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Education

- 2017 Ph.D., Environmental Toxicology Texas Southern University
- 1988: M.S., Chemistry, Texas Southern University
- 1982: B.S., Physics (Honors), Texas Southern University

- **Doctor of Philosophy (Ph.D.)**

Title: *“EVALUATION OF CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS (VOCs) AND PARTICULATE MATTER (PM) IN AN URBAN AREA DOWNWIND OF MAJOR PETROCHEMICAL COMPLEXES, IN HARRIS COUNTY, TEXAS.”*

Thesis Supervisors: Dr. Bobby L. Wilson (Professor of Chemistry), Dr. Mahmoud Saleh (Professor of Chemistry), Dr. Oscar Criner (Professor & Interim Associate Dean), and Dr. Momoh Yakubu (Professor of Environmental Science), Research centered on the study of Highly Reactive Volatile Organic Compounds (HRVOCs), in particular, the toxic ozone precursors, ethylene, propylene, butanes (1-butene, cis-2-butene, trans-2-butene) and 1, 3 butadiene found in the Houston area are the most critical in the formation of ozone. Urban ambient air samples were collected and analyzed from eight monitoring stations (Sites), encompassing the Houston Ship Channel (HSC), in Harris County, Texas. The data was interpreted and analyzed for changes in the concentration of air pollutants, data was collected daily (24 hours) over a time period from September 2013 to August 2014. One 40-minute sample was collected each hour and analyzed by automated gas chromatograph (Auto-GCs) on-site.

- **Master’s Thesis**

Title: *“A STUDY OF RADIONUCLIDES AS FOUND IN THE AQUEOUS ENVIRONMENT NEAR A COAL FIRED ELECTRIC POWER PLANT.”*

Thesis Advisor: Dr. Bobby L. Wilson Acting (Professor of Chemistry), and Dr Sharda Arya (Professor, Department of Physics). Research centered on the study of selected radio-nuclides (K-40, U-238, U-235, and Th-232) and their daughter products in the aqueous environment surrounding a coal- fired electric power plant near Houston, Texas. Gamma-ray spectroscopy, consisting of a NaI(Tl) scintillation detector, multichannel analyzer and IBM(PC) computer was used in analyzing the samples.

Research Interests

- Environmental Science
- Chemistry (Inorganic and Organic)
- Radioactive pollutants in aqueous environments.
- Air Quality
- Studies of Volatile Organic Chemicals in the atmosphere.
- Astronomy.
- Space Science.
- Electronics
- Temporal Physics
- Reaction Chemistry
- Recycling of waste materials, aluminum and plastic
- Toxicity of chemicals
- Chemical Reactions with metals and acids in foods.
- Chemical Safety
- Aluminum in the body and Alzheimer's disease

Employment History

- 2008 – Present Instructor, General Chemistry Coordinator and Laboratory Coordinator of Chemistry, Science Building Manager, Texas Southern University (Houston, Texas)
- 1988 – 2008 Instructor of Physics, Texas Southern University (Houston, Texas)
- 1988 – Present Adjunct Instructor of Physics and Chemistry, Houston Community College (Houston, Texas)
- 1982 – 1988 Laboratory Instructor Physics and Property Clerk, Texas Southern University (Houston, Texas)

Teaching Interests

- Organic Chemistry I and II (Chem. 231 and Chem. 232)
- Inorganic Chemistry I and II (Chem. 131 and Chem. 132)
- General Physics for Life Science Students (Phys 237 / 238)
- Electronics (Phys 344)
- College Physics for Pharmacy Majors (Phys 244)
- Principles of Physical Science (Phys 141)
- General Physics Laboratory I & II (Phys 217 / 218)
- College Physics Laboratory I & II (Phys 215 / 216)
- Topics in Physics
- Computer Introduction I & II (CS 116 / 117)

Teaching Activities

- **General Chemistry I and II:** Chem. 131 and Chem. 132
- **Organic Chemistry I and II:** Chem. 231 and Chem. 232
- **General Chemistry Laboratories :** Chem. 111 and Chem. 112
- **Organic Laboratories:** Chem. 211 and Chem. 212

Selected Publication

[1] Wilkerson, Daryl, Sharda Arya, and Bobby L. Wilson. "Investigations of Radionuclides in the Aqueous Sediment Environment Surrounding A Coal Burning Power Plant." *Journal of Environmental Science and Engineering*, A28(5), 1005-1015 (1993)

[2] Wilkerson, Daryl. "Organic Chemistry I & II Laboratory Manual CHEM 211/212, for Texas Southern University", bluedoorpublishing, LLC. ISBN-13:978-1-64386-201-9 (2019)

Memberships in Professional Organizations

- American Chemistry Society
- American Association of Physics Teachers
- Astronomical Society of the Pacific
- Alpha Phi Alpha Fraternity

Awards and Special Recognitions

- Award of Honor, First Place Faculty Poster Presentation, Research Week 2019 Texas Southern University.
- Award of Honor, First Place Staff Oral Presentation, Research Week 2017 Texas Southern University.
- Certification of Chemical Hygiene and Laboratory Safety, sponsored by the Department of Environmental Health & Safety and the Office of Research at Texas Southern University.
- STEM-ulating College for a Day, received Award 2013
- Texas Southern University, 35 Years of Service Recognition Award, 2018
- Completed "Basic Radiation Safety Training Course" administered by the Environmental Health and Safety Department, at the University of Texas Health Science Center at Houston, Texas 2006

Service to the Department and College

- Responsible for the safety of all the students taking Chemistry Laboratories.
- Responsible for hiring and training Chemistry Teacher Assistants (TAs).
- Responsible for the inventory and management of Chemicals and waste in the Department of Chemistry, at Texas Southern University

- Order new equipment and chemicals for the Department of Chemistry, at Texas Southern University.
- Revised and updated materials for the teaching of General Chemistry (Core Courses).
- Developed an Assessment Plan, for General Chemistry 131 and 132
- Planned the Departmental Finals, for General Chemistry I and II, Core Courses.
- Developed a “Chemical Hygiene Plan” for the Chemistry Laboratories and Teacher Assistants.
- Service on Radiation Safety Committee.
- Service on Chemical & Biological Safety Committee as Chairman.
- Help develop Biohazard Manual for the University
- Tutor students and get them ready, each semester for Mid-term and Final Examination for the department at Midterm Madness and Final Frenzy program.

Service to the Community and Public

- TRiO Upward Bound Program for High School Students. Taught Reaction Chemistry. (2018 - 2019)
- Assistant Coordinator, (1982 – 2005). Texas Southern University’s Department of Computer Science and Physics has sponsored the Science and Engineering Career Awareness and College Preparatory Program (SEC² – AP²) for high- ability students. I have worked with this program since its inception in both the instructional arena and recruitment arena. Topics taught are physical science, electronics, college physics, chemistry, and space science.
- Serve as the official departmental representative for the judging of local area middle and high school science fairs. (1982 – 2008)