

Visiting Speakers

Prof. John Anthony, Department of Chemistry, University of Kentucky, will speak on "Balls, sticks and rods: The importance of acenes and alkynes in organic electronics: on Monday, January 29, 2007 at 11:00 a.m. in NRE2-003.

Professor Alison Thompson, Department of Chemistry, Dalhousie University, Halifax, Nova Scotia, will speak on "Recent advances in dipyrromethene and pyrrole chemistry" on Monday, February 12, 2007 at 11:00 a.m. in NRE 2-003.

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Sharwatie Ramsaywack will speak on "Recent advances in the preparation and application of homoenolates in stereoselective organic synthesis" on Wednesday, January 31 at 1:00 p.m. in NRE 2-003 (Natural Resources Engineering).

Tim Elford will speak on "Recent advances in silver catalysis in organic synthesis" on Monday, February 5, at 11:00 a.m. in NRE 2-003 (Natural Resources Engineering).

The next cumulative examination will be held on Saturday, February 3, 2007 at 11:00 in Room E3-25.

The Academic Women's Association, University of Alberta invites nominations for the AWA (Woman of the Year AWArD). The submission for these nominees should be a maximum of two pages, signed by the nominator, and forwarded by Mar. 1, 2007 to the President of the AWA, Dr. Heidi Julien 3-20 Rutherford South, Edm., AB T6G 2J4

A Gilson pipette has gone missing from the cell culture lab (room W4-10). All users of this lab, please check your pipet collection to ensure it was not accidentally removed from the lab. It is a Gilson P20 (max volume 20 ul) with serial number N54497H.

Thanks.

Sandra Marcus, - Biological Services

Please make note of the following changes and new contacts. in the Chemistry General Office effective immediately:

For keys and maintenance issues (floods, repairs) please contact Jeannette in E3-44 (2-3254)

For library (borrowing theses), projector sign out please contact Selina in E3-43.

For undergraduate student registration concerns, and removal of encumbrances, please call Annabelle in W3-37 (ph – 2-5373).

EMPLOYMENT OPPORTUNITIES

Are posted on the bulletin board across from the elevators on the third floor. Please do not remove the employment notices from the bulletin board.

Employment opportunities are posted on a new internet site:

<http://www.careerowl.ca>

St. Mary's University College invites applications for a full-time term-certain appointment in Chemistry at the rank of Assistant Professor. www.stmu.ab.ca

University of Western Ontario, requires an NMR instrument specialist responsible for cryogen fills and liquid helium into magnets <http://www.uwo.ca>

R&M Chemicals Ltd. seeks an enthusiastic, chemist to join their growing team as a senior research and development chemist responsible for developing and modifying product formulations. See employment board for more information.

Edmonton PET Centre, has a post-doctoral fellowship available. www.edmontonpetcentre.com

University of California, Berkeley, Applications are invited for the position of Lecturer in the Department of General Chemistry. <http://apo.chance.berkeley.edu/evalltr.html>.

McMaster University John Jay College of Criminal Justice (City of New York) has two tenure track positions available (Chemistry and Toxicology for instructor/assistant/associate/full professor. <http://johnjay.jjay.cuny.edu/info/calendar/>

John Innes Centre requires a project leader <http://www.jic.ac.uk>.

Outreach Activities can be accessed at: www.ualberta.ca/Outreach/whats%20new.htm#science 'Archived Outreach activities can be found at <http://www.mailman.srv.ualberta.ca/pipermail/fgsr-outreach/>.

2008 Career Awards at the Scientific Interface (Burroughs Wellcome fund). Application deadline: May 1, 2007

Below please find the guidelines for Canadian applicants - Candidates must hold a Ph.D. degree in one of the fields of mathematics, physics, chemistry (physical, theoretical, or computational), computer science, statistics or engineering.

The brochure is on the graduate table should anyone be interested in looking at it.

“Spring forward” cautions

As you may be aware, DST is changing schedules this year in much of North America. "Spring forward" will occur on the second Sunday of March (11th in 2007), and "Fall back" will occur on the first Sunday of November (4th in 2007). So, DST will be roughly one month longer.

This affects computing systems, of course.

Windows: XP has a patch already released. You ARE installing Microsoft's monthly patches, of course, so no problem. 2000: If the university were shelling out large dollars, we'd have a patch, as Microsoft has one but only for deep-pocketed clients. 2000 we have to run a patch ourselves. Win 95, 98, ME, NT: we have to run a patch ourselves. Christianne will be going around patching systems for the change, and is currently testing the patch to make sure it works as advertised.

Macintosh: OS X 10.4 has a patch released for this, as part of either 10.4.6 or 10.4.7. I've an enquiry in regarding 10.2 and 10.3. Once we know what the situation is, we'll be acting on getting these updated.

Linux/Solaris/BSD: the zoneinfo database will need updating. See the vendor for details on the update.

Syncronizing your clock to a "time server" or "NTP server" isn't enough, as those just ensure accuracy to UTC (universal coordinated time) aka GMT (Greenwich Mean Time). The OS is responsible for the time zone offset, and the semi-annual switch to and from DST.

Scott Delinger – IT

Ethanol less environmentally friendly than gasoline

*by W.E. Harris, professor emeritus, department of Chemistry, U of Alberta
...as seen in the Edmonton Journal, January 21/2007 p.A17*

Liquid biofuels are promoted as alternative sources of energy and the federal government is spending hundreds of millions of dollars to promote their production.

But liquid biofuels make the carbon dioxide/greenhouse-gas problem worse, not better.

It is generally agreed that increased atmospheric carbon dioxide is causing global warming. The increased carbon dioxide has come mainly from the increasing rate at which fossil fuels are used.

Are biofuels realistic alternatives to meet the increasing demands for energy?

Ethanol is the most promoted example of a biofuel. What about the carbon dioxide emissions related to its use as an energy source?

Three litres of ethanol have an energy value equal to two litres of gasoline. The three litres of ethanol also have the same amount of carbon and, therefore, with respect to carbon dioxide, the direct use of ethanol as an energy source is as bad as gasoline. But that is not all.

In the case of gasoline, exploration, petroleum recovery, and refining activities create an additional carbon dioxide burden which must be taken into account.

To obtain biofuel ethanol, a suitable crop must be cultivated, planted, fertilized, harvested, and transported for processing, fermentation, and distillation. These activities lead to a much larger additional carbon dioxide burden than in the case of gasoline.

Furthermore, the energy obtainable from the ethanol is less than the extra energy required to obtain it – a losing proposition on the energy side as well.

Overall, for the same net energy, biofuel ethanol has a far larger carbon footprint than gasoline. Ethanol should not be labeled green.

Ratification of the Kyoto Accord presumably has committed Canada to reduce the amount of carbon dioxide it releases. If ratification is to be more than a feel-good action, just how will the government bring about carbon dioxide reduction?

If normal developments continue and if no economic disaster occurs, Canada in 2007 will use between three and five per cent more energy than was used in 2006. There will be a corresponding increase in carbon dioxide emissions.

The Kyoto Accord problem would be even more difficult to solve if liquid biofuels were to play a really significant role in our future energy demands.