CURRICULUM VITA **DARREN L. WILLIAMS**

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ACADEMIC EDUCATION

1997 Ph.D. Physical Chemistry, Oregon State University, Joseph Nibler – Research Advisor
1992 B.S. Chemistry, University of Texas at Austin, Joseph Lagowski – Undergraduate Research Advisor

SUMMARY OF WORK EXPERIENCE

2016 – present	Full Professor, Chemistry, Sam Houston State University, Huntsville, TX
2010 – 2016	Tenured, Associate Professor, Chemistry, Sam Houston State University, Huntsville, TX
2004 – 2010	Assistant Professor, Chemistry, Sam Houston State University, Huntsville, TX
2001 – 2004	Section Scientist, BWXT Pantex LLC (US-DoE facility), Amarillo, TX
2001 – 2004	Adjunct Professor, Chemistry, West Texas A&M University, Canyon, TX
1997 – 2001	Assistant Professor, Chemistry, West Texas A&M University, Canyon, TX

LEADERSHIP AND SERVICE EXPERIENCE

2012 – present	Director and Faculty Advisor, Ratio Christi at SHSU
2011 – 2013	Member of the Texas Higher Education Coordinating Board's Tuning Oversight Council for Engineering and Science, and Chair of the THECB Chemistry Tuning Subcommittee.
2007 – present	Huntsville Rotary Club Director ('11-12), Treas. ('12-13), Pres.-Elect ('13-14), Pres.('14-15)
2005 – present	Faith Lutheran Church and School Council Member
1999 – 2002	ACS Panhandle Plains Local Section Officer and President

CERTIFICATIONS AND CLEARANCES

2003 CTM Certification, Toastmasters International, Club 9440, Amarillo, TX
2002 Six-Sigma Black Belt Certification, BWXT Pantex LLC, Amarillo, TX
2002 Department of Energy Q & SCI Security Clearances, BWXT Pantex LLC, Amarillo, TX
2001 OSHA 40-Hour Hazardous Waste Operations Certification, West Texas A&M University, Canyon, TX

HONORS, AWARDS, AND SPECIAL RECOGNITIONS

2016	College of Science Engineering and Technology Faculty Excellence in Service Award
2016	Nominee for the SHSU Faculty Excellence in Teaching Award
2015	Nominee for the SHSU Faculty Excellence in Service Award
2013	Nominee for the College of Science Faculty Excellence in Teaching Award
2010, 2012	Outstanding Teacher – Alpha Chi National Honor Society, Sam Houston State University
2012	Sammy Award Nominee for "Best Student Organization Faculty Advisor", Sam Houston State University
2008	"Best Darn Teacher in the World Award" – Phi Sigma Pi National Honor Fraternity, Sam Houston State Univ.
1994	Milton Harris Teaching Excellence Award as a Graduate Teaching Assistant, Oregon State University
1993	Outstanding Teaching Assistant Award, Oregon State University

SERVICE TO THE PROFESSION

Reviewer for the following entities: ScienceDirect Search Tools, Elsevier; Journal of Chemical Education; The Chemical Educator; US Army Corps of Engineers' Engineer Research and Development Center (ERDC); Joint Army Navy NASA Air Force (JANNAF) Journal, Chemical Propulsion Information Analysis Center; Physical Chemistry-GRE, Texas Teacher Certification Chemistry and General Science Exams, Educational Testing Service; Journal of Physical Chemistry A

TEACHING EXPERIENCE - COURSES TAUGHT

2004 – present	Physical Chemistry – Spectroscopy (Fall) and Thermodynamics (Spring) (Sam Houston State University)
2005 – present	Forensic Chemistry (Sam Houston State University)
2006 – present	Graduate Thermodynamics (Sam Houston State University)
2005Su, 2010Su	Inorganic & Environmental Chemistry Lecture and Lab (Sam Houston State University)
1997 – 2002	Environmental Chemistry (West Texas A&M University)
1997 – 2001	Instrumental Analysis (West Texas A&M University)
1997 – 2001	Analytical Chemistry (West Texas A&M University)
1997 – present	Graduate Molecular Spectroscopy (West Texas A&M University and Sam Houston State University)
1997 – present	General Chemistry I and II (West Texas A&M University and Sam Houston State University)

SCHOLARLY AND CREATIVE CONTRIBUTIONS

1. US Patent 9,958,264, Portable Contact Angle Measuring Device, May 1, 2018.
2. US Patent 9,874,528, Portable Contact Angle Measuring Kit, January 23, 2018.
3. (Invited) Regulatory Update on Solvent Cleaning Processes in the USA, *Fastener Technology International*, 40(3), 58 – 59 (2017).
4. (Invited) Regulatory Update on Solvent Cleaning Processes in the USA, *Wire Forming Technology International*, 20(3), 60 – 61 (2017).
5. Final Report: Development of Azeotropic Blends to Replace TCE and nPB in Vapor Degreasing Operations, Funded by the Strategic Environmental Research and Development Program (SERDP), 360 pages, available at http://www.shsu.edu/academics/chemistry/cleanresearch/
6. (Invited) Wettability Techniques to Monitor the Cleanliness of Surfaces, Chapter 10, in Rajiv Kohli & K. L. Mittal (Eds.), Developments in Surface Contamination and Cleaning, vol. 1, Elsevier Inc., New York, NY, (2016).
7. Particle on a Ring Spectroscopic Selection Rules Determined by Group Theory, *J. of Chem. Educ*. 92, 2165 – 2169 (2015).
8. (Invited) Solvent Substitution Strategies for Finishers, *Products Finishing*, 78(7), 36 – 38, (2014).
9. Microsphere Lithography on Hydrophobic Surfaces for Generating Gold Films that Exhibit Infrared Localized Surface Plasmon Resonances, *J. Phys. Chem. B*, 117(49), 15313 – 15318, (2013).
10. (Invited) Solving the Solvent Substitution Puzzle, *Controlled Environments Mag*., 16(8), 10-14, (2013).
11. (Invited) Cleanliness Verification on Large Surfaces – Instilling Confidence in Contact Angle Techniques, Chapter 5, in Rajiv Kohli & K. L. Mittal (Eds.), Developments in Surface Contamination and Cleaning, vol. 6, Elsevier/William Andrew, Norwich, NY, (2013), pp 163 – 181.
12. (Invited) BOOK REVIEW: CRC Handbook for Critical Cleaning: Book I – Cleaning Agents and Systems, Book II – Applications, Processes, and Controls, *Controlled Environments Mag.*, March (2012).
13. (Invited) Just How Clean is Clean, *Products Finishing*, 76(5), 34-37, (2012).
14. (Invited) Point of View: The Path from Academia to Industry and Back, *Controlled Environments Mag.*, April (2011).
15. Contact Angle Measurements Via Cellphone Cameras - Bikerman Method, *Galvanotechnik*, 102(8), 1718-1725, (2011).
16. Computerized Measurement of Contact Angles, *Galvanotechnik*, 101(11), 2502-2512, (2010).
17. Controlling the Particle-Size Distribution of Nitroanilines via the Hansen Solubility Parameters and Precipitation Paths, *Proceedings of the 43rd Combustion Subcommittee Meeting of the Joint Army Navy NASA Air Force (JANNAF) Interagency Propulsion Committee, Enhanced Blast Phenomenology*, La Jolla, (2009).
18. A QSAR Model for Predicting Solvents and Solvent Blends for Energetic Materials, *Proceedings of the Intl.Annual Conference of ICT, 40th (Energetic Materials)*, Karlsruhe, Germany, 2/1-2/11, (2009).
19. A Determination of the Hansen Solubility Parameters of Hexanitrostilbene (HNS), *Propellants Explosives and Pyrotechnics*, 34(5), 452-457, (2009).
20. Beyond Lambda-Max Part 2: Predicting Molecular Color, *Journal of Chemical Education*, 86(3), 333-339 (2009).
21. Evaluation of Modified IMS Swabs for the Screening of Oxidizers and Home-made Explosives, *Texas Journal of Science*, 60(4), 299-308, (2008).
22. Discoveries in Chemistry & Textiles: a Two-Week Course in Germany & Paris, *Chem Educator* 13(6), 392-396 (2008).
23. An Inexpensive, Digital Instrument for Surface Tension, Interfacial Tension, and Density Determination, *Ind. & Engineering Chemistry Research*, 47(12), 4286-4289 (2008).
24. Beyond Lambda-Max: Transforming Visible Spectra into 24-bit Color Values, *Journal of Chemical Education*, 84(11), 1873-1877 (2007).
25. IR & Raman Signatures of Aromatic Nitration in Thermoplastic Urethanes, *Applied Spec.*, 61(6), 608-612 (2007).
26. Solvent Substitution – PART 2: The Elimination of Flammable, RCRA and ODC Solvents for Wipe Application, *CleanTech Magazine*, 4(10), 14-16 (2004).
27. Solvent Substitution – PART 1: The Elimination of Flammable, RCRA and ODC Solvents for Wipe Application, *CleanTech Magazine*, 4(9), 16-19 (2004).
28. UV-Induced Degradation Rates of TATB, *J. of Phys. Chem. A*, 107(44), 9491-9494 (2003).
29. X-ray Photoelectron Spectroscopic (XPS) Examinations of Beryllium Metal Surfaces Exposed to Chlorinated Solvents, *Surf Interface Anal*. 27, 273-282, (1999).
30. IR of $Al(BH_4)_3$ and $Al(BD_4)_3$, *J. of Phys. Chem. A*, 102(3), 537-544. (1998).
31. PC Calculations Using Gaussian for Windows, *J. of Chem. Educ.*, 73(7), 608-611 (1996).