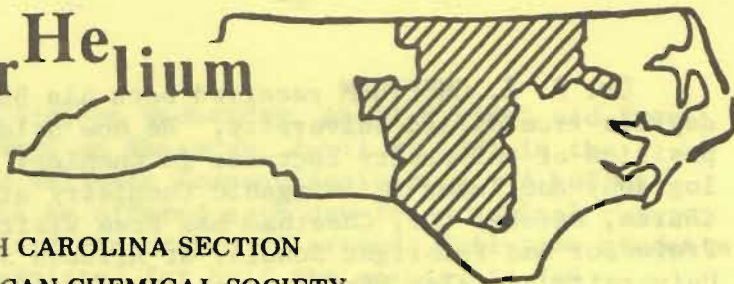


Tar Helium



NORTH CAROLINA SECTION
AMERICAN CHEMICAL SOCIETY

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March 1981

SOME CHEMICAL APPLICATION OF NEUTRON DIFFRACTION

Speaker: Dr. A. A. Cheetham
University of Oxford

Date: Thursday, March 19, 1981

Place: Don Murray's Barbeque
2751 N. Boulevard (US 1 North)
Raleigh, North Carolina
(Directions enclosed)

Time: 5:30 Happy Hour

6:30 *Dinner

8:00 Lecture

* Please make reservations no later than Tuesday, March 17, 1981. Call Barbara Hannah at 966-1566 in Chapel Hill, Terry Laing at 684-2414 in Durham or Linda Archer at 737-2548 in Raleigh.

Dr. A. A. CHEETHAM received both his BA and PhD degrees from Oxford University. He now holds the position of University Lecturer in Chemical Crystallography and Tutor in Inorganic Chemistry at Christ Church, Oxford. Dr. Cheetham has been Visiting Professor and Fulbright Scholar at Arizona State University and also Visiting Associate Professor at the University of California, Berkeley. He is currently touring with the ACS Visiting Foreign Scientist Program.

* * *

The characteristics of neutron diffraction will be compared with those of x-ray and electron diffraction. A range of chemical applications will be presented including the location of hydrogen in metal hydrides, studies of cation distributions in mixed metal oxides and investigations of magnetic ordering in solids.

DIRECTIONS TO DON MURRAY'S

From Durham/Chapel Hill take the beltline to the US 1 North exit for Richmond/Louisburg. From the US 64 east of Raleigh take the beltline to the same exit. From US 70 or US 401 east or south of Raleigh travel straight through downtown following the signs to US 1 North. Don Murray's is near the exit from the beltline across the street from Westinghouse. Outbound traffic from Raleigh will make a left-hand turn shortly after the intersection with the beltline.

ADVANCED HPLC SHORT COURSE - April 8-9

The program listing and registration form for the spring 1981 short course are enclosed. This short course, "CHEMICAL, ENVIRONMENTAL AND BIOMEDICAL APPLICATIONS OF HIGH PERFORMANCE LIQUID CHROMATOGRAPHY: AN IN DEPTH APPROACH," is intended for scientists having some familiarity with the theory and practices of HPLC. Sessions will be held from

10:00 to 4:45 on Wednesday, April 8, 1981 and from 9:00 to 4:30 on Thursday, April 9, 1981 in the Burroughs Wellcome Company Auditorium. A buffet lunch will be offered each day for a nominal charge. Students are encouraged to attend; full-time students will be admitted for half the membership fee.

MEETING-IN-MINIATURE - SECOND CALL FOR PAPERS

On the afternoon of Friday, April 17, 1981, the Meeting-in-Miniature will be held on the campus of Duke University. An application form is enclosed and the deadline for receiving titles is Friday, March 13, 1981. Please respond early to facilitate preparing the complete program for the April TarHelium.

Contributions are encouraged from both academic and nonacademic laboratories. Participation by industrial and government laboratories was somewhat greater in 1980; however, the Editor again hopes that scientists from these laboratories will participate this year. The meeting is an excellent opportunity for the academic and nonacademic scientific communities to interact and to share ideas that might prove mutually interesting.

HIGH SCHOOL CHEMISTRY TEACHERS AWARD

Letters have been sent to the principals of all high schools within the Section announcing the 1981 High School Chemistry Teachers Award. The award is a grant of up to \$400 for tuition and fees for any course or courses in the chemical sciences. Eligible candidates must teach within the Section which includes the following counties: Bladen, Caswell, Chatham, Cumberland, Durham, Edgecomb, Franklin, Granville, Halifax, Harnett, Hoke, Johnston, Lee, Martin, Moore, Nash, Northampton, Orange, Person, Randolph, Robeson, Sampson, Scotland, Vance, Wake,

and Warren. Teachers who have interest should obtain further details from their principal or from the Award's Committee Chairman, Dr. Pelham Wilder, Jr., Department of Chemistry, Duke University, Durham, N. C. 27706 (phone 684-6029). Members who know of high school chemistry teachers having interest should please bring this award announcement to their attention.

CENTENNIAL SCHOLARSHIP AWARD

The North Carolina Section of the ACS announces its sixth annual CENTENNIAL SCHOLARSHIP AWARD for the Summer of 1981. It carries a stipend of \$1000 (tax free).

Eligibility Requirements:

- (1) Membership or Associate Membership in the American Chemical Society.
- (2) Attendance at a Graduate or Professional School within the geographic boundaries of the North Carolina Section of the ACS.
- (3) Successful completion of at least one year of graduate or professional study toward an advanced degree by the end of the academic year.
- (4) Must have no other obligations for which income is earned during the tenure of the scholarship.

DEADLINE FOR RECEIPT OF APPLICATION IS MARCH 13, 1981.

Send application to: Dr. Charles M. Sparacino
Analytical Science
Research Triangle Institute
P. O. Box 12194
Research Triangle Park,
N. C. 27709

Application must be accompanied with:

- (1) One copy of each of both the undergraduate and graduate (or professional school) transcripts (listing of courses and grades will be acceptable).
- (2) Two letters of recommendation: One from the research director and one from another graduate professor.
- (3) No more than a 1000 word written summary by the applicant of the research project, which must be in a chemically related area.
- (4) An outline of the portion of the work planned for the period of the award (Summer 1981).

The Scholarship will be awarded on the basis of excellence of academic record, superior performance as a teaching assistant (where applicable), and promise in research and quality of application. It will be given *primarily* on the basis of past performance, rather than the quality of the actual research proposed. The award, which is not subject to renewal, will be announced at the Meeting-in-Miniature on April 17, 1981. The recipient is expected to give a 5-minute presentation on this work at one of the fall meetings of the Section.

CHEMICAL, ENVIRONMENTAL AND BIOMEDICAL APPLICATIONS OF HIGH PERFORMANCE
LIQUID CHROMATOGRAPHY: AN IN-DEPTH APPROACH

LECTURE DATES: Wednesday, April 8, 1981 (10:00-4:45) and Thursday, April 9,
1981 (9:00-4:30), Burroughs Wellcome Auditorium

PREREQUISITE: Some knowledge of the theory and practices of HPLC.

DEADLINE: March 25, 1981

PROGRAM: Dr. Steven Benezra, Burroughs Wellcome Company,
COORDINATOR: 3030 Cornwallis Road, Research Triangle Park, N. C. 27709
(919) 541-9090, ext 4139.

SCHEDULE: Wednesday, April 8

10:00-10:30 Registration
10:30-10:45 Welcome and Introduction
10:45-11:30 Definition of Terms and Factors which Influence Resolution -
Prof. C. Lochmüller, Duke University
11:30-12:30 Separation of Optical Isomers - Prof. C. Lochmüller
12:30- 1:30 Lunch
1:30- 2:30 Gel Permeation Chromatography - Water Representative
2:30- 2:45 Break
2:45- 3:45 Determination of Partition Coefficients -
Dr. D. Brent, Burroughs Wellcome
3:45- 4:45 Development of Preparative Chromatographic Separations -
Waters Representative

Thursday, April 9

9:00-10:00 Applications of Solvent/Column Switching -
Prof. P. Kissinger, Purdue University
10:00-11:00 Biochemical Applications of Electrochemical Detectors -
Dr. R. Shoup, Bioanalytical Systems
11:00-11:15 Break
11:15-12:00 Stationary Phases - Dr. A. Goldberg, DuPont
12:00- 1:00 Environmental Applications of HPLC -
Dr. C. Sparacino, Research Triangle Institute
1:00- 2:00 Lunch
2:00- 3:00 Mobile Phases - Multiple Solvents in Reversed Phase Systems -
Dr. A. Goldberg
3:00- 3:15 Break
3:15- 4:00 Detectors, Automation - Dr. S. Benezra, Burroughs Wellcome
4:00- 4:30 Development of Valid Assay Procedures - Dr. S. Benezra

Enclosed is a check (payable to the North Carolina Section, American Chemical Society), as registration fee for Chemical, Environmental and Biomedical Applications of HPLC: An In-depth Approach. A check must accompany registration. Billing cannot be arranged, but receipts will be given to aid registrants in obtaining reimbursement.

___ \$40.00 ACS member; ___ \$50.00 Non-ACS member; ___ \$20.00 Full Time Student

NAME: _____ HIGHEST DEGREE _____ TELEPHONE: _____

BUSINESS ADDRESS _____

SEND TO: Dr. Eric Bigham, Burroughs Wellcome Company, 3030 Cornwallis Road,
Research Triangle Park, N. C. 27709

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