

The

TarHelium



A Publication of the North Carolina Section of the American Chemical Society

Vol. 16, No. 6

February, 1986

February Meeting Notice

WHEN: Tuesday, February 11, 1986 - 7:30 P.M.
[Optional Social Hour (5:45 P.M.)
and Dinner (6:45 P.M.)]

WHERE: North Carolina School of Science and Mathematics
(NCSSM) West Club Blvd. and Broad Street, Durham (see
map on Page 3)

TOPIC: "IMPROVING HIGH SCHOOL CHEMISTRY: HOW YOU CAN HELP"
(a panel discussion with audience participation)

PANEL: PHILIP DAIL - Garner High School and NCSU, Raleigh
CAROLYN MORSE - North Carolina School of Science and
Mathematics
RUFUS OWENS - Sanderson High School, Raleigh
HELEN STONE - Ben L. Smith High School, Greensboro

Social Hour and Dinner:

An optional social hour and excellent buffet-style dinner, catered by the NCSSM food service chefs, will precede the meeting. Students from NCSSM will provide optional tours of the school during the social hour and guide those attending the program to the meeting location. DINNER RESERVATIONS should be made on or before FRIDAY, FEB. 7, by telephoning Sue Dickerson at 684-2414 in Durham, Joyce Dunn at 737-2545 in Raleigh or Debbie Stump at 962-2172 in Chapel Hill. Cost of the dinner and social hour is \$10 for members, \$5 for students.

About the Program

Improving science education at the high school level is widely accepted as an important national concern. That concern is justified by a realization that the quality of a student's high school science experience often is crucial to his or her future choice of a scientific career. The purpose of the February 11 program is not to convince a group of chemists that the improvement of high school chemistry teaching is important. (That would be like a flock of chickens sitting around the henhouse clucking about the value of eggs.) Our hearts and minds are already in the right place. However, we do not always quite know how to help, and that is the purpose of this program. Our four panelists will present and discuss different ideas about specific ways in which those of us not directly involved in high school teaching can help improve high school chemistry programs. We are hoping for active discussion and additional practical suggestions from the audience. With proper response and energetic follow-up, this program could be the beginning of our section's development of a chemistry education improvement plan which might even serve as a national model. We have an opportunity to make a significant contribution to the solution of a serious national problem. Be there to help us get started!

About the Panelists

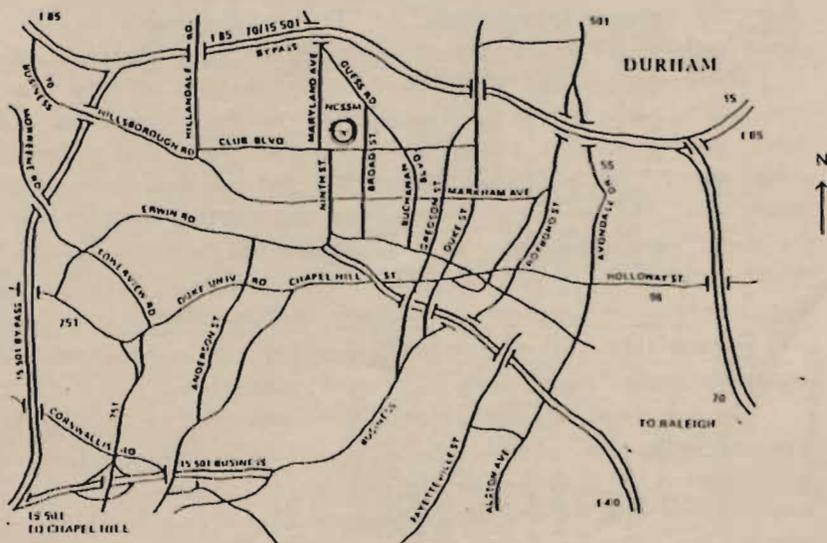
PHILIP DAIL teaches chemistry both at Garner High School, Raleigh, and at North Carolina State University. He also is a candidate for the Ph.D. degree in Science Education at North Carolina State University. In 1984, he was named North Carolina Teacher of the Year by the State Department of Public Instruction.

CAROLYN MORSE is Chairman of the Science Department at the North Carolina School of Science and Mathematics. In 1985, she was awarded the National Science Teachers Association's Science Teaching Achievement Award for curriculum development.

About the Panelists (continued)

RUFUS OWENS was Science Department Chairman at Broughton High School in Raleigh for 15 years before joining the faculty at North Carolina School of Science and Mathematics. In 1985, he accepted his present position teaching chemistry at Sanderson High School in Raleigh. He holds the Ph.D. degree in physical chemistry from Duke University.

HELEN STONE teaches chemistry at the Ben L. Smith High School in Greensboro. She received the Southeast Regional American Chemical Society's Science Teacher of the Year award in 1983. She currently is also on the Board of Trustees of the North Carolina School of Science and Mathematics.



FUTURE MEETINGS PLANNED

Date: March 17, 1986
 Speaker: Raymond Scott
 Program: "General Applications of Microbore Columns"
 Place: North Carolina Central University

Date: April 19, 1986
 Program: Meeting-In-Miniature
 Place: University of North Carolina-Chapel Hill

ADDING TO YOUR RESOURCES

Does your company's technical library meet all your information needs? Are you inundated with material which is only partly relevant, so that you spend needless hours separating the wheat from the chaff?

If so, you might want to investigate a joint federal-state effort to provide needed scientific and technical information quickly and inexpensively.

Funded by NASA and the state of North Carolina, the N. C. Science and Technology Research Center is charged with aiding business and industry in the use of new research findings and innovative technologies to improve the nation's economy. Located in the Research Triangle Park, the Center accesses more than 300 computer-searchable databases to identify needed information for its many clients, ranging from Fortune 500 companies to newly-formed small businesses.

Although you may have in-house capabilities in this area, the Center has access to systems and databases you may not have available, such as the Scientific and Technical Information Network (STN) which offers CAS Online with searchable abstracts, NASA's own RECON system, and the National Library of Medicine collection. Also available through BRS Information Technologies are such full-text databases as Kirk-Othmer Encyclopedia of Chemical Technology, A.C.S. Journals Online, and Hazardline. Other databases dealing with management and business should be of help to smaller companies.

In addition, a multidisciplinary approach to a research problem often can provide new insight. Total confidentiality of client interests is maintained at all times, but daily meetings of the technical staff permit cross-pollination of ideas and experiences.

For information about how to tap these resources, contact IRENE UTTERBACK at NC/STRC, 919-549-0671.

SHORT COURSE BEING PLANNED

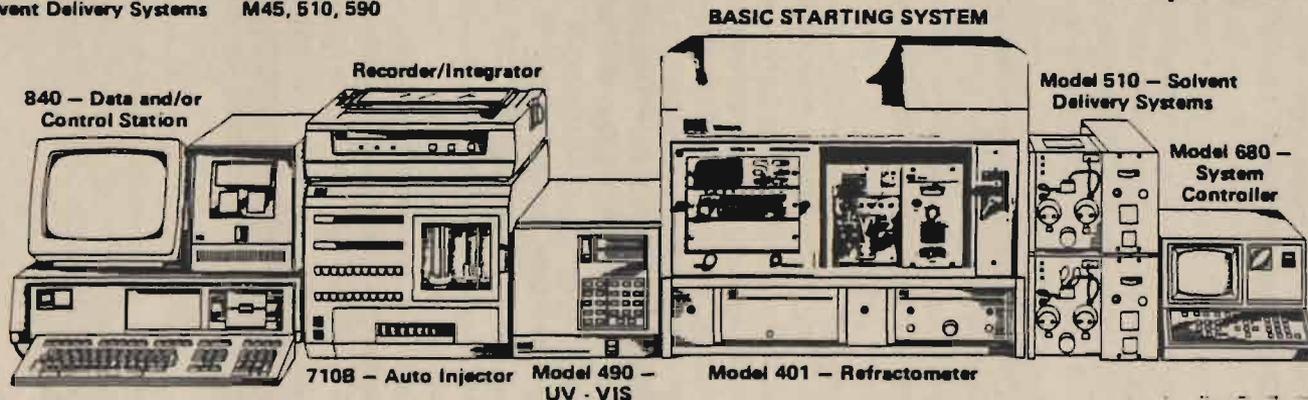
The Education Committee of the North Carolina Section is planning a short course on the subject, "The Chemists' Role in Biotechnology," for May, 1986. Further information about the course will be announced in the March issue of the *TarHellum*.

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KNOW YOUR EXECUTIVE COMMITTEE

Beginning with this issue, the TarHelium will each month feature a member of the newly elected Executive Committee. The intent of these articles is to do more than present you with biographical information about these people. By personally interviewing each of the Executive Committee members, the editors hope to find out just what makes these people so special. Fittingly, our first article features Eric Bigham, Chairman. Following is a brief summary of Dr. Bigham's educational and work experiences.

ERIC C. BIGHAM, Ph.D., a native of Kannapolis, NC, earned a B.S. in chemistry from N. C. State University in 1969, graduating magna cum laude. He attended Princeton University and received his M.A. in 1971 and his Ph.D. in 1973, under the direction of Professor E. C. Taylor.

While at NCSU, Dr. Bigham received the Proctor Chemical Company Scholarship and worked in the summers at Proctor as a laboratory technician. Following graduate school, he became a senior scientist at Pfizer Central Research, Groton, CT. His research on semi-synthetic penicillins led to the development of Sultamicillin as an orally active antibiotic. During 1975, he served as a preceptor in the post-baccalaureate pre-medical program at Connecticut College. In 1978, Dr. Bigham moved to Burroughs Wellcome Company, Research Triangle Park, and is currently a senior research scientist there. His research interests include heterocycles, drug design, and carbohydrates, with the objective to develop drugs for the treatment of infectious diseases and Parkinson's Disease.

Regarding activities in the American Chemical Society, Dr. Bigham was president of the ACS student affiliate chapter at NCSU and has been a member of the ACS since 1970. He served as treasurer of the North Carolina Section from 1980 through 1984 and is beginning his tenure as chairman of the section this year. He also is financial chairman of the 1984 Southeastern Regional ACS Meeting. Of special interest to Dr. Bigham is cooperative education. He was an invited speaker at the 1982 ACS Conference on Cooperative Education and the 1983 and 1985 North Carolina Cooperative Education Association Meetings.

KNOW YOUR EXECUTIVE COMMITTEE (Continued)

Following are highlights of a January 20 telephone interview with Dr. Bigham:

Question: What is most exciting and/or satisfying about conducting drug development/research?

Dr. Bigham: I think most exciting to me are the potential benefits in the successful completion of a research project. I don't mean just the economic aspect; certainly, that is there. Rather, for me the potential for the work I do to make a difference, that is to improve the quality of life for others, is most satisfying.

Question: Why are you so involved in the ACS and why is that so important?

Dr. Bigham: I can tell you why I started. I believe it is important for professionals to be in contact with each other. I wanted to know chemists other than those with whom I worked, especially those connected with the universities. As to why I am so involved, I think I have a natural tendency to organize. I like being involved. I think I would much rather be a driver than a passenger. I also believe that professionals ought to contribute to their professions outside of what they do on the job. Chemists, for example, have a responsibility to create opportunities for the next generation of chemists.

Question: Have there been any special persons or events which have especially inspired your scientific career?

Dr. Bigham: When I was an undergraduate senior, considering going to graduate school, I was very uncertain about exactly what I wanted to do. So of course, I talked with the faculty at NCSU. One of my professors, George Wahl, told me about Dr. Mislow, who was on the faculty at Princeton. Dr. Wahl told me he thought I ought to go to Princeton

KNOW YOUR EXECUTIVE COMMITTEE (Continued)

and study under Dr. Mislow. He suggested that I talk to an adjunct professor then at NCSU, Dr. Robert Morrison, who had gone to Princeton. Dr. Morrison, who also worked for Monsanto, loaned me a book which contained photographs of the campus at Princeton, and of course I was impressed. He encouraged me to go up there for a weekend to look the place over, and after that weekend, I was sold. Bob Morrison had studied at Princeton under the direction of E. C. Taylor and I ended up doing my graduate work with Dr. Taylor also. I'd have to say, then, that several people influenced me; but Bob Morrison was probably the one who most affected the direction of my graduate work and later my career. After graduate school I wanted to return to North Carolina, but during that time there were no jobs. After working in Connecticut for five years, I called Bob Morrison, who by then had left Monsanto and moved to Burroughs Wellcome, to see what the job, situation in NC was like. A year after that initial conversation, an opening became available and I went to work for Dr. Morrison at Burroughs Wellcome. I've been very grateful not only for his guidance, but also for his help in returning to North Carolina. I will be indebted to him for it always.

The editors appreciate Dr. Bigham's willingness to be the "test case" for this initial feature. His modesty, warmth and candidness were ever present during the interview. Our only fear is that his will be a very tough act to follow--a very tough act indeed! Thank you, Eric, for your cooperation and for being who you are.

DRAFT OF JOB MANUAL COMPLETED

Members of the Executive Committee recently prepared descriptions of their duties. These descriptions have been compiled into an Officer Job Manual by Eric Bigham. Copies of the manual will be available from the Secretary, Carolyn C. Foust after it is finalized.

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MEETING-IN-MINIATURE - FINAL CALL FOR PAPERS

The annual Meeting-in-Miniature is scheduled for Saturday, April 19, 1986 at UNC-Chapel Hill. The meeting will start approximately at 8:30 am and will end at noon with a luncheon and awards presentation. Speakers will be the guest of the Section at the luncheon. An application for presentation of a paper is included below. The **deadline** for receiving titles is **Friday, March 7, 1986**. Contributions are encouraged from both academic and non-academic laboratories. Participation by government and industrial laboratories has increased over the last several years and the Executive Committee hopes that the participation by non-academic labs will be even greater this year.

APPLICATION

Meeting-in-Miniature
Saturday Morning, April 19, 1986
UNC Chapel Hill

Author(s): _____

Position(s): _____

Presented by: _____

Institution: _____

Title of Paper: _____

Session:	<input type="checkbox"/> Analytical	<input type="checkbox"/> Inorganic
	<input type="checkbox"/> Biochemical	<input type="checkbox"/> Organic
	<input type="checkbox"/> Chemical Education	<input type="checkbox"/> Physical
	<input type="checkbox"/> Polymer	<input type="checkbox"/> Other

Regular Session *Poster Session : *Either Session:

Type of Projector Needed (if any): _____

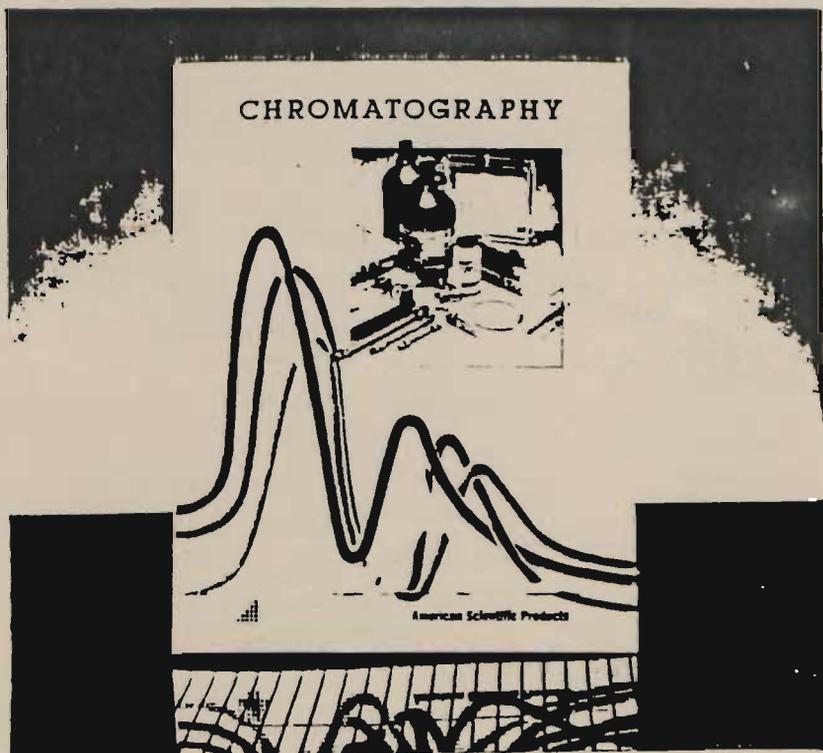
Deadline: Friday, March 7, 1986

Mail Application To: William L. Switzer
Department of Chemistry, Box 8204
North Carolina State University
Raleigh, NC 27695-8204

*If enough interest, poster session to be added.

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