

**2015 WEEKLY BULLETIN**  
**DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY**  
**EVANSTON, ILLINOIS**  
**November 16, 2015**

*For full schedule, including Center events, please see the Department Calendar:*  
<http://www.chemistry.northwestern.edu/events/calendar.html>

- Tuesday November 17<sup>th</sup>:      *Faculty Lunch Seminar: George Schatz*  
Tech K140  
12:00-1:00pm
- Wednesday November 18<sup>th</sup>:      *Department of Chemistry Special Colloquium:*  
*Arthur Bragg, Johns Hopkins University*  
Ryan Hall 4003  
4:00-5:00pm
- Friday November 20<sup>th</sup>:      *ACS/Aldrich Award Seminar: John T. Groves, Princeton University*  
Tech LR3  
4:00-5:00pm

**BIP**

BIP: 10:00am every Friday in Tech K140

**Arrivals**

We did not have any new arrivals

**Opportunities**

**Postdoctoral positions at NIH** The Optical Spectroscopy Section, LMB/BBC, NHLBI/NIH, is seeking two postdoctoral fellows (IRTA fellows or VF, see [www.nih.gov](http://www.nih.gov) for details)

Position#1 is available immediately. We need someone with extensive biochemical/cell biology expertise in the fluorescence microscopy sphere to help us apply new probe methods for superresolution (“STAQ: a route toward low power, multicolor nanoscopy”) and intracellular [O<sub>2</sub>] sensing (using, e.g., our Mb-mCherry chimera). Probe development, labeling and transfection skills esp. valued, along with protein purification/plasmid prep.

Position#2 will be available early in the spring, and will select someone skilled in the instrumental aspects of lasers and fluorescence spectroscopy in the microscope. We do FLIM, 2pFCS, RICS, STED (and related STAQ), regular and spectral-focusing CARS, and combinations thereof. Laser jockeys, optics tinkerers and coding honchos welcomed.

**Mallinckrodt Institute of Radiology** As part of a team comprising interdisciplinary scientists, **two post-doctoral positions** are available: A) **Synthetic organic chemistry** with emphasis on heterocyclic chemistry, inorganic biochemistry, and PET/SPECT Radiochemistry to develop molecules for biomedical imaging and therapeutic applications; and B) **Biochemist** with expertise in conceiving and executing cellular bioassays, histochemistry, pharmacokinetics, and receptor ligand binding assays, **preferably with**

**working experience in handling of rodents.** Candidates with competitive credentials and track records are strongly encouraged to apply. Applicants with previous experience in applied sciences but not beyond a year of postdoctoral experience will be considered more desirable candidates.

For immediate consideration, please send a cover letter and resume with contact information for three references to:

Prof. Vijay Sharma, Mallinckrodt Institute of Radiology, Box 8225, Washington University Medical School, 510 S. Kingshighway Blvd., St. Louis, MO 63110, USA; Email: [sharmav@mir.wustl.edu](mailto:sharmav@mir.wustl.edu). Please note that e-mail is a preferred mode of communication.

**Department of Chemistry and Biochemistry, University of Northern Colorado** Assistant or Associate Professor (TT/T), nine-month appointment. The successful candidate will instruct undergraduate and graduate level courses in chemical education, general chemistry, and courses in the candidate's area of expertise, if different from chemical education. The successful candidate will provide strong service to the department, college and university. In addition, the successful candidate will also be expected to develop a strong nationally recognized externally funded research program in chemical education involving strong mentoring of both undergraduate and graduate students. Candidates hired at the rank of Associate Professor will take on a leadership role in the Chemical Education program within the Department and assist with implementation of new pedagogy and curriculum changes that support a strong nationally recognized program in Chemical Education.

#### Qualifications

This position requires an earned doctorate in chemical education or a closely related field. Degree must be completed before August 15, 2016.

#### Preferred Qualifications

Preference will be given to applicants with postdoctoral experience in chemical education. For appointment at the rank of Associate Professor, at least 5 years experience at the rank of Assistant Professor, or equivalent, with an existing, strong research program.

#### Salary and Benefits

Salary is commensurate with qualifications and experience. Benefits available include health, life, and dental insurance, as well as a selection of several defined contribution retirement programs. Dependents and Spouses of UNC Employees who are employed as 0.5 FTE or above are entitled to and eligible for Dependent Tuition Grants. These tuition grants will cover in-state tuition charges. Further requirements may exist. Other benefits may be available based on position. Opportunities for summer instruction may be available.

#### Start Date

The first day of faculty contracts for AY 2016 will be August 15, 2016.

#### Application Materials, Contact, and Application Deadline

Screening of applications will begin on November 30, 2015 and will continue until the position is filled. Interested persons should apply online at <https://careers.unco.edu> and select "View/Apply for Faculty Positions" then choose "Assistant/Associate Professor – Chemistry and Biochemistry". Application documents to be submitted online are a letter of application/cover letter, a *curriculum vitae*, teaching philosophy, statement of research plans, and unofficial or official copies of graduate and undergraduate school transcripts. In addition to the materials submitted online, the candidate must provide the names of three references who will be contacted to electronically submit their letter of recommendation.

Recommenders may choose to submit their letters under separate cover to: [chemistry@unco.edu](mailto:chemistry@unco.edu) or via mail to: Chair, Chemical Education Search Committee, Department of Chemistry and Biochemistry, University of Northern Colorado, Campus Box 98, 501 20th Street, Greeley, CO 80639.

#### Additional Requirements

Satisfactory completion of a background check, educational check, and authorization to work in the United States is required after a conditional offer of employment has been made. Original transcripts demonstrating receipt of the required degree(s) must be submitted within one (1) month of hire.

### Location and Environment

The University of Northern Colorado is a Doctoral / Research University enrolling 12,000+ graduate and undergraduate students. The University, founded in 1889, is located in the City of Greeley, which has a growing population of 96,000. Greeley is an hour north of Denver and 30 miles east of the Rocky Mountains. Further information about UNC and Greeley is available at <http://www.unco.edu>.

### Additional Information

The position is contingent on funding from the Colorado State Legislature, approval by the Board of Trustees, and subject to the policies and regulations of the University of Northern Colorado. Federal regulations require that the University retain all documents submitted by applicants. Materials will not be returned or copied for applicants.

**Department of Chemistry and Biochemistry, University of Northern Colorado** General Chemistry Coordinator, Lecturer rank (term renewable), nine-month appointment. The successful candidate will instruct courses in general chemistry and in the candidate's area of expertise. In addition to coordinating the general chemistry lecture and laboratory program for the Department, the successful candidate will be expected to participate in service at the department, college, and university levels that includes research on teaching and learning within the Department's general chemistry curriculum.

### Qualifications

This position requires a minimum of an earned master's degree in chemistry, chemical education or a closely related field. Degree must be completed before August 15, 2016.

### Preferred Qualifications

Preference will be given to applicants with previous college-level chemistry teaching and experience in curriculum development and implementation.

### Salary and Benefits

Salary is commensurate with qualifications and experience. Benefits available include health, life, and dental insurance, as well as a selection of several defined contribution retirement programs. Dependents and Spouses of UNC Employees who are employed as 0.5 FTE or above are entitled to and eligible for Dependent Tuition Grants. These tuition grants will cover in-state tuition charges. Further requirements may exist. Other benefits may be available based on position. Opportunities for summer instruction may be available.

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### Application Materials, Contact, and Application Deadline

Screening of applications will begin on November 30, 2015 and will continue until the position is filled. Interested persons should apply online at <https://careers.unco.edu> and select "View/Apply for Faculty Positions" then choose "General Chemistry Coordinator". Application documents to be submitted online are a letter of application/cover letter, a *curriculum vitae*, teaching philosophy, and unofficial or official copies of graduate and undergraduate school transcripts. In addition to the materials submitted online, the candidate must provide the names of three references who will be contacted to electronically submit their letter of recommendation. Recommenders may choose to submit their letters under separate cover to: [chemistry@unco.edu](mailto:chemistry@unco.edu) or via mail to: Chair, General Chemistry Coordinator Search Committee, Department of Chemistry and Biochemistry, University of Northern Colorado, Campus Box 98, 501 20<sup>th</sup> Street, Greeley, CO 80639

### Additional Requirements

Satisfactory completion of a background check, educational check, and authorization to work in the United States is required after a conditional offer of employment has been made. Official transcripts demonstrating receipt of the required degree(s) must be submitted within one (1) month of hire.

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The University of Northern Colorado is an equal opportunity/affirmative action institution that does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation or veteran status. For more information or issues of equity or fairness or claims of discrimination contact the UNC AA/EEO/Title IX Officer at UNC Human Resource Services, Campus Box 54, Carter Hall 2002, Greeley, CO 80639, or call 970- 351-2718.

**The Clemson University Department of Chemistry** invites applications for a tenure-track faculty position in materials chemistry. Applicants from all areas of materials chemistry are invited though special consideration will be given to applicants applying state-of-the-art computational and/or big data methods to problems in materials chemistry. Applicants must possess a Ph.D. in Chemistry or a related field and will be expected to teach undergraduate and graduate level courses and to build an internationally recognized and funded research program.

Applicants at the rank of Assistant, Associate, or Full Professor will be considered, depending upon experience and qualifications. Application materials (PDF email preferred) including a curriculum vitae, a description of proposed research plan(s), teaching philosophy, and three letters of reference should be sent to Professor Joseph S. Thrasher at the following address: Department of Chemistry, Chemistry Faculty Position, c/o Mrs. Sharon Smith, Clemson University, Clemson, SC 29634-0973.

Electronic submissions accepted at: [sharons@clemson.edu](mailto:sharons@clemson.edu).

Review of applications will begin November 20, 2015 and continue until the position is filled. The expected start date is August 2016.

**Faculty Positions Available at Hunan University, Changsha, China** The Institute of Chemical Biology and Nanomedicine (ICBN) invites outstanding researchers in chemical biology, nanomedicine and related fields to apply for research track faculty positions. Successful candidates will be appointed at the Assistant Professor rank and will be expected to establish independent research programs with international visibility and that make significant contributions to the field.

The ICBN is directed by distinguished professors Chad A. Mirkin, David R. Walt, and Milan Mrksich who are leading experts in the fields of bioanalytical chemistry, chemical biology and nanotechnology. Successful applicants will be provided with world-class laboratories in a new facility at Hunan University. Faculty will receive significant research funds and will have access to exceptional core instrument facilities.

#### Research Scope

Bioanalytical Chemistry, Chemical Biology, Chemical Sensing, Materials Innovation for Medicine and Nanoscience

#### Highlights

Very competitive startup funding and salary are available.

The ability to compete for funding under the Young Talents Program (青年千人) is preferred.

Positions are open until they are filled.

Applicants must have a Ph.D. degree in a relevant field and a record of exceptional research accomplishments. All applications will be kept confidential.

Applicants should send a cover letter and curriculum vitae Dr. Huimin Li, Managing Director, Institute of Chemical Biology and Nanomedicine, Hunan University, China, [huiminli@hnu.edu.cn](mailto:huiminli@hnu.edu.cn).

**The Chemistry and Physics Department at Chicago State University** invites applications for a part-time, non-tenure track lecturer in Chemistry. Primary duties include teaching 1 or 2 sections of Organic Chemistry during the 4.5 month spring semester January 12 to May 15 2016.

Instructors are expected to: teach lectures, develop syllabi and teaching materials related to courses taught, assess student, assign grades and hold regular office hours. A Master's degree or Doctorate degree in the area of Organic Chemistry is required. For further information please contact Dr. Edmundo Garcia, Department Chair, [edmundo.garcia@csu.edu](mailto:edmundo.garcia@csu.edu), 773-995-2325.

**The Department of Chemistry at Virginia Commonwealth University** invites applications for a tenure-eligible, Assistant Professor position in the broad area of Analytical Chemistry to begin in fall 2016. The candidate is expected to develop and maintain a funded, nationally recognized research program. Teaching will primarily be in undergraduate and graduate courses in analytical chemistry. The candidate's research interests should complement those of existing faculty; those candidates with analytical chemistry interests that bridge to nanoscience and/or chemical biology are encouraged to apply. Candidates Demonstrated experience working in and fostering a diverse faculty, staff, and student environment, or the commitment to do so.

A Ph.D. in chemistry is required and post-doctoral experience is strongly encouraged. Well qualified candidates at higher ranks may be considered, contingent on funding availability.

Candidates will submit:

- (1) a cover letter
- (2) a curriculum vitae
- (3) a document containing detailed research proposals, teaching plans and an estimate of start-up costs to <https://www.vcujobs.com/postings/47038>.

In addition, names of three references must be entered into vcujobs; these individuals will be asked to provide recommendation letters. Review of applications will begin immediately and continue until the position is filled. Please contact Sarah C. Rutan, Search Committee Chair, at [srutan@vcu.edu](mailto:srutan@vcu.edu) for any questions about the position.

Virginia Commonwealth University is an equal opportunity/affirmative action employer and seeks to provide equal opportunities for employment without regard to race, color, religion, national origin, age, gender, political affiliation, veterans' status, sexual orientation, gender identity, gender expression, genetic information, or disability. Virginia Commonwealth University welcomes individuals with diverse backgrounds, experiences, and ideas and those who embrace and value diversity and inclusivity.

**Lumileds located in San Jose, CA** is looking for Failure Analysis Engineers. The challenge is to identify the root cause of electrical, chemical, structural, and thermal defects and failures. In order to successfully carry out various kinds of failure/defect analysis, failure analysis engineer needs to continuously study new technical areas and come up with the creative ideas to solve the technical issues which are most of time multidisciplinary. FA Engineer is a key member of product development and process development and works closely with product development team, process development team and manufacturing team. FA engineer's contribution immediately and significantly impacts the quality of company's products.

Your Responsibilities:

- Will analyze product failure to identify the root cause of the failure of new product and new process

- Will analyze yield reject to improve manufacturing yield
- Will characterize LED product chemically, electrically, optically, thermally and structurally
- Will develop 1) new characterization tool and 2) application of characterization tool
- Will work with functional team for product development and process development

#### Your Team:

Advanced FA Team at Lumileds is composed of highly technical and talented staffs with various backgrounds (Material Science, Electrical Engineering, Chemical Engineering, and Physics). The team is in charge of performing 1) Failure Analysis for new product/process development and 2) Defect Analysis for yield improvement.

#### Our Offer:

Advanced FA Team will provide never-ending technical trainings and offer various kinds of interesting and technical challenges which help you technically grow quickly and eventually become a master of technical problem solving.

#### What We Are Looking For

Advanced FA Team is looking for a highly motivated and passionate technical staff who is willing to learn various technical areas, has out-of-box thinking and can bring creative ideas and solutions to technical challenges.

#### Qualifications:

- PhD in Chemistry with emphasis in polymer material processing and characterization or
- PhD in Analytical Chemistry
- Hands-on experience in various chemistry and polymer characterization tools
- Knowledge on semiconductor device physics/processing is a plus
- Excellent verbal and written communication skills

Contact: Sungwook Huh ([Sungwook.huh@philips.com](mailto:Sungwook.huh@philips.com) )

**The Surface Chemistry Group in the Materials Science Division at Argonne National Laboratory** is in search of a postdoctoral appointee. The successful candidate will enable next generation solar energy conversion through new intermediate band solar absorbers and thermal photovoltaic design. In collaboration with theoretical and computational colleagues, the appointee will fabricate novel thin film devices as well as advance the basic science of intermediate band semiconductor growth and characterization. Atomic layer deposition, materials synthesis and crystallization, as well as optoelectronic characterization will be required. Previous device experience is preferred, as device design and assessment will be emphasized. Candidates within three years of completion of their Ph.D. are eligible.

Interested candidates should send a detailed CV, along with a list of publications, to Alex Martinson [martinson@anl.gov](mailto:martinson@anl.gov). Argonne is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC. Argonne is an equal opportunity employer, and we value diversity in our workforce.

**The National Research Council of the National Academies** sponsors a number of awards for graduate, postdoctoral and senior researchers at [participating federal laboratories and affiliated institutions](#). These awards include generous stipends ranging from \$42,000 - \$80,000 per year for recent Ph.D. recipients, and higher for additional experience. [Graduate](#) entry level stipends begin at \$30,000. These awards provide the opportunity for recipients to do independent research in some of the best-equipped and staffed laboratories in the U.S. Research opportunities are open to U.S. citizens, permanent residents, and for

some of the laboratories, foreign nationals.

Detailed program information, including online applications, instructions on [how to apply](#) and a [list of participating laboratories](#), is available on the NRC Research Associateship Programs [Website](#) (see link above).

Questions should be directed to the NRC at 202-334-2760 (phone) or [rap@nas.edu](mailto:rap@nas.edu).  
There are four annual review cycles.

Review Cycle: **February**; Opens December 1; Closes February 1

Review Cycle: **May**; Opens March 1; Closes May 1

Review Cycle: **August**; Opens June 1; Closes August 1

Review Cycle: **November**; Opens September 1; Closes November 1

Applicants should contact prospective Adviser(s) at the lab(s) prior to the application deadline to discuss their research interests and funding opportunities. More detailed information and an online application can be found at [www.nationalacademies.org/rap](http://www.nationalacademies.org/rap).