

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

April 24, 2017

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

Tuesday April 25th: *Faculty Lunch Seminar: Neil Kelleher*
Tech K140
12:00 – 1:00pm

Friday April 28th: *Chemistry Department Colloquium:*
Stacey F. Bent, Stanford University
Tech LR3
4:00-5:00pm

BIP

BIP meets every Friday 10-11:00am in Tech K140

Arrivals

We did not have any new arrivals

Announcements

10th Annual ANSER Solar Energy Symposium April 27-28, 2017: The Argonne-Northwestern Solar Energy Research Center (ANSER) and the Institute for Sustainability and Energy at Northwestern (ISEN) are delighted to host the 10th annual ANSER Solar Energy Symposium – “Solar Electricity.” As our understanding of the impact of climate change continues to grow, so too does the global trend towards a clean-energy economy. The last two years have seen organic photovoltaics reach efficiencies of 11.5 percent, quantum dot solar cells reach efficiencies of 11.3 percent and perovskite solar cells continue their meteoric rise to efficiencies of 22.1 percent, paving the way for continually decreasing photovoltaic costs. This encouraging march toward a cleaner power sector cannot be ignored, and is built on the foundation of innovative research being carried out at collaborative scientific hubs such as the ANSER Center. The thematic focus of this year’s Symposium is “Solar Electricity,” and we are honored to host a star-studded lineup of speakers. These photovoltaic leaders will present life-cycle analyses, report the current state-of-the-art, outline challenges ahead, and propose new ideas to pursue in this rapidly growing field of solar photovoltaic research. Please register at <http://isen.nu/anser17>.

Opportunities

The University of Chicago has an opening for a Teaching Support Specialist: Supports instruction in teaching chemistry laboratories or classrooms by providing miscellaneous services such as: Preparation and testing of lecture demonstrations consistent with course content. Working with faculty or staff to determine the suitability of demonstrations for specific lectures. Informing faculty of new demonstration developments and materials. Instructing faculty in the proper usage of technical scientific apparatus. Promoting safety in handling hazardous equipment and materials. Researching and developing new lecture demonstrations and making improvements on existing demonstrations. Recommending purchases

of computers, software, and technical apparatus and supplies. Providing general audio/visual support. Maintaining and documenting the use of demonstration equipment or materials and identifying building maintenance problems.

Bachelor's degree in chemistry or a relevant field required.

Advanced degree in a relevant field preferred.

A minimum of one year relevant experience preferred.

Lecture and/or demonstration related experience preferred.

Supervisory skills preferred.

Budget management skills preferred.

Ability to train others preferred.

Knowledge of research techniques or methods required.

Ability to develop demonstrations required.

Ability to design and construct relevant instructional equipment required.

Knowledge of basic laboratory procedures and safety requirements required.

Analytical skills required.

Problem-solving skills required.

Attention to detail required.

Organizational skills required.

Verbal and written communication skills required.

Interpersonal skills required.

Ability to work independently and as part of a team required.

Ability to work on multiple projects simultaneously, set priorities, and meet deadlines required.

Knowledge of computers and relevant software required.

<http://www.uchicago.edu/>

Scroll down and click Job Opportunities

Go to University Job Opportunities

Search postings by requisition number 102370

Swiss Federal Institute of Technology Zurich, Postdoctoral Position, Nanoscale Spectroscopy

We seek to fill a postdoctoral position in our research group funded by an ERC Advanced grant. The topic of the research will be on the development and application of tip-enhanced Raman spectroscopy (TERS), with the aim to study sensitive 2-dimensional molecular layers. TERS combines scanning probe microscopy (SPM) with optical spectroscopy, and lends chemical specificity to SPM, which greatly extends its range of applications.

Prerequisites: Ph.D. in Chemistry or related area, very strong background in analytical chemistry, physical chemistry, experience with Raman spectroscopy or scanning probe microscopy. Motivation to work with sophisticated instrumentation, spectroscopy, and computer-assisted data evaluation is important. Further information: see <http://www.zenobi.ethz.ch/> -> Nanoscale Analysis. Earliest possible Starting date: 1.September 2017 or upon mutual agreement.

Applications with CV, publication list, and 2 letters of recommendation directly to Prof. Renato Zenobi (by May 31, 2017 for a starting date of 1.9.2017). Later applications will be accepted until the positions is filled.

Swiss Federal Institute of Technology Zurich, Ph.D. Student Positions, Nanoscale Spectroscopy

We seek to fill several Ph.D. student positions in our research group funded by an ERC Advanced grant. The topic of the Ph.D. theses will be on the development and application of tip-enhanced Raman spectroscopy (TERS), with the aim to study sensitive 2-dimensional molecular layers. TERS combines scanning probe microscopy (SPM) with optical spectroscopy, and lends chemical specificity to SPM, which greatly extends its range of applications.

Prerequisites: M.Sc. degree, Diploma or equivalent in Chemistry or related area, strong background in analytical chemistry, physical chemistry and instrumentation. Motivation to work with sophisticated instrumentation, spectroscopy, and computer-assisted data evaluation is important. Further information: see <http://www.zenobi.ethz.ch/> -> Nanoscale Analysis.

Earliest possible Starting date: 1. September 2017 or upon mutual agreement. Applications with CV, publication list, transcripts & grades received, and 2 letters of recommendation directly to Prof. Renato Zenobi (by May 31, 2017 for a starting date of 1.9.2017). Later applications will be accepted until all open positions are filled.

Swiss Federal Institute of Technology Zurich Senior Scientist Position in Nanoscale Spectroscopy

We seek to fill a senior scientist position in the framework of a project funded by a 5-year ERC Advanced grant. The topic of the research will be on the development and application of tip-enhanced Raman spectroscopy (TERS), with the aim to study sensitive 2-dimensional molecular layers. TERS combines scanning probe microscopy (SPM) with optical spectroscopy, and lends chemical specificity to SPM, which greatly extends its range of applications. This position can develop into a longer term appointment.

Prerequisites: Ph.D. in Chemistry or related area, strong background in analytical chemistry, physical chemistry and instrumentation, experience with Raman spectroscopy or scanning probe microscopy. Motivation for assuming responsibilities related to the whole project and for training of younger scientists (Ph.D., M.Sc., and undergraduate students). Knowledge of German is advantageous, but not required. Further information: see <http://www.zenobi.ethz.ch/> -> Nanoscale Analysis. Earliest possible Starting date: 1. September 2017 or upon mutual agreement.

Applications with CV, publication list, and 2 letters of recommendation directly to Prof. Renato Zenobi (by May 31, 2017 for a starting date of 1.9.2017). Later applications will be accepted until the positions is filled.

University of Wisconsin – Madison Professor Clark Landis is looking for a postdoctoral fellow to join his group in the general area of catalytic alkene polymerization. The position emphasizes (1) developing new micro-rapid quench reactors and (2) applying GPC methods that use quench label technology for rapid kinetic modeling of metal catalyzed alkene polymerization. Most of the work will be applied to detailed analysis of chain-shuttling to produce blocky olefin copolymers. Expertise in the handling and characterization of air-sensitive materials is essential. Although helpful, experience with chemical kinetics analysis and with instrumentation development is helpful but not essential.

The interested applicant should send me their CV, a brief summary of their research, and two letters of recommendation. www.chem.wisc.edu/~landis

Contact: Clark Landis, University of Wisconsin – Madison landis@chem.wisc.edu

The Department of Chemistry and Biochemistry at Washington and Lee University seeks to fill a full-time Visiting Position to teach Organic Chemistry and the associated lab. The position is for one year. The position starts in August 2017 and requires a Ph.D. in Chemistry and relevant teaching experience. Review of applications will begin immediately and continue until the position is filled. W&L 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 an equal opportunity employer. Applicants should send a CV, a letter of application, a one page statement of teaching philosophy, unofficial graduate and undergraduate transcripts, and three letters of reference to: Steve Desjardins, Chemistry@wlu.edu

Illumina is looking for a scientist with experience in Chemistry to contribute to a team within Consumables Development. Experience could be industrial or academic and could include oligonucleotide synthesis/modification, fluorescence, particle/bead modification, surface modification, biomaterials, (bio)conjugation chemistry, and/or the analytical techniques associated with these areas. We are particularly interested in candidates that bring a strong fundamental skill set to the table while having shown success working at the interface of chemistry and biology or chemistry and materials. As a successful candidate you will work in a dynamic, team-oriented environment to create genomic analysis devices that enable leading-edge medical research. You will be a key contributor within integrated and multidisciplinary teams developing new, and improving existing nucleic acid sequencing and sample preparation technology platforms.

Responsibilities:

- Develop new and existing reactions at the chemistry, biochemistry and materials interface for Illumina's sequencing and sample preparation platforms.
- Explore new reaction methodologies to expand the Illumina portfolio of sequencing and sample prep chemical transformations and isolation techniques.
- Perform in-depth analyses using techniques such as fluorescence spectroscopy, ellipsometry, FTIR, HPLC, NMR, GPC, SEC, QCM, and other techniques at the chemistry/materials interface.
- Modify surfaces and/or particles toward making functional materials at the biochemistry, chemistry, and/or physics interface.
- Perform and lead failure analysis.
- Teach methods developed to other scientists, engineers, research associates, of a range of experience and education levels.
- Work collaboratively with chemists, biochemists and bioinformaticians, developing new components for DNA analysis platforms.
- Present clear and concise written and oral communications to colleagues and supervisors, lead and/or participate in technical meetings, and provide recommendations based on technical results.

All listed tasks and responsibilities are deemed as essential functions to this position; however, business conditions may require reasonable accommodations for additional task and responsibilities.

Preferred Educational Background:

The ideal candidate will have a PhD in Chemistry or a related field. Postdoctoral research is preferred.

Preferred Experiential Background:

Competitive candidates will have 0-3 years of industrial experience. In addition, candidates will have performed many (but not necessarily all) of the following:

- Demonstrated experience solving challenging, interdisciplinary problems at the interface of biology, chemistry and materials science

- Used fluorescence-based methods for protein or material labeling techniques such as characterization of surface functionalization and molecular interactions.
- Developed polymer chemistry or organic chemistry reactions in the context of materials or nanotechnology. This could include methods for bioconjugation and cross functionalization of materials.
- Demonstrated ability to overcome technical challenges in a fast-paced environment within an interdisciplinary team setting

R&D Lab Chemist with Honeywell

An excellent career opportunity is currently available for a R&D Lab Chemist within UOP's R&D Catalysis Research group located in Des Plaines, IL. This position will be responsible for providing laboratory support to research and development projects.

UOP LLC, 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. UOP is a wholly-owned subsidiary of Honeywell International, Inc. and is part of Honeywell's Specialty Materials strategic business group.

Honeywell Performance Materials and Technologies is a global leader in providing customers with high-performance specialty materials, including fluorine products; specialty films and additives; advanced fibers and composites; intermediates; specialty chemicals; electronic materials and chemicals; and technologies and materials for petroleum refining.

Position responsibilities:

- Prepare experimental plans for catalyst synthesis and testing operations under the assistance of senior staff. Build and provide expertise in areas of catalyst synthesis chemistry and equipment operation
- Execute planned experiments on-schedule
- Organize and maintain electronic and paper copies of information pertaining to the performed experiments including laboratory notebooks, research reports, and other documents
- Provide summaries of results – both verbally and in written form – and discuss these with senior staff and project teams
- Observe and maintain monthly Structured Safety requirements
- Support administrative work pertaining to work goals and achievements

Qualifications

Basic Qualifications:

- A BS degree in chemistry or related discipline together with 2+ years experience working in laboratory or R&D environment is required

Preferred Qualifications:

- Be mechanically inclined and capable of operating and maintaining related laboratory equipment
- Strong multi-tasking skills together with the ability to effectively manage project deliverables
- Strong organizational skills
- Self-motivated and having demonstrated experience working with multiple internal customers and associated time management skills
- Excellent interpersonal communication skills (verbal and written)
- Proficiency with spreadsheet, word processing, graphics and LIMS programs
- Ability to work in a team based environment
- We offer a team oriented environment along with exciting career opportunities and a highly competitive compensation and benefits package.

A link for the description and to apply is at :

<http://www.careersathoneywell.com/job/7221864/r-d-lab-chemist-des-plaines-il/>

University of Illinois at Chicago, Department of Chemistry invites applications for a non-tenure-track Clinical Assistant Professor position in the general area of organic chemistry effective August, 2017 pending budgetary approval. The successful candidate is expected to teach undergraduate courses in organic chemistry, including teaching and supervising the organic chemistry laboratory courses, and to provide long-term continuity to service duties important to the departmental teaching mission by developing, revising, and implementing curriculum based on best practices. A Ph.D is required.

Please submit an online application, including the names and email addresses of 3 references, and upload a curriculum vitae, list of publications, and teaching statement at <https://jobs.uic.edu/job-board/job-details?jobID=76687> by May 1, 2017.

The University of Illinois at Chicago is an affirmative action/equal opportunity employer, dedicated to the goal of building a culturally diverse pluralistic faculty and staff committed to teaching in a multicultural environment. We strongly encourage applications from women, minorities, individuals with disabilities, and covered veterans. The University of Illinois may conduct background checks on all job candidates upon acceptance of a contingent offer. Background checks will be performed in compliance with the Fair Credit Reporting Act.

Inaugural Bioorganic Chemistry Gordon Research Seminar June 10-11th The GRS is a two-day seminar precursor to the GRC and will feature work from graduate students and postdoctoral scientists with an emphasis on research at the interface of chemistry and biology. In addition, the GRS and GRC provide a unique setup to maximize interactions and networking opportunities with other conference attendees. For additional GRS details, updates, and application, visit <https://www.grc.org/programs.aspx?id=17413>

The Shepherd Color Company is seeking a bachelors-level chemist for its Research and Development team. As a member of that team you'll work in a creative and collaborative atmosphere developing new colored inorganic pigments or other mixed-metal-oxide materials. The Shepherd Color Company is a privately-owned company in Cincinnati, Ohio. Although it's principally a supplier of mixed-metal oxides used as colored pigments, Shepherd Color is also a leader in the manufacture of inorganic materials used for other chemical and physical properties.

Applicants should have a B.S. or B.A. in chemistry or materials science with a particular interest in inorganic materials. The job is a research and development job. Prior research experience is not required, but it is valuable, as it can help establish the applicant's capabilities for research. Most important is that the applicant is excited about inorganic materials research, which involves lab experimentation, scaling-up of synthetic methods, and literature research; and constantly expanding his/her knowledge base. The applicant needs to be intelligent, a good learner, highly motivated, and adept at collaborating with others.

The work atmosphere in the Research and Development group at Shepherd Color is one where the chemists are exposed to a variety of tasks and responsibilities, interact regularly with other departments, and are challenged to advance technology, improve existing products, and develop new products that will ensure the future success of the company. Research Chemists at Shepherd Color are able to handle multiple projects and changing priorities. They enjoy developing new technologies and applying them in new, technically-advanced products and the reward of following the impact of their developments on the marketplace.

To apply, please provide a resume and a cover letter explaining why you believe you are a good fit for the position. Applications can be made by following this link:

https://workforcenow.adp.com/jobs/apply/posting.html?client=shep&jobId=183266&lang=en_US&source=CC2 or through the company website at www.shepherdcolor.com.

The Department of BioMolecular Sciences in the School of Pharmacy at The University of Mississippi is seeking qualified applicants for a full time, 12-month, tenure-track position at the rank of Assistant, Associate, or Full Professor. We seek candidates with expertise in the field of medicinal chemistry or the application of organic synthesis to drug discovery who possess a record of distinguished and innovative research (as evidenced by a significant publication record and the potential to secure extramural funding) and a commitment to excellence in education. Applicants applying for the higher ranks should have a nationally recognized research program with recurrent success in securing extramural funding and excellent teaching credentials.

The University of Mississippi is the flagship university for the State of Mississippi. A world-class public research university, the institution has a long history of producing leaders in public service, academics and innovative research. The School of Pharmacy is on the main campus in Oxford, a community of approximately 19,000 residents that has been recognized nationally as one of America's best places to live. *The Chronicle of Higher Education* has named The University of Mississippi as one of the "Great Colleges to Work For." The Department of BioMolecular Sciences has 13 full-time faculty with research emphases in medicinal chemistry, pharmacognosy, pharmacology, and environmental toxicology. The faculty have affiliations with the Research Institute of Pharmaceutical Sciences and collaborative opportunities in the National Center for Natural Products Research. The department has teaching responsibilities in several degree programs, including the Pharm.D (Doctor of Pharmacy) as well as M.S. and Ph.D programs in Pharmaceutical Sciences.

The review of applications will begin immediately and continue until a suitable pool of applicants is established. Applicants must have a Ph.D. degree in Medicinal Chemistry, Chemistry, Organic Chemistry, or a related field in the pharmaceutical sciences as well as post-doctoral experience. Applicants should provide a cover letter outlining qualifications for the position, a detailed description of research plans, a one-page executive summary of the research plan, a statement of teaching philosophy, a curriculum vitae, and the name and contact information of four references through The University of Mississippi's online employment site at <https://jobs.olemiss.edu>. For additional information please contact, Prof. David A. Colby, Search Committee Chair, 662-915-1766, dacolby@olemiss.edu.