2003 – May 2003 **Lecturer Adjunct Professor**, Department of Chemistry, University of Arizona, Tucson, Arizona. Taught Quantitative Chemical Analysis.
- August 1997 – Dec. 2002 **Graduate Student, laboratory of Jeanne E. Pemberton**, Department of Chemistry, University of Arizona, Tucson. Raman spectroscopy, IR spectroscopy, interfacial electrochemistry, and a wide variety of other interfacial surface techniques. Dissertation Title: "Investigation of the Structure and Properties of Thin

Liquid Films at Bare and Organically-Modified Metal Substrates Using a Novel Emersion Approach.”

AWARDS AND HONORS

Graduate Teaching Assistant Award: University of Arizona, 1998.
Laboratorian of the Year: LabCorp, 1997
The Honor Society of Phi Beta Kappa: North Carolina State University, 1995
The Honor Society of Phi Kappa Phi: North Carolina State University, 1995
Eagle Scout: March 13, 1985 (Under Domenic J. Gable)

PROFESSIONAL SOCIETIES AND ACTIVITIES

American Chemical Society: 1994 – 2004.

RESEARCH PUBLICATIONS (Peer-Reviewed)

1. Robertson, J. W.; **Tiani, D. J.**; Pemberton, J. E., “Underpotential Deposition of Thallium, Lead, and Cadmium at Silver Electrodes Modified with Self-Assembled Monolayers of 3-(Mercaptopropyl)trimethoxysilane” *Langmuir* **2007**, *23*, 4651-4661.
2. **Tiani, D. J.**; Pemberton, J. E., “Emersion of 11-Mercapto-1-Undecanol-Modified Ag Substrates from Aqueous and Non-Aqueous Solvents: The Effect of Emersion Velocity on the Emersed Solvent Layer Thickness” *Langmuir* **2003**, *19*, 6422-6429.
3. **Tiani, D. J.**; Yoo, H.; Mudalige, A.; Pemberton, J. E., “Interfacial Structure in Thin Water Layers Formed by Forced Dewetting on Self-Assembled Monolayers by ω -Terminated Alkanethiols on Ag” *Langmuir* **2008**, *24*, 13483-13489.
4. Heier, S. T.; Johnson, K. E.; Mudalige, A. M.; **Tiani, D. J.**; Pemberton, J. E., “Infrared Reflectance-Absorbance Spectroscopy of Thin Films Formed by Forced Dewetting of Solid-Fluid Interfaces” *Anal. Chem.* **2008**, *80*, (21) 8012-8019.

PROFESSIONAL SERVICE

March 2012 – July 2012: Department of Chemistry Lab Director Search Committee (Chair)

March 2012: Undergraduate Honors Defense for Mathew Detter (Chair)
Undergraduate Honors Defense for Sophie Liu (Chair)

November 2011: Undergraduate Honors Defense for Warren Naselsky (Chair)

Feb. 2010 – Apr. 2010: Undergraduate Honors Defense for Lalitha Kunduru (Chair)
Undergraduate Honors Defense for Evan Lien (Chair)

May 2009-May 2010: External Review Committee, Department of Chemistry

March 2010: Undergraduate Honors Defense for Abby Knight (Chair)
Undergraduate Honors Committee for Liza Rathbun (Chair)

January 2007 – Present: Participate in annual spring Explore Carolina Pre-Health Panels. Talk with students who have been accepted to UNC but have not yet committed to UNC. The Explore Carolina events are the last chance for accepted students to visit the campus before they make their final decision as to whether they will enroll at UNC. Help to answer questions regarding advising, pre-health opportunities at UNC, field

questions regarding the pre-med track and answer questions that students and parent may have about what UNC can offer them.

January 2007 – Present: Participate in annual spring Carolina 101 Science and Pre-Health panels. Talk with junior high school students who have performed exceptionally well in their coursework, and their parents, about UNC and all the opportunities at UNC. Focus on answering questions regarding majoring in a science or pre-health related field at UNC.

June 2008: **Admissions Summer Model Class Instructor.** Conducted a “model” chemistry class to provide high school students with an idea of what to expect in a UNC classroom. Provided prospective students an opportunity to interact with faculty and ask questions about classes at the college level.

November 2007-Present: Academic Advising Program Council

January 2005-Present: Reviewer for the Journal of Chemical Education

August 2003 – Present: Undergraduate Laboratories Committee, Department of Chemistry.

August 2003 – Present: Undergraduate Studies Committee, Department of Chemistry

August 2003 – Present: Computers & Technologies in Labs Committee

August 2003 – Present: Teaching Assistant Oversight Committee