

MIDWESTERN ASSOCIATION OF CHEMISTRY TEACHERS IN LIBERAL ARTS COLLEGES

TWENTY-SIXTH ANNUAL MEETING

CARLETON COLLEGE
October 20-21, 1978

M A C T L A C P R O G R A M

Friday, October 20

- 10:30 Executive Council meeting and lunch. Commercial Tea Room.
- 11:00 - 1:00 Registration. Mudd/Olin Link, upper level.
- 12:00 Lunch. Either Tea Room or Burton Dining Hall.
- 1:00 General meeting. Olin Hall, Room 137.
Welcome by President Robert H. Edwards.
PRESIDENTIAL ADDRESS by Dr. Joe D. Woods, Drake University.
"Energy Resources - How Much, What Form and Who Cares?"
Announcements.
- 2:30 Refreshments. Olin Hall Lobby.
- 3:00 Group Discussions I.
- 4:00 Group Discussions II.
- 5:00 Tour of Carleton chemistry facilities. Meet in Mudd Hall, Room 171, for remarks by Dr. James E. Finholt.
- 5:30 Social hour and perusal of art exhibit. Music and Drama Center. Recent paintings by Richard Kinnaird. Brief gallery talk by Deborah Brown, Carleton Art Department, on Kinnaird's simulation of color as a phenomenon of light.
- 6:30 Banquet. Goodhue Dining Hall.
- 8:00 ADDRESS: Dr. Bassam Shakhshiri, Univ. of Wisconsin/Madison. "New Ideas and Exhortations for Lecture Demonstrations". Olin Hall, Room 137.
- 9:30 Mixer. Double Tree Restaurant. Route 3, south of town. Cash bar.

Saturday, October 21

- 7:45 Breakfast. Tea Room.
- 8:30 Annual business meeting. Tea Room.
- 9:30 PANEL: Research in Liberal Arts Colleges. Olin Hall, Room 137.
Dr. Brian Andreen, Research Corporation.
Dr. Arthur Findeis, National Science Foundation.
Dr. Joseph Rogers, Petroleum Research Fund.
- 10:30 Group Discussions III.
- 11:30 Lunch. Tea Room.

MACTLAC GROUP DISCUSSIONS - 1978

Conveners and Resource Persons Listed

I - Friday, 3:00

II - Friday, 4:00

III - Saturday, 10:30

<p>PERSONAL COMPUTING</p> <p>With the booming interest and dropping costs it is practical to buy or build your own computer. This has implications for chemistry teaching.</p> <p>William Gleason, Olin Sister Mary Thompson 108</p>	<p>LABORATORY MICROCOMPUTERS</p> <p>New technology makes it easy (some say) and cheap to get into interfacing instruments. How do we get started?</p> <p>David Smith Olin 108</p>	<p>CLASSROOM DEMONSTRATIONS</p> <p>There is a national trend of greater interest in doing more and better lecture demonstrations, and this group will share ideas.</p> <p>Bassam Shakhshiri Olin 137</p>
<p>INTEGRATED LABORATORY</p> <p>Once upon a time there were "chemists" who did their work without trying to put specialty labels on it. They fearlessly crossed what we now call "fields". How can we remove some fences from those fields so that our students will see chemistry in a more comprehensive context?</p> <p>Since there is much expressed interest in this topic we decided to extend it over two discussion periods, but participants may choose to come in at the middle.</p> <p>Earl Scott and Truman Schwarz Olin 141</p>		<p>RESEARCH GRANTS</p> <p>The panel from the morning session will continue the discussion with interested participants.</p> <p>Brian Andreen, Arthur Findeis, Joseph Rogers Mudd 60</p>
<p>TIME-SHARING COMPUTERS FOR SMALL COLLEGES</p> <p>A tour of the Carleton PDP 11/60 system, and discussion of factors to be considered when setting up a system on a campus. Carleton's experience is strongly dependent upon student work.</p> <p>Carl Henry Laird Hall</p>	<p>NON-SCIENCE MAJORS</p> <p>This perennial topic is still one of the important problems for teachers. How do we approach it without merely being "trendy"?</p> <p>William Child Olin 109</p>	<p>TEACHING INORGANIC CHEMISTRY</p> <p>Currently there is national debate on what should be included and what should be required by the American Chemical Society.</p> <p>Anne Sherren Olin 141</p>
<p>THE WHOLE FOUR-YEAR CHEMISTRY CURRICULUM DEBATE</p> <p>With the large interest shown in this topic we decided to use two discussion periods. Certainly that is not excessive time for making all the decisions. How does undergraduate chemistry plan to be both basic and up-to-date?</p> <p>Brock Spencer, Olin Wilmer Stratton 137</p>		<p>LABORATORY MICROCOMPUTERS</p> <p>See above under II. There may be participants who had conflicts with other sessions at the earlier time.</p> <p>Bruce Thomas Olin 214</p>
<p>TEACHING ORGANIC CHEMISTRY</p> <p>Do the new books need to say it all? How about the alleged trauma?</p> <p>Wesley Pearson Mudd</p>	<p>TEACHING BIOCHEMISTRY</p> <p>A well-discussed topic last year, worth repeating.</p> <p>Elliott Uhlenhuth Mudd</p>	<p>INDUSTRIAL CHEMISTRY</p> <p>Perhaps we've been overlooking a rich resource of ideas for realistic teaching. Experience at some schools shows that this is a "hot topic".</p> <p>Donald Tarr Olin 109</p>

CARLETON COLLEGE

NORTHFIELD, MINNESOTA 55057

DEPARTMENT OF CHEMISTRY
(507)645-6431 x 223

September 8, 1978

MEETING ANNOUNCEMENT

TWENTY-SIXTH ANNUAL MEETING OF MACTLAC

MIDWESTERN ASSOCIATION OF CHEMISTRY TEACHERS
IN LIBERAL ARTS COLLEGES

October 20 and 21, 1978

Plan now to attend the Carleton meeting. Help MACTLAC begin its second quarter-century of bringing together college chemistry teachers for exchange of ideas and for general mutual helpfulness. We look forward to strengthening professional friendships, to a good and useful program, and to having you inspect our new Seelye G. Mudd Hall of Science. Please send the enclosed pre-registration form before October 1.

PROGRAM SYNOPSIS

Friday, October 20

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| 10:30 | Executive Council meeting and lunch |
| 11:00 - 1:00 | Registration |
| 12:00 | Lunch |
| 1:00 | General meeting
Welcome: President Robert H. Edwards
PRESIDENTIAL ADDRESS: Dr. Joe D. Woods, Drake University
"Energy Resources - How Much, What Form and Who Cares?" |
| 2:30 | Refreshments |
| 3:00 | Group Discussions I (See other side of this sheet.) |
| 4:00 | Group Discussions II |
| 5:00 | Comments on Seelye G. Mudd Hall. Dr. James E. Finholt
Tour of chemistry facilities |
| 5:30 | Social hour |
| 6:30 | Banquet |
| 8:00 | DEMONSTRATION LECTURE: Dr. Bassam Shakhshiri, U. Wisconsin |
| 9:30 | Mixer |

Saturday, October 21

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| 7:45 | Breakfast |
| 8:30 | Annual business meeting |
| 9:30 | Panel: Research in Liberal Arts Colleges
(Representatives from NSF, PRF, Research Corporation) |
| 10:30 | Group Discussions III |
| 11:30 | Lunch |

PRELIMINARY SUGGESTIONS FOR DISCUSSION GROUPS

Note your preferences on the preregistration sheet. It will be possible for each person to attend three different groups and we will try to avoid unhappy conflicts. A final choice of groups will depend on your responses.

- A. Building or buying your own computer. The new trend toward personal computing. We hope to have some examples for inspection.
- B. A discussion of time-sharing computer systems for small colleges, and a tour of the Carleton PDP 11/60 system. (Led by Dr. Carl Henry (Director, Carleton College Academic Computing).
- C. Microcomputers for instruments in the chemistry labs. Getting started even without background in electronics.
- D. More discussion of educational psychology, Piaget, etc., provided a good resource person can be assigned.
- E. The undergraduate chemistry curriculum. What is really necessary given the 4-year limitation?
- F. Helping students to improve their abilities to communicate, both orally and in writing. Is this a valid part of chemistry teaching?
- G. Introducing some industrial chemistry into our teaching. How do we start, and how do we continue to take advantage of the opportunities?
- H. The design of integrated laboratory programs at the advanced level.
- I. Follow-up discussion on research proposals and projects after the panel on Saturday morning. Led by the panelists.
- J. Classroom demonstrations, follow-up on the Friday evening lecture. Participants are urged to bring a demonstration to perform for the group! Led by Bassam Shakhshiri.
- K. Teaching non-science majors.
- L. Teaching general chemistry for majors.
- M. Teaching introductory analytical chemistry.
- N. Teaching introductory organic chemistry.
- O. Teaching physical chemistry.
- P. Teaching inorganic chemistry.
- Q. Teaching biochemistry.
- R. Other (please specify).