

- Education**      **August 2009 –December 2012 Florida Institute of Technology, Florida, U.S.A.**  
**Ph.D. Chemistry - Nanotechnology (GPA 3.75)**
- Supervisor: Professor Mary Sohn (Ph.D.)
- Modules studied include;*  
Marine/Environmental Chemistry, Advanced Organic and Analytical Chemistry
- Current Research**      Develop **new fracturing, acidizing and completion fluid systems for sandstone stimulation** in the Gulf of Mexico and overseas, and explore **patent opportunities**.
- October 2006 –December 2007 University of Reading, England, United Kingdom**  
**M.S. Chemical Research (Organic Chemistry)**
- Supervisor: Professor Joe B. Sweeney (Ph.D.)
- Research Project:** 2,3-Sigmatropic Rearrangement of Ammonium Ylides
- Modules studied include*  
Advanced Bio-Organic Chemistry and Medicinal Chemistry (Includes heterocyclic chemistry, Suzuki reactions, heck reactions and amine chemistry)
- 1995 – 2000 Delta State University, Nigeria**  
**B.S. Industrial Chemistry, Upper Second Class (GPA 4.10/5.0)**
- Research Project:** The Synthesis/Formulation of Protein Concentrates from Cattle Blood and its Application in Extinguishing Crude Oil Fires
- Seminar Presentation:** Vitrinite Reflectance and its Significance in Hydrocarbon Formation
- Modules studied include;*  
**Oil Field Chemistry**, Petroleum Chemistry (**refining [catalytic cracking & reforming]**), **Industrial Chemical Technology** (some aspects **heat transfer technology** in process chemistry). **Fluid Mechanics** (some aspects of **flow transfer technology**). **Unit Operations** (some aspects of process engineering automation technology).
- Accomplishments**
- **Two US and Gulf Corporation Council (GCC) patent applications on completion/stimulation fluids and flow assurance oilfield chemicals (2014)**
  - Oral presentation of paper titled “Tuning Surfactants for Oilfield” at the American Oil Chemist Society (AOCS) Conference in San Antonio Texas in May 2014.
  - Three research publications (2011, 2012 & 2013)
  - Awarded outstanding graduate student in oral presentation by the Florida Academy of Sciences (FAS) and the American Chemical Society (ACS) in 2011.
  - **Adjunct Professor Chemistry at Brevard Community College (now Eastern Florida State College)**
- Work Experience**      **September 2015 to Present, Houston Community College, Houston TX, USA**  
**Adjunct Professor – Chemistry**
- Teach general chemistry I and II lecture and labs

***November 2014 to Present, Superior Energy Services, Houston TX, USA***

**Senior Research Chemist**

- Research/design **new fracturing and acidizing fluid systems** for sandstone and carbonate formations, and explore patent opportunities.
- Regularly run core floods to qualify and optimize new acidizing fluids.
- Design new **viscoelastic (VES) fluids** for hydraulic fracturing or gravel pack during well completion operations.
- Design/formulate and qualify new completion fluids for offshore well completions.
- Use **X-ray Powder Diffraction (XRD)** and **X-ray Fluorescence (XRF)** to determine the mineralogy of core samples and advise clients on suitable acidizing fluid systems to prevent formation damage.
- Train/mentor junior chemists on new methodology for qualifying new additives for fracturing and acidizing fluid systems.  
Hold regular meetings with offshore operators to advise them on optimal well treatment solutions such as **new chemical sand control techniques** to minimize or prevent sand/fines production.

***August 2013 to November 2014, Sasol (USA) Corporation, Lake Charles LA, USA***

**Senior Research Chemist**

- Excellent knowledge of all aspect of ethoxylation, propoxylation, other alkoxylation, amidation, esterification, sulfonation, sulfation and phosphonation.
- Extensive knowledge of surfactant chemistry and ability to manipulate carbon **chain length, linearity and degree of branching of the hydrophobe to ethylene oxide (EO)/propylene oxide (PO)** for various oilfield applications such as acidizing, wellbore and tubular cleaning.
- Study hydrocarbon (oil) interactions with non-ionic and anionic surfactants for various applications such as in demulsification of oil, paraffin and asphaltene dispersion/inhibition.
- Conduct technical presentations during regular customer visits (**both local and international**) to develop new markets for solvents and surfactants in drilling, completions, cementing, stimulation and production chemistry applications.

***January 2013 to August, Performance Chemical Company, Midland Texas, USA***

**Technical Service Manager**

- Conduct failure analysis (**tensile or fatigue failures**) of sucker rods, a component of **artificial lift system** use in oil production and recommend chemical treatment program
- Formulate surfactants and polymers in **emulsion breakers, corrosion/scales inhibitors** for produced water and oil treatments in various oilfields in West Texas and South East New Mexico.
- Regularly meet with new and existing clients to conduct technical presentations on new oil field chemistry production chemical applications.
- Bids for new businesses through writing of business proposals.

***May 2011 to December 2012, Brevard Community College, Palm Bay, Florida USA  
(now Eastern Florida State College)***

***Adjunct Professor Chemistry***

- Taught Organic Chemistry 1 & 2 labs (Includes synthesis of organic compounds, extraction, purification by column chromatographic techniques and characterization of synthesized compound using IR, TLC and UV-Vis spectroscopy techniques)
- Taught General Chemistry 1 & 2 labs (Includes applying basic chemistry theories, concepts and principles in carrying out experiments and data interpretations).
- Grade courses, report results online and in paper copy.

**August 2009 to December 2012, Florida Institute of Technology, Melbourne, Florida USA**

**Graduate Teaching Assistant - Chemistry**

- Taught General Chemistry 1 & 2 labs (Includes applying basic chemistry theories, concepts and principles in carrying out experiments and data interpretations)

**January 2008 to May 2009 Pfizer Global Research and Development, Sandwich, Kent, England (United Kingdom)**

**Technical Support /Process Chemist**

- Writing process validation protocol/reports
- Formulation, recommendation and execution of laboratory and pilot work as required in resolution of manufacturing problems.
- Prepare technical documentation to support development work and manufacturing (includes laboratory notebooks, batch records and process validation documentation) to external customers and regulatory requirements
- Carried out batch chemical processing, GMP and batch/cleaning validation requirements compliant with ISO9001 and RC14001 standards
- Involved in the identification and development/investigation of process improvements (writing and reviewing standard operating procedures, SOPs on equipment and procedures)
- Performance of safety testing for new procedures for the manufacturing area and assistance in the planning, design, installation and demonstration of new or improved systems, processes or equipment while observing coshh regulations and risk assessment.
- Involved in laboratory exploration into areas of potential cost saving measures through the use of raw materials and chemical intermediates in the production of active pharmaceutical ingredients (APIs).
- SAP system for ordering of raw materials.

**Key Skills**

- Creative problem solving skills to improve process and process development that will add immediate value to the company profitability and long term success.
- Team: Developed skills working effectively in multidisciplinary research teams, motivating others through mentoring and sport activities.
- Excellent presentation (oral & written), interpersonal, communication and networking skills with demonstrated ability to communicate effectively with all levels of management, both internally and externally.
- Ability to work effectively under pressure, while directing numerous projects concurrently with different deadlines.
- Ability to gather and review resources and analyze data for reports and other written materials
- IT: Excellent knowledge of all Microsoft Office programs, chemistry software packages including, ChemDraw, ChemStation, Sci-Finder and NMR packages

**Recent Publications**

- Formation of Silver Nanoparticles in Natural Aqueous Environments (published in **Environmental Science & Technology Journal, 2011**).
- The effect of Monovalent and Divalent Cations on Nanoparticle Stability (published in **Science of the Total Environment Journal, 2012**).
- Transport of Silver Nanoparticles through Silica: The Role of Solution pH and Ionic Strength (published in **Chemosphere Journal, 2013**).