

**William E. Acree, Jr.**

**BIOGRAPHICAL SKETCH**

**1. Mailing and Correspondence Information:**

Department of Chemistry  
University of North Texas  
1155 Union Circle Drive #305070  
Denton, TX 76203  
E-mail: [acree@unt.edu](mailto:acree@unt.edu)  
Telephone: (940) 565-3543



**2. Educational Background:**

Name	Location	Date Graduated
Oak Park High School	Kansas City, Missouri	May 1971
University of Missouri-Rolla	Rolla, Missouri	May 1975 B.S.
University of Missouri-Rolla	Rolla, Missouri	May 1977 M.S.
University of Missouri-Rolla	Rolla, Missouri	May 1981 Ph.D.

**Awards and Honors:**

Curators Scholarship (1971-75)  
Chancellors Scholarship (1975)  
Phi Eta Sigma Honor Society  
Phi Kappa Phi Honor Society  
Kappa Mu Epsilon Honorary Mathematics Society  
Outstanding Freshman Chemistry Student  
(awarded by W. T. Schrenk Chemical Society)  
Outstanding Graduating Senior in Chemical Sciences  
(awarded by the local section of Alpha Chi Sigma at the University of Missouri-Rolla)

**3. Non-academic Work Experience:**

Research Associate	Phillips Petroleum Co. Summer Employee	May-July 1980
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**4. Academic Experience:**

Chair of Chemistry	University of North Texas	July 2009 – Aug. 2015
Professor	University of North Texas	Sept. 1992 - Present
Associate Professor	University of North Texas	Sept. 1988 - Aug. 1992
Associate Professor (tenured)	Kent State University	Sept. 1986- Aug. 1988
Assistant Professor	Kent State University	Sept. 1982-

		Aug. 1986
Faculty Associate	Kent State's Liquid Crystal Institute	March 1985- Aug. 1988
Instructor	University of Kansas	Aug. 1981- May 1982
Research Associate	University of Kansas	Jan. 1980- May 1981

### **Awards, Honors and Recognitions:**

Sigma Xi (Full member)  
 UNT Scholar of the Month (March, 1991)  
 Society of Applied Spectroscopy Tour Speaker for 1994  
 Recipient of 2004 UNT McNair Postbaccalaureate Achievement Program – Outstanding Service Award  
 Recipient of 2006 UNT Upward Bound Math & Science Program – Outstanding Mentor Award  
 Prof. William E. Acree, Jr. Award established in 2010 in my name by the Global Journal of Physical Chemistry for the best paper published each year in the journal in the area of thermodynamics, the award was transferred in 2012 to the best thermodynamics paper published in *ScienceJet* and discontinued in 2015  
 June 2012 issue of the *Journal of Spectroscopy and Dynamics* dedicated to Prof. William E. Acree, Jr.  
 UNT Libraries 2012 Outstanding Contributor to the University of North Texas Scholarly Works Award  
 Recipient of Professional Degree in Chemistry from Missouri University of Science and Technology (May 2013 graduation ceremony)  
 Fellow of The Royal Society of Chemistry, elected July of 2013  
 Fellow of International Union of Pure and Applied Chemistry (IUPAC), December of 2013  
 Recipient of the Analytical Challenge (Ksp Solubility Product) Award, sponsored by Springer-Verlag, July of 2015  
 Recipient of the Analytical Challenge (Highest Melting Point) Award, sponsored by Springer-Verlag, September of 2015  
 Recipient of the 2016 Yale Educator Award  
 Recipient of a 2018 College of Science Faculty Award for Service  
 Recipient of the UNT 2020 Ulys & Vera Knight Faculty Mentor Award  
 Recipient of the UNT 2021 TAMS and Honors College Excellence in Undergraduate Mentoring Award  
 Recognized as the Alumnus of the Month for June 2022 by the Department of Chemistry at the University of Missouri University of Science and Technology (MS&T)  
 Finalist for the 2023 CUR-Goldwater Outstanding Faculty Mentor Award  
 Finalist for the 2024 CUR-Goldwater Outstanding Faculty Mentor Award  
 Recipient of the UNT 2024 President's Council Service Award

### **5. Editorial Advisory Board Memberships:**

Editorial Board of *IUPAC's Solubility Data Series* (Volume 56)  
 Editorial Board of John Wiley's *Solution Chemistry Series* (Oct. 1995 – Dec. 2000)  
 Editorial Board of *Science of Everyday Things* (Four volume series, by Gale Group of Thompson Learning, June 2001)  
 Editorial Advisory Board Member for the *Journal of Chemical and Engineering Data* (January 2004 - December 2006; January 2007 – December 2009; January 2010 – December 2012)  
 Editorial Advisory Board Member for the *Journal of Chemical Thermodynamics* (January 2007 – December 2011, August 2023 – Present)  
 Co-Editor of the *Journal of Chemical Thermodynamics* (January 2012 – June 2023)  
 Top Reviewer Award for 2007 from the *Journal of Chromatography*  
 Editorial Board Member for the *Journal of Thermodynamics* (July 2008 – May 2017t)

Editorial Board Member for the *International Journal of Liquid State Sciences*  
(August 2008 – Present)

Editorial Advisory Board Member for the *Global Journal of Physical Chemistry*  
(March 2010 – June 2012)

Editorial Advisory Board Member for the *RASAYAN Journal of Chemistry* (May 2010 – December 2014)

Senior Advisor for the *Journal of Spectroscopy and Dynamics* (September 2010 – September 2013)

Senior Advisor for the journal *ScienceJet* (June 2012 – December 2014)

INTECH Science Board Member (2010 – 2011, 2011 – 2012, 2012 - 2013)

Editorial Advisory Board Member for *Journal of Basic and Applied Sciences* (May 2011 – December 2012)

Editorial Advisory Board Member for *Open Journal of Fluid Dynamics* (January 2012 – December 2013)

Editorial Advisory Board Member for *Journal of Applied Solution Chemistry and Modeling*  
(June 2012 – Present)

Editorial Advisory Board Member for *Mediterranean Journal of Chemistry* (July 2012 – Present)

Editorial Advisory Board Member for *European Chemical Bulletin* (September 2012 – Present)

Editorial Advisory Board Member for *Journal of Thermodynamics and Catalysis*  
(September 2012 – Present)

Editorial Advisory Board Member for *Green and Sustainable Chemistry* (September 2012 – Present)

Editorial Advisory Board Member for *Conference Papers in Chemistry* (September 2012 – December 2014)

Editorial Advisory Board Member for *Modern Chemistry* (December 2012 – December 2014)

Editorial Advisory Board Member for *International Research Journal of Thermodynamics*  
(February 2013 – Present)

Editorial Advisory Board Member for *Modern Chemistry and Applications* (February 2013 – Present)

Editorial Advisory Board Member for *The Open Chemical Engineering Journal* (July 2013 – Present)

Editorial Advisory Board Member for *International Journal of Quantitative Structure-Property Relationships* (May 2015 – Present)

Editorial Advisory Board Member for *Journal of Chemistry and Applied Chemical Engineering* (July 2017 – Present)

Editorial Advisory Board Member for *Pharmaceutical Sciences* (August 2019 – Present)

Editorial Advisory Board Member for the Physical Chemistry Section of *Molecules* (September 2019 – Present)

Editorial Advisory Board Member for the Thermal Management Section of *Energies* (December 2019 – Present)

Editorial Advisory Board Member for *Revista Colombiana de Ciencias Químico Farmacéuticas* (May 2020 – Present)

Editorial Advisory Board Member for *Thermo* (July 2020 – Present)

Editorial Advisory Board Member for *Liquids* (October 2020 – February 2023)

Section Editor-in-Chief of “Molecular Liquids” for the journal *Liquids* (February 2023 – Present)

## 6. Memberships on Professional Society Subcommittees:

Membership on the IUPAC Subcommittee on Solubility and Equilibrium Data (January 2014 – Present)

## 7. Academic Service Assignments:

### University-Wide Service Assignments:

Member of University-wide Subcommittee for SACS accreditation:  
Graduate Programs (April 1993 – April 1995)

Member of University-wide Subcommittee for SACS accreditation:  
External Grants and Contracts and Related Corporate Entities

(April 1993 – April 1995)  
 Member of University Developing Scholars Committee (June 1996 – Sept 2000)  
 Chair of (1998 – 2000)  
 Member of the University Committee to Evaluate Administrators  
 (Sept. 1996 – Sept 2002; appointed by Faculty Senate)  
 Member of the University Sunset Review Team for the Institute of Applied Sciences  
 Chair of (Spring 2002)  
 Member of the UNT Endorsement Committee for Simon Scholarship Award for Noble Purpose  
 (Fall 2004; Committee established by UNT Office for Nationally Competitive Scholarships)  
 Member of the Faculty Senate (elected Representative from Group VII, Nov. 2006 – May 2007)  
 Chemistry Departmental Coordinator for UNT State Employee Charitable Campaign  
 (Aug. 2005 – Sept. 2015)  
 Mentor for the UNT Emerald Eagle Scholars Program (Sept. 2007 – Aug. 2008;  
 Sept. 2009 – Aug. 2011)  
 Faculty Ambassador (Oct. 2007 – Sept. 2009)  
 Member of University Scholar's Committee (Spring 2012 and 2013)  
 Member of University Chemical Hazards Committee (April 2013-Present, Chair of April 2013–  
 May 2015)  
 Member of University Environmental Oversight and Risk Review Committee (April 2013 – Sept. 2015)  
 Member of the University First Flight Task Force (Jan. 2014 – Sept. 2014)  
 Member of the Provost's Open Access Advisory Board (May 2016 – June 2019; Chair of Oct. 2017 – June  
 2019)  
 Member of the University Writing Committee (Nov, 2017 – Aug. 2020)  
 Member of the COVID-19 Graduate Student Grade Appeal Committee (May 2020 – Aug. 2020)  
 Member of the Academic Affairs Committee (Sept. 2020 – Aug. 2023)  
 Member of University Mentoring Program Grants Selection Committee (Oct. 2020 – Dec. 2020)

### **College Service Assignments:**

Member of KSU's Honors College Policy Council (1985 – 1987)  
 Member of College of Arts & Sciences Graduate Curriculum Committee  
 (Aug. 1994 - Aug. 1998, Sept. 2000 – Aug. 2003; Sept. 2016 – May 2017)  
 Member of College of Arts and Sciences Departmental Assessment Committee  
 (Aug. 1996 – March 1997; elected member)  
 Member of College of Arts & Sciences Council of Advisors (June 2005 – July 2009; Sept. 2016 –  
 May 2017)  
 Member of College of Arts & Sciences Undergraduate Curriculum Committee  
 (Oct. 2007 – May 2009; elected member)  
 Member of College of Sciences Council of Advisors (May 2017 – Sept. 2021)  
 Member of College of Science Ad-hoc Space Committee (June 2018 – Dec. 2019)  
 Member of Health Proessions Advisory Committee (April 2019 – May 2021)  
 Member of ad Hoc Faculty Grievance Committee (April 2019 - July 2019)

### **Departmental Service Assignments:**

Departmental Awards Coordinator (1984 – 1988)  
 Member of Departmental Graduate Committee (1986 – 1988)  
 Chemistry Department Representative to KSU's local AAUP Chapter  
 Member of Departmental Graduate Recruiting Committee (1991– 1993)  
 Departmental Recruiting Chair (1991 – 1993)  
 Departmental International Recruiting Chair (1993 – 1997)  
 Member of Departmental Personnel Affairs Committee (1990 – 1994; 1995 – 1998; 2003 – 2006, 2007  
 – 2009; 2015 – 2018; 2022 – Present); Chair of (1991 – 1994, 1997 – 1998; 2017 – 2018)  
 Member of Departmental Graduate Affairs Committee (1992 – 1997, Jan. 2000 – Sept. 2000)  
 Member of Departmental Undergraduate Affairs Committee (1997 – 2007; 2016 – 2021; Chair of

Sept. 2000 – May 2007; Acting Chair of Jan. 2009 – Aug. 2009; Co-Chair of Sept. 2016 – Sept. 2021)

Analytical Chemistry Division Chair (Jan. 1994 – May 1994; Sept. 1995 – June 2008; June 2023 – Present)

Departmental Seminar Coordinator (Aug. 1994 – Dec. 1995)

Adhoc Committee to revise Departmental Tenure Policy (Spring 1996); Chair of Departmental Representative to SRB Space Committee (June 1996 – Sept. 2001)

Member of Departmental Tenure and Promotion to Associate Professor Committee (Sept. 1991 – Present; Chair of Sept. 2017 – Sept. 2018)

Member of Departmental Promotion to Full Professor Committee (Sept. 1992 – Present; Chair of Sept. 2017 – Sept. 2018)

Adhoc Committee on Departmental Instrumentation (Sept. 1997 – Sept. 2002; Chair of Sept. 1997 – Sept. 2000)

Interim Undergraduate Chemistry Advisor (Jan. 2001 – March 2001)

Undergraduate Chemistry Advisor (June 2005 – June 2009; Sept. 2016 – Sept. 2021)

Member of Departmental New Science Building Committee (Sept. 2001 – Dec. 2005; Chair of Sept. 2001 – Dec. 2005)

Member of Chemistry Departmental REU Advisory Board (March 2003 – Dec. 2005; May 2007 – Present)

Associate Chair of Chemistry (May 2007 – May 2009; Sept. 2018 – May 2021)

Co-Advisor UNT ACS Student Affiliate Chapter (Nov. 2016 – Present) **Student chapter received a 2018-2019 Honorable Mention Award from the ACS**

Member of Departmental Grade Appeal Committee (Sept. 2015 – June 2020)

Chair of Departmental Grade and Academic Integrity Appeals Committee (Sept. 2021 – Present)

Chair of Departmental Faculty Awards Committee (Sept. 2021 – Present)

Faculty Advisor to the Beta Eta Chapter of Alpha Chi Sigma (Jan. 2022 – May 2022, chapter went dormant because of lack of new members)

Member of Departmental Alumni Relations Committee (Jan. 2023 – Present)

### **Service to Other Academic Programs:**

TAMS Admission Interviewer (Spring, 1996, 1997 and 2001)

Research mentor for summer UNT Upward Bound Math & Science Program (Summer 1992 – 2017)

Panel Member for McNair Program (Fall 1995, Summer 1997 and Summer 1998)

Mentor for the UNT McNair Postbaccalaureate Achievement Program (Spring 1997 – 2017)

Member of the UNT McNair Postbaccalaureate Achievement Program Advisory Board (Jan. 2000 – May 2017)

Member of the FOCUS Scholarships Advisory Board (this is for a funded research grant that Dr. Lee Hughes and Dr. Diana Mason are Co-PIs on; Jan. 2009 – Jan. 2013)

TAMS Scientific Review Committee, Board Member (May 2015 – Present)

Mock Lecturer for TAMS Preview Days (Sept. 2017 - Present)

Member of Teach North Texas (TNT) Promotion Committee (Sept. 2018 – Dec. 2019; Chair of Sept. 2018 – Dec. 2019)

Member of TAMS Distinguished Alumnus Award Committee (Nov. 2018 – Aug. 2019)

### **Mentoring Activities for Texas Academy of Math and Science Students:**

Mentor to eight Regional Finalists and sixteen Semifinalists in the Siemens Competition

**Regional Finalists:** Sai Achi (2009); Mariam Saifullah (2010); Shulin Ye (2010); Sumedha Mehta (2014); Akash Wadawadigi (2014); Nina Kuprasertkul (2014); Colleen Dai (2015); Shoshana Zhang (2015)

**Semi-Finalists:** Sai Achi (2009); Mariam Saifullah (2010); Shulin Ye (2010); Vicky Chou (2011); Amanda Quay (2011); Helen Lu (2013); Kalpana Satish (2013); Danyang Shan (2013); Sumedha Mehta (2014); Akash Wadawadigi (2014); Nina Kuprasertkul (2014); Colleen Dai (2015); Shoshana Zhang (2015); Sarah Cheeran (2016); Bihan Jiang (2016); Amber Lu (2016)

- Mentor to two Semifinalists in the Intel Science Search  
Sai Achi (2009); Amanda Quay (2012)
- Mentor to seven Barry M. Goldwater Scholarship recipients  
Amanda Quay (2012); Amber Lu (2017); Ellen Qian (2019); Jonathan Lu (2019); David Yue (2019); Shrika Eddula (2021); Neel Shanmugam (2022)
- Mentor to one Truman Scholarship Finalist  
David Yue (2019)
- Mentor to 3 TAMS students (N. Kurasertkul, S. Mehta and A. Wadawadigi) who competed in the 2015 Fort Worth Regional Science Fair – Awards received by students include second place in Biochemistry (Senior Division), third place in the awards given by Lockheed Martin Aeronautics Company, and first place in the awards given by the Tarrant County Veterinary Medical Association
- Mentor to 3 TAMS students (N. Kurasertkul, S. Mehta and A. Wadawadigi) who competed in the 2015 Exxon Mobil Science and Engineering Fair – Award received by the students was fifth place in Senior Division Life Sciences – Biochemistry
- Mentor to 2 TAMS students (S. Zhang and C. Dai) who competed in the 2015 Exxon Mobile Science and Engineering Fair – Award received by the students was fourth place in Senior Division Physical Sciences – Mathematical Science
- Mentor to 3 TAMS students (S. Cheeran, B. Jiang and A. Lu) who competed in the 2016 Fort Worth Regional Science Fair – Awards received by students included first place in Mathematics (Senior Division), first place in the award given by ASU Walton Sustainability Solutions Initiative, and first place in the award given by Mu Alpha Theta
- Mentor to 1 TAMS student (B. Jiang) who competed in the 2017 Fort Worth Regional Science Fair - Award received by the student was first place in Senior Division - Energy and Transportation
- Mentor to 1 TAMS student (E. Qian) who competed in the 2018 Fort Worth Regional Science Fair - Award received by the student was first place in Senior Division - Chemistry
- Mentor to 1 TAMS student (E. Qian) who competed in the 2018 Texas State Science and Engineering Fair - Award received by the student was third place in Senior Division - Chemistry
- Mentor to 2 TAMS students (S. Wang and K. Liu) who competed in the 2019 Fort Worth Region Science Fair - Award received by the students was first place in the award given by the North Texas Section of the American Industrial Hygiene Association
- Mentor to 2 TAMS students (S. Eddula and J. Huang) who competed in the 2020 Fort Worth Regional Science Fair – Award received by the students was first place in Senior Division – Environmental Management and Sciences
- Mentor to 2 TAMS students (S. Eddula and J. Huang) who were UNT’s two student representatives at the Capitol’s 2021 Texas Undergraduate Research Day
- Mentor to 2 TAMS students (S. Eddula and J. Huang) who competed in the 2021 Fort Worth Regional Science Fair – Award received by the students was first place in Senior Division - Environmental Management & Sciences, students also received six place overall award in the Senior Division
- Mentor to 2 TAMS students (S. Cai and A. Xu) who competed in the 2021 Fort Worth Regional Science Fair – Award received by the students was second place in Senior Division – Animal Sciences
- Mentor to 2 TAMS students (K. Kim and P. Garlapati) who competed in the 2021 Fort Worth Regional Science Fair – Award received by the students was second place in Senior Division – Chemistry
- Mentor to 1 TAMS student (E. Huang) who competed in the 2021 Fort Worth Regional Science Fair – Award received by the student was second place in Senior Division – Earth & Planetary Sciences
- Mentor to 1 TAMS student (A. Xu) who competed in the 2021 Texas Junior Academy of Science (TJAS) competition – Award received by student was second place in Botany/Zoology category
- Mentor to 1 TAMS student (K. Kim) who competed in the 2021 Texas Junior Academy of Science (TJAS) competition – Award received by student was second place in the Environmental Science category.
- Mentor to 2 TAMS students (S. Sinha and A. Varadharajan) who competed in the 2022 Fort Worth Regional Science Fair – award received by students was second place in Senior Division – Chemistry



Mentor to 1 TAMS student (S. Cai) who competed in the 2022 Fort Worth Regional Science Fair – award received by student was first place in Senior Division – Environmental Management & Sciences; as well as two special awards: first place – U.S. Agency for International Development, and first place – Ricoh Sustainable Development Award.

Mentor to 1 TAMS student (A. Xu) who competed in the 2022 Fort Worth Regional Science Fair – award received by student was third place in Senior Division – Plant Sciences

Mentor to 2 TAMS students (S. Sinha and N. Shanmugam) who competed in the 2023 Fort Worth Regional Science Fair – award received by students was a special award: third place – NASA Earth System Science Award

Mentor to 1 TAMS student (R. Motati) who competed in the 2023 Texas State Stockholm Junior Water Prize from the Water Environment Association of Texas – award received by student was third place.

### **Service to the Chemical Profession:**

City of Kent Task Force for "Right-to-Know" Legislation (1985-1987)

Judge for the ACS Meeting-in-Miniature (Spring 1992, meeting at the University of North Texas; Spring 1993, meeting at East Texas State University; Spring 2000, meeting at the University of North Texas)

Program Advisory Committee for First Conference of the International Academy of Physical Science (held Feb. 1996 in Bilaspur, India)

Sigma Xi Officer (Vice-President of UNT Chapter, May 1997-May 1998)

Program Committee for Symposium on "Chemometrics, Imaging, and Pattern Recognition for the Monitoring of the Environment", (held Sept. 1999 in Boston, MA)

Contributor to the *World of Chemistry* Encyclopedia (Published by the Gale Group, 1999)

Consultant for Texas International Education Consortium – my portion of project involved design of introductory chemistry laboratory component for a new university in Saudi Arabia (arranged by Dean of Arts and Sciences), February 2005.

Judge for the 54<sup>th</sup> Annual Fort Worth Regional Science Fair (Chemistry section), Fair held at the University of North Texas, March, 2005

Judge for the 55<sup>th</sup> Annual Fort Worth Regional Science Fair (Environmental Science section), Fair held at the University of North Texas, March, 2006

Judge for the 56<sup>th</sup> Annual Fort Worth Regional Science Fair (Chemistry section), Fair held at the University of North Texas, March, 2007

Examination Reviewer/Consultant (Secondary and High School Examinations) for Harcourt Assessment, Inc.; March 2007 – March 2009

Judge for the 57<sup>th</sup> Annual Fort Worth Regional Science Fair (Best of Fair), Fair held at the University of North Texas, March, 2008

Member of IUPAC Project Group on Solubility DATA Series - Celebrating 100 Volumes of Plenitude of the IUPAC-NIST Series (Jan. 2014 - Aug. 2014)

Member of ACS Southwest Regional Subcommittee to Select Winner of the 2016 E. Ann Nalley Award (July 2016 - October 2016)

Member of IUPAC Task Force on Recommended Reference Materials for Phase Equilibrium Studies (June 2017 - Present)

External Evaluator of the Chemistry Program at Tarleton State University (July 16, 2018)

Member of IUPAC Task Force on Henry's Law Constants (Aug. 2019 – Dec. 2021)

Member of IUPAC Task Force on Gold Book Update of Terms from the Glossary of Terms Related to Solubility (April 2021 - Present)

Honorary Guest Editor for 2022 September Special Issue of the *Journal of Solution Chemistry* dedicated to Professor Michael Abraham (**Special issue contained 10 papers**)

Guest Editor for the Special Issue in *Liquids* on Modeling of Liquids Behavior: Experiments, Theory and Simulations (**Special issue contained 14 papers**)

Guest Editor for the Special Issue in *Frontiers in Chemistry* on Solution Chemistry: Experimental and Computational Data

Guest Editor for the Honorary Issue in *Liquids* dedicated to Professor Christian Reichardt (**Special**

**issue contains 5 papers thus far - closing date was November 2023, several additional papers are in various stages of review)**

Guest Editor for the Special Issue in *Thermo* in the Editorial Board Members' Collection Series:  
Molecular Simulation and Thermodynamics

Guest Editor for the Special Issue in *Liquids* on Recent Advances in the Behavior of Liquids in Honor of Prof. Dr. William Acree Jr. **(Closing date is May 2024; two papers have already been submitted for publication)**

Reviewer for the following chemical journals: *Journal of Chromatography*; *Applied Spectroscopy*; *Journal of Solution Chemistry*; *International Journal of Pharmaceutics*; *Journal of Chemical and Engineering Data*; *Journal of Pharmaceutical Sciences*; *Analytical Letters*; *Journal of Colloid and Interface Science*; *Journal of Chemical Society, Faraday Transactions*; *Journal of Molecular Liquids*; *Fluid Phase Equilibria*; *Canadian Journal of Chemistry*; *Mikrochimica Acta*; *Industrial and Engineering Chemistry Research*; *Thermochimica Acta*; *Journal of Chemical Society, Perkin Transactions 2*; *Journal of Physical Chemistry*; *Journal of Chemical Education*; *The Analyst*; *Analytica Chimica Acta*; *Journal of Chemical Thermodynamics*; *Journal of Physical and Chemical Reference Data*; *Journal of the American Chemical Society*; *Talanta*; *Macromolecules*; *Chemical Engineering Communication*; *Environmental Science and Technology*; *Spectrochimica Acta*; *Physical Chemistry Chemical Physics*; *Polycyclic Aromatic Compounds*; *Journal of Organic Chemistry*; *Journal of the Chemical Society, Chemical Communications*; *Green Chemistry*; *Structural Chemistry*; *Electrophoresis*; *Organic & Biomolecular Chemistry*; *Spectroscopy Letters*; *New Journal of Chemistry*; *Journal of Separation Science*; *Journal of Environmental Monitoring*; *Pharmaceutical Research*; *Journal of Photochemistry and Photobiology A*; *South African Journal of Chemistry*; *Science of the Total Environment*; *Energy & Fuels*; *Organic Geochemistry*; *Physics and Chemistry of Liquids*; *Chemical Research in Toxicology*; *QSAR & Combinatorial Science*; *Die Pharmazie*; *Organic Letters*; *Journal of Chromatographic Science*; *Asian-Pacific Journal of Chemical Engineering*; *Journal of Physical Organic Chemistry*; *Analytical and Bioanalytical Chemistry*; *Environmental Chemistry Letters*; *Chemical Physics Letters*; *International Journal of Thermophysics*; *Bioconjugate Chemistry*; *Environmental Toxicology and Chemistry*; *Electrophoresis*, *Journal of Drug Targeting*; *Global Journal of Physical Chemistry*; *Luminescence: The Journal of Biological and Chemical Luminescence*; *International Journal of Chemical Engineering*; *Chemical Engineering Journal*; *International Journal of Analytical Chemistry*; *Korean Journal of Chemical Engineering*; *Journal of Petroleum Science and Engineering*; *Scientific Reports*; *European Journal of Pharmaceutical Sciences*; *Journal of Thermal Analysis and Calorimetry*; *International Journal of Environmental Analytical Chemistry*; *Characterization of Materials*; *Indian Journal of Chemistry, Section A*; *Arabian Journal of Chemistry*; *International Journal of Physical Sciences*; *Journal of Molecular Structure*; *Journal of Shanghai Jiao Tong University*; *Natural Product Communications*; *Recent Patents on Chemical Engineering*; *Mini-Reviews in Medicinal Chemistry*; *Current Pharmaceutical Analysis*; *Iranian Journal of Pharmaceutical Research*; *American Chemical Science Journal*; *International Journal of Energy Research*; *SAR and QSAR in Environmental Research*; *Green and Sustainable Chemistry*; *Advances in Chemical Engineering*; *Journal of Chemical Technology and Biotechnology*; *Journal of Industrial and Engineering Chemistry*; *Bulgarian Chemical Communications*; *Journal of Applied Solution Chemistry and Modeling*; *Journal of Computer Aided Molecular Design*; *Mediterranean Journal of Chemistry*; *Chemical Engineering Research and Design*; *Biomacromolecules*; *Pharmaceutical Sciences*; *Chemistry Central Journal*; *Journal of Luminescence*; *Colloids and Surfaces A*; *Journal of Environmental Chemical Engineering*; *Molecular Physics*; *Environmental Sciences: Processes and Impacts*; *Chemical Product and Process Monitoring*; *Critical Reviews in Analytical Chemistry*; *Industrial Crops and Products*; *Monatshefte für Chemie*; *Journal of CO2 Utilization, Separation and Purification Technology*; *Fermentation*; *ChemEngineering*; *Canadian Journal of Chemical Engineering*; *Chinese Journal of Chemical Engineering*; *Processes*; *Mendeleev Communications*; *French-Ukrainian Journal of Chemistry*; *Symmetry*; *Journal of Pharmacy and Pharmacology*; *Pharmaceutics*; *Food Hydrocolloids*; *Photochemical and Photobiological Sciences*; *Journal of AOAC International*; *Pure and Applied Chemistry*; *Chemical Data Collections*; *Revista Colombiana de Ciencias Químico – Farmacéuticas*; *Energies*; *Journal of the Taiwan Institute of Chemical Engineers*; *International Journal of Biological Macromolecules*; *Data*; *Journal of the Mexican Chemical Society*; *Iranian Journal of*



*Pharmaceutical Sciences; Journal of Food Engineering; Materials; Chemistry; Biochemical and Biophysical Research Communications; Separations.*

Reviewer for CRC Press

Reviewer for the following funding agencies: National Science Foundation, ACS Petroleum Research Fund

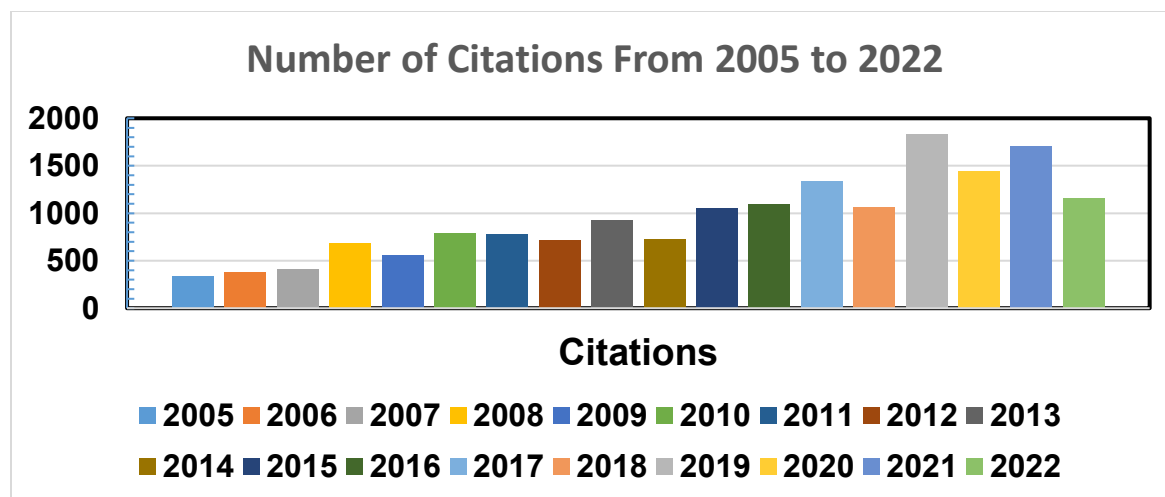
## 8. Publications:

Source: Web of Science (1945 – Present)

Sum of Times Cited is 21,654

Average Citations per Article is 21.00

h-Index is 65



Dr. Acree has published more than 489 peer-refereed research papers with graduate and undergraduate student co-authors. In the list of authors on the following publications the **names of the graduate student are in green font**, **the names of the undergraduate chemistry and biology majors are in red font**, **the names of the undergraduate McNair scholars are in blue font**, **the names of the undergraduate TAMS scholars are in purple font**, **the names of the undergraduate NSF-REU participants are in aqua font**, and **the names of the summer Upward Bound Math and Science high school students are in orange font**. 1031 of Dr. Acree's publications list UNT as his University affiliation. 312 of Dr. Acree's publications are co-authored by graduate students and 331 papers are co-authored by undergraduate and high school students. Undergraduate students are first author on 129 of Dr. Acree's publications.

## Textbooks, Monographs, or Chapters:

1. "Thermodynamic Properties of Nonelectrolyte Solutions," **W. E. Acree, Jr.**, Academic Press, Inc., Orlando, FL, 1984, 306 pp.
2. "Nonelectrolyte Solutions: Thermodynamics," **W. E. Acree, Jr.**, *The Encyclopedia of Physical Science and Technology* (by Academic Press, Inc.), Vol. 9, 61-78 (1987).

3. "Nonelectrolyte Solutions: Thermodynamics," (Updated), **W. E. Acree, Jr.**, *The Encyclopedia of Physical Science and Technology* (by Academic Press, Inc.), Vol. 11, 1-22 (1992).
4. "Polycyclic Aromatic Hydrocarbons in Pure and Binary Solvent Mixtures," **W. E. Acree, Jr.**, Ed., IUPAC Solubility Data Series, Vol. 54, Oxford University Press, London, 1994, xlv + 337 pp.
5. "Predictive Methods for Solute Solubility in Binary Solvent Mixtures," **W. E. Acree, Jr.**, book chapter in *Current Topics in Solution Chemistry*, Council of Scientific Research Integration, Trivandrum, India, Volume 1, pp 1-30 (1994).
6. "Polycyclic Aromatic Hydrocarbons: Binary Nonaqueous Systems, Part I: Solutes A-E," **W. E. Acree, Jr.**, Ed., IUPAC Solubility Data Series, Vol. 58, Oxford University Press, 1995, xlvi + 338 pp.
7. "Polycyclic Aromatic Hydrocarbons: Binary Nonaqueous Systems, Part 2: Solutes F-Z," **W. E. Acree, Jr.**, Ed., IUPAC Solubility Data Series, Vol. 59, Oxford University Press, 1995, xxx + 347 pp.
8. "Solvent-Modulated Fluorescence Behavior and Photophysical Properties of Polycyclic Aromatic Hydrocarbons Dissolved in Fluid Solution," **W. E. Acree, Jr.**, **S. Pandey** and **S. A. Tucker**, book chapter in *Current Topics in Solution Chemistry*, Research Trends, Trivandrum, India, Volume 2, pp. 1-27 (1997).
9. "Gay-Lussac's Law of Combining Volumes," **W. E. Acree, Jr.**, *Macmillan Encyclopedia of Chemistry* (J. J. Lagowski, Ed.), Simon & Shuster Macmillan Publishing USA, Vol. 2, 682-684 (1997).
10. "Thermodynamics of Mobile Order Theory," **W. E. Acree, Jr.**, **J. R. Powell**, **M. E. R. McHale**, **S. Pandey**, **T. L. Borders** and S. W. Campbell, book chapter in *Trends in Physical Chemistry*, Council of Scientific Research Integration, Trivandrum, India, Volume 6, pp 197-233 (1997).
11. "Estimating Phase Change Enthalpies and Entropies," J. S. Chickos, **W. E. Acree, Jr.** and J. F. Liebman, Chapter 4 in *Computational Thermochemistry: Prediction and Estimation of Molecular Thermodynamics*, Karl Irikura and David Frurip (Editors), ACS Symposium Series No. 677, American Chemistry Society, Washington DC, pp. 63-91 (1998).
12. "Absorption and Luminescent Probes," **W. E. Acree, Jr.**, *Encyclopedia of Analytical Chemistry: Applications, Theory and Instrumentation*, (by John Wiley and Sons), 10280-10305 (2000).
13. "Absorption and Luminescence Detectors," **W. E. Acree, Jr.**, *Encyclopedia of Analytical Chemistry: Applications, Theory and Instrumentation*, (by John Wiley and Sons), 10333-10351 (2000).
14. "Modern General Chemistry Laboratory: Incorporating Computer-Oriented Data Acquisition and Evaluation Approach into the Student Laboratory Experience", **W. E. Acree, Jr.**, Eagle Images, xii + 296 pp, 2005 [ISBN 0-9774658-0-2].
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1. "Editorial," **W. E. Acree, Jr.**, R. D. Weir and A. A. H. Padua, *J. Chem. Thermodyn.*, 105, A1 (2017).
2. "Editorial: Pharmaceuticals Solubility is Still Nowadays Widely Studied Everywhere," F. Martínez, A. Jouyban and **W. E. Acree, Jr.**, *Pharm. Sci.*, 23, 1 (2017) **(by invitation)**.
3. "Michael H. Abraham and his Developed Parameters: Various Applications in Medicine, Chemistry and Biology," A. Jouyban and **W. E. Acree, Jr.**, *Pharm. Sci.*, 28, 170 (2022) **(by invitation)**.
4. "Introduction to the Michael Abraham Special Issue," **W. E. Acree, Jr.**, *J. Solution Chem.*, 51, 971 (2022) **(Guest Editor for Special Issue)**.
5. "The Impact of Automation on Immunoanalysis Testing," **W. E. Acree, Jr.**, *ImmunoAnalysis*, 3, 12-01 (2023).

### Data Table Publications:

1. "Heat of Fusion of Some Organic Compounds," **W. E. Acree, Jr.**, *Handbook of Chemistry and Physics* (65th Ed.), CRC Press, Inc. pp. C689-693.
2. "Heat Capacity ( $C_p$ ) of Organic Liquids and Vapors at 25 °C," **W. E. Acree, Jr.**, *Handbook of Chemistry and Physics* (66th Ed.) CRC Press, Inc., pp. D174-175.
3. "Excess Volume. Oxolan-2-one + Benzene," **W. E. Acree, Jr.**, K. Gholami, D. R. McHan and J. H. Rytting, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 17, 102 (1989).
4. "Excess Volume. Oxolan-2-one + Toluene," **W. E. Acree, Jr.**, K. Gholami, D. R. McHan and J. H. Rytting, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 17, 103 (1989).
5. "Excess Volume. Oxolan-2-one + 1,3-Dimethylbenzene," **W. E. Acree, Jr.**, K. Gholami, D. R. McHan and J. H. Rytting, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 17, 104 (1989).
6. "Heats of Fusion of Some Organic Compounds," **W. E. Acree, Jr.**, *Handbook of Chemistry and Physics* (1st Student Ed.), CRC Press, Inc., pp. C666-670.
7. "Enthalpy of Fusion of Some Organic Compounds," (Updated), **W. E. Acree, Jr.**, *Handbook of Chemistry and Physics* (71th Ed.), CRC Press, Inc., pp. 5:84-91.
8. "Excess Volume. Chlorobenzene + *n*-Heptane," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 45 (1992).

9. "Excess Volume. Chlorobenzene + *n*-Octane," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 46 (1992).
10. "Excess Volume. Chlorobenzene + 2,2,4-Trimethylpentane," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 47 (1992).
11. "Excess Volume. Chlorobenzene + Cyclohexane," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 48 (1992).
12. "Excess Volume. Chlorobenzene + Dibutyl Ether," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 49 (1992).
13. "Excess Volume. Dibutyl Ether + *n*-Heptane," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 50 (1992).
14. "Excess Volume. Dibutyl Ether + *n*-Octane," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 51 (1992).
15. "Excess Volume. Dibutyl Ether + 2,2,4-Trimethylpentane," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 52 (1992).
16. "Excess Volume. Dibutyl Ether + Cyclohexane," **W. E. Acree, Jr.** and **I.-L. Teng**, *Int. DATA Ser., Sel. Data Mixtures, Ser. A*, 20, 53 (1992).

### Miscellaneous:

1. "New Aspects of Liquid Crystals and Foams in Decontamination," Principal Investigators were **W. E. Acree, Jr.** and G. H. Brown, Technical Report for U. S. Army Contract DAAA15-85-C-0019, 1987.
2. "Correlation and Estimation of Aqueous Solubilities of Substituted Benzenes, Polychlorinated Biphenyls and Polycyclic Aromatic Hydrocarbons," C.-C. Tsai, **W. E. Acree, Jr.**, T. Blair, E. Gifford, L. J. Peterson and S.-T. Liao, *QSAR in Environmental Toxicology-III*, 207-210 (1988).

### 9. Papers Presented:

1. "Thermochemical Investigations of Solubility in Binary Solvent Systems," **W. E. Acree, Jr.**, presented at Missouri Academy of Science, Rolla, Missouri, April, 1976.
2. "Solubility in Binary Solvent Systems. Specific vs. Nonspecific Interactions" **W. E. Acree, Jr.**, and J. H. Rytting, presented at Midwest Regional ACS Meeting, Columbia, Missouri, November, 1981.
3. "Thermodynamic Models for Solubility in Binary Solvent Systems," **W. E. Acree, Jr.**, Academy of Pharmaceutical Sciences, San Antonio, Texas, February, 1985 (**invited symposium speaker**).
4. "Synthesis and Characterization of Nitrones," **J. J. Kirchner** and **W. E. Acree, Jr.**, presented at Central Regional SAACS Meeting, Kent, Ohio, April, 1986.
5. "Solubility of Pyrene in Binary Solvent Mixtures," **C. L. Judy** and **W. E. Acree, Jr.**, presented at Central Regional SAACS Meeting, Kent, Ohio, April, 1986.
6. "Solubility in Binary Solvents: The NIBS vs. Wilson Model," **N. M. Pontikos** and **W. E. Acree, Jr.**, presented at Central Regional SAACS Meeting, Kent, Ohio, April, 1986.

7. "Experimental Artifacts and Determination of Accurate Py Values," K. W. Street, Jr., and **W. E. Acree, Jr.**, presented at Central Regional ACS Meeting, Bowling Green, Ohio, June, 1986.
8. "Correlation and Estimation of Aqueous Solubilities of Polycyclic Aromatic Hydrocarbons, Halogenated Benzenes, and Polychlorinated Biphenyls," C.-C. Tsai, **W. E. Acree, Jr.**, R. J. Baker, F. S. Fojas, and L. J. Peterson, presented at 2nd International Workshop on QSAR in Environmental Toxicology, June, 1986.
9. "The Py Solvent Polarity Scale: Solvent Mixtures Used in Reversed-Phase Liquid Chromatography," K. W. Street, Jr. and **W. E. Acree, Jr.**, presented at National ACS Meeting, New Orleans, LA, September, 1987.
10. "Solvent Polarity Scales Used in Chromatography," K. W. Street, Jr., **W. E. Acree, Jr.** and C. F. Poole, presented at Pittsburgh Conference & Exposition, New Orleans, LA, February, 1988.
11. "Correlation and Estimation of Aqueous Solubilities of Substituted Benzenes, Polychlorinated Biphenyls, and Polycyclic Aromatic Hydrocarbons," C.-C. Tsai, **W. E. Acree, Jr.**, T. Blair, E. Gifford, and L. J. Peterson, presented at 3rd International Workshop on QSAR in Environmental Toxicology, May, 1988.
12. "Application of Polycyclic Aromatic Hydrocarbon (PAH) Solute Probes in Analytical Chemistry," K. W. Street, Jr., **W. E. Acree, Jr.**, R. Waris, **S. A. Tucker** and J. C. Fetzer, presented at Pittsburgh Conference & Exposition, Atlanta, GA, March, 1989.
13. "PAH Solvent Polarity Probes: General Considerations and Applications," **S. A. Tucker**, R. Waris, K. W. Street, Jr., **W. E. Acree, Jr.**, C. F. Poole, and J. C. Fetzer, presented at National ACS Meeting, Dallas, Texas, April, 1989.
14. "PAH Solvent Polarity Probes: General Considerations and Applications," **S. A. Tucker**, **W. E. Acree, Jr.** and K. W. Street, Jr., presented at ACS Central Regional Meeting, May, 1989.
15. "Fluorescence Properties-Molecular Structure Correlations for Polycyclic Aromatic Hydrocarbon (PAH) Solute Probes Used in Analytical Chemistry," **S. A. Tucker**, **W. E. Acree, Jr.**, **A. I. Zvaigzne**, K. W. Street, Jr. and J. C. Fetzer, presented at Pittsburgh Conference & Exposition, New York, New York, March, 1990.
16. "Fluorescence Properties-Molecular Structure Correlations for Polycyclic Aromatic Hydrocarbon (PAH) Solute Probes Used in Analytical Chemistry," **W. E. Acree, Jr.**, presented at Texas Chemistry Forum, Austin, Texas, May, 1990 (**invited symposium speaker**).
17. "Fluorescence Behavior of Polycyclic Aromatic Hydrocarbon (PAH) Solute Probes," **W. E. Acree, Jr.**, **S. A. Tucker**, **A. I. Zvaigzne** and K. W. Street, Jr., poster presented at Texas Chemistry Forum, Austin, Texas, May, 1990.
18. "Predicting the Thermochemical Properties of Weakly Associated Multicomponent Solutions," **A. I. Zvaigzne** and **W. E. Acree, Jr.**, presented at ACS Regional Meeting-in-Miniature, Dallas, Texas, April, 1991.
19. "Thermochemical Investigations of Ternary Nonelectrolyte Associated Solutions," **W. E. Acree, Jr.**, **A. I. Zvaigzne** and **I.-L. Teng**, presented at the 1991 Midwest Thermodynamics Symposium, Osage Beach, Missouri, May, 1991.
20. "Examination of Selective Quenching Agents and Discriminating Solvents for Identification of Polycyclic Aromatic Compounds," **S. A. Tucker**, **V. L. Amszi**, **W. E. Acree, Jr.** and J. C. Fetzer, presented at Pittsburgh Conference & Exposition, New Orleans, Louisiana, March, 1992.

21. "Quantitative Structure-Property Relationships for Aqueous Solubilities," T. T. Blair, **W. E. Acree, Jr.**, E. M. Gifford and C.-C. Tsai, presented at 5th International Workshop on QSAR in Environmental Toxicology, July, 1992.
22. "Selective Quenching of Polycyclic Aromatic Nitrogen Hetero-atom's Fluorescence Emission," **W. E. Acree, Jr.**, **S. A. Tucker** and **V. L. Amzsi**, presented at 48th Southwest Regional ACS Meeting, Lubbock, Texas, October, 1992.
23. "Polycyclic Aromatic Compounds: A Comprehensive Review," **S. A. Tucker**, **V. L. Amzsi** and **W. E. Acree, Jr.**, presented at 48th Southwest Regional ACS Meeting, Lubbock, Texas, October, 1992.
24. "Polycyclic Aromatic Hydrocarbons: Examination of Solvent Polarity Behavior and Selective Quenching Phenomena via Steady-State Fluorescence," **S. A. Tucker** and **W. E. Acree, Jr.**, Detroit, Michigan, presented at FACSS National Meeting, October, 1993.
25. "Effect of Solvent Polarity on the Selectivity of Nitromethane for Discriminating Between Alternant Versus Nonalternant Polycyclic Aromatic Hydrocarbons," **S. A. Tucker** and **W. E. Acree, Jr.**, presented at FACSS National Meeting, Detroit, Michigan, October, 1993.
26. "Effect of Electron Withdrawing and Electron Donating Substituents on the Photophysical Properties of Polycyclic Aromatic Compounds," **S. A. Tucker**, **J. M. Griffin**, **D. C. Wilkins** and **W. E. Acree, Jr.**, presented at Pittsburgh Conference and Exposition, Chicago, Illinois, March, 1994.
27. "Unusual Solvent Modulated Fluorescence Emission Behavior of 1-Methylcoronene and 1,2-Dimethylcoronene in Nonelectrolyte Solvents of Varying Polarity," **S. A. Tucker**, **W. E. Acree, Jr.** and J. C. Fetzer, presented at Pittsburgh Conference and Exposition, Chicago, Illinois, March, 1994 (S.A. Tucker invited participant in Graduate Student Poster session).
28. "Application of Polycyclic Aromatic Hydrocarbon Solute Probes for Examining Preferential Solvation in Binary Solvent Mixtures," **S. A. Tucker** and **W. E. Acree, Jr.**, presented at ACS Regional Meeting-in-Miniature, Fort Worth, Texas, April, 1994.
29. "The Dissociation Enthalpies of the (N-O) Bonds on Some Pyridine N-Oxide Derivatives," **W. E. Acree, Jr.**, **S. A. Tucker**, M. D. M. C. Ribeiro da Silva, M. A. R. Matos, J. M. Goncalves, M. A. V. Ribeiro da Silva and G. Pilcher, poster presented at Thermodynamic Workshop, Warsaw, Poland, August, 1994.
30. "Polycyclic Aromatic Hydrocarbons as Standards for Spectrofluorometric Wavelength Calibration," **W. E. Acree, Jr.**, **S. A. Tucker**, **J. R. Powell** and J. C. Fetzer, presented at Eastern Analytical Symposium, New Jersey, November, 1994 (**invited symposium speaker**).
31. "Characterization of and Spectral Behavior of Dual-Fluorescent Solvatochromic Probe Molecules in Micellar Solutions," **J. R. Powell**, **W. E. Acree, Jr.** and **S. A. Tucker**, presented at Pittsburgh Conference and Exposition, New Orleans, Louisiana, March, 1995.
32. "Comparison of Spectrofluorometric Probe Methods for Determining Preferential Solvation," **S. A. Tucker** and **W. E. Acree, Jr.**, presented at Pittsburgh Conference and Exposition, New Orleans, Louisiana, March, 1995.
33. "Thermochemical Investigations of Hydrogen-Bonded Solutions," **A. I. Zvaigzne** and **W. E. Acree, Jr.**, presented at National AIChE meeting, Houston, Texas, March, 1995.
34. "Thermochemical Studies Involving Aromatic C-Nitroso and C-Nitro Compounds," M. D. M. C. Ribeiro da Silva, M. A. R. Matos, **W. E. Acree, Jr.**, **S. A. Tucker**, and G. Pilcher, presented at the International Conference on Thermodynamics, Reading, United Kingdom, April, 1995.

35. "Thermochemical Studies of Some Quinoxaline Derivatives," M. D. M. C. Ribeiro da Silva, M. A. R. Matos, J. M. Goncalves, **W. E. Acree, Jr.**, **S. A. Tucker** and G. Pilcher, presented at Calorimetry Conference, Gaithersburg, Maryland, July 23-28, 1995.
36. "Comparison of Spectroscopic Probe Methods for Determining Preferential Solvation Around a Dissolved Fluorophore," **W. E. Acree, Jr.** and **J. R. Powell**, presented at FACSS National Meeting, Cincinnati, Ohio, October, 1995 (**invited symposium speaker**).
37. "Anionic Micellar Solvents as Exceptions to the Nitromethane Selective Quenching Rule," **S. Pandey**, K. A. Fletcher and **W. E. Acree, Jr.**, presented at ACS Regional Meeting-in-Miniature, Denton, Texas, April, 1996.
38. "Evaluation of Caro's Acid as a Titrant for Iron (II) Determinations," **J. R. Powell** and **W. E. Acree, Jr.**, presented at ACS Regional Meeting-in-Miniature, Denton, Texas, April, 1996.
39. "Application of Mobile Order Theory to Alcohol + 2-Alkoxyethanol Solvent Mixtures," **M. E. R. McHale**, **A.-S. M. Kaupila** and **W. E. Acree, Jr.**, presented at ACS Regional Meeting-in-Miniature, Denton, Texas, April, 1996.
40. "Energetica da Ligacao N-O em Derivados da Piridina-N-Oxide", M. D. M. C. Ribiero da Silva, M. A. R. Matos, M. C. Vaz, **W. E. Acree, Jr.** and **J. R. Powell**, presented at National meeting of the Portuguese Chemical Society, Porto, Portugal, May, 1996.
41. "Energetic Studies of Benzofurazan N-Oxide Derivatives: The Dissociation Enthalpies of the N-O Bonds," **W. E. Acree, Jr.**, S. G. Bott, **S. A. Tucker**, M. D. M. C. Ribeiro da Silva, M. A. R. Matos and G. Pilcher, presented at IUPAC Thermodynamics Conference, Japan, August 1996.
42. "Advances in the Estimation of Fusion Entropies and Enthalpies by Group Additivity," J. S. Chickos and **W. E. Acree, Jr.**, presented at National ACS Meeting, Orlando, FL, September, 1996.
43. "Anionic Micellar Solvents as Exceptions to the Nitromethane Selective Quenching Rule," **S. Pandey**, K. A. Fletcher and **W. E. Acree, Jr.**, present at FACSS, Kansas City, Missouri, October, 1996.
44. "Thermochemical Studies of Two Quinoxaline-di-N-oxide Derivatives," M. D. M. C. Ribeiro da Silva, M. A. R. Matos, L. M. N. B. F. Santos, **W. E. Acree, Jr.** and G. Pilcher, presented at Fifteenth Experimental Thermodynamics Conference, Surrey, United Kingdom, April, 1997.
45. "Vapor-Liquid Equilibrium for Systems that Contain More than One Alcohol: Comparison of Kretschmer-Wiebe and Mobile Order Models," **W. E. Acree, Jr.** and S. W. Campbell, presented at 13th Symposium on Thermophysical Properties, Boulder, Colorado, June 22-27th, 1997.
46. "The Dissociation Enthalpies of the N-O Bonds in Pyridine-Carboxylic Acid N-Oxide Isomers," M. D. M. C. Ribeiro da Silva, M. A. R. Matos, L. M. B. F. Santos, J. C. M. Ribeiro and **W. E. Acree, Jr.**, presented at Jornades Mediterranees de Calorimetria i Analis Termica, Plana de Mallorca, Spain, June 24-28, 1997.
47. "Thermodynamics of Mobile Order Theory," **W. E. Acree, Jr.**, **J. R. Powell**, **M. E. R. McHale**, **A. I. Zvaigzne** and S. W. Campbell, presented at 53rd Southwest Regional ACS Meeting, Tulsa, Oklahoma, October, 1997.
48. "Selective Fluorescence Quenching Agents for Polycyclic Aromatic Hydrocarbon (PAH) Analysis," **S. Pandey** and **W. E. Acree, Jr.**, presented at 53rd Southwest Regional ACS Meeting, Tulsa, Oklahoma, October, 1997.



49. "D(N-O) Bond Dissociation Enthalpies in Substituted Quinoxaline 1,4-Dioxide, Pyridine N-Oxide and Benzofurazan N-Oxide Derivatives," **W. E. Acree, Jr.**, M. D. M. C. Ribeiro da Silva and G. Pilcher, presented at 53rd Southwest Regional ACS Meeting, Tulsa, Oklahoma, October, 1997.
50. "Mobile Order Theory and the Thermodynamics of Hydrogen Bonding," **C. E. Hernández**, **L. E. Roy** and **W. E. Acree, Jr.**, presented at the 215th National ACS Meeting, Dallas, Texas, April, 1998.
51. "Analytical Method Selection: Comparison of Two Fluorescence Methods for Quinine Determination in Tonic Waters," **L. E. Roy**, **C. E. Hernández**, **S. Pandey** and **W. E. Acree, Jr.**, presented at the 215th National ACS Meeting, Dallas, Texas, April, 1998.
52. "Selective Fluorescence Quenching of Alternant Polycyclic Aromatic Hydrocarbons in Molecularly Organized Solvent Media," **S. Pandey** and **W. E. Acree, Jr.**, presented at the 215th National ACS Meeting, Dallas, Texas, April, 1998.
53. "Mobile Order Theory and the Thermodynamics of Hydrogen Bonding," **C. E. Hernández**, **L. E. Roy** and **W. E. Acree, Jr.**, presented at ACS Regional Meeting-in-Miniature, Dallas, Texas, April, 1998.
54. "Alkylpyridinium Cations as Selective Fluorescence Quenching Agents for Alternant Versus Nonalternant Polycyclic Aromatic Hydrocarbons," **L. E. Roy**, **S. Pandey** and **W. E. Acree, Jr.**, presented at ACS Regional Meeting-in-Miniature, Dallas, Texas, April, 1998.
55. "The Dissociation Enthalpies of the N-O Bonds on Pyridine N-Oxide Derivatives," M. D. M. C. Ribeiro da Silva, M. A. R. Matos, M. C. Vaz, L. M. N. B. F. Santos, G. Pilcher, **W. E. Acree, Jr.** and **J. R. Powell**, presented at International Symposium on Calorimetry and Chemical Thermodynamics, Campinas, Brazil, April 5-9, 1998.
56. "Dissociation Enthalpy of the (N-O) Bond in 6-Methoxyquinoline N-Oxide," M. D. M. C. Ribeiro da Silva, L. M. N. B. F. Santos, O. O. P. Fernandes and **W. E. Acree, Jr.**, presented at International Conference on Chemical Thermodynamics, Porto, Portugal, July, 1998.
57. "Development of Spectroscopic Methods for the Determination of Chemicals in Pain Medications," **T. L. Sharp**, **C. E. Hernández**, **L. E. Roy**, **K. M. De Fina** and **W. E. Acree, Jr.**, presented at ACS Southeastern Regional Meeting, Research Triangle, North Carolina, November 6, 1998.
58. "Enthalpies of Combustion of 2-Iodosobenzoic Acid and of 4-Nitrosophenol: The Dissociation Enthalpy of the (I-O) Bond," M. D. M. C. Ribeiro da Silva, M. A. R. Matos, M. L. C. C. H. Ferrao, L. M. P. F. Amaral, M. S. Miranda, **W. E. Acree, Jr.** and G. Pilcher, presented at the Sixteenth Thermodynamics Conference, London, United Kingdom, April, 1999.
59. "Estudo Termoquímico e Teórico de Cianopirazinas," M. S. Miranda, M. A. R. Matos, M. D. M. C. Ribeiro da Silva, V. M. F. Morais, and **W. E. Acree, Jr.**, presented at National meeting of the Portuguese Chemical Society, Coimbra, Portugal, October, 1999.
60. "Estudo Termoquímico de Derivados da 4-Nitrosopirazola," M. D. M. C. Ribeiro da Silva, S. C. C. Ferreira, I. A. P. Rodrigues, L. C. M. da Silva and **W. E. Acree, Jr.**, presented at National meeting of the Portuguese Chemical Society, Coimbra, Portugal, October, 1999.
61. "Solubilities of Anthracene, Fluoranthene and Pyrene in Organic Solvents. Comparison of Calculated Values Using UNIFAC and Modified UNIFAC (Dortmund) with Experimental Data and Values Using Mobile Order Theory," H. K. Hansen, C. Riverol and **W. E. Acree, Jr.**, presented at 2nd International Conference on Petroleum and Gas Phase Behavior and Fouling, Copenhagen, Denmark, August, 2000.
62. "Thermochemical and Theoretical Studies of 2,6-Pyridinedicarboxylic Acid and Dimethylpyridine-2,6-

- dicarboxylate,” M. A. R. Matos, M. D. M. C. Ribeiro da Silva, M. C. F. Marques, V. M. F. Morais and **W. E. Acree, Jr.**, presented at 5th Encontro Nacional de Quimica-Fisica, Faro, Portugal, September, 2001.
63. “The Dissociation Enthalpy of the (N-O) Bond in 2-Hydroxypyridine N-Oxide: The Influence of the Hydrogen Bond,” M. S. Miranda, M. D. M. C. Ribeiro da Silva, M. A. R. Matos, V. M. F. Morais and **W. E. Acree, Jr.**, presented at 5th Mediterranean Conference on Calorimetry and Thermal Analysis, MEDICTA 2001, A Coruna-Galicia, Spain, September, 2001.
64. “Contribution to the Energetics of the (N-O) Bonds on Benzofurazan-N-Oxide Derivatives,” M. D. M. C. Ribeiro da Silva, J. C. M. Ribeiro, A. L. R. Silva, M. A. R. Matos and **W. E. Acree, Jr.**, presented at The International Society for Biological Calorimetry, ISBCXII, A Coruna-Galicia, Spain, September, 2001.
65. “Prediction of Total Phase Change Entropies and Enthalpies of Liquid Crystals by Group Additivity,” J. S. Chickos and **W. E. Acree, Jr.**, presented at North American Thermal Analysis Conference, St. Louis, Missouri, October, 2001.
66. “Contribution to the Thermochemical Study of Nitrobenzofurazan Derivatives,” M. D. M. C. Ribeiro da Silva, J. M. Goncalves, O. D. F. Santiago and **W. E. Acree, Jr.**, presented at 6th Mediterranean Conference on Calorimetry and Thermal Analysis, MEDICTA 2003, Porto, Portugal, July, 2003.
67. “The Mean Dissociation Enthalpy of the (N-O) Bonds in 2,3-Dimethylquinoxaline 1,4-Dioxide,” M. D. M. C. Ribeiro da Silva, J. M. Goncalves, E. A. Sousa, J. R. B. Gomes and **W. E. Acree, Jr.**, presented at 6th Mediterranean Conference on Calorimetry and Thermal Analysis, MEDICTA 2003, Porto, Portugal, July, 2003.
68. “Contribucao Para o Estudo Termoquimico de 4-Nitro-2,1,3-benzotiadiazole,” M. D. M. C. Ribeiro da Silva, M. J. Sottomayor, M. A. A. Vieira and **W. E. Acree, Jr.**, presented at National Meeting of Portuguese Chemical Society, Portugal, April 22-24, 2004.
69. “Estudo Calorimetrico de Derivados Alquilados da 4-Nitropiridina N-Oxido,” E. A. Sousa, **W. E. Acree, Jr.** and M. D. M. C. Ribeiro da Silva, presented at National Meeting of Portuguese Chemical Society, Portugal, April 22-24, 2004.
70. “Modeling the Surface Tension of Mixed Solvents at Various Temperatures,” A. Jouyban, A. Fathi Azarbayjani and **W. E. Acree, Jr.**, presented at Iranian Analytical Chemistry meeting, Mashhad, Iran, May 18-20, 2004.
71. “Modeling Acid Dissociation Constant of Analytes in Binary Solvents at Various Temperatures,” A. Jouyban, S. Soltani, A. A. Matin and **W. E. Acree, Jr.**, presented at Iranian Analytical Chemistry meeting, Mashhad, Iran, May 18-20, 2004.
72. “Modeling the Density of Binary Solvents at Various Temperatures,” A. Jouyban, A. Fathi-Azarbaijani, S. Soltani, S. Varez and **W. E. Acree, Jr.**, presented at 9<sup>th</sup> Iranian Seminar of Pharmaceutical Sciences, Tabriz, Iran, 2004.
73. “Modeling the Viscosity of Binary Solvents at Various Temperatures,” A. Jouyban, Z. Fekari, A. A. Matin, Z. Vaez and **W. E. Acree, Jr.**, presented at 9<sup>th</sup> Iranian Seminar of Pharmaceutical Sciences, Tabriz, Iran, 2004.
74. “Estudo Calorimétrico da 4-Fenilpiridina N-Óxido,” E. A. Sousa, **W. E. Acree, Jr.** and M. D. M. C. Ribeiro da Silva, presented at Livro de Resumos do 7<sup>o</sup> Encontro Nacional de Quimica – Fisica S.P.Q., Comunicação P11, Porto, Portugal, July 2005.
75. “Correlation of Retention Factor of Analytes in Quaternary Solvet Mobile Phases Using Jouyban-Acree

- Model, A. Jouyban, H. Hanaee, M. R. Rashidi, S. Esnaashari and **W. E. Acree, Jr.**, presented at Malaysian Pharmaceutical Conference 2005, Kuala Lumpur, Malaysia 2005.
76. "Predicting Biologically Important Properties Using Solubilities and the Abraham General Solvation Model," **C. Givens, S. Keown, D. M. Stovall, K. R. Hoover**, W. E. Acree, Jr. and M. H. Abraham, presented at 231<sup>st</sup> ACS National Meeting, Atlanta, Georgia, March 26-30, 2006.
77. "Experimental Thermochemical Study of Two Pyrazine *N,N'*-Dioxide Derivatives," M. D. M. C. Ribeiro da Silva, M. A. A. Vieira and **W. E. Acree, Jr.**, presented at International Symposium on Calorimetry and Chemical Thermodynamics, Campinas, Brazil, April, 2006.
78. "Predictive Methods: Are Experimental Measurements Still Necessary," **W. E. Acree, Jr.**, presented at the IUPAC conference, Boulder, Colorado, July 27-August 4, 2006. (**invited symposium speaker**)
79. The Mean Dissociation Enthalpy of the N-O Bond for 2,2'-Bipyridine *N,N'*-Dioxide," M. D. M. C. Ribeiro da Silva, A. R. Monteiro, J. M. Gonçalves and **W. E. Acree, Jr.**, presented at the IUPAC conference, Boulder, Colorado, July 27-August 4, 2006.
80. "Energetics of the Pyridinecarboxylic Acid Methyl Ester Isomers," M. D. M. C. Ribeiro da Silva, V. L. S. Freitas and **W. E. Acree, Jr.**, presented at the European Symposium on Thermal Analysis and Calorimetry, Krakow, Poland, August 27-31, 2006.
81. "Prediction of Pyrene Solubility in Non-Aqueous Solvent Mixtures Using Jouyban-Acree Model," A. Jouyban, E. Tamizi and **W. E. Acree, Jr.**, presented at Iranian Pharmaceutical Conference, Tehran, Iran, August, 2006.
82. "Solubility Prediction of Solutes in Non-aqueous Binary Solvents Using a Combination of Jouyban-Acree and Abraham Models," A. Jouyban, S. Soltani and W. E. Acree, Jr., presented at Iranian Pharmaceutical Conference, Tehran, Iran, August, 2006.
83. "Thermochemical Study of Two Dimethylpyrazine-*N,N'*-Dioxide Derivatives," M. D. M. C. Ribeiro da Silva, J. I. T. A. Cabral and **W. E. Acree, Jr.**, presented at MEDICTA 2007, Palermo, Italy, September, 2007.
84. "Modeling of the Simultaneous Effects of Mobile Phase Composition and Temperature on the Capacity Factor of Analytes in HPLC Using Jouyban-Acree Model, S. Soltanpour, **W. E. Acree, Jr.** and A. Jouyban, presented at 11<sup>th</sup> Iranian Pharmaceutical Sciences Conference, Kerman, Iran 2008.
85. "Prediction of Drug Solubility in Water-Cosolvent Mixtures by a Combination of the Jouyban-Acree Model and Catalan Parameters," M. A. A. Fakhree, **W. E. Acree, Jr.** and A. Jouyban, presented at 11<sup>th</sup> Iranian Pharmaceutical Sciences Conference, Kerman, Iran 2008.
86. "New Generation Ionic Liquids Characterization by Linear Solvation Energy Models," **L. Sprunger** and **W. E. Acree, Jr.**, presented at ACS Meeting-in-Miniature, Denton, TX, May 2009.
87. "Characterization of New Generation Ionic Liquid Chromatographic Stationary Phases," **L. Sprunger, W. E. Acree, Jr.** and M. H. Abraham, presented at 238<sup>th</sup> ACS National Meeting, Washington, DC, Aug. 2009.
88. "Prediction of Diffusion Coefficients for Binary Liquid Systems," A. Jouyban, S. Soltani, M. Mohammadzadeh, S. Tatardar and **W. E. Acree, Jr.**, presented at 16<sup>th</sup> Iranian Seminar of Analytical Chemistry, Harnadan, Iran, 2009.
89. "Modeling of Retention Behavior of Analytes RP-HPLC with Mixed Mobile Phases Using a Combination of Jouyban-Acree and Abraham Parameters," A. Jouyban, S. Soltani, A. Chabra, Z. Bagherzadeh and **W. E.**

- Acree, Jr.**, presented at 16<sup>th</sup> Iranian Seminar of Analytical Chemistry, Harnadan, Iran, 2009.
90. “Thermodynamic Properties of New Generation Ionic liquids,” **L. Sprunger, W. E. Acree, Jr.** and M. H. Abraham, presented at 239<sup>th</sup> ACS National Meeting, San Francisco, CA, March 2010 (oral presentation in special symposium devoted to ionic liquids).
  91. “Modeling of Retention Behavior of Analytes RP-HPLC with Mixed Mobile Phases Using a Combination of Jouyban-Acree and Abraham Parameters,” S. Soltani, Z. Baghernezhad, A. Chabra, A. Shayanfar, **W. E. Acree, Jr.** and A. Jouyban, presented at 12<sup>th</sup> Iranian Pharmaceutical Sciences Congress, Zanjan, Iran, 2010.
  92. “Using Spectroscopy Laboratory Experiments to Facilitate Learning in Chemistry Lecture,” **A. Wilson, T. W. Stephens** and **W. E. Acree, Jr.**, presented at 22<sup>nd</sup> International Conference of Chemistry Education and 11<sup>th</sup> European Conference on Research in Chemical Education, Rome, Italy, July 2012.
  93. “NIST-Journal Cooperation to Improve the Quality of Published Experimental Data: New On-line Tools and IUPAC Recommendations,” R. D. Chirico, M. Frenkel, J. W. Magee, V. V. Diky, K. Kroenlein, C. D. Muzny, A. F. Kazakov, I. M. Abdulgatov, G. R. Hardin, T. W. de Loos, J. P. O’Connell, C. M. McCabe, J. F. Brennecke, P. M. Mathias, A. R. H. Goodwin, J. Wu, K. N. Marsh, R. D. Weir, **W. E. Acree, Jr.**, A. Padua, W. M. Haynes, D. G. Friend, A. Mandelis, V. Rives, C. Schick, S. Vyazovkin and E. Chen, presented at 2012 ICCT, Brazil, August 2012.
  94. “Leveraging Open Notebook Science for Solubility and Melting Point Predictions for Optimizing Reactions and Recrystallizations,” M. J. McBride, J.-C. Bradley, **W. E. Acree, Jr.**, A. Lang and A. Williams, presented at 244<sup>th</sup> ACS National Meeting & Exposition, Philadelphia, PA, August 19-23, 2012.
  95. “Correlations of Solute Partitioning and Enthalpies of Solvation for Organic Solutes in the Ionic Liquids 1-Hexyl-3-methylimidazolium Tetracyanoborate, 1-(2-Methoxyethyl)-1-methylpiperidinium *bis*(Trifluoromethylsulfonyl)imide and 1-(2-Methoxyethyl)-1-methylpyrrolidinium *bis*(Trifluoromethylsulfonyl)imide Using a Temperature Independent Free Energy Relationships,” **T. W. Stephens, B. Willis, N. Dabadge, A. Tian,** W. E. Acree, Jr. and M. H. Abraham, presented at ACS Southwest Regional Meeting, New Orleans, LA, November 2012.
  96. “NIST-Journal Cooperation to Improve the Quality of Published Experimental Data: New On-line Tools and IUPAC Recommendations,” R. D. Chirico, M. Frenkel, J. W. Magee, V. V. Diky, K. Kroenlein, C. D. Muzny, A. F. Kazakov, I. M. Abdulgatov, G. R. Hardin, T. W. de Loos, J. P. O’Connell, C. M. McCabe, J. F. Brennecke, P. M. Mathias, A. R. H. Goodwin, J. Wu, K. N. Marsh, R. D. Weir, **W. E. Acree, Jr.**, A. Padua, W. M. Haynes, D. G. Friend, A. Mandelis, V. Rives, C. Schick, S. Vyazovkin and E. Chen, presented at 245<sup>th</sup> ACS National Meeting & Exposition, New Orleans, LA, April 7-12, 2013.
  97. “Correlations of Solute Partitioning and Enthalpies of Solvation for Organic Solutes in Two Morpholinium Ionic Liquids Using a Temperature Independent Free Energy Relationship,” **T. W. Stephens, W. E. Acree, Jr.** and M. H. Abraham, presented at 245<sup>th</sup> ACS National Meeting & Exposition, New Orleans, LA, April 7-12, 2013.
  98. “Temperature Independent Cation-Specific and Anion-Specific Abraham Model Coefficients for Predicting the Gas-to-Ionic Liquid Partition Coefficient,” **T. W. Stephens, W. E. Acree, Jr.** and M. H. Abraham, presented at 245<sup>th</sup> ACS National Meeting & Exposition, New Orleans, LA, April 7-12, 2013.
  99. “Temperature Independent Free Energy Relationships for Three Ionic Liquids Based on the Trifluorotris-(perfluoroethyl)phosphate Anion,” **T. W. Stephens, W. E. Acree, Jr.**, and M. H. Abraham, presented at 44<sup>th</sup> ACS Western Regional Meeting, Santa Clara, CA, October 3-6, 2013.
  100. “Determination and Correlation of Molar Entropies of Solvation for Three Piperidinium Based Ionic Liquids with the Abraham Model,” **T. W. Stephens** and **W. E. Acree, Jr.**, presented at ACS Southwest

Regional Meeting, Waco, TX, November 16-19, 2013.

101. "Correlations of Solute Partitioning for Organic Solutes in Two Ionic Liquids Based on the 1-(2-Methoxyethyl)-1-methylpiperidinium Cation Using a Temperature Independent Free Energy Relationship Based on the Abraham Solvation Model," [T. W. Stephens](#), [W. E. Acree, Jr.](#) and M. H. Abraham, presented at 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX, March 16-20, 2014.
102. "Determination of Gas-to-Ionic Liquid Partition Coefficients for Ionic Liquids Using Two Temperature Independent Group Contribution Methods," [T. W. Stephens](#), [W. E. Acree, Jr.](#) and M. H. Abraham, presented at 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX, March 16-20, 2014.
103. "Shaken not Stirred. Y'All: A Comparison of Select Texas Vodkas," [T. W. Stephens](#), D. Mason, [R. L. Ford](#), A. George and [W. E. Acree, Jr.](#), presented at 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX, March 16-20, 2014.
104. "Analyzing Solubility Descriptors Using the Abraham Solvation Parameter Model," [J. A. Reyes](#) and [W. E. Acree, Jr.](#), presented at 247<sup>th</sup> ACS National Meeting & Exposition, Dallas, TX, March 16-20, 2014.
105. "NIST-Journal Cooperation: Pre-Acceptance Evaluation and On-line Tools to Improve the Quality of Published Experimental Data," R. D. Chirico, M. Frenkel, J. W. Magee, V. V. Diky, K. Kroenlein, C. D. Muzny, A. F. Kazakov, I. M. Abdulagatov, G. R. Hardin, T. W. De Loos, J. P. O'Connell, C. McCabe, J. F. Brennecke, P. M. Mathias, A. R. H. Goodwin, J. Wu, K. N. Marsh, R. D. Weir, [W. E. Acree, Jr.](#), A. Pádua, W. M. Haynes, D. G. Friend, A. Mandelis, V. Rives, C. Schick, S. Vyazovkin and E. Chen, presented at the International Conference on Chemical Thermodynamics, Durban, South Africa, July 27-Aug. 1, 2014.
106. "Models to Evaluate Experimental Solubility Data for Crystalline Nonelectrolyte Solutes in Organic Mono-solvents and Solvent Mixtures," [W. E. Acree, Jr.](#), presented at 248<sup>th</sup> ACS National Meeting & Exposition, San Francisco, CA, August 10-14, 2014 (invited symposium speaker).
107. "Thermodynamic Properties of Organic Solutes Dissolved in 1,2,3-*tris*(Dimethylamino)cyclopropenyl and Alkylquinuclidinium Based Ionic Liquids," L. Cesari, F. Mutelet and [W. E. Acree, Jr.](#), presented at APCIL Congress, HanZhou, China, October 2016.
108. "Solubility of Sorbic Acid in Organic Mono-solvents: Calculation of Abraham Model Solute Descriptors from Measured Solubility Data," [M. Barrera](#) and [W. E. Acree, Jr.](#), presented at ACS Regional Meeting-in-Miniature, Dallas, Texas, April, 2017.
109. "Solubility of Sorbic Acid in Organic Mono-solvents: Calculation of Abraham Model Solute Descriptors from Measured Solubility Data," [M. Barrera](#) and [W. E. Acree, Jr.](#), presented at McNair Conference at the University of California, Berkeley, California, July, 2017.
110. "Predicting Drug Separations for Ionic Liquid Phases Using an Intelligent Decision Tree & the Abraham Model," [K. Smart](#), [W. E. Acree, Jr.](#) and T. D. Golden, presented at Southwestern Association of Toxicologists (SA) Fall Meeting, Dallas, Texas, November 2018.
111. "Fostering Outstanding Cohorts in Undergraduate Science: A Ten-Year Retrospective," L. E. Hughes, [W. Acree](#), S. Gao, D. Mason, P. Padilla and U. Philipose, to be presented at Gordon Research Conference on Undergraduate Biology Education Research, Lewiston, Maine, June 23-28, 2019.
112. "Modelling Nonelectrostatic Solute-Solvent Interactions in Continuum Embedding," C. Hille, S. Ringe, J. Filser, M. Deimel, C. Kunkel, [W. E. Acree](#), K. U. Reuter and H. Oberhofer, presented at 258<sup>th</sup> ACS National Meeting & Exposition, San Diego, California, August 25-29, 2019.

113. "Development of Abraham Model Correlations for an Analytically Important Extraction Solvent MIBK," **W. E. Acree, Jr.**, **E. Garcia** and **K. Smart**, accepted for presentation at 259<sup>th</sup> ACS National Meeting & Exposition, Philadelphia, Pennsylvania, March 22-26, 2020. (ACS meeting cancelled due to COVID 19).
114. "Development of Abraham Model Expressions for Predicting the Standard Molar Enthalpies of Vaporization of Organic Compounds at 298.15 K," **B. N. Churchill** and **W. E. Acree, Jr.**, presented at 260<sup>th</sup> ACS National Meeting & Exposition, virtual, Aug. 17-30, 2020.
115. "Estimation of Chemical Toxicity due to Fentanyl Compounds," **K. Smart**, **T. D. Golden** and **W. E. Acree**, presented at 73rd AAFS Meeting, Virtual, February 2021.
116. "Novel GLC-based Methods for Isomeric Fentanyl Analogs," **K. Smart**, **D. Golden**, **G. Verbeck** and **W. E. Acree, Jr.**, presented at Pittsburgh Conference & Exposition, virtual meeting, March 8, 2021.
117. "Separation of Fentanyl Analogues Using GLC-based Methods with Ionic Liquids," **K. Smart**, **K. Reyes**, **W. E. Acree, Jr.**, **G. F. Verbeck, IV** and **T. D. Golden**, presented at Pittsburgh Conference & Exposition, March 9, 2022.
118. "Gas Chromatographic Separation of Fentanyl Analogues with an Ionic Phase," **K. Smart**, **K. Reyes**, **W. Acree Jr.**, **G. F. Verbeck** and **T. D. Golden**, presented at 54<sup>th</sup> ACS Regional Meeting-in-Miniature, Dallas, Texas, April, 2022.
119. "Determination of Abraham Model Solute Descriptors for Hippuric Acid from Measured Molar Solubilities in Several Organic Mono-Solvents of Varying Polarity and Hydrogen-Bonding Ability," **S. Sinha, A. Varadharajan** and **W. E. Acree, Jr.**, presented at 264<sup>th</sup> ACS National Meeting & Exposition, Chicago, Illinois, August, 2022.

## 10. Seminars Presented:

1. "Thermochemical Investigations of Gas-Liquid Chromatography," seminar presented at Louisiana State University, April, 1984.
2. "Thermodynamic Aspects of Gas-Liquid Chromatography," presented at Clarkson College of Technology, October, 1984.
3. "Thermodynamic Aspects of Gas-Liquid Chromatography," presented at Memphis State University, March, 1985.
4. "Thermochemical Aspects of Gas-Liquid Chromatography," presented at University of Texas at San Antonio, March, 1985.
5. "Solubilization Predictions and Coatings Applications," 3 hour seminar in Surface Coatings II at Kent State University, November, 1986.
6. "Applications of Liquid Crystals in Chemistry," presented at Ashland College, February, 1987.
7. "Applications of Liquid Crystals in Chemistry," presented at Thiel College, December, 1987.
8. "Thermochemical Investigations of Associated Solutions," presented at University of Missouri-St.Louis, January, 1988.
9. "Thermochemical Investigations of Gas-Liquid Chromatography," presented at North Texas State University, March, 1988.



10. "Thermochemical Investigations of Associated Solutions," presented at University of Toledo, March, 1988.
11. "Thermochemical Investigations of Associated Solutions," presented at University of Missouri-Rolla, April, 1990.
12. "Thermochemical Investigations of Associated Solutions," presented at Texas Women's University, October, 1990.
13. "Physicochemical Solution Model for Describing Thermodynamic Properties of Associated Solutions," presented at East Texas State University, April, 1993.
14. "Spectrofluorometric Probe Methods for Studying Molecular Interactions in Fluid Solution," presented at the Toledo Section of the Society for Applied Spectroscopy meeting, March, 1994.
15. "Spectrofluorometric Probe Methods for Studying Molecular Interactions in Fluid Solution," presented at the Cincinnati Section of the Society for Applied Spectroscopy meeting, March, 1994.
16. "Photophysical Properties of Polycyclic Aromatic Hydrocarbons," presented at Wichita State University, April, 1994.
17. "Thermodynamic Models for Hydrogen-Bonding Systems," presented at Texas Women's University, February, 1995.
18. "Spectrofluorometric Probe Methods for Studying Molecular Interactions in Fluid Solution," presented at Oklahoma State University, April, 1995.
19. "Thermodynamics of Mobile Order Theory," presented at University of South Florida, April, 1997.
20. "Thermodynamic Modeling of Hydrogen-Bonded Solutions: Comparison of Various Models," presented at University of Missouri-St. Louis, March, 1999.
21. "Linear Free Energy Relationships for Chemical, Physical and Biological Processes," presented at New Mexico Tech University, October, 2003.
22. "Applications Involving and Predictions of Phase Transition Enthalpies," presented at St. Louis Sectional ACS Award Symposium Honoring James S. Chickos, April, 2006.
23. "Linear Free Energy Relationships for Chemical, Physical and Biological Processes," presented at Oklahoma State University, April, 2006.
24. "Linear Free Energy Relationships for Chemical, Physical and Biological Processes," presented at Texas Women's University, October, 2014.
25. "Linear Free Energy Relationships for Chemical, Physical and Biological Processes," presented at Texas A & M University at Kingsville, June, 2016.
26. "Linear Free Energy Relationships for Chemical, Physical and Biological Processes," presented at Texas A & M University at San Antonio, July, 2016.
27. "Spectroscopic and Thermodynamic Studies of Organic Compounds and Solutions," presented at Missouri University of Science and Technology, March, 2017.

**11. B.S. Honors and Masters Thesis, and Doctoral Dissertations Directed:**

1. "Solubility of Pyrene in Binary Solvent Mixtures," C. L. Judy, B.S. Honors Thesis, 1986.
2. "Thermochemical Investigations of Gas-Liquid Chromatography: Retention Behavior of Solutes on Binary Liquid-Crystalline Solvent Mixtures," C. A. Rouse, Ph.D. Dissertation, 1986.
3. "Thermodynamic and Empirical Methods for Predicting Solubility in Binary Solvents," A. D. Procyk, B.S. Honors Thesis, 1987.
4. "Thermochemical Investigations of Associated Solutions," J. W. McCargar, Ph.D. Dissertation, 1988. Jim received Kent State University's local Sigma Xi section's award for the outstanding doctoral dissertation in 1988.
5. "Polycyclic Aromatic Hydrocarbons and Polycyclic Aromatic Sulfur Heterocycles: Solubility and Spectroscopic Studies," S. A. Tucker, B.S. Honors Thesis, 1990.
6. "Thermochemical Investigation of Ternary Nonelectrolyte Solutions," I.-Lih Teng, M.S. Thesis, 1992.
7. "Spectroscopic Properties of Polycyclic Aromatic Compounds," S. A. Tucker, Ph.D. Dissertation, 1994. (Sheryl received the UNT Chemistry Departmental 1994 James and Ruth Spurlock award for outstanding graduate student research work.)
8. "Spectrofluorometric Probe for Examining Preferential Solvation in Binary Mixtures," D. C. Wilkins, M.S. Thesis, 1994.
9. "Spectrofluorometric and Solubility Studies of Polycyclic Aromatic Hydrocarbons in Hydrogen Bonded Binary Solvent Mixtures," J. R. Powell, Ph.D. Dissertation, 1997.
10. "Chemical Equilibria in Binary Solvent Mixtures," M. E. R. McHale, Ph.D. Dissertation, 1997.
11. "Mobile Order Theory as Applied to Polycyclic Aromatic Heterocycles," K. A. Fletcher, M.S. Thesis, 1997.
12. "A Quenchofluorometric Study of Polycyclic Aromatic Hydrocarbons in Molecularly Organized Media," S. Pandey, Ph.D. Dissertation, 1998. (Sid received the UNT Chemistry Departmental 1997 James and Ruth Spurlock award for outstanding graduate student research work.)
13. "Polycyclic Aromatic Hydrocarbons: Spectrofluorometric Quenching and Solubility Behavior," L. E. Roy, B.S. Honors Thesis, 1999.
14. "Thermodynamic Properties of Nonelectrolyte Solutes in Ternary Solvent Mixtures," T. Deng, Ph.D. Dissertation, 1999.
15. "Thermochemical Study of Crystalline Solutes Dissolved in Ternary Hydrogen-Bonding Solvent Mixtures," K. J. Pribyla, Ph.D. Dissertation, 2001.
16. "Thermodynamics of Mobile Order Theory: Solubility and Partition Aspects," K. M. De Fina, M. S. Thesis, 2004.
17. "Thermodynamics of the Abraham General Solvation Model: Solubility and Partition Aspects," D. M. Stovall, M. S. Thesis, 2006.
18. "Predicting Aquatic Toxicities Using the Abraham General Solvation Model," K. R. Bowen, B.S. Biology

Honors Thesis, 2006.

19. "Thermochemical Investigations of Crystalline Solutes in Non-electrolyte Solutions: Mathematical Representation of Solubility Data and the Development of Predictive Solubility Equations in Systems with Specific and Non-specific Interactions," A. I. Zvaigzne, Ph.D. Dissertation, 2008.
20. "Predicting Chemical and Biochemical Properties Using the Abraham General Solvation Model," C. Mintz, Ph.D. Dissertation, 2009.
21. "Salicylamide: Toxicity Correlations and Solubility Studies," B. Blake, B. S. Honors Thesis, 2010.
22. "Characterization of Novel Solvents and Absorbents for Chemical Separations," L. M. Grubbs, Ph.D. Dissertation, 2011.
23. "Characterization of Ionic Liquid Solvents using a Temperature Independent, Ion Specific Abraham Parameter Model," T. W. Stephens, Ph.D. Dissertation, 2014.
24. "Characterization of Aprotic Solutes and Solvents Using Abraham Model Correlations," M. Brumfield, M.S. Thesis, 2016.
25. "Using the Abraham Solvation Parameter Model to Predict Solute Transfer into Various Mono- and Multi-Functional Organic Solvents, E. F. Hart, Ph.D. Dissertation, 2018.
26. "Teaching First-Semester General Chemistry Using 3D Video Games Following an Atoms First Approach to Chemistry," D. Jenkins, Ph.D. Dissertation, (co-directed with Dr. D. Mason) 2018.
27. "Allowing Students to Have VOICES (Voluntary Options in Chemistry Education Schedules) in General Chemistry I," R. Ford, Ph.D. Dissertation (co-directed with Dr. D. Mason), 2018.
28. "The Abraham Solvation Model Used for Prediction of Solvent-Solute Interactions and New Methods for Updating Parameters," B. N. Churchill, Ph.D. Dissertation, 2021.
29. "Investigation of Ionic Liquids for Chromatographic Separation of Fentanyl Analogues," K. Smart, Ph.D. dissertation, (co-directed with Drs. T. Golden and G. Verbeck) 2022.

Non-Thesis Masters Students Directed:

1. Vicki L. Amszi (Fall, 1992; co-author of 4 publications, left school with a non-thesis masters degree after her mobile home was destroyed by fire).
2. Anastasia Wilson (Summer 2015; co-author of 10 publications; graduated with a Masters of Science in Industrial Chemistry).

## 12. Student Co-Authors and Student Mentees:

### 25 Graduate Students:

Joyce Powell	40 papers	Mary McHale	35 papers
Siddarth Pandey	32 papers	Tammy Borders	5 papers
Sheryl Tucker	53 papers*	Laura Grubbs (Sprunger)	41 papers
Christine Rouse	2 papers	James McCargar	9 papers
Janet Byrd	1 paper	Anita Zvaigzne	33 papers
I.-Lih Teng	6 papers	Denise Wilkins	5 papers

Taihe Deng	14 papers	Karen Pribyla	10 papers
<b>Michelle Stovall</b>	<b>12 papers</b>	Christina Mintz	16 papers
Kathleen Holley	2 papers	Kristin Fletcher	12 papers
Timothy Stephens	24 papers	Anastasia Wilson	10 papers
<b>Erin Hart</b>	<b>21 papers</b>	Michela Brumfield	9 papers
Vicki Amszi	4 papers	Katherine Smart	6 papers
David Jenkins	Co-advisor	Robyn Ford	Co-advisor
Brittani Churchill	10 papers		

\*Students whose names appear in a colored font worked in Dr. Acree's laboratory as both a graduate and an undergraduate student, or as both an undergraduate student and UBMS highschool student. The number of publications given for the student indicate the co-authored publications that the student obtained under the given academic classification heading. For example, Sheryl Tucker co-authored 53 papers as a graduate student and an additional 21 papers as an undergraduate chemistry major.

### **67 Undergraduate Chemistry and Biology Majors:**

Cheryl Judy	4 papers	Nicholas Pontikos	3 papers
James Kirchner	3 papers	Brian Donelan	1 paper
Lisa Peterson	1 paper	Mary Marthandan	1 paper
Margaret Bissell	2 papers	Charles Chittick	1 paper
Alexander Procyk	2 papers	Bridget Oswald	2 papers
Michael Rembert	2 papers	David Sellers	2 papers
Debra Murrall	2 papers	Jordana Wallach	1 paper
Lisa Cretalla	4 papers	Julie Halmi	1 paper
Hardjanti Darmodjo	2 papers	Heather Bates	3 papers
Brian Miller	3 papers	Ann-Sofi Kaupila	19 papers
Lindsay Roy	29 papers	Stacy Payne	1 paper
Jessica Sanders	3 papers	Michael Tuggle	2 papers
Satoru Horiuchi	2 papers	Sabrina Childress	5 papers
Karina DeFina	24 papers	<b>Sheryl Tucker</b>	<b>21 papers</b>
Tiffany Van	6 papers	Christopher Ezell	3 papers
Angel Toro	2 papers	Ebun Debase	3 papers
<b>Michelle Stovall</b>	<b>2 papers</b>	Casandra Monarrez	6 papers
Jee Woo	4 papers	Rodrick Coaxum	4 papers
Eric Pustejovsky	7 papers	Krisztina Pop	2 papers
Rebekah Moreno	1 paper	Brooke Blake-Taylor	6 papers
Rhiannon Wold	5 papers	Vallerie DeLeon	1 paper
Beth Martine	3 papers	Noehli De La Rosa	6 papers
Hali Hensley	1 paper	Malcolm Zimmerman	1 paper
Angeline Wairegi	1 paper	<b>Erin Hart</b>	<b>2 papers</b>
Lila Pipersburgh	1 paper	Katherine Mateja	1 paper
Grace Little	2 papers	Hunter Singleton	2 papers
Ashley Ramirez	3 papers	Alex Klein	3 papers
Megan Jodray	7 papers	Karen Rodriguez	2 papers
Rachel Fischer	5 papers	Erin Connolly	2 papers
Sara Strickland	1 paper	Libby Ocon	2 papers
Blessing Oloyede	1 paper	Theresa Casillas	2 papers
Alyssa Daniel	2 papers	Kylie Wilder	1 paper

Laine Longacre	4 papers	Darla Benavides	2 papers
Francis Jilawan	1 Submitted		

### **76 Undergraduate TAMS Students:**

Jason Griffin	6 papers	Gaddum Reddy	6 papers
Michael Spurgin	6 papers	Karen Coym	14 papers
Priscilla Taylor	6 papers	Ahn Tran	4 papers
Katherine Burton	9 papers	Amy Proctor	8 papers
Sai Achi	8 papers	Shulin Ye	8 papers
Mariam Saifullah	9 papers	Amanda Quay	8 papers
Vicky Chou	8 papers	Nishu Dabadge	6 papers
Connie Shen	3 papers	Amy Tian	7 papers
Helen Lu	2 papers	Kalpana Satish	2 papers
Danyang Shan	2 papers	Napasorn Kuprasertkul	4 papers
Sumedha Mehta	4 papers	Akash Wadawadigi	4 papers
Damini Grover	10 papers	Heidi Zettl	9 papers
Shoshana Zhang	8 papers	Colleen Dai	8 papers
Victoria Koshevarova	6 papers	Minaz Zad	3 papers
Bihan Jiang	7 papers	Amber Lu	2 papers
Elizabeth Higgins	6 papers	Sarah Cheeran	6 papers
Melissa Horton	8 papers	Anisha Wadawadigi	7 papers
Olivia Zha	8 paper	Xin Tong	5 papers
Delani Woods	5 papers	Ellen Qian	13 papers
Jonathan Lu	3 papers	Yuqing Liu	4 papers
Grace Lee	8 papers	Melanie Che	7 papers
Lainey Wang	6 papers	David Yue	7 papers
Avi Gupta	6 papers	Reese Neal	4 papers
Shang Wang	6 papers	Kelly Liu	6 papers
Alex Zhang	6 papers	Siqi Zhu	4 papers
Jingyi Dai	5 papers	Shrika Eddula	11 papers
Carina Jiang	7 papers	Grace Liu	5 papers
Priya Tirumala	6 papers	Jennifer Huang	7 papers
Angelina Xu	11 papers	Kelly Kim	7 papers
Evonne Huang	5 papers	Sophia Cai	4 papers
Neel Shanmugam	10 papers	Pravani Garlapati	1 paper
Advika Varadharajan	12 papers	Sneha Sinha	7 papers
Emily Wu	6 papers	Miles Zhang	3 papers
Chelsea Yang	4 papers	Emily Yao	7 papers
Nikita Shanmugam	5 papers	Shuhan Wu	2 papers
Amy Zhou	5 papers	Ramya Motati	8 papers
Saikiran Motati	5 papers	Trisha Kandi	4 papers
Jocelyn Chen	1 Submitted	Audrey Chen	1 Submitted
Dhishithaa Kumarandurai	Spring 2024		

### **92 Upward Bound Math and Science (Summer High School Student Program):**

Bradley Smith	2 papers	Brad McKethan	1 paper
Robin Barnes	1 paper	Yvonne Cordero	2 papers
Abigail Rubio	1 paper	Cheridan Harris	1 paper
Erika Martinez	1 paper	Michelle Sanchez	1 paper
Jose Lozano	1 paper	Jennifer Trejo	1 paper
Dusty Wright	1 paper	Minh Nguyen	1 paper
Joshua Wolfe	1 paper	Andres Ibarra	1 paper
Oscar Garza	1 paper	Diana Voisinet	2 papers
Eboney Hamilton	1 paper	Akiko Hizon	1 paper
Andres Salazar	2 papers	Josh Martinez	1 paper
Tishna Soto	1 paper	Pablo Otero	2 papers
Alison Valdez	1 paper	Nicole Vellegas	1 paper
Melani Jayasekera	2 papers	Tatina Chee	1 paper
Miranda Carrillo	2 papers	Sandra Padilla	3 papers
Alena Delacruz	1 paper	Monica Corella	2 papers
Ashante Trufant	3 papers	Kim Theeuwes	1 paper
Anna Blanco	1 paper	Noe De La Sancha	3 papers
Stephanie Fishback	1 paper	Ruth Cano	1 paper
Ernesto Vela	3 papers	Sarah Duenas	1 paper
Lisset Alcarzar	1 paper	Geo Martinez	4 papers
Nancy Kuehn	1 paper	Leigh Fisher	1 paper
Amy Parker	1 paper	Jessica Pacheco	1 paper
Mason Nau	1 paper	Autumn Jackson	4 papers
Sarah Abernathy	1 paper	Lizette Sidransky	1 paper
Guenevere Brown	4 papers	Karen Alexander	1 paper
Priscilla Acosta	1 paper	Ashley Furman	2 papers
Comfort Olugbuyi	1 paper	Izamar Flores	1 paper
Adam Bilbrey	2 papers	Araina Vance	1 paper
David Mejorado	1 paper	Jermica Love	2 papers
Derek Casares	1 paper	Monica Calderas	1 paper
Jacob Garza	2 papers	Ramie Hall	1 paper
Ricardo Diaz	1 paper	Jose Ruiz	1 paper
Nicholas Montney	1 paper	Amber Frizzelle	1 paper
Kimberle Wolcott	2 papers	Megan Payne	1 paper
Maribel Barrera	2 papers	Erika Sanchez	1 paper
Troy Sanchez	1 paper	Michael Garcia	1 paper
Jackie Calzada	1 paper	Bailey Bates	1 paper
Justice Abban-Manesah	1 paper	Jennifer De La Rosa	2 papers
Logan Kennemer	1 paper	Jocelin Meza	1 paper
Sarah Dunn	1 paper	Janna Herron	1 paper
Ketsia Kankolongo	1 paper	Shy'an Ryan	1 paper
Alfredo Sanchez	1 paper	Ashley Pugh	1 paper
Valeria Portillo	1 paper	Donavyn Calhoon	1 paper
Kyle Gillispie	1 paper	Febronia Khalil	1 paper
Randall Williams	1 paper	Tiffany Mayes	1 paper
Samantha Downs	1 paper	Olivia Rose	1 paper



**5 Undergraduate McNair Scholars:**

Carmen Hernandez	29 papers	Tina Sharp	12 papers
Ivette Chuca	7 papers	Kaci Hoover (later Kaci Bowen)	19 papers
Maribel Barrera	8 papers		

**15 Summer REU Students:**

Amanda Charlton	8 papers	Charlisa Daniels	8 papers
Chelsea Givens	4 papers	Stephanie Keown	4 papers
Kelli Flanagan	6 papers	Tara Ladlie	4 papers
Jennifer Gibbs	8 papers	McCoy McMillan-Wiggins	2 papers
Racheal Pointer	3 papers	Matthew Loera	4 papers
Bria Willis	3 papers	Jesus Reyes	ACS Presentation
Amber Schmidt	5 papers	Estefania Garcia	3 papers
Catherine Webber	2 papers		

**13. Grantsmanship:****Funded research proposals and grant applications:**

- "New Aspects of Liquid Crystals and Foams in Decontamination," (with G. H. Brown), to US Army, 6/1/85, \$55,954.
- "Novel Solubility Method for Determining Thermodynamic Properties of Nonelectrolyte Solid Solutions," to Petroleum Research Fund (ACS), 9/1/85, \$15,000.
- "Aqueous Solubilities of Organic Pollutants and Related Compounds," (with C.-C. Tsai), to EPA, 9/18/86, \$184,200.
- "Remote Sensing and Decontamination of Chemical Agents," (with K. W. Street), to DoD, 2/15/87, \$60,000.
- "Novel Solubility Method for Determining Thermodynamic Properties of Nonelectrolyte Solid Solutions," to Petroleum Research Fund (ACS, Type SRF), 5/1/87, \$2,000.
- "Polycyclic Aromatic Hydrocarbon Solute Probes," to Chevron Research Co., 1/1/87 - present, \$30,000 (market value of donated PAH solute probes).
- "Polycyclic Aromatic Nitrogen Heterocycle Solute Probes," to SRI International, 1/1/90 - present, \$6,000 (market value of donated PANH solute probes).
- "Thermodynamic Properties of Ternary Nonelectrolyte Solutions," to NSF, 9/89, \$164,617.
- "Stability Testing of Caro's Acid," to Texas Instruments, 4/1/94 – 4/1/97, \$8,000.
- "Novel GLC-based Method for Identification of Positional Isomeric Fentanyls," (Research Assistantship for K. Smart; P.I. is Teresa Golden; co-P.I.'s are W. E. Acree, Jr. and G. F. Verbeck), to NIH, 1/1/20 - 12/31/20, \$49,997.

\*\* In addition to the afore mentioned funded research grants, one of my graduate students (Ms. Sheryl Tucker)

was supported by a NSF Doctoral Research Fellowship, an UNT Doctoral Research Fellowship and ACS Analytical Division Graduate Fellowship, and one scientific visitor to my research laboratory (Dr. P.R. Naidu) was partially supported under the Fulbright Program. Four of my graduate students (Mary McHale, Anita Zvaigzne, Sheryl Tucker and Laura Sprunger) received a Eli Lilly Travel Awards to present their research at the American Institute of Chemical Engineers national meeting, and at the American Chemical Society national meeting.

#### **Funded Departmental research proposals that I contributed to:**

1. "Research Experiences for Undergraduates in Chemistry at the University of North Texas," (P.I.s were A. K. Wilson and T. Cundari), to NSF, 3/2003 – 3/2006, \$161,061. (I was one of several Senior Investigators on this Departmental research proposal.)
2. "Research Experiences for Undergraduates in Chemistry at the University of North Texas," (P.I.s were A. K. Wilson and T. Cundari), to NSF, 3/2007 – 3/2010, \$172,000. (I was one of several Senior Investigators on this Departmental research proposal.)
3. "Research Experiences for Undergraduates in Chemistry at the University of North Texas," (P.I.s were A. K. Wilson and R. Petros), to NSF, 3/2010 – 3/2013, \$212,000. (I was one of several Senior Investigators on this Departmental research proposal.)
4. "REU Site: Undergraduate Research Opportunities at the Interface of Computational and Experimental Chemistry at the University of North Texas," (P.I.s were A. K. Wilson and L. Slaughter), to NSF, 3/2015 - 3/2018, \$243,742. (I was one of several Senior Investigators on this Departmental research proposal.)
5. "UNT Chemistry REU", (P.I.s are L. Slaughter and H. Wong), to NSF, 9/1/18 - 8/31/21, \$279,576. (I was one of several Senior Investigators on this proposal.)

#### **Pending Research Proposal:**

1. Permeability Calculations, Database, and Scoring Metrics for Potential Drug Analogs Using Artificial Membrane Assays and Receptor Affinity Data, (P.I. Teresa Golden; co-P.I. is W. E. Acree, Jr.) to NIJ, 1/1/24 - 12/31/26, \$150,370.

#### **Representative Unfunded Research Proposals and Grant Applications:**

(Complete listing will be provided upon request)

1. "Thermochemical Investigations of Associated Solutions Containing Organo-Sulfur Compounds," to DOE (Basic Energy Research), 12/89, \$164,600.
2. "Photochemical Reactions of Polycyclic Aromatic Hydrocarbons," to Welch Foundation, 1/90, \$75,000.
3. "Workshop for Faculty at Community and Junior Colleges," (joint, P.S. Braterman is P.I.), to National Science Foundation, 4/91, \$229,065.
4. "Purchase and Development of a Comprehensive Undergraduate Computing System," (with S.G. Bott and P. Marshall), to National Science Foundation, 11/90, \$29,686.
5. "Cooperative Research Program: University of North Texas and Universite de Paris VII -C.N.R.S.," **W. E. Acree, Jr.**, to NSF, 4/90, \$16,350.
6. "Thermodynamic Properties of Hydrogen-Bonded Systems," to Welch Foundation, 1/15/92, \$90,000.

7. "Spectroscopic Properties of Polycyclic Aromatic Compounds," to National Science Foundation, 8/21/93, \$247,960.
8. "Thermodynamic Properties of Ternary Nonelectrolyte Solutions," to National Science Foundation, 9/1/93, \$221,960.
9. "Understanding Green Science Processes," P.I. was D. Mason (W. E. Acree, Jr. was one of several investigators), to National Science Foundation, Spring 2003, \$1,803,665.
10. "Meeting the Challenges of Modeling Good Laboratory Practice in Chemistry Education," D. Mason (P.I.), W. E. Acree, Jr. (Co-P.I.) and T. Golden (Co-P.I.), to NSF, 6/04, \$99,998.
11. "Making STEM Connections and Applications Accessible to Secondary School Students Project, W. E. Acree, Jr. (P.I.) and D. Mason (Co-P.I.), to NSF, 6/04, \$1,936,750.
12. "REU Site: Opportunities in Chemistry at the University of North Texas," (P.I.s were A. K. Wilson and T. Cundari), to NSF, submitted on September 7, 2005, requested amount was \$220,242. (I was one of several Senior Investigators on this Departmental research proposal.)
13. "Facilitating Low-Income First-Generation College Students' Academic Sociocultural Learning" (submitted to Dept. of Educ., PI is Dr. Sharon Jenkins of the Department of Psychology), \$1,022,000. (I was one of five Investigators on this Departmental research proposal.)
14. "The Culture of Science: Low-Income First-Generation Undergraduates' Academic Acculturation Process" (submitted to DOE – PI is Dr. Sharon Jenkins of the Department of Psychology), \$1,163,000. If funded I would have been paid between 10 to 15 % of my monthly salary for each of the three summer months for four years.
15. "Promoting Low-Income First-Generation College Women's Pursuit of STEM Careers" (submitted to NIH, PI is Dr. Sharon Jenkins of the Department of Psychology), \$1,006,000. If funded I would have been paid 15 % of my monthly salary for each of the three summer months for three years.
16. "Mentoring McNair Scholars: Mentor and Staff Practices and Experiences" (Submitted to NIH, PI is Dr. Sharon Jenkins of the Department of Psychology), \$962,000. If funded I would have been paid at 30 % for the 3 months of summer.
17. "UNT Facilitating Achievement in Science Tracks (UNT-FAST)," (P.I. is L. Hughes; Co-P.I.s are W. E. Acree, S. Champlin, Y. Lin and S. Widner), to Howard Hughes Medical Institute, 2017 Inclusive Excellence Competition, 6/2017 - 6/2022, \$958,000.
18. "UNT Fostering Outstanding Cohorts in Undergraduate Sciences 2017," (P.I. is L. Hughes, Co-P.I.s are W. E. Acree, D. Chen, D. J. Liu and U. Philipose), to NSF, 9/2017-8/2022, \$999,848.
19. "UNT Inclusive Excellence Program", (P.I. is L. Hughes; Co-P.I.s are W. E. Acree, S. Champlin, Y. Lin and S. Widner), to Howard Hughes Medical Institute, 2018 Inclusive Excellence Competition, 6/2018 - 6/2023, \$929,377.
20. "Fostering Outstanding Cohorts in Undergraduate Science 2019: University of North Texas", (P.I. is L. Hughes, Co-P.I.s are W. E. Acree, P. D. Chen, J. Liu, U. Philpose, and J. Quintanilla), to NSF, 6/2019 - 5/2024, \$999,253.
21. "Fostering Outstanding Cohorts in Undergraduate Science 2020," (P.I. is L. Hughes, Co-P.I.s are W. E. Acree, P. D. Chen, J. Liu, U. Philpose, and C. Heidbrink), to NSF, 6/2020 - 5/2025, \$971,564.

22. “Collaborative Research ECR DBER: Investigating Dormant Essential Automaticity (IDEAS) in STEM” (Lead P.I. is M. Atkinson, co-P.I. is W. E. Acree, Jr.), to NSF DBER grant program, 7/1/21 – 6/31/24, \$415,834.

## WILLIAM ACREE

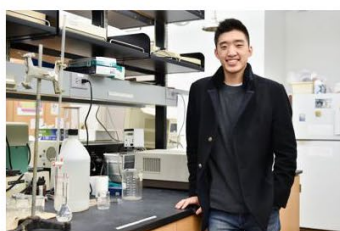
### MENTORING OF UNDERGRADUATE STUDENTS IN RESEARCH

Research Mentor to three 2019 Goldwater Scholars



Scholars were Ellen Qian (2<sup>nd</sup> from left), Jonathan Lu (3<sup>rd</sup> from left) and David Yue (2<sup>nd</sup> from right)

Research Mentor to  
2019 Truman Finalist



David Yue

Research Mentor to  
2017 Goldwater Scholar



Amber Lu

Research Mentor to  
2012 Goldwater Scholar



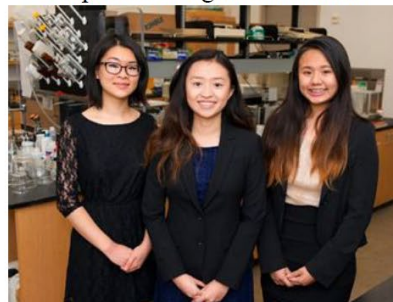
Amanda Quay (right)

Research Mentor to Three  
2014 Siemens Competition Regional Finalists



Sumedha Mehta (3<sup>rd</sup> from left), Akash Wadawadigi (center) and Nina Kuprasertkul (2<sup>nd</sup> from right)

Research Mentor to Two 2015 Siemens  
Competition Regional Finalists



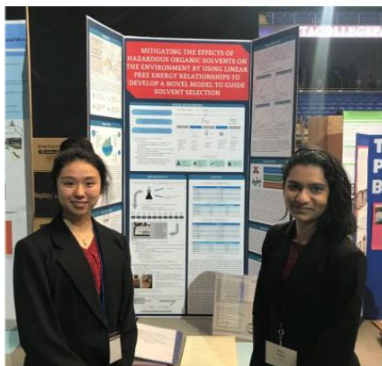
Colleen Dai (left) and Shoshana Zhang (center)

Research Mentor to  
2010 Siemens Competition  
Regional Finalist



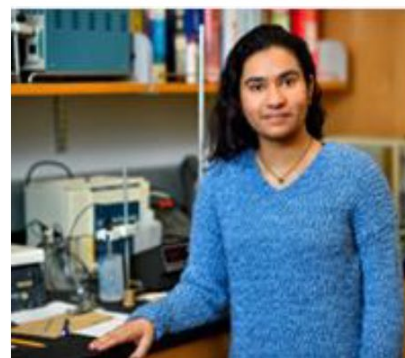
Shulin Ye

First place in Environment  
Management and Science  
2020 FWRSE



Jennifer Huang and  
Shrika Eddula

Research Mentor to  
2021 Goldwater Scholar



Shrika Eddula

Research Mentor to  
2022 Goldwater Scholar



Neel Shanmugam



## Recognitions Received from Other US Universities

### 2017 Stanford University Teacher Tribute



Nominated by Bihan Jiang

### 2015 Stanford University Teacher Tribute



Nominated by Akash Wadwadigi

### 2016 Yale Educator Award



Nominated by Shoshana Zhang