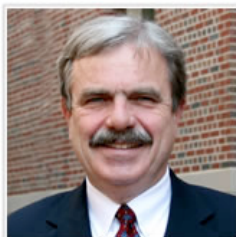


Chemistry Notices

For the Week of April 11 to April 15, 2011

VISITING SPEAKERS & SEMINARS

University of Alberta
Department of Chemistry - Analytical Division
**2011 EDWARD HERBERT BOOMER
Memorial Lectures**



Mark Wightman

W.R. Kenan, Jr. Professor of Chemistry
Department of Chemistry
University of North Carolina at Chapel Hill

The research interests of Professor Mark Wightman, center around microelectrodes and their use to probe complex chemical and biochemical phenomena. Microelectrodes are chemical sensors that have micron or smaller dimensions. Their small size enables measurements in unusual environments. His research group have utilized these electrodes to characterize a number of unique events on single biological cells and in intact brain tissue. At single cells, the Wightman researchers have been able to characterize single exocytotic events in which the contents of a single vesicle are released into the surrounding environment. In intact brain tissue his group has been able to monitor neurotransmitters in the extracellular space. His group's investigations show that the lifetime of these chemical messengers, in the vicinity of their receptors, is dictated by the balance between exocytotic release and their removal by uptake, a transporter-mediated process in which neurotransmitters are repackaged back into neurons. An important application of this work is the measurement of these neurochemical changes as they dictate an organism's behavior.

These chemical measurements put high requirements on the quality of the measured data. The group needs to use electrochemistry to detect specific substances, characterize their concentrations, and follow their dynamic changes with subsecond time resolution. Through the use of sophisticated, rigorous, analytical techniques, these goals are being accomplished.

Lecture Presentations: (Note different locales)
11 April 2011 - 4:00 p.m. PUBLIC LECTURE
Title: *"Electrochemical Detection of Neurotransmitters: a Historical Perspective"*
Locale: CAB 243
12 April 2011 - 4:00 p.m.
Title: *"Voltammetric detection of neurotransmitters: dopamine and what it does"*
Locale: DP 2022
13 April 2011 - 4:00 p.m.
Title: *"Voltammetric detection of brain norepinephrine and serotonin"*
Locale: DP 2022
14 April 2011 - 4:00 p.m.
Title: *"Carbon electrodes for in vivo detection of neurotransmitters"*
Locale: CAB 243

Keyur Pandya

502 Seminar

will speak on

"Studies on mode of action and synthesis of (-) lomaiviticin aglycon"

**Monday, April 11, 2011
11:00 a.m. in NRE 2-003**

The 2011 Edward Herbert Boomer Memorial Lectures, sponsored by the Department of Chemistry of the University of Alberta are the forty-ninth in a series inaugurated in 1958 to recognize the contributions of Professor E.H. Boomer, who was associated with the Department from 1925 to 1945.



VISITING SPEAKERS & SEMINARS, *continued*

Department of Chemistry Undergraduate Research Symposium *CHEM 401/403 Student presentations* Friday April 15th, 2011 - E3-25 Chemistry

Time	Student	Supervisor	Title
8:00	Nguyen, Trang	Brown	Absorption wavelengths of NDB-NHMe in various solvents
8:20	Pham, Bao	Brown	Examination of the TD-DFT method on accurately predicting the excited states of the substituted benzofurazans
8:40	Grewer, David	Gibbs-Davis	Quantitative Determination of the Intramolecular Spacing in Y-Shaped DNA Complexes Utilizing FRET
9:00	Hur, Soo	Cairo	Analysis of NEU3 enzyme activity on cell membranes
10 min break			
9:30	Dalla Lana, Michael	Stryker	Synthesis of model compounds
9:50	Ghanbari, Sina	Hall	Further studies on boronic acid catalyzed as mild approach for Crafts reaction
10:10	Towle, Kaitlyn	Veders	Utilizing Fluorescent Organic Dyes to Visualize Neopetrosiamides A and B within Cells
10 min break			
10:40	Baergen, Alyson	Klassen	Gas Phase Dissociation Kinetics of Bovine β -Lactoglobulin and Functionalized Fatty Acids
11:00	Lin, Rongrong	West	Intermolecular Capture of the Nazarov Oxyallyl Intermediate with Allene Derivatives
11:20	Aman, Khalid	Lowary	Synthesis of Oligosaccharides With an Octylamine Linker For Use in Protein Affinity Purification
11:40	Gaskin, Leah	Lowary	Synthesis of α -(1 \rightarrow 6)-mannosyltransferase Inhibitors in <i>Mycobacterium tuberculosis</i>
40 min break			
12:40	Carter, Matthew	Serpe	Poly(<i>N</i> -isopropylacrylamide)/Au Etalons: Solvent Exchange Kinetics Revisited
13:00	Leung, Edmund	Serpe	Poly (<i>N</i> -isopropylacrylamide) Microgels and Microgel Aggregates for Water Remediation
13:20	Shillington, Richard	McDermott	Serotyping of E. coli with Surface Plasmon Resonance Imaging
13:40	Goettel, James	Rivard	Synthesis and Characterization of Tunable Bis(amido)disilyl Ligands
10 min break			
14:10	Ramsay, William	Rivard	New and Improved Efficient Syntheses of Inorganic Conjugated Heterocycles
14:30	Carter, Lee	Takats	TBA
14:50	Khatun, Mansura	Mar	Synthesis, structure and electrical properties of the new Zintl phases $A_2Ag_2As_2$, $A_2Zn_2As_2$ and $A_2Ag_2ZnAs_2$ [A= Sr and Eu]
10 min break			
15:20	Mullen, Scott	Mar	Synthesis, Structure, and Properties of Ternary Antimonides $A_2Ag_2Sb_2$ (A = Sr, Eu)
15:40	Barnes, Marie	Veinot	A) Synthesis and encapsulation of Silicon for use in drug delivery, and B) Low temperature synthesis of Ge nanocrystals
16:00	Smith, Larissa	Veinot	Dispersion of Silicon Nanocrystals in Aqueous Media
16:20			End of sessions/Closing remarks
17:00			Informal Social Gathering*

* All 401/403 students, their supervisors, and interested faculty are invited to join to students and coordinators for an informal social gathering at the RATT to celebrate the achievements of the past term.

EMPLOYMENT OPPORTUNITIES

Gilead Sciences Ltd., Process Development Group has a Senior Research Associate position available. The Senior Research Associate will work as part of a team in process development supporting the development and manufacturing of investigational drugs. The ideal candidate will be specialized in Organic Chemistry and have either a BS or MS in chemistry with work experience in a pharmaceutical or biotech company environment. This role will plan and execute assigned experiments that support research activities and project goals.

Contact: wenyi.fu@gilead.com or www.gilead.com

9-Month Limited Term Appointment – Department of Chemistry

Trent University invites applications for a 9-month limited term appointment in the Department of Chemistry at the rank of Assistant Professor to start August 1, 2011. The position is subject to budgetary approval. A completed Ph.D. and appropriate teaching experience are required. The successful candidate will teach courses in areas including but not necessarily limited to: Introductory chemistry, transition metal, physical, and photochemistry.

Applications, including a curriculum vitae, statement of teaching experience and philosophy, and the names, e-mail addresses, and phone numbers of three referees who would be willing to write on the candidate's behalf should be sent to:

Dr. David Ellis, Chair
Department of Chemistry
Trent University
1600 West Bank Dr.
Peterborough, Ontario, K9J 7B8
chemistry@trentu.ca 705-748-1011, ext. 7298

The deadline for receipt of applications is **May 31, 2011**.

OTHER OPPORTUNITIES

Call for Exhibits/Volunteers for Science Rendezvous Edmonton 2011

2011 is the International Year of Chemistry. The Chemical Institute of Canada and TELUS World of Science would like to establish **Science Rendezvous Edmonton 2011** as the inaugural one-day festival style celebration of chemistry and science at TELUS World of Science (TWOS) for all the public. **Science Rendezvous Edmonton 2011** runs from 10:00 a.m. to 4:00 p.m. on Saturday May 7. Consider exhibiting and help the public celebrate Science with us!

OTHER OPPORTUNITIES, *continued*

Who are you (in groups of 1-6 ...ideally 4)?

You are a group of people who might have: a few good hands on kitchen/household science or chemistry experiments/demonstrations that you'd like to show to folks of all ages.

You might be a college or university professor/ teacher/researcher/graduate student doing, or directing, research/work of import that you wish to show the general public.

You could be someone who will dress up and take on the persona of, a famous scientist (Einstein, Newton, Curie, Rutherford, Dalton, Priestly, Lavoisier, etc) for the day at TWOS.

You could be a drama student, or drama group, willing to perform a short scene/excerpt from a play featuring a scientist or scientists (Hoffman and Djerasi's *Oxygen*, Capek's *R.U.R.*, Brecht's *Galileo*, Durenmatt's *The Physicists*, Kipphardt's *In the Matter of J. Robert Oppenheimer*, Stoppard's *Arcadia*, Andreyev's *To the Stars*, Maxim Gorky's *Children of the Sun*, and countless other suitable plays) – potentially in the foyer of TWOS.

A group of high school students, with their teacher willing, to demonstrate some research they've done or with exciting chemistry demonstrations to share.

A group of high school teachers demonstrating some exciting chemistry demonstrations they'd like to share.

A chemistry winner/finalist of the Regional Science fair contest.

An Association of local professionals (forensic scientists, fireman, EMTs, etc) who have a science demonstration the public just has to see.

Other relevant interested science group or company (...selling science not your services)

How long do you have to exhibit?

In shifts your group will man a table continuously from 10:00 am to 4:00 p.m. on May 7th, 2011. The precise location of your (8×4) table in TWOS will be determined at a later date.

What does each group member get for your volunteer labour?

The undying thanks of the organizing committee and a CIC Edmonton Volunteer T-shirt.

How do you apply to participate in Science Rendezvous Edmonton 2011?

You must email the following information to Ian Phillips (ian.phillips@epsb.ca)

Your Name: _____

Your Address: _____

Your Group's name: _____

Your Organization's name: _____

Your Group Members' names: _____

Your Activity: (Describe your exhibit in no more than 100 words)

There are currently only 30 spots available. Depending on the numbers and variety of entries for Science Rendezvous Edmonton 2011, there is no guarantee that your proposal will be accepted. Informal auditions at a yet to be chosen location (TBA) may be necessary to arrive at the final roster of participants. A call for volunteers is under consideration as of this writing.

Do not hesitate to telephone me at 780-448-5000 to talk to me in person if you need some clarification.

I look forward to working with you in Science Rendezvous Edmonton 2011,
Dr. Ian G. Phillips (Teacher Ross Sheppard High school).