

PROFESSIONAL EXPERIENCE

United States Environmental Protection Agency,
Region 5 Central Region Laboratory (U.S. E.P.A., Region 5 C.R.L.).....2004 – 2005

Chicago, IL: Field/Analytical Scientist

University of California, Irvine – Ph.D. in Physical Chemistry.....2005 – current

Irvine, CA: August 2005 – current, expected graduation in January 2010

Purdue University – B.S. in Chemistry.....2000 – 2004

West Lafayette, IN

EDUCATION

RESEARCH EXPERIENCE

University of California, Irvine.....2007 – current

Research Advisor: Prof. Sergey A. Nizkorodov

Area of Study: Hygroscopicity of Amphiphilic Nanoparticles

University of California, Irvine.....2005 – 2007

Research Advisor: Prof. Barbara J. Finlayson-Pitts

Area of Study: Photolytic Induction of Secondary Organic Aerosol Formation

Purdue University.....2003 – 2004

Research Advisor: Prof. Paul Shepson

Area of Study: Heterogeneous Ice Crystal Morphology and Formation

TEACHING EXPERIENCE

University of California, Irvine.....2005 – current

Chem 152: lab TA **Advanced Analytical Chemistry** Winter '08 & Winter '06

Chem 1A & 1B: discussion TA **General Chemistry** Fall '07 & Spring '05 respectively

PUBLICATIONS

1. Christopher W. Harmon, Bosiljka Njagic, Vanessa M. Bergstedt, R. Benny Gerber, Douglas J. Tobias, Sergey A. Nizkorodov, *"Theoretical Studies of NaCl surfaces coated with Surfactant SDS Interacting with Water Vapor,"* (2009) **in preparation**
2. Christopher W. Harmon, Mark Peterson, Ronald L. Grimm, Theresa M. McIntire, John C. Hemminger, Sergey A. Nizkorodov, *"Hygroscopic Growth and Deliquescence of NaCl Nanoparticles Coated with Surfactant SDS,"* (2009) **in preparation**
3. Christopher W. Harmon, Steve A. Mang, John Greaves and Barbara J. Finlayson-Pitts, *"Identification of Phospholipids, Fatty Acids in Oils and Their Oxidation Products using Matrix Assisted Laser Desorption Ionization (MALDI) Mass Spectrometry and Electrospray Ionization Mass Spectrometry (ESI-MS),"* *J. Chem. Ed.* (2009) **submitted and under review**
4. Ahmad Alshawa, Otto Dopfer, Christopher W. Harmon, Sergey A. Nizkorodov and Joelle S. Underwood *"Hygroscopic Growth and Deliquescence of NaCl Nanoparticles Coated with Surfactant AOT,"* *J. Phys. Chem. A* (2009), DOI: 10.1021/jp809869r
5. Yong Yu, Michael J. Ezell, Alla Zelenyuk, Dan Imre, Liz Alexander, John Ortega, Barbara D'Anna, Chris W. Harmon, Stanley N. Johnson and Barbara J. Finlayson-Pitts *"Photooxidation of α -pinene at High Relative Humidity in the Presence of Increasing Concentrations of NO_x "* *Atmos. Environ.* (2008), DOI: 10.1016/j.atmosenv
6. Yong Yu, Michael J. Ezell, Alla Zelenyuk, Dan Imre, Liz Alexander, John Ortega, Jennie L. Thomas, Karun Gogna, Douglas J. Tobias, Barbara D'Anna, Chris W. Harmon, Stanley N. Johnson and Barbara J. Finlayson-Pitts *"Nitrate Ion Photochemistry at Interfaces: A New Mechanism for Oxidation of α -pinene,"* *Phys. Chem. Chem. Physics* (2008), DOI: 10.1039/b719495a

AWARDS

- University of California, Irvine**.....2005 – current
2006 – 2007 *Upperclassman Co-TA of the Year*
2005 – 2006 *Graduate Assistance in Areas of National Need Fellow (GAANN)*
- U.S. E.P.A., Region 5 C.R.L.**.....2004 – 2005
2004 – 2005 *Oakridge Research Institute for Science Education Fellow (ORISE)*
- Purdue University**.....2000 – 2004
2002 – 2003 *Skull and Crescent Junior-Greek Leadership Honorary*
2000 – 2001 *National Society of Collegiate Scholars*
2000 – 2001 *Alpha Lambda Delta Freshman Honor Society*
2000 – 2001 *Phi Etta Sigma Freshman Honor Society*

ORAL PRESENTATIONS

1. TSI Annual Workshop – **Featured Speaker**, April 2009, Irvine, CA *“Tandem nano-DMA Studies on Hygroscopic Growth of Amphiphilic Nanoparticles.”*
2. AirUCI Annual Workshop, January 2009, Laguna Beach, CA *“Hygroscopic Growth of NaCl Nanoparticles Containing Surfactant Sodium Dodecyl Sulfate.”*
3. AirUCI Seminar, October, 2008, Irvine, CA *“Deliquescence and Thin Water Films”*
4. American Chemical Society National Meeting, April 2008, New Orleans, LA *“Hygroscopicity of Amphiphilic Nanoparticles: The Role of Size and Composition for Potential Cloud Condensation Nuclei.”*
5. AirUCI Annual Workshop, February 2008, Newport Beach, CA *“Hygroscopicity of Amphiphilic Nanoparticles: The Role of Size and Composition.”*
6. Original Proposal for Ph.D. Candidacy, September 2007, Irvine, CA *“Circular Dichroism Spectra of Amino Acids in Conditions Relevant to Space as an Investigation to the Origin of Biomolecular Homochirality.”*
7. Research Progress for Ph.D. Candidacy, September 2007, Irvine, CA *“Photolytic Sodium Nitrate as a Precursor to Secondary Organic Aerosol Formation.”*
8. AirUCI Seminar, April, 2007, Irvine, CA *“Secondary Organic Aerosol Formation: Achieving Mass Balance.”*
9. U.S. E.P.A., Region 5 C.R.L Final Methodology Report, May 2005, Chicago, IL *“Method Implementation of VOC Analysis using GC/MS for Air Toxicology Research.”*

POSTER PRESENTATIONS

1. Informal Symposium on Kinetics and Photochemistry in the Atmosphere, 2008, Los Angeles, CA.. Chris W. Harmon, Ahmad Alshawa, Joelle S. Underwood, Sergey A. Nizkorodov *“Hygroscopicity of Amphiphilic Nanoparticles: The Role of Size and Composition.”*
2. Informal Symposium on Kinetics and Photochemistry in the Atmosphere, 2007, Los Angeles, CA. Chris W. Harmon, Yong Yu, Michael Ezell, Stanley N. Johnson, Barbara J. Finlayson-Pitts *“A New Reactor for Studying Secondary Organic Aerosol Formation.”*

OUTREACH

1. Dana Hills High School AP Environmental Science Class Oral Presentation, 2007 & 2008, Dana Point, CA. *“Chemistry in the Atmosphere.”*
2. AirUCI Annual Summer Science Teacher Training Program Lab Instructor, July 2007 & 2008, Irvine, CA
3. California State Science Fair Judge, *Chemistry Upper Division*, May 2007, 2008 & 2009, Los Angeles, CA
4. Purdue University Alumni Seminar Oral Presentation, March 2005, West Lafayette, IN. *“Method Implementation of VOC Analysis using GC/MS for Air Toxicology Research.”*