

Abdoulie A Jallow

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EDUCATION

Texas A&M University, College Station, Texas, USA

Aug 2022 – Current

PhD Chemistry (GPA: 4.0/4.0)

Supervisor: Professor Lane A. Baker

Indian Institute of Technology Bombay, Mumbai, India

Jul 2017 – Aug 2019

MTech Biomedical Engineering (GPA: 8.72/10)

Supervisor: Professor Debjani Paul

University of The Gambia, Brikama, The Gambia

Sep 2011 – June 2016

BSc Chemistry (Honours)

SKILLS

Electrodeposition | Voltammetry | Chronopotentiometry | Chronoamperometry | Coulometry | UV-Vis-Spectroelectrochemistry | Electrosynthesis | High-throughput Synthesis & Analysis | Analytical Method Development | Soft Lithography | Scanning Electron Microscopy (SEM) | Gas Chromatography (GC) | Fourier Transform Infrared Resonance (FTIR) Spectroscopy | High Performance Liquid Chromatography (HPLC) | Capillary Electrophoresis (CE) | Atomic Absorption Spectroscopy (AAS) | UV-vis Spectroscopy | Python | Data Analytics | Laboratory Safety |

PUBLICATIONS

1. Zhang, L.; Wahab, O. J.; **Jallow, A. A.**; O'Dell, Z. J.; Pungsrisai, T.; Sridhar, S.; Vernon, K. L.; Willets, K. A.; Baker, L. A. **Recent Developments in Single-Entity Electrochemistry.** *Anal. Chem.* **2024**, *acs.analchem*.4c01406.
2. Personick, M. L.; **Jallow, A. A.**; Halford, G. C.; Baker, L. A. **Nanomaterials Synthesis Discovery via Parallel Electrochemical Deposition.** *Chem. Mater.* **2024**, *36* (6), 3034–3041.
3. Dutta, G.; **Jallow, A. A.**; Paul, D.; Moschou, D. **Label-Free Electrochemical Detection of S. Mutans Exploiting Commercially Fabricated Printed Circuit Board Sensing Electrodes.** *Micromachines* **2019**, *10* (9), 575.

PROFESSIONAL AFFILIATIONS

- American Chemical Society (ACS), ID 33882686
- Student Member, Electrochemical Society (ECS), ID 536707
- Student Member, National Association for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), ID 4985
- Student Member, The Society of Electroanalytical Chemistry (SEAC), ID 1473
- Student Member, Royal Society of Chemistry (RSC), ID 771346
- Advisory Board Member, Chemical Society of The Gambia (CSG)

CONFERENCES & MEETINGS

- High-throughput Electrosynthesis Enabled by an Array-based Method
Poster and Group Meeting Presentations. Pittcon 2025, Boston, MA, USA. **March 1 – 5, 2025**
- Attendee (virtual): The Welch Foundation Frontiers in Molecular Catalysis
The Post Oak Hotel at Uptown, Houston, Texas, USA. **October 21 – 22, 2024.**
- **Parallel electrodeposition of nanoparticles: Accelerating materials discovery and synthesis design**
Presenter. ACS Fall 2024, Denver CO & Hybrid, **August 18-22, 2024.**
- Attendee: 2nd Texas Electrochemistry Round-up,
University of Texas, Austin, Texas, USA. **August 11, 2023.**
- **Nanomaterials Synthesis Discovery via Parallel Electrochemical Deposition of High-indexed Pd Nanoparticles**

Poster Presentation. Centre for Single-Entity Nanochemistry and Nanocrystal Design (CSENND)
Strategic and Activities Planning Meeting.
Indiana University, Bloomington, Indiana, USA, **October 5 – 7, 2023.**

PROFESSIONAL EXPERIENCE

Department of Chemistry, Texas A&M University May 2024 – Current
Graduate Research Assistant

- Plan and conduct experiments to meet research objectives.
- Analyse data and prepare reports, manuscripts, and presentations.
- Train undergraduate and junior graduate students.
- Manage the lab's chemical waste management program.
- Observe laboratory safety procedures and ensure compliance with chemical waste management guidelines.
- Maintain inventory of laboratory consumables.

Department of Chemistry, Texas A&M University Aug 2023 – May 2024
Graduate Teaching Assistant (Analytical Instrumentation Laboratory – CHEM434)

- Taught standard instrumental analysis techniques (GC, FTIR, CE, CV, AAS, and HPLC) to senior undergraduate students.
- Developed methods and procedures to meet lab objectives.
- Trained students on laboratory safety procedures and ensured oversight to ensure compliance.
- Organized two hours of weekly office hours to facilitate students' learning.
- Graded student laboratory reports and provided feedback.

Department of Chemistry, Texas A&M University May 2023 – Aug 2023
Graduate Research Assistant

Project Title: Nanomaterials Discovery via Parallel Electrochemical Deposition

- Designed experiments and conducted high throughput electrochemical deposition of high-indexed Pd nanoparticles with Legion.
- SEM imaged the deposited nanoparticles and analysed data.
- Prepared reports and project updates for both my PI and our collaborator.
- Participated in writing the manuscript and review process.

Department of Biomedical Engineering, Texas A&M University Jan 2023 – May 2023
Graduate Teaching Assistant (Biomolecular & Cellular Engineering – BMEN 433)

- Taught standard cellular and biomolecular engineering assays to senior undergraduate students.
- Developed methods and procedures to meet lab objectives.
- Trained students on laboratory safety procedures and ensured oversight to ensure compliance.
- Organized two hours of weekly office hours to facilitate students' learning.
- Graded student laboratory reports and provided feedback.
- Managed laboratory inventory to ensure consumables are always in stock.

MRC Unit The Gambia at LSHTM, Fajara, The Gambia Jun 2020 – Aug 2022
Health and Safety Advisor – Biological

- Developed and managed the Unit's biosafety program.
- Conducted quarterly health and safety assessments and inspections in 8 field sites and field stations across The Gambia.
- Authored and trained staff on standard operating procedures for the safe handling and use of biological materials and equipment, chemical procurement, chemical waste management, and other Unit processes.
- Conducted and reviewed risk assessments to ensure that they are adequate in scope and content.
- Maintained a database of projects and microorganisms used in the Unit.
- Reviewed and categorized over 2000 legacy chemicals and determined appropriate destruction mechanisms.

SBEC International School, Salaji, The Gambia Oct 2019 – Jun 2020
Chemistry Teacher

- Developed teaching aids and materials for Form 6 & 7 A and AS level chemistry.
- Taught Inorganic Chemistry to 5 A-level Chemistry and 2 AS-level Chemistry students.
- Reviewed and improved the Chemistry, Biology, and Science curricula for all school levels.

University of The Gambia, Brikama, The Gambia

Sep 2019 – Dec 2019

Assistant Adjunct Lecturer (Analytical Chemistry)

- Taught Principles of Analytical Chemistry, Instrumentation in Analytical Chemistry, and Principles of Genetics to undergraduate students.
- Supervised students' laboratory sessions in analytical chemistry.
- Participated in department activities, including curricular review.

AWARDS

- 2024: Graduate Research Assistant, Department of Chemistry, TAMU (\$52,169 / year)
- 2023: Graduate Teaching Assistant, Department of Chemistry, TAMU (\$52,169 / year)
- 2023: Graduate Teaching Assistant, Department of Biomedical Eng., TAMU (\$52,169 / year)
- 2022: Graduate Research Assistant, Department of Biomedical Eng., TAMU (\$52,169 / year)
- 2022: Commonwealth Shared Scholarship, Dept of Chemistry, University of Warwick, UK
- 2017: ICCR Scholarship Award – African Scholarship Scheme, IIT Bombay (\$10,000 / year)
- 2014: Excellence in Science Education Scholarship, Gambia Ports Authority (\$500 / year)
- 2011: Semi-finalist – Fanta Science and Math Quiz Competition
- 2011: Champion (Regional) and Quarterfinalist (National) – Qcell Spelling Competition

REFERENCES

Available upon request