



The Catalyst

Newsletter of the Chemical Institute of Canada Toronto Section
Serving the chemical profession in the GTA

October 2011

Letter from Chair

Dear members of the CIC Toronto section,

2011 is a year in which all of us can be proud of our affiliation to chemical sciences as we celebrate the International Year of Chemistry (IYC). It is indeed a great privilege for me to serve you as the Chair of the CIC Toronto local section in this memorable year. The executive committee has been actively engaged in planning and organizing a number of events to celebrate the IYC. The yearlong celebrations began with Toronto Mayor Rob Ford's proclamation of March 4, 2011 as the "Kick Off Day in Toronto - International Year of Chemistry". The IYC inaugural event held on this day at the University of Toronto included a presentation by Professor Joe Schwarcz who spoke to a packed audience (page 2).

You will find articles in this newsletter chronicling many chemistry outreach events held in the greater Toronto area where our local section volunteers have actively engaged with students and the public at large. Earlier this month we partnered with CIC national office and students at the University of Toronto to organize an event at the inaugural Chemistry Nuit Blanche, where Canada Post introduced a limited-edition stamp to celebrate the work of world-renowned University of Toronto chemist Dr. John Charles Polanyi and

the 2011 International Year of Chemistry. We have many more events to come for the rest of the year including the annual student awards night (see details below), Canada-wide crystal growing contest and 4H Science summit event.

Furthermore, we plan to expand our member support events that began last year and included career development events focusing on resume writing and mentorship. We are looking in to the possibility of organizing a career fair for our local section members in 2012. Details will be communicated in due course.

We continue to welcome many new enthusiastic volunteers who have graciously reached out to help us at the local section events. I wish to thank members of the executive committee and members-at-large for their time and dedicated support to the section activities. I would also like to thank all corporate sponsors for their continued support. Without their generous sponsorship we cannot support the many student awards and outreach events we host at the Toronto local section.

Dr. Ravi Ramachandran Ph. D., MCIC
Chair, CIC Toronto Local Section



2011 Student Awards Night

The 2011 CIC Toronto Section Student Awards Night will be held on **Friday, October 28, 2011** starting at 6:30 P.M. in the Lash Miller Building (Room LM 158), University of Toronto, 80 St. George St., Toronto. ON. The event will also feature a presentation on "**Nanomaterials for solving medical challenges**" by Prof. Frank Gu of Waterloo Institute of Nanotechnology, Dept. of Chemical Engineering, University of Waterloo.

Please notify Dr. Ravi Ramachandran (ravi.ramachandran@syngenta.com) or Alexzander Samuelsson (catalystic37@gmail.com) by October 20, 2011 if you plan to attend.

Your executive committee:

Ravi Ramachandran, Chair
 Nilima Gandhi, Vice Chair
 Brooke Ozguler, Treasurer
 Eric Persson, Secretary
 Satyendra Bhavsar, Past Chair
 John Purdy, Former Chair
 Mark Vincent, Former Chair
 Leslie Barton, Former Chair
 Judith Poë, By-laws Chair
 Demyan Prokopchuk,
 Student Activities Chair
 Lana Mikhaylichenko,
 Science Outreach Chair

Members-at-large:

Dineshkumar Patel
 Wasi Khan
 Tayseer Mahdi
 Alexzander Samuelsson
 Rummana Syeda

2011 IYC Kick-off event - Lecture by Dr Joe Schwarcz of Office for Science and Society, McGill University

A Columbia University professor was asked if she preferred butter or margarine. She replied "I would rather trust a cow than a chemist." Such negative comments about chemistry are not unusual these days, even from professionals. The focus is on "toxic chemicals" in our air, water, food and even in our blood. A wave of myth and misinformation about chemistry is sweeping over society.

Time to set the record straight, and Dr. Schwarcz spent an hour with a group of over 150 CICTor members, students and faculty at the University of Toronto's Department of chemistry on March 4th 2011. The lecture was very well received and a big success for our local chapter. The event was one of a series of lectures by Dr. Schwarcz organized jointly by UNESCO, CIC and the CIC Toronto Chapter as part of the International Year of Chemistry celebrations.



Joe Schwarcz talking at University of Toronto in March of 2011

Canada Wide Science Fair

On May 16 and 17, 2011 three of our executive committee members, Leslie Barton, Svetlana Mikhaylichenko (Lana) and Dr. John Purdy participated as judges in the Canada Wide Science Fair at the Seneca College Newnham Campus in Toronto. Lana also did chemistry shows on May 16 and 19 which were very successful and well received. There were over 500 entrants from all parts of Canada, at the junior, middle and senior high school level, each one a regional winner selected from about 25000 participants in this year's science fair program.

John teamed with Dr. Paul Harrison (McMaster) to judge 12 entries selected for the UNESCO International Year of Chemistry. The range and quality of the entries was very impressive. Many were at a level one might expect to see at the Chemical Society of Canada or the American Chemical Society national meetings.

Over \$1 million dollars in prizes were awarded. Representing the Canadian Commission for UNESCO, John had the honour of presenting the Science for Peace and Development Awards, and the International Year of Chemistry Award. If these students represent our future science community, we have a bright future indeed. Our participation in this event has opened new doors for our local chapter and new opportunities for CIC to raise the profile of professional chemists across Canada.



Lana at the Seneca College Newnham campus.

2010 CRYSTAL GROWING CONTEST

In this annual competition held during September - December 2010, teams of students from 14 local section high schools grew crystals of Copper Sulfate over a period of five weeks. At the end of the growing period, two crystals from each school were submitted for judging, based on criteria such as crystal clarity, mass and form. Copper sulfate used to prepare the crystals was generously donated by Anachemia Science.

72 students from the regional schools representing school boards from the Peel District, Toronto District and Durham region took part in the competition. CIC Toronto local section coordinators Dr. Ravi Ramachandran and Eric Persson visited winners at their schools to present the trophies in each category for the winning school, CICTor medals and award certificates.

Students and their teachers were very pleased to receive their awards in person. Describing her student's participation, Ms Karen Kam, science teacher at Stephen Leacock Collegiate said "As teacher-mentors for the National Crystal Growing Competition, it was an absolute inspiration to witness the hard work and dedication put forth by our students in this task. The experience proved to be not only enjoyable for the students participating, but also invaluable to the further development of their laboratory skills."

The winners of 2010 CIC Toronto section contest are:

BEST QUALITY: Helen (Han) Li, Lulu (Fang Jun) Zhang - Stephen Leacock Collegiate Institute

BEST OVERALL: Sanjeev Narayanaswamy - George S Henry Academy

Furthermore, we should all be proud that the best overall crystal from our local section also won 3rd place in the best overall category at the **Canada-Wide Crystal Growing Competition**.

Career Development

Two popular events this year have been the Mentorship Program and the Resume Clinic, programs that aimed to help the section's members in their career ambitions. At the kick-off event of the mentorship program, pairs of established chemical professional mentors and CIC members who were seeking guidance in developing career-related skills were teamed up. Throughout the rest of the year mentors and mentees will meet under informal circumstances. These meetings serve to help mentees integrate their knowledge and competencies into their current business environment or prepare for a new career challenge. Mentors in turn got an opportunity to further develop their communication and soft skills and to network with other established CICTor members. A true win-win situation for all parties involved.

The second part of this two stage rocket was the Resume Clinic. Led by Dr Ray Clement, the clinic set out to help the participants strengthen their cover letter and resume writing skills.

Drawing from years of experience working with helping students and working professionals, Dr Clement provided feedback on resumes that were submitted by participants prior to the clinic. Next year CICTor hopes to take this program to the next level by organizing a Career Fair for its members.



Winner of the Best overall category and 3rd place in the Canada-wide Crystal Growing contest - Sanjeev Narayanaswamy from George S Henry Academy.



Crystal Talk across Toronto Public Libraries



As part of celebration of the International Year of Chemistry in 2011, the CIC Toronto local section in partnership with Toronto Public Library hosted a series of lecture demonstrations by Dr Ravi Ramachandran, Chair of our local section, and coordinator of the annual crystal growing contest.

His presentation, 'The Mysteries and Magic of Crystal Formation', at the Gerrard/Ashdale Library and Annette Street Library drew nearly 100 students from the local schools, and included a display of award winning crystals from our section.

Debby Ng, Children's Librarian at Gerrard/Ashdale Public Library speaking of Ravi's engaging talk said, 'I really do think what he is doing for those kids - igniting their curiosity and making them want to learn - is so great!'. Following this presentation, students and their teachers

decided to set up a crystal growing project in their school, and to decorate their class room windows with their crystals. More talks are planned during winter 2011 at other Toronto Public Library locations.

Plant visit



Throughout the year, CIC Toronto has organized a few exciting tours for the section's members. First out was a visit to the Peel Integrated Waste Management Facility. The tour started with an in-classroom demonstration of types of material that can be recycled and how the waste is processed after it arrives at the facility. The second part was a walking tour of the facility where the participants got to see how waste is processed throughout the plant.

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The CIC Toronto Section thanks the following companies and organizations for their participation in, and support for, our activities.

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