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**2012WEEKLY BULLETIN**  
**DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY**  
**EVANSTON, ILLINOIS 60208-3113**

January 7, 2013

**CALENDAR FOR THE COMING WEEKS**

<b>Tuesday, January 8, 2013</b>	<i>Organic Student Seminar</i> <b>Jonathan Barnes</b> Ryan 4003; 11 AM	<i>Viologen Chemistry: Pushing the Envelope in Molecular Recognition</i>
	<i>Faculty Lunch Seminar</i> <b>Professor Brian Hoffman</b> Tech K140; 12:00 PM	
<b>Wednesday, January 9, 2013</b>	Faculty Meeting Tech K140; 12 PM	
	<i>Physical Seminar</i> <b>Professor Peter Hore</b> University of Oxford Ryan 4003; 4 PM Hosted by Professor Michael Wasielewski	<i>Spin coherence in the avian magnetic compass</i>
<b>Thursday, January 10, 2013</b>	<i>Organic Seminar</i> <b>Professor Wei Zhang</b> University of Boulder Ryan 4003; 3 PM Hosted by Professor SonBinh Nguyen	<i>Development and Applications of Dynamic Covalent Chemistry: From 2-D and 3-D Molecular Architectures to Organic Functional Materials</i>

*Department Calendar can be found at <http://www.chemistry.northwestern.edu/events/calendar.html>*

**Reminder**

BIP meets every Friday in Tech K140 at 3 PM.

**Arrivals and Departures**

Amparo Ruiz Carretero has left the Stupp group and taken a postdoctoral fellow position at the Univ. of Strasbourg.

David Giljohann has left the Mirkin group to resume his position at AuraSense.

Claire Deeb has joined the Odom group as a postdoctoral fellow.

Anna Lee has joined the Scheidt group as a postdoctoral fellow.

Hui Lin has joined the Facchetti group as a visiting scholar.

Alex Dudnik has joined the Marks group as a postdoctoral fellow.

James Holcroft has joined the Stoddart group as a postdoctoral fellow.

Dajiang Mei has joined the Ibers group as a postdoctoral fellow.

Myung Gil Kim has left the Marks group and taken a postdoctoral position at Stanford University.

Paul Siu has joined the Scheidt group as a postdoctoral fellow.

## **Upcoming Events**

Monday, January 14, 2013 – *Safety Meeting*; Tech K140; 3 PM.

Tuesday, January 15, 2013 – *Faculty Lunch Seminar*; **Professor Michael Wasielewski**, Tech K140; 12 PM

Thursday, January 17, 2013 – *Organic Seminar*; **Professor Michael Jung**; UCLA; Ryan 4003; 4 PM; Hosted by Professor Rick Silverman

*For other upcoming events, please visit <http://www.chemistry.northwestern.edu/events/calendar.html>.*

## **Opportunities**

**Drexel University – Chemistry Department Head** - The Dept. of Chemistry at Drexel is seeking an innovative research scientist, educator and administrator as Department Head starting September 2013. Please visit [www.drexeljobs.com/applicants/Central?quickFind=76338](http://www.drexeljobs.com/applicants/Central?quickFind=76338) to apply.

**Colgate University-Assistant Professor in Sustainable Technology and Design**-The Environmental Studies Program and the Department of Physics and Astronomy at Colgate University invite applications for a tenure-stream position in the field of Sustainable Technology and Design at the rank of Assistant Professor, beginning in the fall semester 2013. Completion of the Ph.D. in physics, engineering, sustainability studies, or a related field is expected prior to or shortly after the date of hire. Further information about the Physics and Astronomy department can be found at <http://www.colgate.edu/academics/departments-and-programs/physics-astronomy> and information about Environmental Studies can be found at <http://www.colgate.edu/academics/departments-and-programs/environmental-studies>. Candidates should submit a curriculum vitae along with statements of research and teaching interests, including a plan for involving undergraduates in field work. The cv should include a publication list and the names of three individuals who have been asked by the candidate to submit letters of recommendation. An additional letter can be submitted if needed to address the candidate's teaching qualifications. All materials should be submitted through <https://academicjobsonline.org/ajo/jobs/2362>. Review of applications will begin January 7, 2012, and continue until the position is filled. EOE.

**Assistant/Associate Professor level, in Medicinal/ Pharmaceutical Chemistry: McGill University: Department of Pharmacology and Therapeutics** - The Department of Pharmacology and Therapeutics of McGill University is inviting applications for a tenure-track faculty position at the Assistant/Associate Professor level, in Medicinal/ Pharmaceutical Chemistry. Applicants with research interests in drug discovery and skills in drug synthesis are encouraged to apply. Particularly, applications will be accepted from candidates with a strong research background in design and synthesis of new biologically active

molecules or improvement of existing compounds for novel pharmacological applications. Candidates are required to have initiated a successful scholarly career as evidenced by publications and presentations. The successful candidate will be a member of the Department of Pharmacology & Therapeutics and will be expected to contribute to the departmental research and teaching missions. In order to complete the application process, candidates must submit electronically a copy of their Curriculum vitae, a short statement of research interests and contact information of three external referees. Applications will be accepted until January 20th, 2013. Please send your application to [Admin.pharmacology@mcgill.ca](mailto:Admin.pharmacology@mcgill.ca) to the attention of Dr. Gerhard Multhaup, Chair, Department of Pharmacology and Therapeutics.

*McGill University is committed to diversity and equity in employment. It welcomes applications from indigenous peoples, visible minorities, ethnic minorities, persons with disabilities, women, persons of minority sexual orientations and gender identities and others who may contribute to further diversification. All qualified applicants are encouraged to apply; however, Canadians and permanent residents will be given priority.*

**National Research Council Postdoctoral Research Opportunities at the National Institute of Standards and Technology** - I would like to call your attention to postdoctoral research opportunities

within the Radiation and Biomolecular Physics Division in the Physical Measurement Laboratory at the National Institute of Standards and Technology, located just outside Washington, D.C in Gaithersburg, MD. My work emphasizes interdisciplinary research in the development and use of advanced ultrafast spectroscopic methods, imaging technologies, and materials investigations through internal NIST and external collaborations. Areas of research address fundamental problems in biophysics and dynamics in support of measurement and standards needs of the healthcare, biotechnology, security, energy, environment, and related industries. Research efforts focus on the following areas:

- Development of Terahertz technologies for remote sensing, chemical detection and imaging;
- Application of ultrafast infrared spectroscopies and imaging to determine photoreaction dynamics, carrier generation and recombination, and vibrational energy relaxation within biomolecular systems, synthetic enzymes for hydrogen production, design of advanced organometallic systems for ultrafast optically-based switch applications and improved efficiencies in solar energy conversion by organic photovoltaic nanofilms;
- Optical methods using ultrafast spectroscopy and microscopy for studying biological complexes and their interactions with small molecules and nanoparticles;
- Tools for the characterization of nanoparticle-biomolecule complexes (e.g., vibrational circular dichroism) to enable new applications;

I am looking for enthusiastic, hard-working postdocs to design and implement projects in the above areas. Additional information about my research and general information about NIST may be found at <http://www.nist.gov/pml/div682/grp01/heilweil.cfm>

Positions will be filled through the NIST-National Research Council Research Associateship postdoctoral program, which is a competitive program open to U.S. citizens. The starting salary is \$65,600 and there are government health, relocation, and other benefits. The research projects of a successful NIST-NRC postdoc applicant may be in the experimental areas described above and at the NRC online opportunities descriptions, available at <http://nrc58.nas.edu/RAPLab10/Opportunity/SearchProgram.aspx?LabCode=50>, which lists all postdoctoral research opportunities (searchable by title or advisor's last name) at NIST. Application forms and more information on the NIST-NRC program are available at <http://www7.nationalacademies.org/rap/>. The deadline for completing applications for the next biannual competition is February 1, 2013; the starting date for the two-year fellowships is within six months of receipt of an award (usually by mid-April).

Prospective postdocs are encouraged to contact me immediately to discuss potential research and NRC proposal topics. Contact information is listed within my general NIST/NRC research opportunity description:

**Ultrafast Condensed-Phase Dynamics Using Mid-Infrared and Terahertz Spectroscopy (RO# 50.84.41.B1780)**

Pulsed laser methods are used to measure ultrafast photochemistry and energy dynamics in the condensed phase. These include tunable mid-infrared (IR) or visible/ultraviolet (UV) excitation with multichannel mid-IR or Terahertz detectors (THz) for time-resolved spectroscopy, hyperspectral imaging, and related nonlinear spectroscopies. Systems investigated include carriers in semiconductors and organic thin films, metal plasmons, photoreactions, biopolymers, and molecular vibrational energy transfer of inorganic or organic species in solution in crystals and on surfaces. Emphasis is placed on developing vibrational probes to investigate organic and protein/peptide systems, novel solar cell materials and electronic-vibrational energy transfer processes, photochemistry of organometallic “switch” compounds, and dynamics of hydrogen-bonded solution-phase complexes. We also examine polymerization and heterogeneous catalytic reactions, coherent control by chirped femtosecond IR vibrational overtone excitation of metal-carbonyls, and dissociation and recombination rates of nucleic acid base pairs, amino acids, sugars, and model biosystems.

Contact: Ted Heilweil, [edwin.heilweil@nist.gov](mailto:edwin.heilweil@nist.gov), <http://www.nist.gov/pml/div682/grp01/heilweil.cfm>  
301-975-2370

**The Electrical and Computer Engineering Department at the University of Massachusetts, Amherst**

is looking to hire a tenure-track Assistant Professor in the broad area of Nanoenergy (including theory, computation and/or experimental research).

The job announcement position can be found here: <http://ece.umass.edu/ece/faculty/open-positions>

**The President and the Provost of the Florida State University** are pleased to announce a major interdisciplinary initiative in the area of Energy and Materials with an initial focus on materials for energy production, conversion, storage and utilization. To launch this strategic effort as many as **eight tenure-track/tenured faculty positions** will be filled. This faculty search is open with respect to rank and academic department. Successful candidates are expected to have a synergistic impact on existing research programs in the University’s departments and interdisciplinary centers as well as develop new areas. Sustained pursuit and growth of collaborative, externally-funded research programs is an explicit goal. Strengths at the Florida State University include energy-related materials programs in Chemistry, Physics, and Scientific Computing in the College of Arts and Sciences, and in Mechanical, Industrial & Manufacturing, Electrical & Computer, and Chemical & Biomedical in the College of Engineering. Complementing these programs are interactive centers including the National High Magnetic Field Laboratory, the Applied Superconductivity Center, the High Performance Materials Institute, the Aero-Propulsion, Mechatronics and Energy Center, and the Center for Advanced Power Systems. Linking these colleges and centers is a new Ph.D. program in Materials Science and Engineering. Robust, department-based doctoral programs in materials and related areas are also present at the University. Applicants should provide a letter of application, full curriculum vitae, the names and contact information of three professional references and a two page narrative describing their research interests that should include a clear statement as to how the candidate would complement this inter-college effort at Florida State University. Applications must be sent electronically to [materials.search@fsu.edu](mailto:materials.search@fsu.edu). Review of applications and nominations will begin on December 1, 2012. Additional information about the materials programs at FSU and this faculty search can be obtained at [http://www.research.fsu.edu/materials\\_search/](http://www.research.fsu.edu/materials_search/).