

**2017 WEEKLY BULLETIN**  
**DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY**  
**EVANSTON, ILLINOIS**

November 6, 2017

***For full schedule, including Center events, please see the Department Calendar:***

<http://www.chemistry.northwestern.edu/events/calendar.html>

- Tuesday November 7<sup>th</sup>:            *Faculty Lunch Seminar: George Schatz*  
Tech K140  
12:00-1:00pm
- Thursday November 9<sup>th</sup>:        *Department of Chemistry Special Seminar:*  
*Professor Mikael Kepenekian, Institut des Sciences Chimiques de Rennes*  
*Professor Jacky Even, Institut National des sciences Appliquées Rennes*  
Ryan Hall 4003  
1:00-2:30pm
- Friday November 10<sup>th</sup>:        *Department of Chemistry Colloquium:*  
*Robert Griffin, MIT*  
Tech LR3  
4:00-5:00pm

**BIP**

BIP meets every Friday in Tech K140 at 10:00am

**Arrivals**

Yoon Hwa Kim joined the Poeppelmeier Group  
Jia Wang joined the Ratner Group  
Jie Wu joined the Farha Group  
Jialei Zhu joined the Gianneschi Group

**Announcements**

**One Heart Source is currently accepting applications for our 2018 Service Learning Programs.** We are offering 2 and 4 week Health Innovation programs in South Africa!

As an OHS Volunteer you will:

- Gain international experience on the ground in global health initiatives.
- Mentor students who strive to become healthcare professionals and cultivate lifelong relationships.
- Immerse yourself in diversity through service and excursions.
- Collaborate with groups of university students from around the world.
- Develop leadership and entrepreneurial skills through the pursuit of social justice.
- Enhance health care skills in real-world environments

Apply here for our Volunteer Programs: [2018 Application](#)

Application Deadline: November 30, 2017    Learn more about our Health [Program](#) here.

## Opportunities

**The Department of Chemistry at Ball State University** is accepting applications for tenure-track assistant professor of Chemistry, Chemistry Education position who will teach undergraduate and graduate classes in their discipline as well as teach general chemistry courses. The faculty member will also develop an active research program in chemical education which complements the department's existing research programs.

PhD degree in Chemical Education or closely related area from an accredited college or university at the time of application; evidence of potential for excellence in teaching and in research. Teaching experience at the collegiate level, e.g. teaching assistant, instructor, Assistant Professor, postdoctoral research experience or equivalent; research interests that focus on an area which enhances the department's existing research programs.

For more information about the position and application requirement can be found on the website: <https://bsu.peopleadmin.com/postings/10991>

**The Department of Chemistry at Mississippi State University** invites applications for two tenure-track positions open to ALL AREAS OF CHEMISTRY including, but not limited to analytical, biological, chemical education, inorganic, materials chemistry, organic, physical at the rank of assistant, associate, or full professor, beginning August 2018. Applicants must have a Ph.D. in chemistry or related field, a demonstrated record of research accomplishments, and a strong commitment to teaching at both the undergraduate and graduate levels. Consideration of applications will begin September 16, 2017, and will continue until the positions are filled. Applicants must apply [online](#) and include a cover letter, current curriculum vitae, summary of research plans, statement of teaching interests, and have three letters of recommendation sent to: [search@chemistry.msstate.edu](mailto:search@chemistry.msstate.edu).

[Advertisement in Chemical & Engineering News](#)  
[Apply now at msujobs.msstate.edu!](#)

**The Department of Chemistry at Mississippi State University** invites applications for two 9 month non-tenure track positions at the rank of clinical assistant professor beginning on or after January 1, 2018. The initial three-year appointments can be extended and follow academic promotion track. Applicants must have a Ph.D. in chemistry or a related area and must demonstrate a strong commitment to excellence in teaching. Applicants with prior teaching experience are particularly encouraged to apply. The successful applicant will be primarily responsible for teaching undergraduate courses in chemistry with additional service or other duties supportive of the undergrad program. Applicants must apply [online](#) and attach a cover letter, current curriculum vitae, a teaching portfolio, and the complete contact information for two professional references. Nominations for or communication about this position should be sent to Chair, Chemistry Search Committee at [search@chemistry.msstate.edu](mailto:search@chemistry.msstate.edu). Review of applicants will begin September 15, 2017 and applications will be accepted until the positions are filled.

[Advertisement in Chemical & Engineering News](#)  
[Apply now at msujobs.msstate.edu!](#)

**The Department of Chemistry at Mississippi State University** invites applications and nominations for postdoctoral fellowships beginning immediately. Successful applicants will have experience in synthetic organic chemistry preferably with a background in synthesis & characterization of monomer and polymeric materials design and applications. Experience with aromatic, phenolic, organofluorine, and fluoropolymer chemistry is encouraged but not required. A competitive compensation package is offered along with an exceptional environment for multidisciplinary collaboration and potential downstream

technology transfer and entrepreneurship. Interested candidates should email a cover letter, CV, and contacts of 3 references addressed to Prof. Dennis Smith, Department of Chemistry, Mississippi State University via **Ms. Sara Knighten at: [sknighten@chemistry.msstate.edu](mailto:sknighten@chemistry.msstate.edu)**.

**The Department of Chemistry at Colorado State University**, located in Fort Collins, CO, seeks to hire at least one tenure-track faculty member. While exceptional candidates from all areas of chemical science are encouraged to apply, those with research interests in analytical and/or experimental physical chemistry are of particular interest. Exceptional candidates will be able to contribute to current research strengths in chemical biology, environmental chemistry, and materials chemistry. We aim to fill this position at the Assistant Professor level, but will consider exceptional candidates at the Associate Professor rank. Candidates must hold a Ph.D. or equivalent degree and be capable of outstanding teaching, scholarship, and research. Postdoctoral experience is highly desirable. Complete applications must include a detailed CV, descriptions of research plans and teaching interests, and the names of at least three references.

For more information or to apply see <http://jobs.colostate.edu/postings/50249>. Questions regarding the searches should be directed to Chair, Faculty Search Committee, [CHEM\\_search@mail.colostate.edu](mailto:CHEM_search@mail.colostate.edu). Applications will be accepted until the positions are filled; applications completed by 11:59 PM (MT) on November 10th, 2017 will receive full consideration. Files of semifinalists (including reference letters) will be available to all Chemistry Department regular faculty. CSU is an EO/EA/AA employer. Colorado State University conducts background checks on all final candidates.

**The Department of Chemistry/Biochemistry in the J. William Fulbright College of Arts and Sciences at the University of Arkansas** is accepting applications for two Postdoctoral Fellows. This initial appointment will be for one year, with expectation for renewal.

#### Position 1: Catalysis Post-Doctoral Fellow

The highly motivated and hard-working postdoctoral fellow will join [Beyzavi Group](#) to study transition-metal based catalytic systems. The project will involve collaborative work and the candidate is expected to learn new multidisciplinary techniques.

One of the main focuses of [Beyzavi Group](#) is the development of unique catalytic systems to be incorporated into nano materials, e.g. MOFs, COFs and NPs.

This position involves organic synthesis of ligands, preparation and characterizing of transition-metal based complexes, testing their properties, catalytic activities and reporting results to the PI. The position requires mentoring of junior researchers, manuscript and patent preparation and submission of proposals for further work.

Prerequisite Qualifications: Applicants must have a PhD in chemistry, preferentially in Organometallic/Organic Chemistry or Functional Materials and training and hands-on experience in MOFs, organic synthesis, glovebox techniques, HPLC, GC, NMR, and mass spectroscopy as well as experience in nanomaterials, heterogeneous catalysis, and gas phase catalysis.

#### Position 2: Bio-Nanomaterials Postdoctoral Fellow

The highly motivated and hard-working post-doctoral fellow will join [Beyzavi Group](#) to prepare nanomaterials and study their biological activities in particular in cancer. The project will involve collaborative work and the candidate is expected to learn new multidisciplinary techniques.

Another main focus of [Beyzavi Group](#) involves the synthesis and development of near-IR photosensitizer-based materials, for applications as photosensitizers for the detection and treatment of cancers by photodynamic therapy (PDT) and as biological labels. The candidate will investigate the structural, photophysical and chemical properties of the nanomaterial-based photosensitizers and develop methodologies for their conjugation to various biomolecules, including peptides, proteins to target specific receptors associated with tumor cells.

This position involves preparation of NPs, QDs, CDs, MOFs and COFs and their conjugation with biomolecules e.g. peptides, proteins, DNA/RNA, etc.

The position requires mentoring of junior researchers, manuscript and patent preparation and submission of proposals for further work.

Prerequisite Qualifications: Applicants must have a PhD in chemistry, preferentially in nano-materials and their conjugation with biomolecules/drug candidates and training and hands-on experience in organic synthesis, photophysical measurements, inorganic nanoparticle synthesis, and characterization of nanomaterials via PXRD, BET isotherms, XPS, FIB-TEM, EDX/SEM, etc.

For both of the positions:

Candidates should be personally motivated, creative, have excellent oral and written communication skills, and be able to work in an interdisciplinary environment. Moreover, candidates should have strong scientific problem solving skills, ability to analyze and interpret experimental data, and have a solid track record of scientific achievement as documented by peer-reviewed scientific journal publications. Special consideration will be given to individuals with innovative research ideas and aspirations.

For a complete position announcement and information regarding how to apply, visit:

Catalysis Postdoctoral Fellow: <http://jobs.uark.edu/postings/22758>

Bio-Nanomaterials Postdoctoral Fellow: <http://jobs.uark.edu/postings/22766>

The University of Arkansas is an equal opportunity, affirmative action institution. The university welcomes applications without regard to age, race/color, gender (including pregnancy), national origin, disability, religion, marital or parental status, protected veteran status, military service, genetic information, sexual orientation or gender identity. Persons must have proof of legal authority to work in the United States on the first day of employment. All applicant information is subject

**National Bioenergy Center in Golden, Colorado** has several postdoctoral opportunities available in the following areas:

Biological lignin valorization - we are looking for multiple candidates with expertise in synthetic biology, metabolic engineering, microbiology, or biochemistry. These positions will focus on conversion of lignin-derived aromatic compounds to value-added products in non-model hosts and understanding the mechanistic basis of enzymatic lignin depolymerization and catabolism.

Chemical synthesis and analytical chemistry for lignin - we have a need for a postdoctoral associate skilled in organic synthesis to design new routes to lignin model compounds and to develop rapid analytics for lignin using NMR and/or MS-based methods.

Interested candidates should send a cover letter and CV to Gregg Beckham at [gregg.beckham@nrel.gov](mailto:gregg.beckham@nrel.gov).

**Pacific Northwest National Laboratory** A postdoctoral researcher is needed in the Catalysis Science Group for experimental research. The position will be focused on the reduction of CO<sub>2</sub> using catalysts based on inorganic and organometallic complexes. The planned research will involve the design, synthesis, and characterization of new metal complexes, including thermochemical and mechanistic studies, leading to new molecular catalysts in the area of reduction of CO<sub>2</sub> to fuels.

Equal Employment Opportunity

PNNL is an Equal Opportunity/Affirmative Action Employer that is committed to hiring a diverse, talented workforce. EOE Disability/Vet/M/F/Sexual Orientation/Gender Identity. Staff at PNNL must be able to demonstrate the legal right to work in the United States.

Minimum Qualifications

Candidates must have received a PhD within the past five years (60 months) or within the next 8 months from an accredited college or university.

### Preferred Qualifications

Experience in synthetic and mechanistic organometallic/inorganic chemistry and handling air-sensitive materials is required. Excellent oral and written communications skills are mandatory. Proficiency with a range of spectroscopic techniques, particularly NMR, is essential. Experience in kinetic measurements of catalytic reactions is desirable but not required. Must have the ability to work in a highly collaborative environment.

The perfect candidates would have these 3 characteristics:

Expertise in preparing and handling highly air-sensitive complexes

Experience in NMR and kinetics of catalysis

Independent and highly motivated

Ph.D. in organometallic chemistry or inorganic chemistry

<https://pnnl.jibeapply.com/jobs/306986/Post+Doctorate+RA++Catalysis+Science?lang=en-US>

**The Department of Chemistry at the University of Wyoming** invites applications for an extended term Academic Professional Lecturer (APL) in organic chemistry. The successful candidate will teach at the undergraduate organic chemistry level and manage the undergraduate organic teaching labs.

Responsibilities for the organic teaching labs will include experiment development and testing, supply purchasing, weekly lab setup, managing teaching assistants and maintenance of instruments and labs. The organic lab facilities are comprised of three labs with associated instrument rooms and computer analysis rooms in the recently completed Enzi Undergraduate Lab Facility

(<http://www.uwyo.edu/chemistry/building/>). The successful applicant will also be required to contribute to departmental and university services.

Review of applications will begin January 15, 2018 and continue until suitable candidates are identified. The position will start Fall 2018 and will be filled at the Assistant APL level (6 year renewable terms via 9-month appointments). The University of Wyoming invites diverse applicants to consider our employment opportunities. We are also especially interested in candidates who have experience working with diverse populations and/or diverse initiatives. *Minimum Qualifications:* Ph.D. or equivalent in chemistry

*Desired Qualifications:* a strong background in practical organic laboratory operations, teaching experience at the undergraduate level and a strong understanding of mechanistic organic chemistry.

*Required Materials:* Complete the online application using the below link and upload as one document: a CV listing relevant organic laboratory experience, graduate level organic coursework, any teaching experience and include a statement of teaching philosophy.

[https://jobs.uwyo.edu/psp/EREC/UWEXTERNAL/HRMS/c/HRS\\_HRAM.HRS\\_CE.GBL?Page=HRS\\_CE\\_JOB\\_DTL&Action=A&SiteId=6&JobOpeningId=9143&PostingSeq=1](https://jobs.uwyo.edu/psp/EREC/UWEXTERNAL/HRMS/c/HRS_HRAM.HRS_CE.GBL?Page=HRS_CE_JOB_DTL&Action=A&SiteId=6&JobOpeningId=9143&PostingSeq=1)

Additionally, applicants should also arrange for three letters of recommendation to be submitted on their behalf to [chemistry@uwyo.edu](mailto:chemistry@uwyo.edu).

**Duke's Chemistry Department** is accepting applications for the Director of the Department's Shared Instrument Facility. The Director is responsible for the overall operation of the Facility, which includes but is not limited to instrument monitoring and maintenance, oversight of sample analyses, user training, administration for the Facility, and working with faculty to maximize the Facility's impact on the Department's research output. The facility houses instrumentation for mass spectrometry and a variety of spectroscopies. The Director will work with the Chemistry Department's Infrastructure Committee to define and implement the strategic goals of the Facility and to plan, direct, manage and lead the execution of scientific and research strategies, collaborations and operations of the Facility. A PhD degree is

required as is experience with LC-MS/MS. Interested individuals should submit a CV and two letters of recommendation to <https://academicjobsonline.org/ajo/jobs/10037>.

**Honeywell UOP, headquartered in Des Plaines, Illinois, USA**, is a leading international supplier and licensor of process technology, catalysts, adsorbents, process plants, and consulting services to the petroleum refining, petrochemical, and gas processing industries.

An excellent career opportunity is available for a Sr. Engineer/Scientist within the Catalysis and Materials Research department of UOP's Research and Development organization located in Des Plaines, IL. This position represents a unique and visible opportunity to participate in the development of improved catalysts and adsorbents across a variety of UOP technology fields.

Responsibilities:

Maintain an active project portfolio of 2-4 research projects in the areas of catalyst and adsorbent research and development. Supervise laboratory technicians on carrying out required experimental plans. Ensure alignment of goals of research projects with business objectives. Interface with other UOP departments including Pilot Plants, Analytical and Advanced Characterization to ensure robust catalyst development programs. Stay current on patent and open literature as they relate to research programs. Participate in all departmental safety activities and conduct all work with a high degree of attention to safety.

Ph.D. candidates and postdocs in Chemistry and Chemical Engineering are encouraged to apply.

Interested candidates should email resumes to [Qianjun.Chen@Honeywell.com](mailto:Qianjun.Chen@Honeywell.com)

**The University of Nevada, Reno** is searching for a continuing full-time non-tenure-track Chemistry Lecturer. Duties include lecturing at the introductory and intermediate levels including physical chemistry, general chemistry, and analytical chemistry; overseeing the physical chemistry and instrumental analysis instructional laboratory programs and coordinating with departmental lecture courses; curriculum development and implementation; and undergraduate advising.

The successful applicant for this position will be encouraged to develop new laboratory experiments, with possibilities for incorporating modern physical chemistry laboratory experiments and computational chemistry. Applications for internal instructional enhancement funding and contributions to proposals for external instructional funding will also be encouraged.

This position requires training, evaluating and organizing the activities of graduate level teaching assistants; working effectively with chemistry stockroom staff; coordinating activities with other faculty; and working effectively with the department's Director of Laboratories/Safety Officer.

This is a 9-month full-time continuing position, with the potential for further summer opportunities including teaching, research, student advising, curricular development, and/or laboratory management.

The University of Nevada, Reno has a growing and increasingly diverse student population of approximately 21,000, including over 2,800 graduate students. The city of Reno offers an excellent quality of life, with entertainment and cultural opportunities in excess of most cities of similar size. The city lies one hour from Lake Tahoe and four hours east of San Francisco in the valley of the Truckee River on the eastern slope of the Sierra Nevada, and has a mild high desert climate. A highly rated location for living and outdoor recreation, the Reno area also enjoys a flourishing and diverse intellectual, artistic, and cultural community.

The University of Nevada, Reno recognizes that diversity promotes excellence in education and research. We are an inclusive and engaged community and recognize the added value that students, faculty, and staff from different backgrounds bring to the educational experience.

## Required Qualifications

Doctoral degree in Chemistry or closely related field and teaching experience.

## Preferred Qualifications

Evidence of ability in and strong commitment to the following areas: teaching effectively at the introductory and intermediate levels of physical, analytical and general chemistry; developing and implementing new lecture and laboratory curricula; management of an instructional laboratory program.  
Contact Information for this Position

Sharee Williams (775) 682-8795 [shareew@unr.edu](mailto:shareew@unr.edu) <https://www.unrsearch.com/postings/25901>

**The Department of Chemistry at Case Western Reserve University(CWRU)** invites applications for a tenure track Assistant Professor faculty position in the research area of RNA chemistry. Preference will be given to candidates with demonstrated expertise in applying chemical methods to study RNA structure-function, protein-RNA complexes, or RNA-targeted small molecule synthesis. The successful candidate will be expected to develop an internationally visible research program supported by external funding and will contribute to teaching within the areas of organic chemistry. Normal teaching load for faculty with active research programs is one course per semester plus ancillary duties. A Ph.D., research publications, and postdoctoral (or comparable industrial) experience are required. This position is related to recent Departmental and University strategic initiatives, and builds upon the strong history of RNA science at CWRU. The new hire will thus complement current expertise in RNA science, and be expected to establish collaborations with scientists at centers such as the Center for RNA Science & Therapeutics, the Center for AIDS Research, and the Case Comprehensive Cancer Center.

To be considered, a letter of application, CV, and a summary of research plans should be sent by email c/o Suzi Mason ([sxm763@case.edu](mailto:sxm763@case.edu)) before November 10, 2017. In addition, three letters of recommendation should be independently emailed directly to Suzi Mason by this date.

In employment, as in education, Case Western Reserve University is committed to Equal Opportunity and Diversity. Women, veterans, and members of underrepresented minority groups and individuals with disabilities are encouraged to apply. Case Western Reserve provides reasonable accommodations to applicants with disabilities. Applicants requiring reasonable accommodation for any part of the application and hiring process should contact the Office of Inclusion, Diversity and Equal Opportunity at 216-368-8877 to request a reasonable accommodation. Determinations as to granting reasonable accommodations for any applicant will be made on a case-by-case basis.

**The College of Science at Virginia Tech and the Academy of Integrated Science, through its Integrated Science Curriculum (<https://www.ais.science.vt.edu/programs/isc.html>)**, are placing a strong emphasis on integrated and interdisciplinary teaching. As part of this initiative, Virginia Tech has a non-tenure track faculty position for the Leader of the Integrated Science Curriculum in the Academy of Integrated Science to start in Fall 2018. The appointment will be at the rank of Collegiate Assistant Professor with an initial 3-year appointment and the possibility of multi-year renewal upon successful review.

The Integrated Science Curriculum is a two-year program that prepares students from the College of Science for their respective majors through a curriculum built around student teams working on problem-oriented exercises while mastering interdisciplinary concepts. Biology, chemistry, mathematics, and physics are intertwined, in lectures and in labs, to achieve a dynamic understanding of a wide range of fundamental principles within the modern scientific method.

We seek candidates who are passionate about interdisciplinary teaching of undergraduate students in an inclusive and integrated environment. Responsibilities include teaching undergraduate courses and laboratories related to the Integrated Science Curriculum, where successful candidates will:

- Make significant contributions to our interdisciplinary undergraduate instruction; coordinate laboratory and lecture courses, work closely with our undergraduate students, and lead efforts in curriculum enhancements and innovative pedagogy;
- Continue to develop professional capabilities and participate in scholarly activities, including travel to and participation in professional conferences and societies; and participate in department, college, and university service and governance, as well as professional service.

Applicants must have a Ph.D. in biochemistry, biology, chemistry, physics or a closely related field. Successful candidates will be expected to teach effectively at the undergraduate level and work closely with the existing interdisciplinary programs in the Academy of Integrated Science. Applications must be submitted online at <https://listings.jobs.vt.edu/postings/80232> (posting number TR0170134) and should include a cover letter, curriculum vitae, a statement of teaching philosophy that describes an integrated vision for interdisciplinary science education, a description of previous activities mentoring minorities, women, or members of other underrepresented groups as well as how the applicant will further Virginia Tech's commitment to build a culturally diverse educational environment, and contact information for three references. The review of applications will begin on January 15, 2018 and continue until the position is filled. As part of the hiring process, the successful applicant must pass a criminal background check. Questions regarding the position can be directed by Email to Prof. Michel Pleimling, Integrated Science Curriculum Faculty Search Committee Chair, at [pleim@vt.edu](mailto:pleim@vt.edu).

Virginia Tech is an EO/AA university, and offers a wide range of networking and development opportunities to women and minorities in science and engineering, and additionally provides a competitive dual hiring program for couples. Individuals with disabilities desiring accommodation in the application process should notify Dr. Nora Dragovic in the Academy of Integrated Science (Email: [nora84@vt.edu](mailto:nora84@vt.edu), Tel: 540- 231-8131).

**Bridgestone Americas Center for Research and Technology located in Akron, Ohio** is currently seeking applications for Synthesis Chemist positions for the Synthesis Group at the Bridgestone Center for Research and Technology.

Qualified candidates should have a Ph.D. in Organic, Inorganic or Polymer Chemistry, with a strong fundamental understanding of Organic and Inorganic Chemistry as well as excellent bench synthesis skills with an interest and demonstrated ability to perform hands-on synthesis, purification, and characterization experiments. Some knowledge of and experience with polymers is preferred but not required. We are seeking candidates with 0-7 years of post-doctoral industrial experience. Scientists will work in a multidisciplinary environment collaborating with a team of scientists and engineers to develop, optimize and scale up the production of new polymers and other materials for tire as well as non-tire applications.

The ideal candidate should be a creative individual with much initiative, a strong academic record, and have good problem-solving abilities. Solid verbal/written communication and interpersonal skills are also needed. The ability to interact effectively with other researchers locally as well as associates in other parts of the Corporation in the US and abroad is critical to success in this position.

Applicants must be authorized to work in the United States. A pre-employment drug test is required. Interested parties are invited to apply by visiting this website:

[https://bebridgestone.com/en\\_us/job-details?id=2017-118051](https://bebridgestone.com/en_us/job-details?id=2017-118051)

Bridgestone Americas, Inc. is an Equal Employment Opportunity (EEO) employer.