

ACS DIVISION OF CHEMICAL EDUCATION
COMMITTEE ON COMPUTERS IN CHEMICAL EDUCATION (CCCE)

Report to the ACS Division of Chemical Education, July 23, 2008
Scott Van Bramer Chair

The CCCE seeks to encourage, publicize and support the development, assessment and use of computing technologies in chemical education. This report summarizes some CCCE activities in pursuit of these objectives from March 2008 through July 2008. Committee members are identified with an asterisk (*) after their names.

- 1) CONFICHEM - ON-LINE COMPUTER CONFERENCES. The conferences provide an opportunity for authors to present papers on the CONFICHEM website and for discussion of the papers using the CONFICHEM Discussion List. Discussion of the papers generally includes: a day devoted to short questions, responses from the author, and then several days for discussion of each paper. The CONFICHEM Discussion List currently has over 600 registrants. The CONFICHEM website is managed by John Penn*, Gary Trammell* and Elizabeth Dorland* organize the conferences, and Robert Belford* manages the CONFICHEM Majordomo Discussion List.

CONFICHEM Conferences have been co-sponsored with other Divisions of the American Chemical Society and other Committees of the Division of Chemical Education. We hope to promote such joint endeavors in the future. For more information about future conferences and archives of past conferences see:
<<http://www.ched-ccce.org/confchem/>> .

- a) Conferences held during 2008:
 - i) April – June, 2008 “Chemistry at the National Science Digital Library”, organized by Theresa Zielinski, Jon Holmes, and John Moore.
 - b) Tentative Conferences
 - i) Assessment – organized by Renee Cole*
 - ii) Chemical education research – organized by Mike Sanger*
 - iii) Green Chemistry – organized by Julie Haack
 - iv) Computation and visualization – organized by Elizabeth Bell-Loncella
 - v) POGIL – organized by Rick Moog
 - vi) Computational and Theoretical Chemistry Applications in Chemical Education
- 2) COMPUTERS IN CHEMICAL EDUCATION NEWSLETTER. The committee publishes a newsletter on that provides educators an opportunity to share innovations in the use of technology for teaching chemistry. The newsletter is published electronically. Following publication, each article is discussed online using the CONFICHEM Discussion List. This provides readers an opportunity to ask the author questions about their article. Brian Pankuch* is editor of the Newsletter and Scott

Van Bramer* chairs the on-line discussion of papers. We have transferred the on Newsletter web pages to the committee's server. The Newsletter is available online at: <http://ched-ccce.org/newsletter/HPNewsCCE.html>. The Fall 2007 newsletter was discussed online using the confchem listserv in November 2007. The next edition of the newsletter is scheduled for publication in November 2008.

- 3) **SYMPOSIA AND OTHER SESSIONS AT NATIONAL MEETINGS.** Three CCCE members are currently members of the Division of Chemical Education's Program Committee (Renee Cole*, Paul Kelter* and Harry Pence*). The CCCE and its members organize symposia and present papers at National ACS Meetings and at the BCCCE.
 - a) Scott Van Bramer* and Liz Dorland* organized a symposium entitled "Computers in Chemical Education: Best Practices" for the 20th BCCE at Indiana University, Bloomington, Indiana, 27-31 July 2008.
 - b) Mike Sanger* organized a symposium entitled "Research in Chemical Education Using Computers" for the 20th BCCE at Indiana University, Bloomington, Indiana, 27-31 July 2008.
 - c) Robert E Belford*, Bob Hanson* and John H. Penn organized a symposium entitled "Web Based Applications for Chemical Education" for the 20th BCCE at Indiana University, Bloomington, Indiana, 27-31 July 2008.
 - d) Harry Pence* and Laura Pence organized a symposium entitled "Using Social Networking Tools to Teach Chemistry" at the 235th ACS National Meeting in New Orleans, April 6-10, 2008.

- 4) **ON-LINE INTERCOLLEGIATE COURSES.** The CCCE offered five previous on-line intercollegiate courses. <<http://www.ched-ccce.org/olcc/>>. A new OLCC on Safety for High School Teachers is currently in the planning stages. Gary Trammell* and Robert Belford* are organizing this course.

- 5) **COMMITTEE MEETINGS.**
 - a) Open and closed meetings of the CCCE are held at BCCE Meetings. Meetings were held at the 2006 BCCE Meeting at Purdue University.
 - b) The CCCE committee meet at the 2007 ACS meeting in Boston.
 - c) The next meeting is planned for the 2008 BCCE meeting at Indiana University.

- 6) **CCCE WEBSITE.** This website is used to provide information about past, present and future CCCE activities. John Penn* is the website manager and Brian Pankuch* provides backup. <http://www.ched-ccce.org>.

- 7) **OTHER ACTIVITIES**
 - a) The committee has worked out the details for a feature column in JCE for CONFCHEM conferences. A white paper was approved by the committee and arrangements made with John Moore. Theresa Zielinski is preparing papers from the Spring 2008 CONFCHEM for the first column.
 - b) Robert Belford* has drafted a white paper for online conference organizers

- c) A subcommittee has been formed to investigate organizing an online poster session for high school students to present the results of their research. This will be used as a pilot for several new ideas on organizing online poster sessions. The subcommittee includes: Gwen Sibert, George Long*, Robert Belford*, and James Beard.

8) **CCCE MEMBERS 2008.** The CCCE Committee consists of 20 members.

Names, affiliations and e-mail addresses are provided below. Additional information about Committee member may be found at: <<http://www.ched-ccce.org/ccce/members/current.html>>.

- a) Bob Belford, University of Arkansas at Little Rock, rebelford@ualr.edu
- b) Renee Cole, Central Missouri State University, rcole@socket.net
- c) Leon L. Combs, Kennesaw, lcombs@kennesaw.edu
- d) Elizabeth Dorland, Washington University, dorland@wustl.edu
- e) Robert Hanson, St. Olaf College, hansonr@stolaf.edu
- f) Paul B. Kelter, University of Illinois, paulkelter@yahoo.com
- g) George R. Long, Indiana University of Pennsylvania, grlong@iup.edu
- h) Brian Pankuch, Union County College, pankuch@hawk.ucc.edu
- i) Harry E. Pence, SUNY, College at Oneonta, pencehe@oneonta.edu
- j) John H. Penn, West Virginia University, jpenn2@wvu.edu
- k) Michael J. Sanger, Middle Tennessee State University, mjsanger@mtsu.edu
- l) Gwen Sibert, RGVs, gsibert@rvgs.k12.va.us
- m) Brian Tissue, VPI & State University, tissue@vt.edu
- n) Gary Trammell, University of Illinois at Springfield, trammell.gary@uis.edu
- o) Scott E. Van Bramer, Widener University, svanbram@science.widener.edu