

Clay Haywood

Radiochemical Operations Technician

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Profile

Active L cleared goal and research-oriented person offering strong knowledge in chemical compositions and standard testing procedures. Motivated self-starter who keeps laboratory equipment and instruments in optimal condition. Proven ability to work within ES&H standards and procedures. Proactive in completing inventories and maintaining records. Performed distillations, anion and cation exchange column extractions, and production of transuranium elements via in cell operations.

Experience

RADIOCHEMICAL OPERATIONS TECHNICIAN | OAK RIDGE NATIONAL LABRATORY | APR 2022 – PRESENT

- Established quality control measures for instrumentation and monitored data quality to operate instrument with control limits.
- Assisted with collecting, identifying, and packaging hazardous and non-hazardous waste products to comply with Resource Conservation and Recovery Act regulations.
- Assisted R&D staff in processing operations including dissolution, separation, purification, recovery, and preparation of radioisotopes.
- Provided support to research and development, testing, and field application of equipment and research and development of processes for combining/separating chemicals, compounds, and related products and materials using principles and technology of chemistry, physics, mathematics, engineering and related sciences.
- Assisted IPMD supervision in completing the assigned tasks and responsibilities.
- Assisted in identifying potential problems, recognizing unexpected results, and troubleshooting complex operational problems.
- Obtained qualification as a Hot Cell Operations Technician in accordance with DOE Order 426.2, Personnel Selection, Qualification, and Training Requirements for DOE Facilities.
- Used tele-manipulators and specialized hot cell processing equipment.
- Prepared clear and accurate documentation (check sheets, data sheets, logs, forms) for any work done.
- Kept work areas in a safe, clear, and orderly condition.
- Performed other related duties as assigned by the IPMD managers/supervisors.
- Ensured compliance with environment, safety, health, and quality program requirements.

HIGH SCHOOL SCIENCE TEACHER | OAK GROOVE HOMESCHOOL COOPERATIVE | AUG 2021 – APR 2022

- Selected and requisitioned appropriate books and instructional aides to complement lesson plans.
- Taught science courses using lab-based learning model to deepen subject mastery.
- Assessed submitted class assignments, determined grades, and reviewed work with struggling students to boost success chance.

- Kept classroom environments consistent and focused on learning by establishing and enforcing clear objectives.
- Coordinated and collaborated with other faculty members during lesson plan development.

UNDERGRADUATE STUDENT RESEARCHER | EAST TENNESSEE STATE UNIVERSITY | JAN 2017 – MAY 2018

- Utilized chemistry and biology-based knowledge to research antibiotic properties of newly found *Rhodococcus* strains with proper research techniques.
- Interpreted and analyzed research data to draw conclusions on outcomes.
- Performed routine data analysis to correct and verify data entry.
- Conducted research for proposals and assessed potential impact on constituents.
- Mixed and grew newly isolated and identified *Rhodococcus* strains in RM broth/plates and Mueller-Hinton media.
- Prepared extracts from agar plate cultures to screen *Rhodococcus* collection for antibacterial compounds.
- Conducted disk diffusion assays against indicator bacteria strains and purified possible inhibitory molecule in preparation for HPLC analysis.
- Isolated DNA from *Rhodococcus* cells to prepare for genome sequencing and transposon insertion sites.

Education

BACHELOR'S DEGREE IN CHEMISTRY | EAST TENNESSEE STATE UNIVERSITY | AUG 2014 – MAY 2018 | GPA: 3.72

BACHELOR'S DEGREE IN BIOLOGY | EAST TENNESSEE STATE UNIVERSITY | AUG 2014 – MAY 2018 | GPA: 3.30

Skills & Abilities

- Active L Clearance
- Highly proficient in MS Excel, Word, Access, Power point
- QA/QC
- Laboratory techniques and procedures
- Microbiology principles and techniques
- Aseptic transfers
- GLP
- SDS – Polyacrylamide Electrophoresis
- High Performance Liquid Chromatography
- Gas Chromatography Mass Spectroscopy
- ¹H and ¹³C Nuclear Magnetic Resonance
- Analytical and organic chemistry
- ChemDraw

Awards

- Dean's List – August 2014 - May 2018
- Provost Academic Performance Scholarship – August 2014
- Chemistry Honors in Discipline Scholarship – Jan 2016 - May 2018

