

2016 WEEKLY BULLETIN
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS
April 25, 2016

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

Tuesday April 26th: *Faculty Lunch Seminar: Rick Silverman*
Tech K140
12:00-1:00pm

Friday April 29th: *Department of Chemistry Colloquium:*
David Chenoweth, University of Pennsylvania
Tech LR3
4:00 – 5:00pm

Wednesday May 4th: *The AbbVie Symposium in Organic Chemistry:*
Keynote Speaker: Michael J. Krische, University of Texas at Austin
Tech LR3
3:00 – 5:30pm

BIP

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

Arrivals

Matthew Moschitto joined the Silverman Group

Announcements

9th Annual ANSER Solar Energy Symposium April 28-29, 2016: The [Institute for Sustainability and Energy at Northwestern \(ISEN\)](#) and the [Argonne-Northwestern Solar Energy Research Center \(ANSER\)](#) are delighted to host the 9th annual ANSER Solar Energy Symposium – “Solar Fuels.” Bill Gates recently commented on the potential and inevitability of a liquid hydrocarbon from sunlight in the [Financial Times](#). Many of today’s prevalent renewable energy sources, such as solar and wind, are inherently intermittent. Energy storage is a critical piece to deeper penetration and adoption of alternative energy. At [ANSER](#), their researchers are working on developments that could create the next generation of solar energy technologies that produce a liquid fuel from sunlight, using only water and carbon dioxide (CO₂) from the air. The ANSER Symposium will feature invited speakers from around the world to outline the current state-of-the-art in the development of solar fuels via nanotechnology, new catalyts, and novel materials. Please register at <http://isen.nu/anser16>.

Learn to Handle the Legal and Business Side of Scientific Innovation

The one-year [Master of Science in Law \(MSL\)](#) degree offered by Northwestern Pritzker School of Law prepares students for careers and leadership positions at the intersection of business, law, and science/technology. Designed especially for STEM majors, the MSL provides practical, focused, business-centered legal training in three main areas: Business Law & Entrepreneurship; Intellectual

Property & Patent Design; and Regulatory Strategy & Analysis. MSL students learn to communicate across disciplines; bring ideas to market; develop, protect, and manage intellectual property; and navigate the legal and regulatory structures that exist in STEM settings. MSL graduates are well positioned for careers as: entrepreneurs; business managers, developers, and analysts; patent agents; patent engineers; patent coordinators; IP/patent portfolio managers; scientific and/or technical consultants; regulatory strategists; compliance officers; government regulators; and more. Scholarships are available.

Join us for our upcoming webinar. We will provide a comprehensive overview of the MSL program and answer questions from the audience.

- May 16 at 5pm CST
- June 2 at 12pm CST
- Join online: <https://northwesternuniversity.adobeconnect.com/mslwebinar>

Anyone interested in the MSL program is also welcome to contact Susan Dennehy, Administrative Director, via email: susan.dennehy@law.northwestern.edu.

Opportunities

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 CO₂ using catalysts based on inorganic and organometallic complexes. The planned research will involve the design, synthesis, and characterization of new metal complexes, including electrochemical, thermochemical, and mechanistic studies, leading to new molecular catalysts in the area of reduction of CO₂ to fuels.

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 electrochemical measurements 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 electrochemistry

Independent and highly motivated

Ph.D. in organometallic chemistry or inorganic chemistry

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.

Other Information

**** In order to be considered, please apply prior to 11:59 PM on the day before April 30, 2016****

<http://pnnl.jobs/richland-wa/post-doctorate-ra-catalysis-science/0809DB71B22D4304BB4BA221CBE83044/job/>

The Department of Chemistry/Physics/Astronomy at Indiana University Northwest seeks an adjunct instructor for Summer 2016, to teach Organic Chemistry labs at the undergraduate level. There is a possibility for teaching assignments beyond the summer session. The applicant needs to have a Master's or Ph.D. in Chemistry with previous teaching experience. Applicants residing within the Chicagoland and Northwest Indiana areas are encouraged to apply. Summer classes run from May 16, 2016 through August 6, 2016. To apply submit a letter of application, statement detailing teaching experience and degrees earned to N. De Leon, Department of Chemistry, Indiana University Northwest, 3400 Broadway, Gary, IN 46408. Review of applications will begin immediately. If interested please contact Candace Clark at clbeck@iun.edu

Save the Date: May 5-6 2016 11th Annual Meeting of the Great Lakes Drug Metabolism Disposition Group to be held at the Hilton Rosemont/Chicago O'Hare Hotel in Rosemont, Illinois

Confirmed speakers include:

Paul Ortiz de Montellano, University of California at San Francisco; Kim Brouwer, University of North Carolina at Chapel Hill; Peter O'Donnell, University of Chicago; Mike Zientek, Pfizer; Steve Castellino, GlaxoSmithKline; John Beaver, AbbVie; Maria Posada, Lilly Research Laboratories; Cyrus Khojasteh, Genentech; Gary Jenkins, AbbVie.

Registration is now open, [Click Here to Register for this Event](#)

Schedule details and hotel information are available at www.greatlakesdmdg.org

Illumina is improving human health by unlocking the power of the genome. Our focus on innovation has established us as the global leader in DNA sequencing and array-based technologies, serving customers in the research, clinical and applied markets. Our products are used for applications in the life sciences, oncology, reproductive health, agriculture and other emerging segments.

Position Summary:

We are looking for a scientist with experience in Chemistry, Nanotechnology or Materials Science to contribute to a team within Consumables Development. Experience could be industrial or academic and could include organic/polymer/bioorganic chemistry, particle/surface modification, functional materials, biomaterials, (bio)conjugation chemistry, or novel/experimental drug delivery techniques. As a successful candidate you will work in a dynamic, team-oriented environment to create genomic analysis consumable 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 material systems and application methods 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.
- Modify surfaces and/or particles toward making functional materials at the biochemistry, chemistry, and/or physics interface.
- Perform in-depth analyses using techniques such as ellipsometry, DSC, TGA, FTIR, Raman, SEM, XPS, TOF-SIMS, AFM, high resolution spectroscopy and microscopy to characterize dimensions at the interface between Illumina's surface chemistry and substrate materials.
- 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.

Requirements:

- Competitive candidates will have 0-3 years of industrial experience. In addition, candidates will have performed many (but not necessarily all) of the following:
- Attained and applied a clear understanding of Chemistry at the molecular level.
- Demonstrated experience solving challenging, interdisciplinary problems at the interface of biology, chemistry and materials science
- Developed polymer chemistry or organic chemistry reactions in the context of materials and/or biomaterials. This could include methods for bioconjugation and cross functionalization of materials, surface modification and particle modification are also applicable.
- Used fluorescence-based methods for protein or material labeling techniques such as characterization of surface functionalization and molecular interactions.
- Characterized materials using techniques such as ellipsometry, DSC, TGA, FTIR, Raman, SEM, TEM, XPS, TOF-SIMS, AFM, or chromatographic techniques such as GC-MS and HPLC.
- Experience in programming or scripting languages (as a plus). This could include a working knowledge of Unix or writing in C#, C++, Java, Matlab, R or Python.

Education: The ideal candidate will have a PhD in Chemistry, Material Sciences, or a related field.

For more information about the company or to apply please visit:

<https://sjobs.brassring.com/TGWebHost/jobdetails.aspx?partnerid=25666&siteid=5503&Areq=3811BR>

The H.T. Soh Laboratory at the ChEM-H Institute at Stanford University develops novel materials and biosensors for the early detection and personalized treatment of diseases (<http://sohlab.stanford.edu/>).

We invite applications for postdoctoral research fellows in the area of bioinformatics and nucleic acid chemistry & technology.

Position Requirements:

Applicants should possess a Ph.D. in chemistry, biochemistry, bioinformatics, or a related field. The ideal candidate will have a record of scientific rigor, productivity, and creativity; the ability to work both independently and as part of a team; and a strong publication record. Excellent oral and written communication skills are required.

Interested applicants should provide a cover letter, CV, and three letters of reference. This information must be sent via email (sohlab@ee.stanford.edu). Salary and duration of the position will be commensurate with experience.

The University of Liverpool is seeking to recruit to up to 10 academic positions in the Faculty of Science and Engineering in the broad area of materials research, distributed across the School of Physical Sciences (Chemistry, Physics & Mathematics), School of Engineering, the School of Electrical, Electronic Engineering and Computer Science, and the School of Environmental Sciences across the areas of Chemistry, Physics, Materials Science, Engineering, Computer Science. You should have an outstanding research track record, as demonstrated by publications and other relevant outputs.

Applications will be considered from any area of materials research, but would be particularly welcomed in the areas of computational materials chemistry, polymer physics, rheology, robotics and/or automated metrology, biomaterials, materials processing and related areas. The posts will be aligned with the Materials Innovation Factory (MIF), a major new £68m research institute that is being established at the University. For the Chair or Readership positions you will be expected to demonstrate a significant track record of funding and a capacity for leadership in your field.

The University is an Athena SWAN Bronze Award holder and is committed to encouraging, developing and supporting women in their research and academic careers. We are working to create an inclusive environment which values a diverse workforce and we recognise that many individuals value flexibility in their work/life balance, therefore these posts may be taken up on a part-time (a minimum of 0.5fte) or full-time basis (including a job share).

<https://www.liverpool.ac.uk/working/jobvacancies/currentvacancies/professorial/a-590406/>

The Department of Chemistry at Kalamazoo College invites applications for a full-time Visiting Assistant Professor position for one year—September 2016 through June 2017. The successful applicant will contribute to teaching in Organic Chemistry. A Ph.D. in chemistry or the equivalent is required (or evidence of imminent completion). Prior teaching experience is desirable. Candidates must demonstrate an interest in undergraduate teaching. The Departmental website can be viewed at:

<http://www.kzoo.edu/chem>.

Kalamazoo College is a highly selective, nationally known liberal arts college of approximately 1450 motivated students, offering an integrated undergraduate experience that weaves a traditional liberal arts curriculum into domestic and international educational experiences (www.kzoo.edu). Approximately 10% of students major in Chemistry. Graduates of the Chemistry Department pursue studies in the health care field, graduate-level work in the discipline, or move directly into industrial positions. The campus is located midway between Chicago and Detroit, and the Kalamazoo area encompasses a community of 225,000, which supports several college and university campuses along with numerous civic arts and cultural associations. Thirty-five miles from Lake Michigan, the area offers many opportunities for outdoor activities.

Review of applications will begin immediately and will continue until the position is filled. A cover letter, curriculum vitae, statement of teaching philosophy, undergraduate and graduate transcripts (unofficial is acceptable), and three letters of recommendation addressed to Laura Lowe Furge, Chair, Department of Chemistry, Kalamazoo College, 1200 Academy Street, Kalamazoo, MI 49006-3295, should be submitted electronically in pdf format to the administrative assistant, Lauryn Kindle at Lauryn.Kindle@kzoo.edu.

Kalamazoo College encourages candidates who will contribute to the cultural diversity of the College to apply and to identify themselves if they wish. Equal Opportunity Employer

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.
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.