

CIC Chemical Education Division
Minutes, Page 1

**The Chemical Institute of Canada
Chemical Education Division**

Minutes of meeting of the CIC Chemical Education Division, 39th IUPAC Congress and 86th Conference of the Canadian Society for Chemistry, Westin Hotel, Tuesday, August 12, 2003

Present: Margaret-Ann Armour (chair), Sharon Bennett (vice-chair), Sudhir Abhyankar, Leslie Barton, Sharon Bennett (vice-chair), Lew Brubacher (past chair), David Ford (treasurer), Judith Poë, Geoff Rayner-Canham (past chair and representative on the CSC board), Colin Baird, Jim Wright, Pam Wolff, Gale Thirlwall-Wilbee, Pippa Lock, Susan Boyd, Maggie Austen, Colin Baird, Patrick Draper, Todd Whitcombe, Ed Hudson, Lori Jones, Noel George, Richard Cassidy, Helen P. Graves Smith, Grazyna Wilczek

Regrets: Joe Takats, Peter Mahaffy, Kathy Darvesh

1. **Welcome and Introduction:** MAA welcomed attendees to the AGM of the ChemEd division. Attendees introduced themselves.

2. **Minutes, Vancouver, June 3, 2002**

The minutes were accepted as circulated. (LB, SA: **carried**)

3. **Reports**

(a) **Chair's Report (Margaret-Ann Armour)** Jim Wright and Pam Wolff were thanked for their contributions to the ChemEd portion of the conference; Jim Wright for his work on the organization of the chemical education portion of the conference, and Pam Wolff for her organization of the undergraduate poster session. Susannah Scott was also thanked for her preliminary work on behalf of our division.

(b) **Treasurer's Report (David Ford)** Details are provided in the attached financial report. The division's monies are in three funds: operating (\$311.14 as of 31 Dec. 2002), NHSCE – high school exam (\$408.47 balance) and designated – awards for student oral presentations (\$11,938.63 balance). Although the cheque for this year's operating budget has not yet arrived, we have since received verbal confirmation of a grant of \$1,765 for this year.

This year, 4 awards of \$200 each were provided to 3 regional undergraduate conferences and to a graduate conference. Some concern was expressed regarding acknowledgement of the support provided to these regional student conferences. Note: Discussion among members of the executive committee on this point continued outside the AGM. The following suggestions on facilitating communication were put forth...

Organizers of the regional student conferences (6-8/yr; we usually receive < 6

CIC Chemical Education Division
Minutes, Page 2

requests/yr) send their request (by e-mail) to the chair of the ChemEd division. The division supports these conferences in terms of a \$200 award for a poster or presentation given by a student. A positive response to such a request would involve sending the following items with our reply:

- Check
- Terms of reference for the award
- A one page report form to be returned to us with the following information:
 - Name, date and location of conference
 - Name of awardee and title of presentation
 - Details regarding how the division's support was acknowledged
 - Addressed (and prestamped?) return envelope

Another suggestion at this point was to ask that a link between the Student Chapters webpage and the ChemEd student awards webpage be established.

Motion: GRC moved and SB seconded the acceptance of the financial reports (**Carried**)

MAA thanked David for his time and efforts on behalf of the division.

- (c) **ChemEd program for Ottawa (MAA on behalf of Jim Wright)** Attendance at the CED division symposia has been high this year. We thank the symposium organizers for their efforts in putting together an excellent program. Upcoming highlights include the RISE presentations (Reactive Intermediates Student Exchange) in the CE04 symposium on Wednesday, the Public Understanding of Chemistry symposium on Thursday, and the DIDAC symposium on Friday morning.
- **Undergraduate student poster competition (Pam Wolff)** This will take place from 4:30 – 6:00 pm, on Thursday, August 14. There will be 44 participants, and a supper reception after. Awards will be presented to the winners at the ChemEd awards reception on Thursday night. Anyone interested in helping to judge the poster competition is asked to see Pam. (note from KD: the poster competition was interrupted by the provincewide power blackout at around 4:15 pm, so part of the judging took place in the dark. The supper reception was cancelled. Cheques were mailed to the winners)
 - **Graduate/undergraduate oral competition (MAA and SMB)** Two graduate students gave talks in the ChemEd division symposia this year. Both were recipients of a Reg Friesen Award (\$250)

S. R. Chaudhuri (graduate student from U of T) "A Retrospective of the Science of Clara Cynthia Benson" 11:40 Tuesday CE02 symposium Abstract CE.2.006

Margaret Antler (graduate student from McGill) "Attitudes Towards Computer Programming and Data Acquisition in the Advanced Analytical Laboratory" 15:40 Wednesday CE05 General Symposium Abstract CE5011

CIC Chemical Education Division
Minutes, Page 3

- (d) National High School Chemistry Exam (Sudhir Abhyankar and Leslie Barton)** The report on the NHSCHE was circulated. As in previous years, the organization of the exam is split into two parts (multiple choice and essay questions). LB sets the questions and SA administers the exam, including the organization of regional coordinators and distribution of the exam. SA also acted as national judge for the past two years and asked for suggestions of people he might approach to take on this role for future competitions. The 2003 exam was held on Tuesday, April 15. 1161 students from 227 schools participated. The student participation rate this year was slightly (3.9%) lower than last year. It is a busy time of year for such exams: for example, the Euclid exam (Math) was held on the same day. The average mark in part A was 8.61/25, approximately the same as it was last year. We are in the process of getting new printer-friendly certificates. Suggestions for the school registration form: perhaps the ChemEd website could be mentioned on the form, and perhaps space on the form could be made for the fax, and e-mail address of the school. Sudhir thanked Leslie Barton (National Examiner), the Regional Coordinators (Rob Haines, Denis Bussieres, Pippa Lock, George Baldwin, Margaret-Ann Armour, and Ken MacFarlane) and all the District Coordinators for their time, efforts, dedication and help.

The National Winner was Dongbo Yu from Don Mills Collegiate in Toronto. A complete list of all regional winners will appear in the September issue of the Chem13 News. Next year's exam will be held on Tuesday, April 27, 2004.

Various points were made concerning the exam:

- MAA mentioned that this is an important initiative of the division and provides us with a good opportunity to interact with teachers and meet some of the top students.
- LB informed us that this exam is meant for the top 10-15% of high school students but that in some instances teachers have their whole class write the exam. Solutions to questions of past exams are posted on the website and this year the CETF provided financial support for the translation of solutions into French. LB is going to investigate the possibility of obtaining a grant from Heritage Canada to have the solutions to the 2003 exams translated into French. Although the CETF paid for the translation of the solutions to the 2002 exams, it has indicated that it will not pay in the future. LB proposes to send a letter to teachers explaining details regarding the exam and the availability of old exams and solutions, etc. She believes that the performance on Part A may improve if students have access to these web-based tools. This past year she used a 4-page format (rather than a 2-page format) and was able to include some charts and graphs in her questions. She asks for volunteers to help proofread the detailed solutions she is preparing for the 2003 exam.
- It may be that the exam is too difficult and that the low marks may actually discourage students from entering chemistry. G. Wilczek (district coordinator for Montreal English High Schools) is concerned about performance and participation of Quebec students. Teachers are discouraged that their best students do so poorly on the national exam. What to do? Is this exam used as a means of finding the top students in the country, or as a means of encouraging kids to go into chemistry? Perhaps for the Quebec students we

CIC Chemical Education Division
Minutes, Page 4

should identify the questions that relate to their HS curriculum and set the remainder as bonus/challenge questions. This could be done using the response sheets that the HS teachers send back to the regional coordinators (via the district coordinators)

- MAA expressed our appreciation to SA and to LB for their efforts
- (e) **NCW, October 17-25, 2003 (Gale Wilbee)** The approach this year represents a move toward general and continuous outreach: hence, there will be no "launch". There will be no High School booklets. Funding for NCS activities has decreased this year. The Chemical Milestones posters prepared by Martha Langford and Hugh Anderson for the 2000 Calgary meeting will be posted on the web.
- (f) **CSC2004, London, ON (Colin Baird)** A report was circulated, with a tentative list of symposia for the ChemEd division program. Mel Usselman will be organizing symposia (3) on the History of Chemistry. An additional symposium of the "Public Understanding of Chemistry" may also be included.
- (g) **Chem Ed, 2005, Vancouver (Gordon Bates/Chris Toth)** The ChemEd conferences target high school teachers in North America. The division has received a request for financial support of this conference. This request was discussed by members of the executive. The view was advanced that such a conference should bring in a lot of new teachers, and we need to support it.

Various points:

- Could we have a presence at this conference...perhaps a meeting booth?
- We hope that the money might enable teachers from Canada to attend – particularly those in the West Coast area.

Motion: MAA proposed and GR-C seconded that the CED provide \$400 for the ChemEd2005 conference. **Carried**

- (h) **Pacificchem, Hawaii, December 15-20, 2005 (Josef Takats)** JT sent regrets. The conference was discussed. There are seven symposia in the area of ChemEd under Area 4, Chemistry and the Community (Canadian organizers in parenthesis)
 - i. Patent protection around the Pacific Rim (Edwin Gale)
 - ii. Visualization in chemistry for the major and non-science major (Ghislain Deslongschamps)
 - iii. Accessing chemistry (Dietmar Kennepohl)
 - iv. Chemistry, toxins, food safety, and the public
 - v. Women chemists: past, present and future (Geoff Rayner-Canham)
 - vi. The Pacific Basin chemical community: the chemical business and economics
 - vii. Microscale chemistry and green chemistry

Organizers from 3 Pacific rim countries are needed for each symposium. JT will do a mailout in September by way of a call for support. The

CIC Chemical Education Division
Minutes, Page 5

deadline for suggestions is 15 March 2004. (note from JT: the so far seven (7) symposia are substantially less than the eleven (11) symposia in 200. Ideas and suggested symposia organizers are welcome.)

- (i) **IUPAC Committee on Chemical Education (Peter Mahaffy)** PM sent regrets, due to his IUPAC responsibilities.
- (j) **ACCN Education Issue (Gale Wilbee)** The suggestions made last year were helpful. Contact Heather if you have any further suggestions.
- (k) **CED web page (Kathy Darvesh)** (KD sent regrets: the following is from the executive meeting). The CED web page now resides on the CSC server. However, the new look is far less friendly and welcoming than it was when PM managed it on the King's University College Server. For student chapters, the website can serve as an operational tool and an archival tool.
- (l) **Women's Committee (MAA for Kathy Darvesh)** A dinner is being planned for Wednesday evening (August 13) at the Courtyard Restaurant. We will meet at 6 p.m. at the Westin Hotel lobby. This event is being publicized at the CED sessions. Invited speakers from the Symposium on Women Chemists: Past, Present and Future (organized by GR-C and M. Chan) will be joining us.
- (m) **Council on Undergraduate Research (SMB for Kathy Darvesh)** KD is our liaison with CUR. From KD's handout: KD was invited to the June 2003 business meeting of the Council on Undergraduate Research at Ursinus College, PA. At that meeting, the Canadian Affinity group of CUR was launched. Members can join by visiting the CUR website www.cur.org. There is an advantage to being part of the American organization in that they are well-established, and have excellent resource material and a fine website. We need, however, to use the Canadian Affinity group to lobby our own granting agencies on behalf of the Canadian Primarily Undergraduate Institutions.

4. **Report from the Chem Ed CIC Executive Representative (Geoff Rayner-Canham)**
There was a brief discussion regarding student conferences.

5. **Public Understanding of Chemistry for the Future (Roland Andersson)** RA presented his discussion paper to the executive at our meeting on Monday and asked for feedback. GT-W summarized the key points. There is a proposed new fee structure, with financial implications for the division. There is a possibility to come up with new initiatives that may be attractive to external donors. Possibilities include ½ day symposia for teachers, hands-on experiences for HS students at universities, CIC to sponsor chemists to go to teacher meetings, after school classes or camps for kids, teachers professional development days, forum of "best practices"

Motion: The ChemEd division expresses interest in the initiatives presented in the discussion paper but concrete actions need to be considered carefully and depend on funding as well as feedback from the target groups (MAA/GR-C **Carried**)

CIC Chemical Education Division
Minutes, Page 6

6. Officers for 2003-2004 (Lew Brubacher)

Chair: Judith Poë

Immediate Past Chair: Margaret-Ann Armour

Vice-Chair: Kathy Darvesh

Treasurer: David Ford

Secretary: Helen Graves-Smith

At Large: Pippa Lock

At Large: Noel George

Motion to accept the slate (LB, LB ...Lew and Leslie: **Carried**)

MAA thanked Lew for his efforts

7. Other Future Conferences (for information)

- a. CSCHE 2003, Hamilton, ON, October 26-29, 2003
- b. CSCHE 2004, Calgary, AB, October 3-6, 2004
- c. CSC2005, Saskatoon, SK

The division would like to keep the communication lines open with C3 and, if possible, hold joint symposia with C3 at the 2005 meeting in Saskatoon. Richard Cassidy has expressed interest in organizing the Chemical Education program at the Saskatoon meeting.

8. Chem Ed related awards (for information)

- a. Clara Benson – Soledade Pedras, University of Saskatchewan
- b. Union Carbide – Peter Mahaffy, The King's University College, Edmonton AB
- c. Two-Year College –This award has been discontinued.
- d. Bayer Inc. Award for High School Chemistry Teachers --There was no high school award this year. This award needs the attention of someone who will really promote it.

9. Other business

CIC Chemical Education Division
Minutes, Page 7

MAA thanked LB and SB for their service to the division; both are leaving the executive after the meeting. MAA welcomed the incoming slate. JP thanked MAA for her service to the division and congratulated her for her recognition by Macleans as a "Canadian who makes a difference".

10. Adjournment

The meeting adjourned at 6:24 p.m.

Respectfully submitted

Kathy Darvesh (with thanks to notetaker Sharon Bennett)
Secretary, ChemEd division