Position Opening

POSITION: Materials Scientist / Postdoctoral Researcher
STATUS: Full-Time / Benefited / Exempt
COMPENSATION: $28.85 - $30.60 per hour
DEPARTMENT: Department of Chemistry and Biochemistry
LOCATION: CSU Chico Campus; Hybrid
RECRUITMENT ID: 166
RESIDENCY: Before starting job, candidate must be a California resident. Chico State Enterprises is not a sponsoring agency for staff and management positions (i.e. H-1B Visas).

ESSENTIAL JOB FUNCTIONS: This 24-month U.S. Department of Energy funded position is for a materials scientist (see education and work requirements) or postdoctoral researcher who will be using synthesis and characterization techniques to understand structure-property relationships of metal-organic frameworks (MOFs) and films for lithium-sulfur (Li-S) batteries, mentor undergraduate researchers, and guest lecture in the Integrated Chemistry laboratory course at California State University, Chico (CSU, Chico). We are seeking individuals who are interested in having a future position at primarily undergraduate institutions (PUIs) and/or community colleges and working with undergraduates from diverse backgrounds. Candidates do not have to have experience in MOFs, thin films, or batteries, but those with experience will be given preference. Publications and presentations are expected to result from the work supported by the grant.

EMPLOYMENT STANDARDS:

Required Qualifications:

• Education: Applicant must have a degree in chemistry, physics, materials science and engineering, chemical engineering, or related field with a strong emphasis on in/organic materials synthesis and characterization.
  o PhD, or demonstrate they will be able to successfully defend their dissertation by no later than August 2024, OR
  o MSc, and 3 years of relevant research/work experience, OR
  o BSc, and 10 years of relevant research/work experience.
• Ability to successfully pass a criminal background check.

Preferred:
• 2+ years of teaching experience as an instructor or teaching assistant.
• Strong academic background
• Laboratory experience in fundamental studies of surface chemistry and electrochemical reactions
• Familiar with physical, optical, and electrical characterization techniques (e.g. SEM, AFM, Raman, FTIR, DRS, UV-vis, IV, CV, EIS, and two/four-point probe conductivity)
• Extensive laboratory experience working with a wide range of organic/inorganic synthesis and/or
device physics

- Technical experience and a proven publication record in the areas of synthesis, characterization, and fabrication of materials, ideally related to metal organic framework or lithium-sulfur batteries.
- Familiarity with collaboration and integration of experimental characterization techniques with modeling

RESPONSIBILITIES:

Research (80%):

- Perform synthesis, post-synthetic modification, and characterization of conductive MOFs, as well as fabrication and characterization of thin MOF films. Characterization of MOFs by XRD and BET techniques will be required.
- Develop understanding of structure-property relationships for optimizing polysulfide adsorption energies, MOF reactivity, and Li-S redox kinetics.
- Design and implement research protocols; adapt new procedures, methods or instrumentation relative to research procedures.
- Collect, prepare, and analyze research data; discuss results in group meetings; keep a detailed record summarizing experiments and recording research data.
- Collaborate with computational and experimental scientists at Lawrence Livermore National Lab and San Jose State University to accomplish research goals.
- Oversee laboratory safety and equipment maintenance relevant to project.
- Work with and mentor undergraduate researchers.
- Assist with ordering and procurement of supplies and equipment and with general maintenance of laboratory.
- Publications in peer-reviewed journals and presentations at national/regional conferences.

Instructional (20%):

- Preparing laboratory activities, designing syllabi and assessments, evaluating student work, and supervising laboratories. These will be done in accordance with approved course descriptions and curricular guidelines established by the Faculty and approved by the Dean and the Provost.
- Supervising and directing undergraduate honors projects and independent research in each of the Fall and Spring semesters.

COMPLIANCE REQUIREMENTS:

- Satisfactory completion of a background check (including a criminal records check) is required for employment. Chico State Enterprises will make a conditional offer of employment, which may be rescinded if the background check reveals disqualifying information, and/or it is discovered that the candidate knowingly withheld or falsified information. Failure to satisfactorily complete the background check may affect the continued employment of a current Chico State Enterprises
employee who was conditionally offered the position.

**BENEFITS:**
Benefits for employees working 30 hours or more per week include employer paid life insurance ($50,000) and long-term disability; options for health, dental, and vision insurance; FSA; 14 paid holidays including 1 personal holiday; vacation accrual (initially 10 days/year); sick leave (up to 12 days/year); employer contributions to your 403(b) retirement plan (up to 8%).

**HOW TO APPLY:**
To be considered, submit the following documents by **August 2nd, 2024**. Documents submitted after this date may not be considered.
- Resume
- Chico State Enterprises Application
- Cover Letter
- Contact information for three professional references

**BY DROP BOX:** [https://csuchico.app.box.com/f/b3e9a32fd93e46a3a3bbb54d53bb4cda](https://csuchico.app.box.com/f/b3e9a32fd93e46a3a3bbb54d53bb4cda)

**BY EMAIL:** [csejobs@csuchico.edu](mailto:csejobs@csuchico.edu)

Paper applications will not be accepted; however, Chico State Enterprises is an Equal Opportunity Employer and is happy to provide reasonable accommodations to applicants at any step of the application process. If you need assistance in this regard, or are having technical difficulties, please contact the Human Resources office at 530-898-6811 or csejobs@csuchico.edu prior to 5:00 pm on the document deadline date. The employer is Chico State Enterprises, a non-profit corporation serving as an auxiliary organization of California State University, Chico. Employment is considered to be at-will.

**AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER:**
Chico State Enterprises is an Equal Opportunity Employer and does not discriminate against persons on the basis of race, religion, color ancestry, age, disability, genetic information, gender, gender identity, gender expression, marital status, medical condition, National origin, sex, sexual orientation, covered veteran status, or any other protected status. It is the Enterprises’ policy to hire only United States citizens and aliens lawfully authorized to work in the United States. All new employees must provide proof of identity and authorization to work.