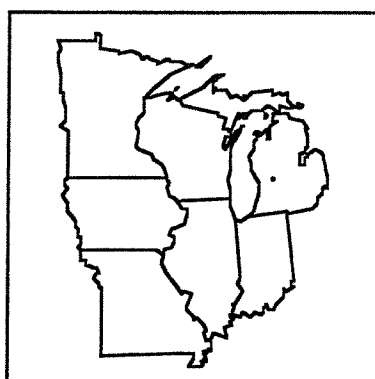
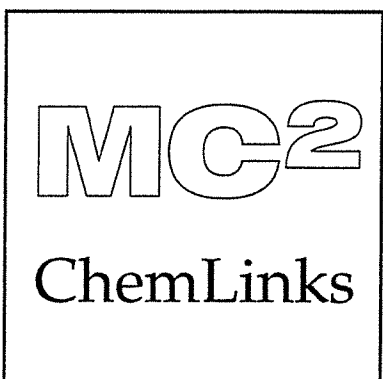


MIDWEST ASSOCIATION OF CHEMISTRY TEACHERS IN LIBERAL ARTS COLLEGES

THE 45TH ANNUAL MEETING OF
MACTLAC



BIOSPHERE
2 CENTER



ENVIRONMENTAL CHEMISTRY
IN THE CURRICULUM

OCTOBER 17-18, 1997
CALVIN COLLEGE, GRAND RAPIDS, MI

ABOUT THE THEME

Environmental chemistry has become an important area for scientific work and one that captures the interest of our students. Our first speaker, **Alan Elzerman**, will speak from his many years of experience teaching environmental chemistry courses about what place environmental chemistry has in the curriculum. Ultimately, hard scientific work must be done to help us understand the role

chemistry plays in our environment and can in turn make us better stewards of our world. **Debra Colodner** will describe how one of the newest research centers for environmental study is contributing to this knowledge. Finally, many curriculum innovations use environmental issues as a thread in weaving new curriculum materials. Examples of these will be provided by **Susan Kegley**.

ABOUT THE SPEAKERS

- Friday Afternoon Address, **Dr. Alan Elzerman**, *Clemson University, Clemson, SC*

Dr. Elzerman is Professor and Chair of the Environmental Systems Engineering Department, Director of the School of the Environment, and Director of the Environmental Science and Policy Program. He is also former chair of the Division of Environmental Chemistry for the ACS. His primary teaching and research interests are environmental chemistry and analytical chemistry.

- Friday Evening Address, **Dr. Debra Colodner**, *Biosphere 2 Center, Oracle, AZ*

Dr. Colodner is Director of Education and Academic Affairs at Biosphere 2 Center. She has a background in marine chemistry although her work is focused now on the Biosphere 2 Center which is now run by Columbia University. Biosphere 2 was recently featured on the cover of C&E News (August 4, 1997) highlighting its role in studying environmental chemistry.

- Saturday Morning Address, **Dr. Susan Kegley**, *University of California, Berkeley, CA*

Dr. Kegley is Project Director of the ModularCHEM Consortium. Besides her efforts with MC², she has co-written a lab manual on the chemistry of water which includes field measurements. These activities have been used in the freshman chemistry lab at Berkeley.

ABOUT THE WORKSHOPS

- Saturday Afternoon (1–4 pm), **Thermal Analysis**, Mike Uptmor of TA Instruments, Inc., will lead a workshop on thermal methods of analysis using differential scanning calorimetry and thermo-gravimetric analysis (DSC/TGA) instrumentation. The workshop will include a presentation and demonstration on Calvin's instrument. (Limit 24 participants)

- Saturday Afternoon (1–5 pm), **Curriculum Innovation Modules**, ModularChem Consortium and ChemLinks representatives will lead a workshop giving a hands-on introduction to materials developed via these NSF-funded initiatives. A module which focuses upon ozone depletion will be featured as representative of the modules available. (Limit 36 participants)

MEETING SCHEDULE

Friday, October 17, 1997

9:00–06:00 PM	Registration
9:00–12:00 PM	Chemistry Department open house
10:00– 1:00 PM	Exec Council Meeting/Lunch
12:00– 1:00 PM	Lunch (<i>by reservation or cash</i>)
1:15– 2:30 PM	General Session I <i>Welcome by President Gaylen Byker</i> <i>Remarks by Dr. Mark Muyskens</i> <i>Plenary Address by Dr. Alan Elzerman</i>
2:30–3:00 PM	Refreshments
3:00–3:50 PM	Discussion Groups - Session I
4:00–4:50 PM	Discussion Groups - Session II
5:00–6:30 PM	Sci-Mix Program (<i>Mixer, posters, vendors</i>)
6:30–8:00 PM	Banquet (<i>by reservation</i>)
8:00–9:00 PM	<i>Evening Address by Dr. Debra Colodner</i>

Saturday, October 18, 1997

	Breakfast (<i>on your own</i>)
8:00– 8:45 AM	Muffins, coffee, juice
8:45–10:30 AM	General Session II <i>Address by Dr. Susan Kegley</i> <i>Business Meeting</i>
10:30–11:00 AM	Refreshments
11:00–12:00 PM	Discussion Groups - Session III
12:00– 1:30 PM	Exec Council Meeting/Lunch
12:00	Lunch (<i>by reservation or cash</i>)
1:00– 4:00 PM	Workshops

OTHER WAYS TO PARTICIPATE

- **Book Drive** - Bring unwanted textbooks with you to the meeting to send to third-world universities & colleges - see below for more details.

- **Poster Session** - Present a poster at this meeting. Posters that fit with the environmental chemistry theme as especially encouraged.

- **Chemistry Swap Meet** - Share your favorite handout, demonstration, lab write-up, group worksheet, analogy, homework assignment. Bring two copies; we will display one copy at the mixer and people can order individual copies at the meeting.

- **Visit the exhibition area** - We have invited several publishers, equipment suppliers, and software providers to display their products on Friday.

- **Check out the Placement Bulletin Board** - Open positions and desired positions can be posted (see the MACTLAC web page for more info about this service).

- **Invite a colleague to come along** - Also try your colleagues at neighboring colleges to see if you can carpool to the meeting.

WEBLINKS

[HTTP://WWW.CALVIN.EDU/ACADEMIC/CHEMISTRY/MACTLAC/](http://www.calvin.edu/academic/chemistry/mactlac/)

Browse our web page for a web version of this program and more information about this meeting including links to other web pages related to this meeting, a link to the web page for Grand Rapids, MI, and a link to the MACTLAC home page which lists the current officers and state representatives that comprise the Executive Council of MACTLAC.

EMAIL: MACTLAC@CALVIN.EDU

MACTLAC DISCUSSION GROUPS

SESSION I Friday afternoon (10/17) 3:00–3:50 PM

- A. Discussion of Plenary Lecture with Alan Elzerman
- B. Teaching General Chemistry
- C. Teaching Organic Chemistry
- D. Teaching History of Chemistry
- E. Teaching Chemistry using the WWW
- F. Teaching Chemistry for Non-Majors
- G. Cultivating Undergraduate Research
- H. Access to the Chemical Literature

SESSION II Friday afternoon (10/17) 4:00–4:50 PM

- I. Molecular Modeling/Computers in Chemistry
- J. Teaching Biochemistry
- K. Teaching Advanced Inorganic Chemistry
- L. Teaching Physical Chemistry
- M. Women in Chemistry
- N. NSF Curriculum Reform Efforts (MCC & ChemLinks)
- O. Teaching Environmental Chemistry
- P. Chemical Hygiene/Waste Disposal Efforts

SESSION III Saturday morning (10/18) 11:00 AM–12:00 PM

- Q. Discussion of Evening Lecture with Debra Colodner
- R. Discussion of Morning Lecture with Susan Kegley
- S. Federal Science Policy with Congressman Vernon Ehlers (tentative)
- T. ACS-Committee On Professional Training
- U. Teaching Analytical Chemistry
- V. Funding Opportunities with Dreyfus & Research Corp.
- W. Course and Curriculum Evaluation
- X. Chemistry Outreach to the Community

PROJECT BOOKS

Last year, the members of MACTLAC voted to collect chemistry texts and bring them to the 45th Annual Meeting at Calvin College. We encourage you to check your bookshelves and bring along one or more books for this project (see below for the kinds of books wanted). If we all participate, the combined result will provide books for several third world colleges and universities.

The books will be going to at least three different locations in Africa. International Aid (MI) will deliver books to Daystar University in Kenya. An emeritus professor at Calvin College will send books as part of a shipment to Hilltop University, a liberal arts college in Nigeria. The Salvatorian Mission (WI) will also distribute books we collect in various locations. See our web page for more information about these organizations and schools.

The kinds of books that can be used by these schools are texts and/or reference books that have copyrights which are no more than about ten years old. It will be particularly helpful if we can put together multiple copies of a text. Out of courtesy to the textbook vendors who will attend our meeting, please do not bring books that are most recent editions.

Thank you for your contributions to this project.