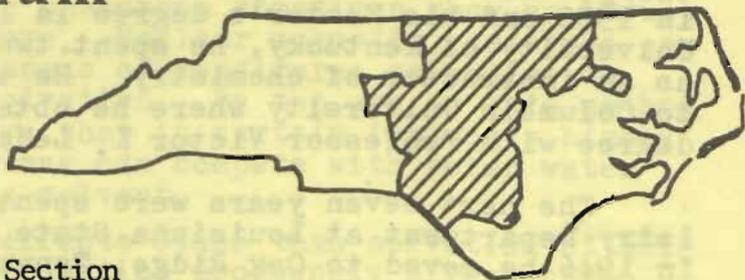


Tar^{He}lium



North Carolina Section
AMERICAN CHEMICAL SOCIETY

Vol. 5, No. 6 Raleigh, N.C. February, 1975

"SOME CHEMICAL PHENOMENA IN SOLUTION"

- Speaker: Dr. Edward S. Amis
University of Arkansas
- Date: Tuesday, February 18, 1975
- Place: Chapel Hill, North Carolina
- Time: 5:30 Happy Hour
POET'S Corner in University
Square
- 6:30 Dinner (Rib Eye Steak, \$ 7.25)
POET'S Corner
- 8:30 Lecture
UNC-CH, Room 207, Venable

Edward S. Amis was born in Himyer, Kentucky. After obtaining his Bachelor's degree in 1930 and his Master's degree in 1933 at the University of Kentucky, he spent two years there as an instructor of chemistry. He then went on to Columbia University where he obtained his Ph.D. degree with Professor Victor K. LeMer in 1939.

The next seven years were spent in the Chemistry Department at Louisiana State University. In 1946 he moved to Oak Ridge, Tennessee, as a research chemist and senior research chemist for Carbide and Carbon Chemicals Corporation. He joined the faculty of the University of Arkansas in 1947 as Professor of Physical Chemistry, the position which he has held since that time. During the past several summers he has served as a participant at the Oak Ridge Institute of Nuclear Studies, a Research Associate at Argonne National Laboratory, and a Special Assistant to the Director of Research of the Ethyl Corporation Baton Rouge, Louisiana.

In 1959 he was the recipient of the Southern Chemist Award, and in 1960 he was the recipient of the Southwest Award of the American Chemical Society. His researches have been chiefly in the fields of chemical kinetics, conductance of electrolytes, and transference and solvation numbers of ions.

"Some Chemical Phenomena In Solution"

by Edward S. Amis

Conductance and transference data on ions in solution indicate that there is preferential or selective solvation of ions by one component of a mixed solvent. Kinetic data likewise suggest this is the case. Some solvent components are held by particular ions rather tenaciously over the whole range of binary solvent composition. Other phenomena in solution suggest a rather distinctive replacement of one solvent

component by another at a particular composition of mixed solvent. At this point of complete replacement of one solvent by another in solvent sheaths, ionic phenomena sometimes show an abrupt change in nature. Nuclear magnetic resonance can be used as a means of confirming selective or competitive solvation. By the use of this method it can be shown that in certain instances highly non-polar dioxane can compete with polar water as a solvating solvent.

Solvent effects other than solvation of solute particles sometime profoundly affect chemical phenomena in solvation.

Data on various phenomena of ions in solution will be presented and discussed on the basis of solvent effects.

SHORT COURSE PROGRAM AT UNC-CH

The University of North Carolina at Chapel Hill will offer its Third Annual Short Course program on April 18 and 19, 1975. Courses will be offered in Electrochemistry, Computerized Literature Searching, Photochemistry, and Biological Applications of Electron Spin Resonance. There will be a small fee charged for the courses, with student discounts. The banquet on Friday evening April 18, will be followed by an appropriate discussion by Congressman James G. Martin (R.-N.C.) formerly on the chemistry faculty at Davidson College. For further information, contact Professor Maurice Bursey, Department of Chemistry, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

DUKE-UNC MINISYMPOSIUM

Duke and UNC will co-sponsor a minisymposium at UNC-CH. The minisymposium is titled "Some Aspects of the Chemistry of Natural Products". It will take place on Friday February 28, 1975, from 2:00-5:00 pm in Room 207 Venable. Speakers for the program are Robert Ireland, California Institute of Technology and Morris Kupchan, University of Va.

OPERATION INTERFACE QUESTIONNAIRE

by Monica Nees

The following is a summary of the report on the Operation Interface Questionnaire on Late Afternoon or Evening Chemistry Courses for Research Triangle Employees:

In a nutshell, the response was overwhelming, with 134 questionnaires returned. Many respondents commented that having such courses was a fine idea. It appears that this is an idea whose time has come.

The results are summarized below, divided into graduate and undergraduate courses and into credit and non-credit. Multiple checks were the rule rather than the exception.

Summary of RepliesGraduate

	<u>Credit</u>	<u>Non-credit</u>	<u>Total</u>
Analytical	8	24	32
Biochemistry	12	34	46
Inorganic	2	8	10
Organic	13	25	38
Physical	4	16	20
Polymer	8	14	22

Undergraduate

	<u>Credit</u>	<u>Non-credit</u>	<u>Total</u>
General	14	12	26
Organic	7	12	19
Physical	7	7	14
Inorganic	3	3	5
Analytical	10	8	18
Biochemistry	2	5	7

I was very conservative in recording for credit. Frequently both the credit and non-credit boxes were checked. In all cases these were counted as non-credit, in case the colleges and universities need to use credit-only students in determining whether a given course can be offered. For the graduate courses the numbers represent a simple tally. However, such a procedure could not always be used at the undergraduate level. For instance, several respondents checked all courses

at the undergraduate level for credit (presumably indicating an interest in a complete chemistry degree program). In that case, only the check for general chemistry was counted, in order to get a feeling for interest in the more immediate future. Most of the respondents listed additional comments on the questionnaires including the types of topics they would like covered, courses desired in addition to those listed above, desired meeting places and times, etc.

This report has been sent to Dr. Monroe Wall of the Research Triangle Institute for distribution. He will also keep the returned questionnaires on file. Please feel free to contact him or me for any additional information.

CALENDAR OF COMING EVENTS

Local Section Meetings

- Mar. 28 R.V. Stevens, Rice University
- Apr. 5 Meeting-in-miniature (at Duke, joint with N.C. Academy of Science)
- Apr. 23 John F. Endicott, Wayne State Univ.

Duke Univ. (Rm. 103, Gross Chem. Lab.), 3:30 pm)

- Feb. 14 L.B. Rogers, Univ. of Georgia
- Feb. 28 Minisymposium with and at UNC-CH, see announcement on page 3.

North Carolina State Univ. (Rm. 124, Dabney)

- Feb. 3 (4:00 pm) F.G. Riddell, McMaster Univ. "Heterocyclic Conformational Analysis"
- Feb. 17 M.D. Joesten, Vanderbilt Univ., "The Jahn-Teller Effect in Six-Coord. Compd"

UNC-Chapel Hill (Rm. 207, Venable Hall, 8:00 pm)

- Feb. 5 K.B. Sharpless, MIT, "New Reagents for the Oxygenation and Deoxygenation of Organic Compounds"
- Feb. 12 C.A. Evans, Jr., Univ. Ill., "Surface and Thin Film Analysis Employing Sec. Ion Mass Spec., Auger Elec. Spec. and Backscattering Spectrometry"
- Feb. 19 R.F. Hirschmann, Merck & Co., Inc., "Peptides Are in Season"
- Feb. 26 F.L. Siegel Univ. Wisconsin, "Calcium Binding Proteins in Nervous Tissue"

REMINDER- Do present a paper at the Meeting-in-Miniature Apr. 5 at Duke contact Dr. Maurice Bursey, Dept. of Chemistry, UNC-CH, Chapel Hill, N.C. 27514

SELECTED SUMMARY OF SOUTHEASTERN REGIONAL ACS
COUNCILLOR MEETING

Norfolk, Va., October 24, 1974

by W.P. Utermohlen, Jr., Councillor

The Southeastern Regional ACS councillors met to receive a preliminary report from the Arthur D. Little (ADL) consulting firm on their current study of ACS structure, government and business management.

From interviews with a number of ACS members representing a number of viewpoints, the ADL representative had identified a number of areas of concern to ADL, and had developed some tentative opinions on these as follows:

(1) The mission/role of the ACS is not adequately defined by the charter and constitution, or by any other policy document. The ACS needs a definite set of written objectives and program directions, with target dates, which everyone accepts and is willing to live by.

(2) There is a continuing conflict between the ACS Council and the Board of Directors, with one result being excessive stress on the professional ACS staff.

(3) No adequate system exists to deal effectively with volunteer member activities and related problems.

(4) Representation on ACS governing bodies should be improved. There are real problems in attaining proper representation on the Council. Most of the current Council members are chosen by local sections (i.e., by geography), while a minority are chosen by divisions (i.e., by Chemical speciality). ADL appears to regard divisional councillors as being more representative of their constituencies than are local section councillors (several SE regional councillors disagreed with this opinion). Overall, ADL thinks ACS association by interests or speciality is much more effective as a means of organization than association by geography.

(5) "Professionalism" and problems related to it are not receiving enough effective attention from ACS management. The long-time dominant idea that

the ACS exists principally for publications and the spreading of scientific knowledge is becoming outmoded. In other words, the traditional value system of the ACS as being for chemistry is now having to share attention with the value system that the ACS should be for chemists. Young, or unemployed, or minority ACS members and their problems are not currently receiving enough attention or effective action.

(6) The ACS does not speak with undivided authority on matters of public interest; technical expertise and policy management overlap and are confused.

(7) The present method of selection of Board of Director members does not insure that any will be experts in fields where experts are needed, such as finance and budgets, publications, professional relations, public relations, etc.

(8) It seems to take too long- up to five years- to get basic changes or new programs established throughout the ACS.

CALL FOR PAPERS-TECHNICIAN SYMPOSIUM

The ACS Committee on Technician Activities is sponsoring a symposium for chemical technicians at the 170th National ACS Meeting to be held August 24-29, 1975 in Chicago. They have ask us to notify our readers that technicians have an opportunity to give an oral presentation of work primarily performed by them. Co-authorship by members of the Society is acceptable but not mandatory. No limitations are set on topics other than they be related to the chemical field.

If you or someone in your organization would be interested in presenting such a paper, a 200-word abstract, submitted on ACS standard abstract forms, must be presented in triplicate by May 5, 1975. Forms and/ or information may be obtained from Dr. Philip M. Jaffe, Oakton Community College, 7900 North Nagle, Morton Grove, Illinois, 60053, Phone: (312) 967-5120 Extensions, 302, 303.

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