Hashim Ali, PhD

Professor of Chemistry
Department of Chemistry and Physics
Arkansas State University-Jonesboro
Laboratory Science East, PO BOX 419 State University, AR, 72467
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Education:

Ph.D. Atmospheric Chemistry, **July 2005**, University of Iowa
Thesis title: "*Laboratory studies of Atmospheric Particles: "Heterogeneous Reactions and Phase Transitions*"

B.Sc. Physical Chemistry (Honors), **August 200**0, United Arab Emirates University,
Thesis: "*Investigation of the level of toxicity of heavy metal ions in treated waste waters of Abu Dhabi, U.A.E. by Voltammetric and Polarographic techniques*".

Appointments:

2021-current: Full Professor, Department of Chemistry and Physics, Arkansas State University-Jonesboro
Environmental Sciences Graduate Program, Arkansas State University Jonesboro

2015-2021: Associate Professor,
Department of Chemistry and Physics, Arkansas State University-Jonesboro
Environmental Sciences Graduate Program, Arkansas State University Jonesboro

2009-2015: Assistant Professor,
Department of Chemistry and Physics, Arkansas State University-Jonesboro
Environmental Sciences Graduate Program, Arkansas State University Jonesboro

2006-2009 Postdoctoral Research Associate
Pacific Northwest National Laboratory (PNNL), Richland, Washington, USA
Probing atmospheric aerosol/ dust chemistry, in laboratory and field studies

2005-2006 Postdoctoral Research Assistant
Civil and Environmental Engineering, University of Iowa, Iowa City, Iowa, USA
Sustainability of Long Time Abiotic Attenuation of Halogenated Organic Solvents

2002-2005 Graduate Research Assistant
Chemistry Department, University of Iowa, Iowa City, Iowa, USA
Investigating the role of heterogeneous aerosols in global climate change

2000-2002 Teaching Assistant in Chemistry
Chemistry Department, University of Iowa, Iowa city, Iowa, USA
Led two undergraduate courses in the chemistry department

1998-2000 Undergraduate Honors Research
Chemistry Department, United Arab Emirates University, Al-Ain, United Arab Emirates

- Differential Pulse Polarographic (DPP) and Anodic/ Cathodic Stripping Voltammetric (A/C SV) study of the level of toxicity of heavy metal ions in treated waste waters of Abu Dhabi, U.A.E.

Continuous education

- Experiment Centric Pedagogy and Home-based Hands on learning in STEM , "The purpose of the virtual workshop is to teach/train STEM faculty on how to develop inexpensive home-based hands-on laboratory exercises in their STEM courses" March 15, 2020
- Creating an engaging Syllabus Using Adobe Spark, Workshop provided by the ASTATE department of Art and Design, June 2020
- WPI Project Based Learning Workshop, Washington DC (but Virtually) , District of Columbia, 15 hours. The Institute will bring together college and university teams to work on projects to advance project-based learning on their campuses in collaboration with Institute Faculty representing a wide range of areas of expertise.
- CUR Broadening Participation Institute, Tampa, Florida : Broaden the participation of underrepresented in STEM and other fields, February 2017
- Commercially Retreat, Petit Jean, Arkansas...to discuss commercialization of research and build ties among Arkansas researchers, July 2017
- Increasing the number of Minority faculty in STEM fields, Little Rock, Arkansas Lead a diversity panel to try to come up with idea on how to increase the number of minority faculty in STEM fields.
- Implementing NSF broader Impacts, Arkansas Learned how to implement NSF broader impacts into successful grants/ current grants.
- Summer Institute for Research Development, Jonesboro, AR(Office of Research and Technology Transfer)
- Integration of non-technical skills into the chemistry curriculum, New Orleans, Louisiana, Participated in “Student skills and academic excellence: Preparing students for employment/transfer.” Focusing on the integration of non-technical skills into the chemistry curriculum. New Orleans, LA, as part of the American Chemical Society’s (ACS) 66th Southwest and 62nd Southeast ACS Regional Meetings.
- Grant Writing Basics, Jonesboro, AR(Arkansas State University)
- Teaching ASU Students, Jonesboro, AR(Arkansas State University)
- The Road to Tenure, Jonesboro, AR(Arkansas State University)
- Revising and Submitting unsuccessful proposals, Jonesboro, AR(Arkansas State University)
- Proposal preparation Basics, Jonesboro, AR(Arkansas State University)

Courses Taught at ASTATE

1. Introduction to Chemistry (CHEM 1003)
2. General Chemistry I and II (CHEM 1013 and 1023)
3. Atmospheric Dynamics (PHYS 3043)
4. Physical Chemistry I and II (CHEM 3124 and CHEM 3134)
5. Survey of Physical Chemistry (CHEM 3153)
6. Research in Chemistry (CHEM 427V)
7. Chemistry Seminar (CHEM 4281)
8. Advanced Physical Chemistry (CHEM 6433)
9. Environmental Instrumentation (CHEM 6144)

Funded Grants (PI/Co PI)

- Arkansas Space Grant consortium ($ **9589.00**) PI, Grant Number ASU20212.00 "Atmospheric Aerosol/Radiation", May 2010-May 2011
- Ali,H, Summer Institute for Research Development (SIRD) $ **2500** June 2011
- Ali, H., Using iron minerals to breakdown organic contaminants in waste water, Funded by Office of Research and Technology Transfer (July 1, 2012 - June 30, 2013), awarded July 1, 2012 (**$3,987.60**), Completed, Summer 2012, PI Hashim Ali
- Pratte, John (PI), Ali, Hashim (CoPI), Marsico, Travis (CoPI), McKay, Tanja (CoPI), Warby, Richard (CoPI) The Experiential Learning Fellowship (ELF) Program, NSF (August 1, 2011 - July 31, 2016) Awarded: September 1, 2011, **$567,185.00**
- Ali, Hashim (PI) Using iron minerals to breakdown organic contaminants in waste water, Office of Research and Technology Transfer (July 1, 2012 - June 30, 2013) Awarded: July 1, 2012, **$ 3,987.60**
- Warby, Richard (PI), Benjamin, Ellis (CoPI), Koizumi, Hideya (CoPI), Burns, William (CoPI), Ali, Hashim (CoPI), Rougeau, Ben (CoPI) National Center for Science and Civic Engagement Post-Institute Implementation SENCER NSF 2010-2012 Sub-Awards, SENCER NSF (January 1, 2011 - December 31, 2012) , $ **3,000.00**
- Kennon, James (PI), Ali, Hashim (CoPI) Atmospheric Aerosol/Radiation, Arkansas Space Grant Consortium (May 26, 2010 - May 25, 2011) Awarded: July 1, 2010, $ **11,365.00**
- Pratte, John (PI), Ali, Hashim (CoPI), Bouldin, Jennifer (CoPI), Lorence, Argelia (CoPI), Marsico, Travis (CoPI), McKay, Tanja (CoPI), Risch, Tom (CoPI), Warby, Richard (CoPI) Beckman Scholars Program, Beckman Foundation (September 1, 2010 - November 30, 2010) , **$ 96,000.000**
- Ali, H (PI), ASTA ASSET II, 2013, Summer Research Experience and Internship (SREIP) award: $**19,500.00**
- Kennon, James (PI) Arkansas State University BalloonSAT: Tethered Blimp Network, American Physical Society (June 2, 2014 - June 30, 2015) , **$ 431.00**
- Ali, Hashim (CoPI), Hossain, Zahid (PI) MRI: Acquisition of an Atomic Force Microscope (AFM) to support Multi-disciplinary Research of evaluating Nano Scale Properties of Multifunctional Materials at Arkansas State University, NSF (June 2, 2014 - June 30, 2017) Awarded: July 1, 2014, **$ 272,320.00**
- Ali, Hashim (PI), Jones, Jerry (Other) ATR-FTIR study of the deliquesce of mixed aerosols , Arkansas Space Grant Consortium (ASGS) (November 26, 2013 - November 26, 2014) Awarded: November 26, 2013, **$ 2,000.00**
- Ali, Hashim (PI), Franklin, Jessica (Other) Gas Chromatography study of organic aerosols. , Arkansas Space Grant Consortium (ASGS) (November 26, 2013 - November 26, 2014) Awarded: November 26, 2013, **$ 2,000.00**
- Ali, Hashim (PI) Balloon-SAT Based Micro Thruster Flight Testts, Arkansas Space Grant Consortium (June 30, 2009 - July 30, 2010) Awarded: April 15, 2009, $ **3,012.20**
- Ali, Hashim (PI), Franklin, Jennifer (Other) STEM Minority award, Arkansas Space Grant Consortium (November 15, 2013 - June 30, 2014) Awarded: November 13, 2013, **$ 1,500.00**
- Ali, Hashim (PI), Jones, Jerry (Other) STEM Minority Award, Arkansas Space Grant Consortium (July 1, 2013 - June 30, 2014) Awarded: July 1, 2013, **$ 1,500.00**
- Ali, Hashim (PI) Atmospheric Aerosol/Radiation , Arkansas Space Grant Consortium (May 26, 2010 - May 25, 2011) Awarded: October 25, 2010, **$ 10,020.00**

- Ali, Hashim (CoPI), Watson, Kristiana (PI) Spectroscopic Study of the reaction of Succinic acid with carbonated aerosols, Arkansas Space Grant Consortium (April 15, 2015) ,**$ 1,500.00**
- Ali, Hashim (PI) ASTA Junior/Senior Research , Arkansas Economic Development Commission (August 1, 2012 - May 31, 2013) Awarded: August 1, 2012, **$ 6,736.00**
- Ali, Hashim (PI) ASTA Junior/Senior Research support , Arkansas Economic Development Commission (September 1, 2013 - May 31, 2014) Awarded: September 1, 2013, **$ 5,747.00**
- Ali, Hashim (PI) ASU-ASSET Initiative Summer Research Experience and Internship Program, Arkansas Economic Development Commission (May 1, 2013 - May 31, 2014) Awarded: May 8, 2013, **USD 19,500.00**
- Ali, Hashim (PI) ASTA Junior/Senior Research , Arkansas Economic Development Commission (January 1, 2014 - January 1, 2015) Awarded: January 1, 2014, **USD 6,947.00**
- Ali, Hashim (PI) ASTA Junior/Senior Research Funds , Arkansas Economic Development Commission (June 1, 2015 - June 21, 2016) Awarded: June 22, 2015, **USD 7,247.00**
- Ali, Hashim (PI) ASTA Junior/Senior Research Fund, Arkansas Economic Development Commission (May 1, 2017 - May 22, 2018) Awarded: May 22, 2017, **USD 6,647.00**
- Ali, Hashim (PI) ASTA Junior/Senior Research Support , Arkansas Economic Development Commission (June 1, 2018 - May 31, 2019) Awarded: May 18, 2018, **USD 9,747.00**
- Ali, Hashim (Program Coordinator) AEDC Junior/Senior Research Support , Arkansas Economic Development Commission (October 1, 2019 - March 30, 2020) Awarded: March 30, 2019, **USD 13,855.32**
- Ali, Hashim (Program Coordinator) AEDC Junior/Senior Research Support , Arkansas Economic Development Commission (May 1, 2020 - June 30, 2021) Awarded: May 1, 2020, **USD 5,847.00**
- Ali, Hashim (Program Coordinator) AEDC Junior/ Senior Research Support, Arkansas Economic Development Commission (May 20, 2016 - May 19, 2017) Awarded: May 20, 2016, **USD 7,247.00**
- Ali, Hashim (Multiple PI) Bridging the Divide: A program to Broaden Participation in STEM PhD, National Science Foundation (NSF) (February 16, 2015 - August 31, 2020) Awarded: February 20, 2014, **USD 749,964.00**
- Ali, Hashim (PI) AEDC Sophomore Junior Senior Support FY 20, Arkansas Economic Development Commission (January 1, 2020 - December 31, 2021) Awarded: January 1, 2020, **USD 9,255.32**
- American Chemical Society (ACS) Summer Experiences for the Economically Disadvantaged (SEED) project. PI Rajendram Rajnarayanan (NYIT), co-PI Hashim Ali, **$12,500.00** (2019,2020)
- Alam, Mohammad (PI), Ali, Hashim (CoPI), Medina-Bolivar, Luis (CoPI), Ontko, Allyn (CoPI), Hershberger, John (CoPI) MRI: Acquisition of a 400 MHz Nuclear Magnetic Resonance (NMR) for Research at Arkansas State University, National Science Foundation (August 1, 2021 - July 31, 2024) Awarded: July 29, 2021, **USD 345,935.00**
- Boyd, Donna (PI), Ali, Hashim (CoPI), Medina-Bolivar, Luis (CoPI), Lorence, Argelia (CoPI), Neuman-Lee, Lorin (CoPI) Diversifying Our Curing Community: A Program

to Increase the Number of Minority Physicians in Arkansas, The Blue and You Foundation for a Healthier Arkansas (January 3, 2022 - December 15, 2022) Awarded: November 17, 2021, **USD 128,720.00**

- Ali, H, Continuous grant as part of Arkansas Louise Stokes Alliance for Minority Participation (ARK_LSAMP) , Campus coordinator, **$85,000 per year** 2018-2024

Submitted - Not Funded

- Spectroscopic Study of the reaction of Succinic acid with carbonated aerosols, Funded by Arkansas Space Grant Consortium (April 15, 2015) ($1,500.00), Submitted - Not Funded, Spring 2015, CoPI Hashim Ali (25%) with PI Kristiana Watson (75%)
- Arkansas State University BalloonSAT: Tethered Blimp Network, Funded by American Physical Society (June 2, 2014 - June 30, 2015), Submitted - Not Funded, Fall 2014, PI James Kennon
- Arkansas State University BalloonSAT, Funded by American Physical Society (June 2, 2014 - June 30, 2015), Submitted - Not Funded, Fall 2013, PI James Kennon
- Experimental and Computational Studies of Charged Electrospray Droplet Evolution, Funded by NSF ($262,279.00), Submitted - Not Funded, Summer 2012, PI Hideya Koizumi with CoPI Hashim Ali, CoPI Hai Jiang, CoPI yury dessiaterikSpray simulation and tracking Amount: 262279

Peer reviewed Publications:

1. Saleh, I., H. Raj KC., Roy, S., AbuGazleh,M., **Ali, H**., Gilmore, H., Alam*, M.," Design, synthesis and antibacterial activity of N-(trifluoromethyl) phenyl substituted pyrazole derivatives", **2021**, RSC.Medicinal Chemistry, Adv. Articles, DOI:10.1039/d1md0 02 30a.
2. M. Abugazleh, B. Rougeau, H. Ali, “Adsorption of catechol and hydroquinone on titanium oxide and iron (III) oxide", Journal of Environmental Chemical Engineering, **2020**, (8), 104180.
3. S. D. Al-Ahmari, K. Watson, B.N. Fong, R. M. Ruyonga, H. Ali, "Adsorption kinetics of 4-n-Nonylphenol on hematite and goethite”, Journal of Environmental Chemical Engineering, **2018**, 6(4), 4030-4036.
4. B. Fong, J.T Kennon, **H.Ali**, "Mole Ratio Dependence of the Mutual Deliquescence Relative Humidity of Aqueous Salts of Atmospheric Importance," *Journal of Physical Chemistry A*, **2016**,120(20),3596-3601. DOI:10.1021/ acs. jpca.6b02706.
5. B. Fong, J. Jones, K. Newhouse, **H. Ali**. "Aerosol Chemical Composition and Size Speciation in Northeast Arkansas," *Arkansas Aerospace Proceedings*, **2016**, 2, 25-30.
6. B.N. Fong, K.V. Newhouse, **H. Ali,** " Effect of Relative Humidity on HCl formation from the reaction of H_2SO_4 and HNO_3 with NaCl particles", *Reaction Kinetics, Mechanisms and Catalysis*, **2015**, 116, 1, pp 273-283.
7. B. N. Fong, K.V Newhouse, M.J. Huss, E. Roberts, J.T. Kennon, **H. Ali**," Investigating the Effect of Stratospheric Radiation on Seed Germination and Growth.", *Journal of Arkansas Academy of Science*, **2015**, 69, 36-40.
8. **H.M. Ali**, M. Iedema, X.-Y. Yu, J.P. Cowin," Ionic strength dependence of the oxidation of SO_2 by H_2O_2 in sodium chloride particles." *Atmos. Environ., 89C,* **(2014)***: pp 731-738 .*

9. Tanika Arora, **H. Ali**, William Burns, Eiko Koizumi, Hideya Koizumi, "*Theoretical and ATR-FTIR study of free 12 crown-4 in aqueous solution*", Chemical Physics Letters, 502, 4, **2011. (**Times Cited=0)
10. Yu, X.-Y .,Cowin, J.P., Iedema M.J., and **Ali, H** Atmos. Meas. Tech., 3,1377-1384,**2010**
11. Shuttlefield, J., **Al-Hosney, H. A**. Zachariah A. and Grassian V.H., "Attenuated Total Reflection Fourier Transform Infrared Spectroscopy to Investigate Water Uptake and Phase Transitions in Atmospherically Relevant Particles", *Appl. Spectros.*, **2007**, 61, 3, pp-283-292. (Time cited = 13) (Cover article)
12. **Al-Hosney, H. A**. Carlos-Cuellar, S, Baltrusaitis, J. and Grassian, V. H. "Heterogeneous Uptake and Reactivity of formic acid on calcium carbonate particles: A Knudsen Cell Reactor, FTIR and SEM., " *Phys. Chem. Chem. Phys*. **2005**, 7, 3587-3595. (Times cited =17) (Cover Article.)
13. **Al-Hosney, H. A**. and Grassian, V. H. "Water, Sulfur Dioxide and Nitric Acid Adsorption on calcium carbonate: A Transmission and ATR-FT-IR study" *Phys. Chem. Chem. Phys*. **2005**, 7, 1266-1274. (Times cited = 57)
14. Al-Abadleh, H. A., **Al-Hosney, H. A**. and Grassian, V. H. "Oxide and Carbonate Surfaces as Environmental Interfaces: The Importance of Water in Surface Composition and Surface Reactivity" *J. Molecular Catalysis A*, **2005**, 228(1-2), 47-54 (Times cited =25)
15. **Al-Hosney, H. A**.; Grassian, Vicki H. "Carbonic acid: An important intermediate in the surface chemistry of calcium carbonate*" J .Am. Chem. Soc*., **2004**, 126(26), 8068-8069. (Times cited =51)
16. Usher, C. R., **Al-Hosney, H. A**., S. Carlos-Cuellar, and Grassian, V. H., A laboratory study of the heterogeneous uptake and oxidation of sulfur dioxide on mineral dust particles, *J. Geophys. Res*., **2002**, 107(D23), 4713, (doi: 10.1029/2002JD002051). (Times cited=64)

Submitted/in preparation

- Abugazleh, M. K., Chester, J., Bouldin, J. L., & Ali, H. M. (2021). Aquatic Toxicity of Hydroquinone and Catechol Following Metal Oxide Treatment to Ceriodaphnia Dubia and Pimephales Promelas. *Journal of Contaminant Hydrology*.
- Abugazleh, M. K., Ali, H. M., & Abutayeh, M. (2021). Fate and Transport analysis of Dowtherm A chemical release event. To be submitted to the Journal of Environmental *Modelling and Software.*

Non-referred Publications (including abstracts))

1. **2020,** 260TH American Chemical Society (ACS) National Meeting, Philadelphia, PA, "Adsorption of Catechol/Hydroquinone on TiO_2 and Iron (III) oxide" Mohd K Abugazleh, Hashim Ali
   - Abstract #: ENVR 3280337
   - Division of Environmental Chemistry
2. **2020,** National Council on Undergraduate Research (NCUR) meeting in Bozeman Montana, "Adsorption of Catechol and Hydroquinone on the Surface of TiO_2," Jessica Parr, Mohd Abu Gazleh, Hashim Ali
   - Abstract / Poster # 8
   - Subject Chemistry

3. **2018,** 76TH Southwest Regional ACS Meeting, Little Rock, AR, "Adsorption kinetics of Hydroquinone and Catechol on the surface of oxides", Mohd Abu Gazleh and Hashim Ali
   - Abstract # 3059261
   - Division of Environmental Chemistry
4. **2018,** 255TH American Chemical Society (ACS) National Meeting, New Orleans, LA, "Adsorption kinetics of 4-n-nonylphenol on hematite and goethite" Kristiana Watson Mohd K Abugazleh, Hashim Ali
   - Abstract #: ENVR 779
   - Division of Environmental Chemistry
5. **2017,** National Council on Undergraduate Research (NCUR), Memphis TN, "Removal of an endocrine disruptor by clay like oxides" Kristiana Watson, Saeed Al Ahmari, Bryant Fong and Hashim Ali
   - Abstract: N/A
   - Subject: Chemistry
6. **2015,** Joint 71ST Southeastern/Southwest Regional Meeting (SE/SW) in Memphis, TN., "Reaction kinetics of low molecular weight carboxylic acids with carbonate aerosols" Kristiana Watson, Bryant Fong, Hashim Ali
   - Abstract #: ENVR 677
   - Division of Environmental Chemistry
7. **2015,** 249th American Chemical Society National Meeting, Drnver Colorado, "*Effect of Relative Humidity on HCl formation from the reaction of H_2SO_4, HNO_3 and NaCl*", Kiara Newhouse, Bryant Fong and Hashim Ali
   - Abstract ID 2128996
   - Division of Environmental Chemistry
8. 2011, Conference on Undergraduate Research CUR, in Arlington VA, Bryant Fong, presented a poster: "Deliquescence relative humidity of binary salts of atmospheric relevance". (Invited national conference)
9. **2011** 67th SWRM ACS Austin TX "*Role of water on tropospheric chemistry*" Hashim Ali
   - Abstract # SWRM 361
   - Division of Environmental Chemistry
10. **2010** South East/South West (SE/SW) ACS New Orleans "*Measurements of stratospheric water vapor from weather balloons"* Adam Goins and Hashim Ali
    - Abstract # SESW541
    - Poster selected for SCI/MIX in the division of Physical Chemistry
    - Division of Physical Chemistry
11. **2010** ACS Boston "Interaction of 12c4 with alkali metal cation in aqueous solution: Theoretical investigation using polarized continuum model" Tanika Arora, Hashim Ali, William A Burns and Hideya Koizumi

Presentation at professional meetings and invited lectures

Invited presentations: (not including undergraduate/graduate student presentation)

1. **January 20, 2023**, Spring Speaker Series, Wilfred Laurier University (Canada) "*Adsorption of catechol and hydroquinone on metal oxides, and their toxicity to Freshwater Aquatic Organisms (Pimephales Promelas, and Ceriodaphnia dubia)".*
2. **July 06,2020** "*Applying to internship and scholarships"* Learned forum: STEM Academy Speaker Series. Invited by Prof. Anissa Buckner as part of ARK_LSAMP program, (Virtual) Arkansas State University.
3. **July 09, 2019** Presentation "*Hurdles to overcomes as a Minority in STEM"* Learned forum: STEM Academy Speaker Series. Invited by Prof. Anissa Buckner as part of ARK_LSAMP program, University of Arkansas–Pine Bluff.
4. **November 14th, 2019:** "*Contaminant in waste water: Biotic and Abiotic remediation"* Learned forum: Microbiology Class (BIO 4014). Invited by Professor David Gilmore Arkansas State Campus, Jonesboro, AR
5. **October 22nd, 2018:** "*Environmental Science of air pollution and water contamination"* Learned forum: Making Connection class (PSCH 1913). Invited by Professor Argelia Lorence, Arkansas State Campus. Jonesboro, AR
6. **October 19, 2018:** "*Adsorption of personal care products on oxides as a means to remove them from contaminated waste water"* Learned forum: Science Seminar Series. Invited by Prof. Ron Darbeau, (former) Dean of College of STEM at University of Arkansas at Fort Smith. University of Arkansas–Fort Smith.
7. **April 09, 2018**: "*Adsorption of personal care products on oxides as a means to remove them from contaminated waste water"* Learned forum: Fall science Seminar Series. Invited by Prof. Courtney Hatch, Chemistry Department, Environmental Studies program, Hendrix College, Conway, AR.
8. **October 2017**: "*Weather and Climate: how do we know what we know, about climate changes"* Learned forum: Environmental Policy Class (POSC 6173). Date and place of meeting: October, **2017**, Arkansas State Campus, Jonesboro, AR
9. **July 05, 2017**: "*My life experiences as a STEM faculty*" Learned forum: STEM Academy Speaker Series. Invited by Prof. Anissa Buckner as part of ARK_LSAMP program, University of Arkansas–Pine Bluff.
10. **July 18**, **2016:** "*Career in STEM compared to those in Medical Sciences*" Learned forum: STEM Academy Speaker Series. Invited by Prof. Anissa Buckner as part of ARK_LSAMP program University of Arkansas–Pine Bluff.
11. **July 13, 2015**: "*My life experiences as a minority faculty*" Learned forum: STEM Academy Speaker Series. Invited by Prof. Anissa Buckner as part of ARK_LSAMP program, University of Arkansas–Pine Bluff.
12. : **September 5th 2014**: "*Challenges and best practices for recruiting and retaining under-represented minority faculty in STEM fields*" Learned forum: 4th Annual Arkansas ASSET Initiative Project Meeting, Little Rock, AR.
13. **July 07, 2014**: "*STEM Career compared to Medical Careers*" Learned forum: STEM Academy Speaker Series. Invited by Prof. Anissa Buckner as part of ARK_LSAMP program, University of Arkansas–Pine Bluff.
14. **Nov 09 2011 Presented:** "Small Platform sampling of stratospheric water vapor, "67th Southwest Regional ACS meeting, Nov 09th 2011, Austin TX (Symposium chair and organizer)

15. **Oct 17 2011 Poster: "***ATR-FTIR study of the deliquescence relative humidity of mixed inorganic aerosols of atmospheric relevance*", National Council on Undergraduate Research (NCUR), October 17th 2011, Arlington VA.
16. **Oct 08 2011 Presentation:** Midsouth Inorganic Chemists Association (MICA) "*Q&A with an atmospheric chemist*", Arkansas Tech University, Russellville AR, October 08, 2011
17. **Apr 22 2011 Presentation** "*Water vapor measurements from weather balloons*" at the 19th annual ASGC meeting held at the Winthrop Rockefeller institute at Petit Jean near Morrilton Arkansas.
18. **Feb 19 2011** Presentation *"Stratospheric water measurements from weather balloons*" at the NASA EPSCoR annual meeting at the Winthrop Rockefeller institute at Petit Jean near Morrilton Arkansas. February 19, 2011
19. **April 8th, 2011** Presentation: 92nd Annual Arkansas Academy of Science Meeting held at the University of Arkansas-Monticello.
20. **June 17th 2011**: *Q and A with an Atmospheric Chemist*: gave short public presentation on atmospheric chemistry and climate change, followed by Q&A and open discussion with the public Learned forum: *Science CAFÉ*- Little Rock. Vieux Carre/Afterthought Café, 2721 Kavanaugh, Little Rock, Arkansas.
21. **September 20th 2010**: "Conditions in the upper troposphere related to climate change" Learned forum: Department of Chemistry and Biochemistry Seminar Series. Invited by Prof. Colin Hayes, Assistant professor (Collaborator at University of Arkansas). University of Arkansas–Fayetteville.

Presentation and posters (Undergraduate/graduate Students):

1. Abu Gazleh, K. M., & Ali, H. M. (2020, March). *Adsorption of Catechol /Hydroquinone on TiO2 and Iron (III) oxide. 2020 American Chemical Society (ACS)National conference*. Philadelphia US: American Chemical Society.
2. Abugazleh, K., & Ali, H. M. (2019, March). *Adsorption of contaminants from waste water*. *Midsouth Inorganic Chemists Association (MICA*. Batesville AR: Lyon College.
3. Abu Gazleh, K. M., & Ali, H. M. (2020, March). *Investigation of Titanium dioxide impact on the Toxicity of Catechol to Freshwater Aquatic Organisms (Pimephales Promelas, and Ceriodaphnia dubia)*. *5th Annual LSUS Regional Student Scholars Forum*. Shreveport , LA 71115: Louisiana State University Shreveport (LSUS).
4. Parr, J., Abu Gazleh, K. M., & Ali, H. M. (2020, April). *Adsorption of Catechol and Hydroquinone on the Surface of Titanium Dioxide*. *Create@ASTATE*. Jonesboro AR: Arkansas State University.
5. Ali, H. M., AbuGazleh, K., & Parr, J. (2020, February). *Adsorption of Catechol on Anatase*. *Emerging Researchers Conference*. Washington DC: NSF.
6. Parr, J., Abu Gazleh, K., & Ali, H. M. (2020, Autumn). *Adsorption of Catechol and Hydroquinone on the Surface of Titanium Dioxide*. *National Council of Undergraduate Research (NCUR) 2020 Program*. Bozeman Montana: National Council of Undergraduate Research (NCUR).
7. Parr, J., AbuGazleh, K., & Ali, H. M. (2019, October). *Adsorption of Personal care products on TiO2*. *Arkansas INBRE*. Fayetteville AR: University of Arkansas.
8. Parr, J., AbuGazleh, K., & Ali, H. M. (2019, May). *Adsorption of Personal care products on Titanium oxide*. *2019 Annual NSF EPSCOR meeting*. Little Rock AR: NSF.

9. Branch, J., AbuGazleh, K., & Ali, H. M. (2019, July). *Oxidation of SO2 to SO4 by H2O2. SHARE/ACS SEED summer conference*. Jonesboro AR: NIH/ACS.
10. Fryman, J., Brown, J., & Ali, H. M. (2019, April). *Nitration of 4-Nitrophenol Using Nitrate Salts*. *Create@ASTATE*. Jonesboro AR: Arkansas State University.
11. Ali, H. M., & AbuGazleh, M. K. (2018, November). *Adsorption of Catechol and Hydroquinone on the Surface of TiO2. Southwest Regional Meeting of the American Chemical Society*. Little Rock AR: American Chemical Society.
12. Gibson, S., Ali, H. M., & AbuGazleh, M. K. (2018, November). *Adsorption of Hydroquinone and Catechol on the surface of TiO2. Annual Biomedical Research Conference for Minority Students (ABRCMS)*. Indianapolis IN: NSF.
13. Ali, H. M., & Watson, K. (2018, March). *Adsorption of 4-n-Nonylphenol on Hematite and Goethite*. *American Chemical Society (ACS) National Conference*. New Orleans: American Chemical Society.
14. Ali, H. M., & Watson, K. (2018, March). *Adsorption Kinetics of 4-n-Nonylphenol on Hematite and Goethite*. *Emerging Research Network (ERN) Conference*. Washington DC: American Association for the Advancement of Science (AAAS).
15. Ali, H. M., & Watson, K. (2018, February). *Removal of an Endocrine Distruptor by clay like oxides*. *STEM @ the Capital*. Little Rock AR: Arkansas State University.
16. Watson, K. (2018, April). *How Mentorship and Scholarships helped my career*. (H. M. Ali, Ed.), *LSAMP Spring research conference*. Little Rock AR: National Science Foundation LSAMP.
17. Ali, H. M., & Watson, K. (2017, March). *Adsorption of Nonylphenol on clay like oxides*. *Emerging Research Network (ERN) conference*. Washington DC: American Association for the Advancement of Science (AAAS).
18. Ali, H. M., & Watson, K. (2017, April). *Adsorption of an endocrine distruptor on clay-like oxides*. *National Council of Undergraduate Research (NCUR)*. Memphis TN: Council of Undergraduate Research (CUR).
19. Ali, H. M., & Watson, K. (2017, March). *Adsorption of 4-n-nonylphenol on hematite and goethite*. *American Chemical Society (ACS) National Meeting*. San Franscisco California: American Chemical Society.
20. Ali, H. M., & James, J. (2017, October). *Kinetics of oxalic and malinic acid adsorption on calcium carbonate*. *Idea Network of Biochemical Research Excellence (INBRE)*. Fayyetteville AR: INBRE.
21. Watson, K., Fong, B., & Ali, H. M. (2015, November). *Reaction kinetics of low molecular weight carboxylic acids with carbonate aerosols*. *2015 Joint Southeastern/Southwest Regional ACS meeting*. Memphis TN: American Chemical Society.
22. Ali, H. M., & Ruyonga, R. (2014, Spring). *Uptake of Sodium arsenate on the surface of iron oxides*. *2014 Southeast Undergraduate Research Conference*. Knoxville TN: University of Tenessee at Knoxville.
23. Collins, K., Fong, B., Melton, M., & Kennon, J. T. (2013, April). *Effects of Hig Altitude Conditions on Seed Germination*. *Arkansas Space Grant Symposium*. Arkansas Space Grant Consortium..
24. K, N., Fong, B., Kennon, J. T., & Ali, H. M. (2014, April). *Effects of High Altitude Radiation on Seed Germination and Seedling Growth*. *Twenty-second Annual Arkansas Space Grant Synposium*. Hot Spring Convention Center: Arkansas Space Grant Consortium. Poster presentation at the Arkansas Space Grant Symposium.
25. Fong, B., Ali, H. M., & Kennon, J. T. (2014, April). *A Low Cost Alternative to Stratospheric Data Collection*. *Twenty-second Annual Arkansas Space Grant*

Symposium. Hot Spring Convention Center: Arkansas Space Grant Consortium. Graduate student, Bryant Fong gave an oral presentation describing ASTATE's high altitude atmospheric research.

26. Ali, H. M., & Newhouse, K. (2014, Spring). *Anionic composition of atmospheric aerosols*. *2014 Southeast Undergraduate Research Conference*. Knoxville: University of Tennessee Knoxville.
27. Fong, B., & Kennon, J. T. (2013, April). *BalloonSAT: Water Vapor Measurements of the Lower Stratosphere*. *Arkansas Space Grant Symposium*. The Winthrop Rockefeller Center, Morrilton, Arkansas: Arkansas Space Grant Consortium.
28. Ali, H. M., Fong, B., & Newhouse, K. (2013, October). *Anion composition of aerosols*. *Midsouth Inorganic Chemists Association*. Little Rock AR.
29. Ali, H. M., & Ruyonga, R. M. (2012). *Iron oxide mediated degradation of Sodium Arsenate*. *Southwest Regional America Chemical Society meeting*. Baton Rouge, LA: American Chemical Society.
30. Ali, H. M., & Patterson, A. (2012). *Aerosol generation apparatus: Proof of Concept*. *Arkansas INBRE*. Fayetteville: University of Arkansas Fayettevile.
31. Ali, H. M., & Ruyonga, R. M. (2012). *ATR-FTIR Study of the adsorption and degradation of sodium Arsenate on the surface of Fe_2O_3. Arkansas INBRE conference*. Fayettville AR: University of Arkansas Fayetteville.
32. Ali, H., & Ruyonga, R. M. (2012, March). *Iron mediated degradation of Sodium Arsenate*. *Midsouth Inorganic Chemists Association*. Searcy, AR: Harding University.
33. Kennon, J. T. (2012, February). *Water vapor and climate change*. *Dept of Chemistry Seminar*. Memphis TN: University of Memphis.
34. Ali, H. M. (2012, April). *Design of an aerosol generation and reaction apparatus*. *20th Annual ASGC symposium*. Morillton, AR: Arkansas Space Grant Consortium (ASGC).
35. Ali, H., Kennon, J. T., & Patterson, A. (2012, April). *Design of an aerosol generation and reaction apparatus*. *20th Annual ASGC symposium*. Morillton, AR: Arkansas Space Grant Consortium (ASGC).
36. Ali, H., & Ruyonga, R. (2012, February). *ATR-FTIR study of the adsorption of Sodium Arsenite onto Iron oxides*. *32nd Undegraaduate Research Conference*. Memphis TN: University of Memphis.
37. Ali, H., & Kennon, J. T. (2012, February). *Water vapor and climate change*. *Dept of Chemistry Seminar*. Memphis TN: University of Memphis.
38. Ali, H., & Kennon, J. T. (2011, October). *ATR-FTIR investigation on the DRH of mixed binary salts of atamospheric importance*. *Conference on Undergraduate Research*. Arlington VA: NSF REU.
39. Kennon, J. T., Ali, H., & Pratte, J. M. (2011, July). *Atmospheric Dynamics: Students at the Edge of Space*. *SENCER Summer Institute 2011*. SENCER.
40. Kennon, J. T., Ali, H., & Pratte, J. M. (2011, July). *Atmospheric Dynamics: Students at the Edge of Space*. *SENCER Summer Institute 2011*. SENCER. Arkansas State University has developed a novel undergraduate course,
41. Ali, H., & Kennon, J. T. (2011, March). *Investigating the Boundary layer variations as a function of altitude*. *National Conferences on Undergraduate Research*. Ithaka, New York: NCUR.
42. Kennon, J. T., Bennett, B., Ali, H., & Roberts, E. (2011, April). *Arkansas BalloonSAT Project: Year IV*. *Arkansas Space Grant Symposium*. Morrilton, AR: ASGC..

43. Ali, H., & Kennon, J. T. (2011, February). *Upper Tropospheric Chemistry in Relation to Climate Change*. *2011 NASA EPSCoR Research Team Network Meeting*. Winthrop Rockefeller Institute, Morilton Arkansas: NASA EPSCoR.
44. Kennon, J. T., Ali, H., Huss, M., Bennett, B., & Roberts, E. (2011, February). *BalloonSat/Near Space Research*. *2011 Arkansas NASA EPSCoR Workshop*. Winthrop Rockefeller Institution: ASGC & NASA. Current and past research of the Arkansas State University BalloonSAT and the Arkansas Academy for Space Science
45. Ali, H. (2011, March). *Water Affinity of atmospherically relevant inorganic comounds*. *Midsouth Inorganic Conference*. Batesville Arkansas: Lyon College.
46. Kennon, J. T., Ali, H., & Williams, T. (2011, April). *Intensities of Red, Green and Blue Light in the Atmosphere*. *Arkansas Space Science Symposium*. Morrilton, AR: ASGC. This research project is a study of red, green, and blue light, and their change in intensities in the atmosphere.
47. Ali, H., & Kennon, J. T. (2011, April). *Measurment of tropospheric water vapor in relation to climate change*. *95th Arkansas Academy of Science Meeting*. Monticello: University of Arkansas Monticello.
48. Ali, H. (2010, September). *Conditions in the upper atmosphere related to climate change*. *Fall Physical Chemistry Seminar*. Fayettville Arkansas: University of Arkansas-Fayetville.
49. Arora, T., Ali, H., Burns, W., & Koizumi, H. (2010, August). *Interaction of 12c4 with alkali metal cation in aqueous solution: Theoretical investigation using polarized continuum model*. *Fall 2010 National Meeting & Exposition*. Boston: AmericanChemical Society..
50. Ali, H., & Kennon, J. T. (2010, November). *Measurments of Stratospheric water vapor by weather balloons*. *2010 SE/SW ACS Regional meeting*. New Olreans: American Chemical Society.
51. Ali, H., & Kennon, J. T. (2010, October). *Conditions in the upper atmosphere related to climate change*. *2010 Arkansas INBRE ResearchCconference*. Fayettville Arkansas: University of Arkansas-Fayetville.
52. Arora, T., Ali, H., Burns, W., Koizumi, E., & Koizumi, H. (2010, October). *Theoretical and Experimental study of 12-Crown-4 in Aqueous Phase*. *INBRE Research Conference Fall 2010*. Fayetteville: INBRE.
53. Arora, T., Ali, H., Burns, W., Koizumi, E., & Koizumi, H. (2010, October). *Theoretical and Experimental study of 12-Crown-4 in Aqueous Phase*. *MICA Meeting*. Jonesboro AR: MICA..
54. Ali, H., & Kennon, J. T. (2010, October). *Conditions in the upper atmosphere related to climate change*. *Midsouth Inorganic Chemists Association*. Jonesboro: Arkansas State University.
55. Ali, H. (2010, March). *Climate change chemistry*. *Midsouth Inorganic Chemists Association*. Monticello: University of Arkansas-Monticello.
56. Ali, H. (2009, October). *Judge for Poster session*. *2009 Arkansas INBRE ResearchCconference*. Fayettville Arkansas: University of Arkansas-Fayetville.
57. Ali, H. (2009, November). *Weather and Climate*. *Midsouth Inorganic Chemists Association*. Conway: University of Central Arkansas.
58. "Newhouse, K., Fong, B., Williams, A., Ali, H., "Ion Chromatographic study of aerosols collected in Jonesboro", 46th ACS Southeast Undergraduate Research Conference, Knoxville TN, Jan **2014**

59. **"**Adsorption of Sodium Arsenate onto Iron oxides", Ronnie Ruyonga and Hashim Ali, 68th Southwest Regional ACS meeting, Baton Rouge, LA (2013)
60. "Iron oxide remediation effects on persistent organic compounds', Ronnie Ruyonga and Ali, H., Midsouth Inorganic Chemist Association (MICA) meeting, Memphis TN. October 2012
61. Sodium arsenate adsorption in iron oxides", Ruyonga, R and Ali, H., Arkansas INBRE research conference, Fayetteville, Arkansas October **2012**
62. Design of a compact aerosol generation and reaction apparatus", Patterson, D and Ali, H., Arkansas INBRE research conference, Fayetteville, Arkansas. October **2012**
63. Aerosol and reaction apparatus: proof of concept", Patterson, A. and Ali, H., 20th Annual ASGC symposium, Winthrop Rockefeller Institute, Morrilton, AR, April **2012**
64. "Adsorption of sodium arsenate on the surface of iron oxides", Ruyonga, R. and Ali, H., 32nd Undergraduate Research Conference, University of Memphis, Memphis TN. February 2012
65. **"***ATR-FTIR study of the deliquescence relative humidity of mixed inorganic aerosols of atmospheric relevance*", National Council on Undergraduate Research (NCUR), October 17th 2011, Arlington VA.
66. Midsouth Inorganic Chemists Association (MICA) "*Q&A with an atmospheric chemist*", Arkansas Tech University, Russellville AR, October 08, 2011
67. Presented "*Water vapor measurements from weather balloons*" at the 19th annual ASGC meeting held at the Winthrop Rockefeller institute at Petit Jean near Morrilton Arkansas. April 2011
68. *Stratospheric water measurements from weather balloons*" at the NASA EPSCoR annual meeting at the Winthrop Rockefeller institute at Petit Jean near Morrilton Arkansas. February 19, 2011
69. 92nd Annual Arkansas Academy of Science Meeting held at the University of Arkansas-Monticello. Presented my research, Adam presented a poster. April 2011
70. *Water Affinity of inorganic atmospheric aerosols*", Goins, A and **Ali, H**., Spring 17th Mid-South Inorganic Chemist Association (MICA) meeting held at Lyon College. March 2011
71. *Measurements of Stratospheric water vapor by weather balloons* , Goins, A and **Ali, H**., SE/SW ACS New Orleans . Poster selected for SCI/MIX in the division of Physical Chemistry, Nov 2010
72. "*Aerosols in the Boundary layer*" National Conference for Undergraduate students (NCUR), Bryant Fong Summer RISE student presented a conference April 01-02, 2011
73. Arkansas "*Conditions in the upper troposphere related to climate change*" Baird, S., Kennon, T and **Ali, H**., INBRE conference. October 2010
74. *Geometrical Structures of free 12-Crown-4 in Aqueous Solution and the Selectivity of 12-Crown-4 on Alkali Metal Ions in Aqueous solutions : A theoretical study,* ACS Boston presented a poster Arora, T, Burn, W., **Ali, H**, Koizumi, K., Presented at the Chemistry Division, 234th ACS National Meeting, Boston, Massachusetts. August 2010
75. *Conditions in the upper troposphere related to climate change*" Goins, A, Stone, M, Kennon, T., **Ali, H**., Spring Mid-South Inorganic Chemist Association (MICA) conference at University of Arkansas at Monticello March 2010
76. Fall Mid-South Inorganic Chemist Association (MICA) Meeting at University of Central Arkansas at Conway, October 2009

77. "*Fast-Time Resolved Aerosol Collector**" , Yu, X., **Hashim Al-Hosney**, Iedema, M., Cowin, J., presented at the 2007 American Geophysical Union (AGU) Fall meeting in San Francisco, California. December 2007
78. "*Contaminant Interactions with Green Rusts: Abiotic and Biotic Pathways*", **Hashim Al-Hosney**, Michelle M. Scherer, et al; presented at the Division of Environmental Chemistry, 233rd American Chemical Society (ACS) National Meeting, Chicago, Illinois. March 2007
79. "*Reactivity of Ferrous Iron associated with Nanoparticle Iron Oxides*": Cwiertny D.M, Handler R.M., **Hashim Al-Hosney**, Grassian, V.H and Scherer, M.M., presented at the Advances in Surface-Mediated Transformation in Environmental Systems, Division of Environmental Chemistry at the 231st American Chemical Society (ACS) National Meeting, Atlanta, Georgia March 2006
80. "*Abiotic Attenuation of Chlorinated Ethenes*", **Hashim Al-Hosney**, Michelle Scherer et al, presented at the Partners in Environmental Technology, Technical Symposium & Workshop for the Strategic and Environmental Research and Development Program (SERDP) of the Department of Defense (DOD), in Washington, D.C. Nov 2005
81. Invited speaker at Pacific Northwest National Laboratory (P.N.N.L) in Richland WA, "*Laboratory Studies of Atmospheric Particles: Heterogeneous Reactions and Phase Transitions*", **Hashim Al-Hosney** and Vicki Grassian, Host Dr. Jim Cowin, Environmental Molecular Science Laboratory (E.M.S.L), at PNNL in Richland, Washington. May 2005
82. "*FTIR Study of the Reaction of Gaseous Inorganic and Organic Acids on Calcium Carbonate*", **Hashim Al-Hosney** and Vicki Grassian Presented at the Chemistry Division, 227th ACS National Meeting, Anaheim, California. March 2004
83. "*FTIR Study of the Reaction of Sulfur Dioxide and Nitric Acid on High Surface Area Calcite Samples*", **Hashim Al-Hosney** and Vicki Grassian, Presented at the Symposium on Nanoscience and Nanotechnology at the Iowa Advanced Technological Laboratories (IATL), University of Iowa. Iowa City Iowa, November 2003
84. *Other Factors Contributing to the Deterioration of Calcareous Stone*",**Hashim Al-Hosney** and Vicki Grassian, Presented at the 26th Annual Midwest Environmental Chemistry Workshop, College of Engineering, University of Iowa. Iowa City Iowa October 2003

Mentoring Activities
Graduate Students

- Bryant Fong: Research Experience Undergraduate (2010,2011) Masters in Chemistry (2011-2015). Currently Science teacher, Nettleton Public Schools.
- Saeed Al-Ahmari, Masters in Chemistry (MSc., 2013-2015). Currently instructor at King Abdullah University in Saudi Arabia
- Kotaiba Abu Gazleh, PhD in Environmental Science Program, graduated in May 2021, currently a post doc at University of North Carolina

Undergraduate students
Total undergraduates research mentees: .30 students (20 females, 10 males)

Most notable alumni are presented below:

- Ronnie Ruyonga: BSc Chem 2014, PhD in Pharmacy 2020 (Western Pacific University) currently consultant in San Francisco CA.

- Adam Patterson: BSc in Biology 2016, BA in Chem. Currently an Emergency Medical Technician (EMT) at Medic One, Crittenden EMS.
- Kristiana Watson: BSc Chem 2018, currently MD/PhD University of Tennessee Health Sciences Center (UTHSC) in Memphis, TN
- Jesse Brown: BSc Chem 2018, worked as a laboratory technician at Bioenergy Development Group, LLC Memphis. currently interviewing for graduate position in PhD in Atmospheric Chem, Utah State University

Undergraduate Mentees Academic awards:

2013 Undergraduate Mentee **Ronnie Ruyonga** was selected as the 2013 Chemistry Student of the year by the College of Science and Mathematics at Arkansas State University. This is for showing academic and research excellence for the year 2012

2012 Undergraduate Mentee **Ronnie Ruyonga** won 2nd place in the chemistry and biochemistry poster presentation, at the INBRE research conference at the University of Arkansas Fayetteville.

2011 Undergraduate mentee, **Bryant Fong**, selected to present research at the Conference of Undergraduate Research (CUR) meeting in Arlington VA

2010 Undergraduate mentee, **Bryant Fong**, selected to present research at the National Conference on Undergraduate Research (NCUR) meeting in Ithaca NY.

2010 Undergraduate mentee, **Adam Goins** was chosen as a recipient of the ASU Undergraduate Research Travel Funds

2005 Supervised research that resulted in an Alumni Award for best poster in undergraduate research as presented by **Ann Zachariah** (undergraduate advisee)

Undergraduate research Mentees

2022-current Emma Flipping BSc Biology Mentoring type: Research
2021-2022 Dale Hartman BSc Chemistry Mentoring type: Research
2020 Jalisa Taylor BSc Biology Mentoring type: Research
2019-2021 Ethan Underhill BSc Chemistry Mentoring type: Research
2019 Jamila Branch (Nettleton High School) summer research project
2018-2020 Jessica Parr BSc Chemistry Mentoring type: Research
2018 Aaliyah Green BSc Biology Mentoring type: Research
2017-2020 Jordan Fryman BSc Chemistry Mentoring type: Research
2017 Samantha Gibson (UAPB Summer student) BSc Biology
2017 Brittany Lognion (Summer High School Student) summer research project
2016 Sydnee Worlds BSc Forensic Pathology Mentoring type: Research
2016 Mollie Wolf BSc Biology Mentoring type: Research
2015-2019 Jesse Brown BSc Chemistry Mentoring type: Research
2015 Carlee Homes (Nettleton High School Student), summer research project
2014-2018 Kristiana Watson BSc Chemistry Mentoring type: Research
2013-2014 Jazmine Martin BSc Biology Mentoring type: Research
2013-2015 Jerry Jones BSc Biology Mentoring type: Research
2013-2014 Kelsey Vinson (Jonesboro High School) summer research project
2013-2014 Bo Wang BSc Chemistry Mentoring type: Research
2013-2014 Mark Northcutt BSc Chemistry Mentoring type: Research
2013-2014 Jennifer Franklin BSc Biology Mentoring type: Research

2013-2014 Kiara Newhouse (U of Monticello) summer research project
2012 Marnaya Ellis BSc Biology Mentoring type: Research
2012 Zanthanee Jackson (Nettleton High School) summer research project
2012 Robert Smith (Nettleton High School) summer research project
2012 Nick Bagley BSc Chemistry Mentoring type: Research
2011-2013 Ronnie Ruyonga BSc Chemistry Mentoring type: Research
2011-2013 Adam Patterson BSc Chemistry Mentoring type: Research
2010-2011 Brandon Anthony BSc Biology Mentoring type: Research
2010-2011 Susan Baird BSc Biology Mentoring type: Research
2010-2011 Adam Goins BSc Chemistry Mentoring type: Research

Faculty advisor of Student clubs on Campus
2020-current Arab Student Association (ASA) club
2012-2020 Saudi Arabia Student (SAS) association
2011-current American Chemical Society (ACS) Student club
2011-2019 Muslim Student Association (MSA)
2011-current Brother-to-Brother (B2B) Faculty mentor

Other (selected) significant service efforts

- Proposal reviewer, National Science Foundation (NSF) Graduate Research Fellowship (GRFP): 2013, 2014, 2015, 2016, 2017, 2018, 2020)
- **Judge** for National Council of Undergraduate Research (NCUR) presentations (2011, 2017)
- March 22-26, 2015: **Symposium Organizer and Chair**, "Chemical Processes at Environmental Interfaces – Oral presentations", 249th ACS National Meeting & Exposition, Denver Colorado, USA
- Nov 9-12, 2011: **Symposium Organizer and Chair**, "The Atmosphere and Climate Symposium", Southwest Regional Meeting of the American Chemical Society (SWRM), Austin TX
- October 21-22: **Judge** for Undergraduate posters for chemistry and physics session, Arkansas INBRE conference, University of Arkansas Fayetteville, Fayetteville AR.
- April 8-9, 2010 **Chair**, Chemistry Session, Arkansas Academy of Science (AAS) meeting, University of Arkansas at Monticello, Monticello AR.
- Dec 4th 2010 Invited to participate in "Student skills and academic excellence: Preparing students for employment/transfer." Focusing on the integration of non-technical skills into the chemistry curriculum. New Orleans, LA, as part of the American Chemical Society's (ACS) 66th Southwest and 62nd Southeast ACS Regional Meetings.
- Oct 15-16, 2010: **Judge** for the Arkansas INBRE undergraduate posters, Chemistry and Physics session, University of Arkansas at Fayetteville, Fayetteville AR
- Oct 23-24, 2009: **Judge** for the Arkansas INBRE undergraduate poster, Chemistry session, University of Arkansas at Fayetteville, Fayetteville AR

Journal and Book Reviewing

1. American Chemical Society (ACS) Omega
2. Journal of Environmental Chemical Engineering (impact factor: 4.300)
3. Journal of Hazardous Materials (impact factor 9.038)

4. Spectrochimica Acta Part A: Molecular spectroscopy (impact factor 3.232)
5. Journal of Physical Chemistry A (impact factor 2.600)
6. Journal of Environmental Science and Health (impact factor 1.724)
7. Science Report at Nature Articles (impact factor 4.576)
8. Surfaces (impact factor N/A)
9. Surface Sciences (impact factor 1.400)
10. Atmosphere (impact factor 2.397)
11. Langmuir (impact factor 3.557)
12. Journal of Atmospheric Chemistry and Physics (impact factor 5.414)
13. Journal of Colloid and Interface Science (impact factor 7.489)
14. Proceedings of the National Conference on Undergraduate Research (2011, 2017,2019,2020)
15. Book reviewer for "*Elements of Physical Chemistry*" sixth edition by Atkins and de Paula, WH Freeman and Company, NY.
16. Book reviewer: Peter Atkins, Julio de Paula and Ronald Friedman, "Quanta, Matter and Change", 2nd edition (Reviewed in 2019). Adopted for Physical Chemistry class here at ASTATE.
17. Book reviewer: Peter Atkins, Julio de Paula and James Keeler, "Physical Chemistry", 11th Edition. ISBN 978-0-19-19-880777-3, Reviewed in 2018

Committees

Thesis and Dissertation

- Mohamed Kotaiba Abu Gazleh (PhD dissertation, Environmental Science EVS, graduated 2021)
- Oluwayinka Iseyemi, (PhD dissertation committee, EVS program 2014
- Mohammad Nazmul Hassan (MS thesis, Engineering, 2019)
- Michelle Collins, (MS thesis in Chemistry, 2018)
- Kyle Fournier (MS Thesis, Chemistry, 2017)
- *Saeed Al-Ahmari, Thesis Masters-Fall 2013*
- Kenichiro Sato: Thesis Masters Fall 2012
- Sheng Song-Thesis Masters-2010
- Tanika Arora-**Thesis Masters-**Spring **2010**

Academic committees

- College PRT committee (2021-current)
- Undergraduate Admissions Appeals committee (2020-2022)
- International Students and Scholar committee (2020-2022)
- Development Communications and Alumni Committee (2020-2022)
- Astate ADVANCE: Office of Diversity's Quality Teaching Circle Learning Initiative (2018-2019)
- Environmental Science PhD program committee (2018-current)
- Graduate (MSc. CHEM) applications committee (2016-Current)

Professional affiliations:

2009-current	Certified Environmental Practitioner in Training (CEPIT), issued by the Canadian Environmental Certification Approvals Board (CECAB)
2007-current	The American Meteorological Society (AMS)
2004-current	American Chemical Society (ACS)

2003-2005	The Chancellors' List, The National Deans List
2001-current	Alpha Theta chapter of the Alpha Chi Sigma (ΆΧΣ) Professional Chemistry Fraternity

Diversity Equity and Inclusion (DEI)
I have the campus coordinator/lead in several program at ASTATE that aim to recruit and retain under represented minorities on campus. An expanded summary of the following programs can be provided upon request:

1. Bridging the Divide: A program to Broaden Participation in STEM PhD (an NSF funded program)
    - **Program duration 2014-2020**
    - The major goal and objectives of this program were to establish a supportive, caring, training intensive and sustainable Undergraduate-to-Masters-to-PhD bridge program for underrepresented groups (URGs) to significantly increase graduation of URG Ph.D.'s in STEM fields.
    - The program was successful in introducing URGs into STEM research during the summer institute. Students spoke of the benefits of research and mentorship they received from the program and gained confident in their ability to perform and present research in a scientific setting. Students reported that the program increased their lab safety consciousness and improved their problem solving skills that they will take into their STEM career. Graduate students learned key skills like writing CVs, cover letters interview skills that helped them apply to STEM careers across the STATE.
    -
2. Arkansas Louise Stokes Alliance for Minority Participation (ARKLSAMP (NSF funded) program
    - **Program duration 2008-current**
    - The Arkansas Louise Stokes Alliance for Minority Participation (ARK_LSAMP) program is a collaborative alliance of eight Arkansas institutions, with a goal of increasing the pool of baccalaureate, masters and doctoral degrees graduates in STEM disciplines in Arkansas workforce.
    - The Campus Alliance Coordinator (CAC) position has a 0.25-time position buyout to coordinate activities between the campus, the lead institution and other alliance members. The CAC is responsible for recruitment of STEM majors, organizing and staffing the STEM club, responding to requests of the campus coordination council members, providing profile and outcome data to the lead office, developing recruitment and retention strategies, monitoring budgets and other office related functions. Other responsibilities like advising STEM majors, generating publicity for the program, arranging guest lectures, and coordinating travel to the Annual Spring Research conference are to be handled by the secretary supporting the CAC.
    - The LSAMP program at ASTATE, together with the Office of Diversity and Community engagement has aimed to increase and retain the underrepresented minorities in STEM career. The LSAMP program has participated in several activities on campus, aimed at creating a diverse and inclusive environment, but volunteering time and labor to help in planning and organizing these events. LSAMP students have attained leadership positions across campus, learn to organize, mentor and contribute the mission of

ASTATE. LSAMP students have presented at local, regional and national conferences, and several have publications as undergraduate students. Several of the students have gone to work in STEM areas regionally and nationally, with a few of them (sadly) going to graduate in STEM fields. This is an area that constantly needs improvement, and the Alliances always places emphasis on increasing these numbers.

3. Arkansas Economic Development Commission (AEDC) research support
    - Program duration 2008-current
    - In support of the LSAMP program, the AEDC awards each alliance with a awards in support of research. The award is used exclusively by the Campus, in support of undergraduate students, who are engaged in research and internships experience within the AEDC alliances. These students are usually in their sophomore and Junior or Senior years, but occasionally an exceptional freshman can be funded. The projects have to be STEM related areas and occur within the academic school year. The grants/awards range from $6000 to $10,000 per year and are used exclusively (no PI salary or expenses) on students' support.
    - My duties as a campus PI are to advertise the availability of funds to ASTATE faculty campus. I have done this using ASTATE digest, word of mouth and emails to faculties of interest. I also connect student to appropriate research mentor, collect information on faculty/student to be submitted to department admin to initiate hourly hiring process, provide information on Time Clock plus usage, in conjunction with research mentor, make sure students are submitting times and faculty are approving time correctly and submit end of year report to UAPB on students who were funded and performed research.