

2018 WEEKLY BULLETIN
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS
September 17, 2018

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

Friday September 21st: *Department of Chemistry Colloquium:*
 Brett P. Fors, Cornell University
 Tech L211
 4:00-5:00pm

Arrivals

Li-Li Gao joined the Kanatzidis Group

BIP

BIP will be returning soon. Stay tuned for details.

Opportunities

The University of Minnesota Department of Chemistry seeks to fill one tenure-track or tenured faculty position beginning, July 1, 2019, or later. Applications will be accepted from candidates whose research interests are in any area of modern chemistry. Appointments will be made at a rank commensurate with the appointee's experience. Appointees will be expected to carry out vigorous programs of original research, to advise research students, to teach a broad range of undergraduate and graduate courses in the Department of Chemistry, and to participate in Departmental and University governance. Selection will be based on each candidate's record of previous accomplishments relevant to these responsibilities and potential for outstanding future contributions. Appointees must have completed all requirements for the Ph.D. or equivalent foreign degree by the date of appointment. Evaluation of applications will begin, October 1, 2018, and will continue until the positions are filled.

Candidates should apply electronically to <https://z.umn.edu/tenuretrack2018> (tenure-track) or <https://z.umn.edu/tenured2018> (tenured) and include the following:

- a cover letter,
- a curriculum vitae,
- a statement of overall research interests,
- a statement addressing anticipated contributions to the research and teaching missions of the department,
- a statement addressing the candidate's experiences and commitment to diversity,
- and a copy of their graduate transcript.

Candidates should also arrange to have three letters of recommendation sent as attachments to emails to chemfs@umn.edu or as hard copies to:

Faculty Search Committee, Department of Chemistry
University of Minnesota
207 Pleasant St. SE
Minneapolis, MN, 55455-0431

The University of Illinois at Urbana-Champaign Department of Chemistry invites applications for open rank full-time tenure-track positions in all areas of chemistry. Candidates will be expected to establish a high-quality, externally funded research program and have a commitment to outstanding graduate and undergraduate teaching. Salary is negotiable. Target start date is August 16, 2019. A Ph. D. in Chemistry or a related field is required. Applicants are expected to show clear evidence of excellence in research and teaching.

To apply, create your candidate profile through <https://go.illinois.edu/Chemistry> and submit application materials by October 24, 2018. Applicants must submit the following: **separate PDF files** of your cover letter, curriculum vitae, statement of proposed research and scholarship, and a brief statement of teaching interests and philosophy. **Do not add files to the drop down labeled “All Req Materials (One File) for AP & Faculty jobs”**. The online application will require names and contact information for three professional references. Referees will be contacted electronically by the Department within 2 business days after submission of the application. Only applications submitted through the University of Illinois Job Board will be considered. You will be required to list the following:

Teaching/Research Areas of Interest:

- 1. Primary Area of Interest (required)**
- 2. Secondary Area of Interest (required)**
- 3. Other Area of Interest**

Please choose from the following area(s) of interest: analytical, chemical biology, inorganic, materials, organic, physical, and theoretical.

Please contact Chemistry Faculty Search Coordinator, chemistry@illinois.edu, or 217-244-0565 if you have questions. In order to ensure full consideration, application materials (**in PDF format only**) must be received by October 24, 2018. Applicants may be interviewed before the closing date; however, no hiring decision will be made until after that date.

Dartmouth College Department of Chemistry seeks an individual with a Ph.D. in chemistry who has already established a nationally recognized research program in synthetic organic chemistry, whose research interests will complement those of the current faculty, and who will excel at teaching in our Undergraduate and Ph.D. curricula. We particularly seek candidates who will help lead collaborative research projects both within the Department and involving other Dartmouth researchers, including those at Dartmouth's Geisel School of Medicine, Norris Cotton Cancer Center, and Thayer School of Engineering, and who have a demonstrated ability to contribute to Dartmouth's undergraduate diversity initiatives in STEM research, such as the Women in Science Program, E. E. Just STEM Scholars Program, and Academic Summer Undergraduate Research Experience (ASURE). We are especially interested in applicants with an interest in successful teaching and mentoring of students from all backgrounds (including first-generation college students, low-income students, racial and ethnic minorities, women, LGBTQ, etc.). Candidates will be expected to teach introductory and advanced courses in organic chemistry, as well as graduate courses in their area of research.

Application Instructions

Applicants should submit a curriculum vitae, a description of their research accomplishments and future plans, a summary of their current research funding, a statement of their teaching and mentoring interests, which may include a discussion of past accomplishments and future goals regarding the training of underrepresented groups in the sciences and contributing to the growth and support of a diverse community of students and scholars at Dartmouth, and the names of at least three references. All inquiries and applications will be treated confidentially. Applicants are invited to submit application materials via Interfolio. The Committee will begin to consider completed applications on October 15, 2018, and will continue until the position is filled. Dartmouth is an equal opportunity/affirmative action employer with a strong commitment to diversity and inclusion. In that spirit, we are particularly interested in receiving applications from a broad spectrum of individuals, including women, persons of

color, persons from a diverse socio-economic background, persons with disabilities, veterans or any other legally protected group.

Application Process

This institution is using Interfolio's Faculty Search to conduct this search. Applicants to this position receive a free Dossier account and can send all application materials, including confidential letters of recommendation, free of charge. Apply: <https://account.interfolio.com/login?apply=53325>

The Department of Chemistry and Biochemistry at Southwestern University seeks applicants for a tenure-track Assistant Professor of Chemistry beginning in August 2019.

The successful candidate must be committed to excellence in undergraduate teaching and is expected to develop a productive undergraduate research program.

Southwestern University is a selective liberal arts institution in Georgetown, Texas with an innovative American Chemical Society (ACS) certified curriculum and new state-of-the-art facilities for scientific teaching and research.

Review of applications begins on September 24, 2018 Closing Date: when filled

A PhD in chemistry or related field is required by August 2019.

Teaching responsibilities include general chemistry, upper-level physical chemistry, chemistry for non-majors, and courses within the university's general education program such as First Year Seminar. In particular, the candidate must have demonstrated competency to teach within core physical chemistry areas such as thermodynamics, kinetics, and quantum mechanics. The candidate should have a strong commitment to working with diverse student populations in the classroom and laboratory.

Additionally, the successful candidate will develop a research program that significantly incorporates undergraduate students. Research programs in which experimental physical or analytical chemistry is a central component are strongly preferred. Other responsibilities of the position include advising students and university service.

TO APPLY VISIT: <https://apply.interfolio.com/51858>

The University of Iowa Chemistry Department is accepting applications for tenure-track positions in organic chemistry (broadly defined), physical chemistry (broadly defined), and radiochemistry, all with expected starting dates in August, 2019. The radiochemistry position is at the assistant professor level, but applicants at both the assistant and associate professor level are welcomed for the organic and physical chemistry positions. We are also seeking applications for at least two instructional track positions.

Links to each position description and the procedure for submitting applications are as follows:

Physical Chemistry search: <https://jobs.uiowa.edu/faculty/view/73244>

Organic Chemistry search: <https://jobs.uiowa.edu/faculty/view/73192>

Radiochemistry search: <https://jobs.uiowa.edu/faculty/view/73167>

Instructional Track search: <https://jobs.uiowa.edu/faculty/view/73345>

The Department of Chemistry at Indiana University invites applications for an administrative assistant chair position. A Ph.D. in chemistry, biochemistry, or a related field is required. Five years management-level experience in a large multifaceted organization or scientific/research-oriented enterprise is preferred.

For candidates with extensive experience in managing complex academic science departments, M.S. or M.E. degrees will also be considered. Responsibilities will include technical/scientific facilities oversight, advising the technical/scientific components of the annual budgets in consultation with the head of business and the chair, oversight of the academic office, and overseeing the department's general day-to-day operations. Applications completed by Oct. 1, 2018 will receive full consideration, but review of applications will continue until the position is filled. Interested candidates should submit a complete

curriculum vitae, and arrange to have three letters of recommendation be sent to:
<http://indiana.peopleadmin.com/postings/6399>

Questions regarding the position or application process can be directed to: Professor Lane Baker, Chair, Administrative Assistant Chair Search Committee, Department of Chemistry, Indiana University, 800 E. Kirkwood Ave., Bloomington, IN 47405, chemchr@indiana.edu. The Department of Chemistry and College of Arts and Sciences are committed to building and supporting a diverse, inclusive, and equitable community of students and scholars. Indiana University is an equal employment and affirmative action employer and a provider of ADA services. All qualified applicants will receive consideration for employment without regard to age, ethnicity, color, race, religion, sex, sexual orientation or identity, national origin, disability status, or protected veteran status.

For best consideration submit application before October 1, 2018

The Department of Chemistry at the Colorado School of Mines has an opening for a tenured/tenure-track faculty member at the Assistant/Associate/Full Professor level (any discipline). Information on the position can be found [here](#).

The Chemistry faculty tend to work collaboratively and successful candidates are expected to interact with multiple researchers in the department and across the Mines campus. The Chemistry department has strengths in multiple areas including materials, environmental chemistry, biochemistry, and nuclear chemistry. The department faculty collaborate extensively with the National Renewable Energy Laboratory, located minutes from Mines, as well as several other regional federal laboratories involved in energy research and development. Centers, such as Mines Polymers and Complex Fluids (MPAC) and Nuclear Science & Engineering (NUSEC), and interdisciplinary programs, such as Materials Science, Geochemistry, Quantitative Bioscience and Engineering and Nuclear Science & Engineering, facilitate cross disciplinary interactions. For more information about the Chemistry Department please visit <http://chemistry.mines.edu>

Applicants will be asked to complete an online application (personal information, demographic information, names and contact information for three professional references from whom letters may be subsequently requested, veterans status) and upload the following: 1) a cover letter stating area of interest; 2) curriculum vitae; 3) statement of research; 4) statement of teaching philosophy; 5) a 1-page statement on contributions to diversity and inclusion, describing your past experiences and proposed activities to advance access, inclusion and diversity at Mines. Incomplete applications will not be accepted. Early responses are encouraged but applications will be accepted until the position is filled. Review of applications will begin on September 24.

Inquiries regarding this position should be directed to the search co-chairs Jenifer Shafer (jshafer@mines.edu) and Brian Trewyn (btrewyn@mines.edu).

The Lilly Technology Center in Indianapolis is accepting applications for Research Scientist-Process Chemistry <http://bit.ly/43770LLY>).

Responsibilities

Small Molecule Design and Development (SMDD) is an innovation-focused organization in Lilly striving to identify, develop and apply the most cutting-edge technologies to deliver maximum benefit to our patients. Within SMDD, the process chemistry group is essential to establishing a robust and sustainable supply chain for small molecule active pharmaceutical ingredients (API), which are being developed for clinical evaluation and potential commercialization. The process chemistry capability is necessary to identify the challenges within a given small molecule route and identify innovative solutions to address the key risk points (i.e., yield, impurity based, hazardous unit operations, etc.).

Our team is looking for a creative and energetic synthetic organic chemist to participate in the route design, development, and manufacture of small molecule drug candidates to support active clinical trials and product commercialization efforts. Our dynamic group is made up of chemists, pharmaceutical scientists, analytical chemists, and engineers. Top candidates for this position will be expected to:

- Possess fluent knowledge in modern synthetic organic chemistry methods with the drive to challenge existing methods; create and apply cutting edge technology to the synthesis of active pharmaceutical ingredients in a time constrained environment.
- Demonstrate high learning agility with regard to grasping and exploiting new scientific concepts and methods across multiple disciplines such as continuous processing, automated reaction screening, and digital design; be able to apply these learnings to a portfolio of small molecule and peptide assets.
- Demonstrate the ability to define clear goals, critical success factors and timelines; make decisions and solve problems at the individual and team level.
- Demonstrate teamwork and consistently build collaborative and productive cross-functional relationships.
- Collaborate with external manufacturing partners to develop robust chemical process that are readily amenable to efficient drug substance manufacturing.
- Collaborate closely with Discovery Chemistry to provide SAR and candidate selection guidance to the discovery core team.
- Embrace diverse thought, background and experience to deliver innovative solutions.
- Possess strong communication (oral, written), organizational, and leadership skills; demonstrate the ability to understand and communicate scientific issues and strategy at the project/ program level

Basic Qualifications

- PhD in synthetic organic chemistry

Additional Information

- Potential exposure to chemicals, allergens and loud noises.
- Lilly is an EEO/Affirmative Action Employer and does not discriminate on the basis of race, gender, protected veteran status, disability or any other legally protected status
- Travel: 0 to 10%
- Position Local: Indianapolis, IN; Lilly Technology Center-North (LTC-N)

Additional Skills/Preferences

- Strong technical skills to supply business value.
- Knowledge and experience with management of a technical project.
- Demonstrated leadership capabilities especially in a team environment.
- Good interpersonal skills and a sustained tendency for collaboration.
- Ability to prioritize multiple activities and manage ambiguity.
- Ability to influence others to promote a positive work environment.
- Demonstrated initiative and risk-taking.
- Demonstrated technical proficiency and ability to create ideas for future work plans.
- Demonstrated success in persuasion, influence and negotiation.

The Chemistry Division of Brookhaven National Laboratory (<http://www.bnl.gov/chemistry>)

performs research in the area of catalysis for production of solar fuels using transition-metal-containing molecular complexes in solution and at interfaces of electrodes or semiconductors.

Position Description

The successful candidate will conduct basic research toward the development of such catalysts through focusing on: design, synthesis and characterization of metal complex catalysts/photosensitizers;

characterization of excited-state photophysics and their coupling to electron transfer and/or catalytic processes for solar fuels production; immobilization of catalysts on electrodes or semiconductors; studies of catalytic activity evaluation and mechanistic understanding of catalytic performance including transient spectroscopy and electrochemistry.

The successful candidate will collaborate with a team of scientists including theoretical chemists owing to the interdisciplinary nature of our work, and will be supervised by Etsuko Fujita.

Position Requirements

- Ph. D. in chemistry or a related field, and a strong background in synthesis/characterization of transition-metal molecular complexes, physical chemistry and photochemistry.
- Expertise in one or more of the following areas is desirable: synthesis and handling air-sensitive compounds, electrochemistry, time-resolved spectroscopy, stopped flow, radiolysis, mechanistic and kinetic studies in solution and at interfaces.

BNL policy requires that research associate appointments be made to individuals who have received their doctorate within the past 5 years.

<https://jobs.bnl.gov/job/upton/postdoctoral-res-assoc/3437/8823419>

Chemical Biology Program at the Memorial Sloan Kettering Cancer Center (MSK) is accepting applications for a tenure-track position. We seek candidates with strong research accomplishments in organic chemistry or chemical biology and interests in bringing chemical approaches to bear upon problems at the interface with biomedical research, including basic and translational research and across all disease areas.

MSK has a rich history in chemical research spanning over 70 years, and we are continuing our recent expansion in this area. We provide a unique and collaborative scientific environment, exceptional research facilities and resources, and generous startup packages. Faculty are eligible to hold appointments in and to recruit students from multiple outstanding graduate programs, including the Tri-Institutional PhD Program in Chemical Biology, Tri-Institutional MD-PhD Program, Gerstner Sloan Kettering Graduate School of Biomedical Sciences, and Weill Cornell Graduate School of Medical Sciences.

The application deadline is October 15, 2018. Interested candidates should visit <https://facultysearch.ski.edu> to access the online application and to obtain important information on required application materials and deadlines. Applicants must have a PhD degree in chemistry, biochemistry, chemical biology, or a closely related discipline, and a strong track record of scientific achievement. Inquiries may be sent to Jocette Marquez, Program Coordinator at marquezj@mskcc.org or to Prof. Derek Tan, Chairman, Chemical Biology Program at tand@mskcc.org. Women and minority candidates are encouraged to apply. A copy of the search advertisement is below.

The Surface Chemistry and Catalysis Group in the Chemical Sciences Division at Oak Ridge National Laboratory (ORNL) is seeking a catalytic chemist with a strong background in reaction kinetics and mechanism to perform research on heterogeneous catalysis involving complex reactions of oxygenates and alkanes over oxides such as perovskites, and supported metal catalysts. The primary focus will be on the use of quantitative kinetic methods and in situ/operando techniques including X-ray photoelectron spectroscopy (XPS), X-ray absorption spectroscopy (XAS), optical spectroscopy and neutron scattering to interrogate the structure – function relationships in reactions over ternary oxides and supported metal catalysts. The incumbent will work in close collaboration with other researchers in both experiments and computations involved in this fundamental research project. [Research Staff Member-Catalytic Chemist](#)

OVERVIEW

The Surface Chemistry and Catalysis Group conducts research into chemical transformations relevant to the conversion of energy resources, such as oxygenates and alkanes, over oxides and metals supported on oxides with a focus on understanding the reaction mechanisms and kinetics to enable the identification and control of the catalytic active site and optimization of the selectivity and conversion. Primary research interests are focused on understanding and controlling the fundamental synergism among various catalytic sites on oxide and supported metal surfaces that control the reaction pathways and selectivity in dehydration, dehydrogenation, coupling and oxidation reactions. Approaches include experimental and computational studies of reaction mechanism and kinetics, spectroscopic identification of surface reactants under in situ and operando conditions, and surface science approaches to synthesis of model catalysts and study the surface chemistry to understanding structure-function relationships in catalysis. An array of techniques for characterizing the physical and catalytic properties are in place or are currently being developed within the group. This research program also takes advantage of resources at ORNL including the Center for Nanophase Materials Sciences and the Spallation Neutron Source, for neutron scattering, as well as other national user facilities such as synchrotron light sources. The environment at ORNL is highly collaborative and crosscutting research exists between the Chemical Sciences Division and other Divisions at ORNL.

Major Duties/Responsibilities

- Perform reaction kinetics and mechanistic studies over oxides and supported metal catalysts using micro-reactor systems.
- Perform and develop in situ/operando studies of reaction mechanisms by a variety methods, including steady-state isotopic transient kinetic analysis (SSITKA) combined with optical spectroscopy (IR and Raman), synchrotron-based X-ray and neutron scattering techniques.
- Collaborate with ORNL postdocs and staff who are involved in the synthesis, characterization and catalytic testing of catalysts and train new postdocs and student in catalytic chemistry.
- Independently formulate research strategies and collaborate with experimentalists and computational chemists to guide the design of new catalytic materials with superior properties.
- Participate in the development of new research directions and proposals for funding.
- Present and report research results at scientific meetings and to sponsors.
- Publish scientific results in high impact peer-reviewed journals in a timely manner.
- Ensure compliance with environment, safety, health, and quality program requirements.
- Maintain strong commitment to the implementation and perpetuation of values and ethics.

Qualifications Required

Basic Qualifications:

- A PhD in Chemistry, Chemical Engineering or a closely related science discipline, with at least two years of catalysis research experience.

Preferred Qualifications:

- A strong background in the study of heterogeneous catalysis and catalytic reactions.
- Strong expertise in studying kinetics and mechanisms of heterogeneous catalytic reactions.
- Experience in synchrotron-based X-ray and electron spectroscopy including XPS and XAS (EXAFS and XANES) and neutron scattering to study heterogeneous catalysts and catalytic reactions.
- Experience in studying reaction mechanisms with multimodal in situ/operando approaches.
- Experience in synthesis and characterization of oxide and supported metal catalysts by a variety of techniques including scattering and spectroscopy approaches.
- An excellent track record of productive and creative research demonstrated by publications in peer-reviewed journals.
- Must be a self-starter and be able to set priorities, work independently and participate creatively in a collaborative team effort.
- Experience in leading and contributing to the preparation of highly innovative proposals in basic and

- applied catalysis.
- Excellent written, oral, and interpersonal skills, as well as the ability to communicate in English to an international scientific audience.
 - Motivated and safety conscious.

OTHER INFORMATION:

Please provide a list of publications when applying for this position. Three letters of reference are required and can be uploaded to your profile or emailed directly to PSDrecruit@ornl.gov. Please include the title of the position in the subject line.

This position will remain open for a minimum of 5 days after which it will close when a qualified candidate is identified and/or hired.

The Department of Chemistry, Yale University, New Haven, CT invites applications for a tenure-track position at the ASSISTANT PROFESSOR level to commence 1 July 2019. We seek creative teacher-scholars to develop outstanding experimental or theoretical research programs in biophysical chemistry, broadly defined. We are especially interested in applicants whose research focuses on chemical aspects of biomolecular structure, function, organization, engineering, and/or dynamics. Applicants should send their curriculum vitae, a statement of research plans, and arrange for the submission of three letters of recommendation. Please submit all materials through Interfolio at <http://apply.interfolio.com/53419>. A review of applications will begin October 1, 2018.

Abbvie is accepting applications for a Postdoctoral Fellow: Application of Novel Synthetic Methodologies for Fragment Based Drug Discovery

The Postdoctoral Program is designed for true investigational and experimental research. Participants will be mentored by renowned industry scientists and collaborators at AbbVie and focused on delivering cutting-edge advancements in Discovery, Development Sciences and BioPharma. The enriching training program offers a balance of structured learning and work experience which fosters a learning environment to advance individual development with accessibility to high-level knowledge building across the drug development continuum

Technical expert that will investigate, identify, develop and optimize new methods/ techniques to address critical project needs. Continuously seek to improve existing laboratory methods and processes. Read and adapt literature to accomplish assignments. Demonstrate mastery of broad range of experimental techniques and methods of data analysis.

To be successful, we need outstanding individuals willing to challenge themselves to find the best solutions for our patients. The AbbVie Postdoc program is one way we are doing just that.

Through our Postdoc program, we are hiring postdocs from key academic institutions for preferred areas of science in the U.S., while providing a unique opportunity for participants to build a solid career foundation in the pharmaceutical industry while building the AbbVie brand as an employer of choice for scientific talent. The program offers a balance of structured learning and work experience, with accessibility to high-level knowledge building across the drug development continuum.

Background:

The preparation of novel fragments for the purpose of Fragment-Based Drug Discovery (FBDD) has become increasingly important at AbbVie and in the pharmaceutical industry at large. Fragment based drug discovery is a front line screening and optimization paradigm that is employed at AbbVie to generate high quality lead chemical matter. Among the many challenges associated with fragment design is the ability to adequately follow up with chemistry that enables rapid optimization of a given fragment hit.

New synthetic methodologies discovered at AbbVie in the context of projects and through academic collaborations provide particularly compelling opportunities to enhance our fragment collection via close mentorship from the FBDD group.

This postdoctoral appointment will combine elements of both modern organic synthesis methodology coupled with modern state of the art property based fragment (and drug) design. Overall, the program will offer a broad range of research experiences for the postdoctoral scientist and opportunities to publish in high impact journals. The expansion of this chemistry will be under the supervision and mentorship of FCG and FBDD scientists. The compounds prepared will serve as novel fragments, enhancing AbbVie's compound collection. Finally, the postdoctoral researcher will benefit from carrying out cutting-edge organic synthesis research in a collaborative, innovation-rich environment.

For more information and to apply please visit this [LINK](#)

The Department of Chemistry & Biochemistry at Washington and Lee University invites applications for a tenure-track Assistant or Associate Professor of organic chemistry. Candidates with expertise in polymer/materials chemistry, bioorganic chemistry, medicinal chemistry, organometallic chemistry or other relevant fields who can teach organic chemistry will also be considered. A Ph.D. is required; postdoctoral experience is strongly recommended.

Diversity is a core value of the Department of Chemistry & Biochemistry. We believe that the educational environment is enhanced when people with diverse backgrounds and ideas come together to learn.

Women and underrepresented groups are encouraged to apply.

The successful candidate will be responsible for teaching a 5.5 course load, which includes: teaching a two-semester organic chemistry sequence and the accompanying labs, and creating one advanced or non-majors course. An active research program involving undergraduates is expected; startup funds competitive with top liberal arts colleges will be provided.

The applicant should submit the following: a curriculum vitae, graduate and undergraduate transcripts, a three-page statement of research plans at an undergraduate liberal arts institution, a two-page statement of teaching philosophy, and the contact information for the writers of three letters of recommendation. To submit applications online, visit: <https://apply.interfolio.com/52937>. Review of applications begins immediately and will close on September 28, 2018.

If you have questions about the position, please contact Erich Uffelman, Chair of the Search Committee, Department of Chemistry and Biochemistry, uffelmane@wlu.edu.

Washington and Lee University is a highly selective, independent, co-educational, liberal arts college of 1800 students located in Lexington, VA, three hours southwest of Washington, DC. W&L is consistently ranked among the top 12 national liberal arts colleges. The Department has ACS-certified programs in both chemistry and biochemistry.