

I212101 - Chemistry - Burns Research Group

Mentor: **Dr. Jonathan Burns** , Department of Chemistry

The Burns Research Group currently has an opening for a highly motivated inorganic chemist, preferably with radioactive material experience. The successful candidate will contribute to a variety of activities in inorganic radiochemistry including: 1) the investigation into emerging radioisotopes for medical applications, 2) the design of nanomaterials for radiopharmaceuticals, and 3) the development of new technologies for used nuclear fuel recycling. The Burns Research Group currently has an opening for a highly motivated inorganic chemist, preferably with radioactive material experience. The successful candidate will contribute to a variety of activities in inorganic radiochemistry including: 1) the investigation into emerging radioisotopes for medical applications, 2) the design of nanomaterials for radiopharmaceuticals, and 3) the development of new technologies for used nuclear fuel recycling.

Relevant Skills and Experience:

- This position requires the successful candidate to be an adept, hands-on chemist with experience in inorganic, analytical, or radiochemistry, preferably with experience in nanomaterials synthesis and characterization. This position requires the successful candidate to be an adept, hands-on chemist with experience in inorganic, analytical, or radiochemistry, preferably with experience in nanomaterials synthesis and characterization.
- Fundamental understanding of metal coordination complexes in solution and solid phases utilization towards application of separations processes such as solvent extraction, ion exchange and crystallization is also desirable.
- The ability to work in a team-oriented, interdisciplinary environment that embraces change, risk, and flexibility is needed.
- This individual must be capable of handling multiple projects/tasks at the same time.
- A demonstrated ability to work independently and within a team with sense of urgency for timelines is needed.
- The successful candidate must have excellent verbal and written communication skills.
- A passion and enthusiasm for innovation will be an asset.
- Proven problem-solving skills and good interpersonal relationship and people skills will be needed.

Essential duties:

- Design and carry out independent research focused on inorganic radiochemistry which could include: 1) the investigation into emerging radioisotopes for medical applications, 2) the design of nanomaterials for radiopharmaceuticals, and 3) the development of new technologies for used nuclear fuel recycling.
- Obtain and analyze data from a variety of techniques including ICP-MS, UV-VIS, gamma spectroscopy, etc.
- Handle radioactive materials in a safe manner.
- Keeps meticulous records in laboratory notebook and online data management systems and initial analysis of laboratory results.

- Write technical reports of experimental data to meet the sponsors requirements and for manuscripts to be submitted for peer-reviewed journal article publication.
- Shares responsibility with other lab members for compliance with University safety procedures and maintaining common supplies and instruments.
- Conduct literature searches related to research projects.

Qualifications:

Required qualifications:

- Ph.D in Chemistry, preferably with experience in inorganic chemistry or radiochemistry.
- Excellent communication skills.
- High quality, peer-reviewed publications

Preferred Skills/Desirable Qualifications:

- Experience in nanomaterial synthesis and characterization
- Experience with surface functionalization
- Experience with radioactive materials

When applying for the position, please include a cover letter, an updated CV, and contact information for at least 2 references. The application should be sent to burnsjon@uab.edu

About our Postdoc Office:

UAB is committed to the development and success of outstanding postdoctoral scientists. Here at UAB, nearly 300 postdoctoral fellows are training currently in a variety of disciplines. Competitive postdoc awards are available including internships, grant incentives, funds to enhance education and collaboration outside UAB, and teaching opportunities at local universities. There is also a Postdoc Research Day with monetary awards. The Office of Postdoctoral Education strongly encourages UAB research mentors to follow the National Research Service Award stipend level guidelines, and postdoctoral scholars qualify for health, life, and other insurances. They also have the right to participate in the university's 403(b) program and enjoy vacation, sick leave, maternity/paternity leave, and other benefits.

About the University:

The University of Alabama at Birmingham (UAB) is a research university and academic health center that discovers, teaches, and applies knowledge for the intellectual, cultural, social, and economic benefit of Birmingham, the state, and beyond. UAB is internationally renowned for its intensely collaborative culture that has — for more than five decades — produced breakthroughs in education, health care, research, and service. UAB was ranked #1 in the United States, and in the top 10 worldwide, in the Times Higher Education World University Rankings, 2018 Young University Rankings.

Spanning more than 100 city blocks, UAB is the state of Alabama's largest single employer with some 25,000 employees and has an annual, state-wide economic impact exceeding \$7.15 billion. U.S. News & World Report's 2020 "America's Best Graduate Schools" ranks 14 UAB graduate programs among the nation's top 25 and 8 UAB specialties were ranked among the nation's top 50 in the magazine's 2020-2021 Best Hospitals report. UAB research grants and awards are at a record high with \$640 million in FY20, continuing the most successful era of research funding in university history. UAB ranks in the top 4 percent nationally for federal funding among public universities and the top 2 percent for National Institutes of Health (NIH) funding, with the UAB School of Medicine ranked 30th nationally among medical schools in NIH funding. UAB has been named America's No. 1 Best Large Employer and the No. 4 Best Employer for Diversity by Forbes, topping the list of more than 500 public and private corporations, hospitals, universities, Fortune 500 companies and more, across dozens of industries.

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For more information on Equal Opportunity and Affirmative Action at UAB, visit the UAB Office of Diversity, Equity and Inclusion or call (205) 934-8762. Or contact the office at 701 20th Street South, AB 336, Birmingham, AL 35294-0103.