

THE

# Tar Helium



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

Vol. 17, No. 3

November 1986

## CRIMINALISTICS

### *The Application of Chemistry to Apprehending Criminals*

*A Lecture by  
Clifton E. Meloan*

Tuesday, November 18, 1986  
North Carolina Central University

*Dinner*

6:00 P.M.

Eagle's Nest

NCCU Student Union

\$10.00

*Lecture*

7:30 P.M.

Criminal Justice Building Auditorium  
NCCU

*See map on page 3*

Please make a reservation for the dinner so that we can be adequately prepared. For reservations call by 3:00 P.M., Friday, November 14: Durham—Sue Dickerson (684-2414), Raleigh—Joyce Dunn (737-2545), Chapel Hill—Debbie Edwards (962-2172). To cancel reservations, please call Eric Bigham (248-4338).

**Dr. Clifton E. Meloan** — A native of Iowa, Dr. Clifton E. Meloan earned his B.S. degree in Chemical Technology from Iowa State University in 1953. He then served as a first lieutenant in the U.S. Army Artillery from 1954 to 1956. In 1959, Dr. Meloan was awarded a Ph.D. degree in Analytical Chemistry from Purdue University.

Upon graduation from Purdue, Dr. Meloan joined the staff of Kansas State University as an assistant professor. He was promoted to associate professor in 1963. In 1968, Dr. Meloan became professor at Kansas State, a position he continues to hold. During his career, he has been a consultant to Panhandle Eastern Pipeline Co., Marathon Oil Co., R.G.B. Food Additives Laboratories, and Midwest Research Institute. Dr. Meloan has been a science advisor to the Food and Drug Administration since 1966.

Dr. Meloan's current research activities include solvent extraction mechanisms, elemental analysis by gas chromatography, insect receptor sites as a new type of analytical chemistry detector, criminalistics, and polymers used to remove selected anions from water.

Among his awards and honors are the FDA Commissioner's Special Citation, 1982; Honorary Member-Golden Key National Scholastic Honor Society, 1981; Honorary Member-National Society of Medical Technology, 1975; Honorary Member-Kansas Society of Medical Technology, 1975; Department of Chemistry Undergraduate Teaching Award, 1973; selection as an "Outstanding Educator in America", 1970; Kansas State University Distinguished Faculty Research and Teaching Award, 1970; Chemical Rubber Co.'s Freshman Chemistry Award, 1950; Bausch and Lomb Co.'s High School Science Award, 1949; and National Honor Society, 1949.

Dr. Meloan has authored three books, coauthored six other books, and published over 120 technical papers and about a dozen popular articles.

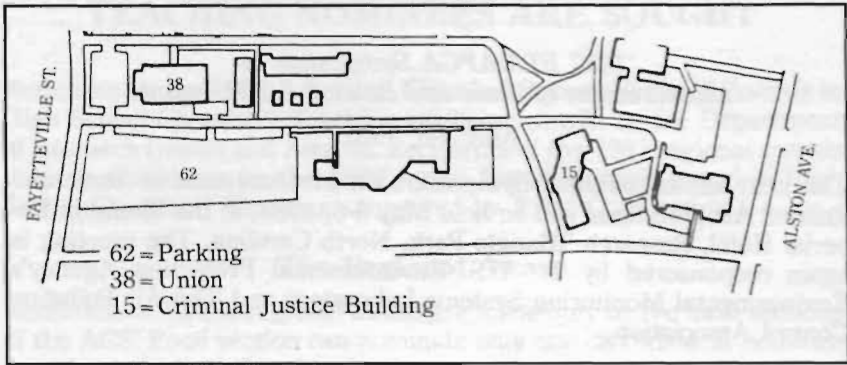
He is a member of the American Chemical Society (Analytical Division), the American Academy of Forensic Sciences, Sigma Xi—National Research Honorary, Gamma Sigma Delta—National Agricultural Research Honorary, Alpha Chi Sigma—Chemistry Society, and Phi Lambda Upsilon—Chemistry Honorary, where he was national treasurer, 1966-1969 and national vice-president, 1969-1972 and 1978-1980.

### CRIMINALISTICS

#### The Application of Chemistry to Apprehending Criminals

Every contact leaves a trace; close scrutiny and imagination go a long way toward apprehending criminals. Dr. Meloan will discuss how chemistry, physics, and biology are applied to physical evidence at crime scenes. Among the evidence he will consider are glass, soil, paint, fibers, and gum, as well as blood, finger and ear parts, and voice prints. Work on arson detection, tire slashing, and the reassembly of scattered bones based on trace metal ratios will be discussed.

## CAMPUS AREA — NCCU



## RETURN YOUR BALLOTS BY NOVEMBER 14

Ballots enclosed in the October 1986 *TarHelium* must be marked, validated, and returned to Dr. John Myers by November 14, 1986. Election results will be announced at the November section meeting at NCCU. Validate your ballot by printing and signing your name on the appropriate lines of the envelope provided in the October issue.

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## CALL FOR PAPERS

### *1987 EPA/APCA Symposium on Measurement of Toxic and Related Air Pollutants*

*May 3-6, 1987*

The next annual national Symposium on Measurement of Toxic and Related Air Pollutants will be held May 3-6, 1987, in the Sheraton Imperial Hotel, Research Triangle Park, North Carolina. The meeting is again cosponsored by the U.S. Environmental Protection Agency's Environmental Monitoring Systems Laboratory and The Air Pollution Control Association.

The technical program will include both invited and contributed papers emphasizing emerging technology in the measurement of toxic and related air pollutants (gases and particulates).

Topic categories include the following: acidic deposition, quality assurance, indoor air pollution, hazardous waste emissions, complex chemical data analysis, source measurements, ambient measurements, wood stove emissions, atmospheric chemistry, and measurement application of physico-chemical properties of toxics.

Persons interested in presenting a paper should send a two hundred word proposal abstract, (title, author(s), affiliation(s), and description) by December 15, 1986, to either of the technical program cochairmen listed below. Completed manuscripts (six pages maximum) of accepted papers must be ready by March 31, 1987.

Seymour Hochheiser  
Environmental Monitoring  
Systems Laboratory  
U.S. Environmental Protection Agency  
Research Triangle Park, NC 27711  
(919) 541-2106

Dr. R. K. M. Jayanty  
Research Triangle Institute  
P.O. Box 12194  
Research Triangle Park, NC 27709  
(919) 541-6483

## DATE CHANGES FOR LOCAL PROGRAMS

Dates for the November and December chapter programs listed in the Future Programs section of *TarHelium* have been changed. The November program with Dr. Meloan is on Tuesday the 18th. The December program, which will feature Dr. George H. Hitchings in the Distinguished North Carolina Chemist Lecture Series, will be held on Wednesday the 10th.

## **ACS AWARD IN HIGH SCHOOL CHEMISTRY TEACHING NOMINEES ARE SOUGHT**

Nominees for the 1987 American Chemical Society Regional Awards in High School Chemistry Teaching are being sought by the Department of Research Grants and Awards. Recipients of the 1987 regional awards become candidates for the 1989 James Bryant Conant Award in High School Chemistry Teaching sponsored by Ethyl Corporation.

### **The Regional Award**

Nominations for the regional award are made only by the local sections of the ACS. Each section can nominate only one candidate. A nominee must be actively engaged in teaching chemistry in a high school either in the territory of the local section making the nomination or in an adjacent territory within the geographic region but not assigned to any local section.

Nomination forms are provided to each section; they must be completed and submitted to national by December 1, 1986. The nomination must include a biographical sketch of the nominee with date of birth, a list of publications if any, and a statement and evaluation of the nominee's achievements as a high school teacher of chemistry.

The regional award consists of an appropriate certificate prepared by the Society, and it will be presented at the annual regional meeting. Travel expenses for the recipient should be paid by the regional meeting.

### **James Bryant Conant Award**

Each winner of an ACS Regional Award in High School Chemistry Teaching automatically becomes a candidate for the James Bryant Conant Award sponsored by Ethyl Corporation in the following year and remains a candidate for three successive years. One of the regional winners or candidates will be selected as a national winner by a national award committee that is appointed by the ACS Presidents-Elect. The award, consisting of \$3,000 and a certificate, will be presented at either the spring or fall ACS National Meeting.

## **1987 NATIONAL ACS DUES**

If you have not received your 1987 dues bill or have questions about your bill, please call (614) 421-3776. To charge your payment by phone, call (202) 872-8070.

Questions about the ACS credit policy should be directed to Earl Klinefelter, Head of the Membership Activities Department at (202) 872-4372.

## PATTERSON-CRANE AWARD NOMINEES SOUGHT

Nominees for the 1987 Patterson-Crane Award are being sought by the Columbus and Dayton, Ohio, sections of the ACS.

An international honor, the Patterson-Crane Award acknowledges contributions to the field of chemical literature, especially chemistry documentation, chemical information storage and retrieval, and implementation and management of chemical information services.

The biennial award, which consists of a \$2,000 honorarium and a personalized commendation, is given in honor of Austin M. Patterson and E.J. Crane, previous editor of Chemical Abstracts.

Nominations for the award must be in writing and should discuss the nominee's contributions to the field as well as include supporting material and an evaluation of the nominee's accomplishments. Seconding letters are required.

Three copies of the nomination should be sent to The Patterson-Crane Award Committee, Priscilla Ratliff, Chairman, Ashland Chemical Co., P.O. Box 2219, Columbus, OH 43216 by January 31, 1987.

Nominations will be judged by a seven-member selection committee consisting of Dayton and Columbus section members as well as the Chairman of the ACS's Division of Chemical Information.

The 1987 Patterson-Crane Award will be presented June 25, 1987, at an awards dinners to be held at Ashland Chemical Co., Columbus, Ohio. The dinner will be part of the 19th American Chemical Society Central Regional Meeting.

## FUTURE PROGRAMS

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**Speaker:** Dr. George H. Hitchings **Date:** Dec. 10, 1986  
Distinguished N.C. Chemist Lecture Series

**Location:** Meredith College

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**Speaker:** Dr. Alan Gent **Date:** Jan. 8, 1987  
Joint meeting with Polymer Group

**Location:** NCSU Faculty Club

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Manager, Membership and Subscription Services  
American Chemical Society  
PO. Box 3337  
Columbus, Ohio 43210

Changes in membership status also should be submitted to the above address.

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