JENNIFER D. CONNER

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FABRICATIONS SPECIALIST

Material Scientist | Team Collaborator

Analytical materials scientist with 7 years' experience in process and device development and 1 year of experience in highly specialized stable isotope material fabrications and conversions, while introducing innovative problem solving through the synthesis of ideas from a diverse background. Team builder with 8 years' experience leading and teaching students and peers, creating cohesive teams, and empowering new minds in the field. Cross functional collaborator with 2 years' experience working in a multi-lab collaboration with chemists, engineers, and medical doctors and 1 year experience .
Areas of expertise:
Dispensation & Fabrication of Rare Isotopes | Documentation & Knowledge Propagation | Team Training & Leadership

PROFESSIONAL EXPERIENCE

STABLE ISOTOPES DISPENSATION SPECIALIST, Oak Ridge National Laboratory, Stable Isotopes Group **2019 - present**
Fabricated single batch targets in accordance with customer requests, collaborated to develop new services to offer to customers, and modernized and organized decades of organizational knowledge

- Increased yield for small scale calcium conversion by 20% through collaboration with our knowledgeable team
- Expanded and collected operator aids within the Stable Isotopes group, forming an easily accessible living database
- Performed and developed methods for fabrication and conversion of a wide range of isotopic material according to customer specifications through the National Isotope Development Center (NIDC), including:
  - Solid state reduction/distillation
  - H_2 Reduction
  - Arc melting
  - HF conversion
  - Cold rolling
  - Electroplating
- Packaged and shipped isotopic material in accordance with DOT and IATA regulations
- Maintained isotope inventory and dispensing records meticulously and securely, including preparation of monthly progress reports

BIOANALYTICAL RESEARCHER, University of Kansas, Lawrence, KS **2017 – 2019**
Developed a thermoplastic device to immobilize and interrogate DNA for single nucleotide polymorphisms (SNPs) associated with K-RAS genes indicative of colon cancer using biochemical reactions and micro and nanoscale phenomena

- Collaborated with a group of more than 20 peers across 3 universities to create a modular device to extract biomarkers from peripheral blood, allowing for more frequent, non-invasive sampling to monitor cancer progression
- Mentored incoming researchers and provided in-depth guidance to 4 team members
- Constructed detailed, straightforward standard operating procedures for data analysis and hardware utilization

INORGANIC CHEMIST, University of Kansas, Lawrence, KS **2015-2017**
Synthesized, characterized, and crystallized complex macromolecular frameworks for the capture and sequestration of inorganic ionic pollutants in groundwater

- Created and analyzed a double crown ether with pyrazine bridge through high dilution techniques, aiding the procurement of a $600,000 National Science Foundation grant

INORGANIC CHEMIST, Tennessee Technological University **2012-2015**
Produced 84 novel α-N-heterocyclic thiosemicarbazone ligands and Copper (II) and Palladium (II) metal complexes. Tested antiproliferative properties on gram positive, gram negative bacteria, and fungi to exhibit viability as chemotherapeutics

- Synthesized 4 series of ligands, each including 7 distinct thiosemicarbazone moieties, and identified their structure
- Trained 5 undergraduate researchers in synthetic and analytical techniques for generation and quality assurance

ADDITIONAL RELEVANT EXPERIENCE

GENERAL CHEMISTRY PEER LED UNDERGRADUATE SUPPLEMENTS TUTORING ADVISOR **2016-2017**
Managed a team of 12 undergraduate tutors for General Chemistry I and II, scheduled 14 sessions each week, created teaching materials, trained tutors, developed synergy within the group, interviewed, and reviewed potential tutors

TEACHING ASSISTANT **2012-2016**
Developed materials and taught lessons, cooperating in teams of 3 peers to oversee the education of up to 150 students

EDUCATION

Master of Science in Inorganic Chemistry, Tennessee Technological University, Cookeville, TN **2015**
Bachelor of Science in Chemistry, Tennessee Technological University, Cookeville, TN **2012**