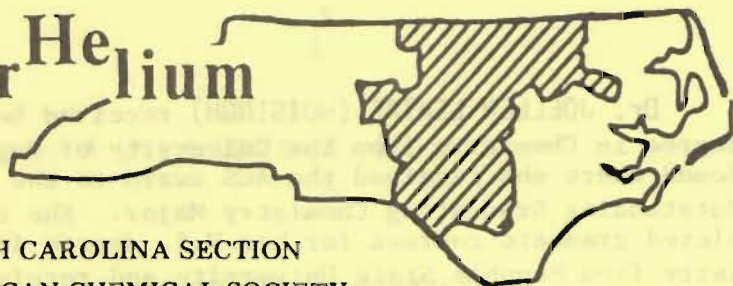


# Tar Helium



**NORTH CAROLINA SECTION  
AMERICAN CHEMICAL SOCIETY**

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Vol. 11, No. 4

Raleigh, N.C.

December 1980

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Speaker: Dr. Joellen Lewtas (Huisingh)  
United States Environmental Protection  
Agency  
Research Triangle Park

Date: Wednesday, December 17, 1980

Place: Meredith College  
Raleigh, North Carolina

Time: 5:30 Happy Hour  
Mission Valley Inn  
(At intersection of Western  
Blvd. and Avent Ferry Rd.  
across from NCSU Campus)

7:00 Dinner\*  
President's Dining Room  
Meredith College (\$7.50 full  
members; students half price)

8:00 Lecture  
Cate Center Auditorium

\*Please make reservations no later than Friday,  
December 12, 1980. Call Barbara Hannah at 966-1566  
in Chapel Hill, Terry Laing at 684-2414 in Durham  
and Linda Archer at 737-2548 in Raleigh.

Dr. JOELLEN LEWTAS (HUISINGH) received her B.S. degree in Chemistry from the University of Puget Sound where she received the ACS award to the Outstanding Graduating Chemistry Major. She completed graduate courses for her M.S. degree in Chemistry from Memphis State University and received her doctoral degree from North Carolina State University in Biochemistry. After a research associate appointment at Duke University, she joined the research staff at the Environmental Protection Agency's Health Effects Research Laboratory in the Research Triangle Park. She now serves as Chief of the Genetic Bioassay Branch in the Genetic Toxicology Division. Her current research includes the application of bioassays to the evaluation of complex environmental mixtures.

\* \* \*

Chemical identification of the potentially hazardous components of complex environmental emissions is a difficult task for chemists alone. Short-term bioassays can now be employed as valuable tools in assisting in the characterization and identification of mutagens and potential carcinogens in such mixtures. Bioassay directed fractionation allows separation chemists to concentrate on purifying those components with the most biological activity. Bioassay of specific chemicals identified in these fractions aids in the final evaluation of which components represent the greatest potential hazard. The development of new bioassays which detect specific classes of chemical mutagens and carcinogens have recently assisted in identifying the presence of nitroarenes in combustion emissions. These tools are being employed in the chemical identification of potential carcinogens in urban air particulate and combustion emissions from diesel vehicles. Bioassays to be discussed include microbial mutagenesis assays such as the Ames Salmonella typhimurium assay and mammalian cell assays for gene mutation, DNA damage and oncogenic transformation.

## \* \* \* V O T E \* \* \*

## ABOUT THE CANDIDATES

KATHRYN MacLEOD received both her BSCh and MS degrees from the University of South Carolina. She has been employed by the U. S. Environmental Protection Agency since 1971. Prior to that, she worked for the South Carolina Pollution Control Authority. She has been an active member of the North Carolina Section ACS since 1971 and has served on the PEP, Nominating and Scholarship Committees as well as being Section Secretary 1977/1978.

Dr. DAVID A YEOWELL received both his B.Sc. and Ph.D. degrees from Bristol University. After post-doctoral work at Zurich University and a Junior staff position at Liverpool University, he joined Burroughs Wellcome Company where he now is Manager of the Chemical Development Laboratories in the Research Triangle Park. Dr. Yeowell has served on the Scholarship committee several years and chaired that committee in 1977 and 1978.

Dr. ERIC C. BIGHAM received his B.S. degree in Chemistry from North Carolina State University where he graduated *magna cum laude*. He received both his M.S. and Ph.D. degrees from Princeton University. After several years with Pfizer, Inc., he joined the staff at Burroughs Wellcome Company where he now holds the position of Senior Scientist.

Dr. JOHN A. MYERS earned his B.S. and B.A. degrees from Carson-Newman College (Tenn.) in 1965 and his Ph.D. degree in Organic Chemistry from the University of Florida in 1970. Following a Postdoctoral year at Michigan State University he joined the faculty at North Carolina Central University and is currently Professor of Chemistry. His research interests include

the area of heterocyclic synthesis. John is serving his third year on the program committee.

Dr. ERNEST ELIEL is William Rand Kenan, Jr. Professor of Chemistry at the University of North Carolina, Chapel Hill. He received his D. Phys. Chem. Sci. degree from the University of Havana and his Ph.D. degree from the University of Illinois. He is a member of the American Academy of Arts and Sciences and also of the National Academy of Science, where he serves on the Committee on the Chemical Sciences. With the ACS he has served on the advisory board of the Petroleum Research Fund and has also served as chairman of the Executive Committee of the Division of Organic Chemistry. He is a member of both the society's Committee on Publications and the Committee on Professional training. Dr. Eliel presently is Councilor from the North Carolina Section of the ACS.

Dr. PETER SMITH (A.B., A.M., Ph.D., Cambridge University) was employed by Cambridge, Leeds, Harvard and Purdue Universities before coming to Duke in 1959, where he is now a Professor of Chemistry (research interest: chemical kinetics and ESR spectroscopy). A member of the Inorganic, Physical and Polymer Divisions of the ACS, the American Institute of Physics, Phi Lambda Upsilon, and Alpha Chi Sigma, he has been elected to a number of positions in the Duke Chapter of Sigma Xi, including Secretary and President. Dr. Smith has been NC Section Chairman and has served our section as member or chairman of several standing committees (e.g., Education, Membership, and Program) as well as on the Executive Committee of the Polymer Group. Also, since its formation in January, 1978, he has chaired the 1984 Southeastern Regional Meeting Planning Committee which planned and carried out our section's successful bid to host the 1984 Southeastern Regional Meeting in Raleigh.

Dr. HALBERT CARMICHAEL received his B.S. degree from the University of Tennessee in 1959 and his Ph.D. from the University of California, Berkeley in 1963. In 1964 following a post-doctoral appointment at the National Bureau of Standards in Washington, D. C., he joined the faculty at North Carolina State University, where he now holds the position of Professor of Chemistry and Assistant Head for Undergraduate Studies. Dr. Carmichael has been active in the Section serving as Secretary/Treasurer 1971/1972, and Chairman 1973. He has also chaired and/or served on the Hospitality, Nominating, Publications and 1984 Committees. Currently Dr. Carmichael is Alternate Councilor for the Section.

Dr. JACK PRESTON is Senior Monsanto Fellow at the Monsanto Triangle Park Development Center. He received his B.S. degree from Howard College and both his M.S. and Ph.D. degrees from the University of Alabama. He joined Monsanto immediately following his graduate work. Dr. Preston has been active in the Polymer Group which is affiliated with the Section and served as its first chairman-elect. He is also active in the Fiber Society.

### MEMBERSHIP DRIVE UNDERWAY

The application forms for 1981 have just arrived. The Membership Committee asks your assistance in making sure all prospective members in the area are aware of the benefits of joining. Please note that memberships begin only on January 1 or July 1. Thus now is the best time to join to obtain maximum benefits.

Please contact any Committee member for more information:

Lawrence H. Bowen, Chairman (NCSU)	737-2995
Henry H. Dearman (UNC-CH)	966-5229
Robert Izydore (NCCU)	683-6351
John E. Kelsey (Burroughs-Wellcome)	541-9090
Charles H. Lochmüller (Duke)	684-3668
Richard L. Neeley (Meredith)	833-6461
Van A. Wheeler (EPA)	541-2442

## B A L L O T

Election of Officers for 1981  
North Carolina Section-American Chemical Society

Please indicate your choice for each of the offices below and mail ballots to:

Dr. Maurice Burse  
Chemistry Department - 045A  
University of North Carolina  
Chapel Hill, N. C. 27514

*Please sign the outside envelope to validate your ballot* and print legibly your name if there might be any misinterpretation of your signature. Ballots cannot be counted unless your membership can be verified and your signature is given on the ballot envelope.

## CHAIRMAN ELECT:

\_\_\_\_\_ KATHRYN MacLEOD

\_\_\_\_\_ DAVID YEOWELL

## TREASURER:

\_\_\_\_\_ ERIC BIGHAM

\_\_\_\_\_ JOHN MYERS

## COUNCILOR:

\_\_\_\_\_ ERNEST ELIEL

\_\_\_\_\_ PETER SMITH

## ALTERNATE COUNCILOR:

\_\_\_\_\_ HALBERT CARMICHAEL

\_\_\_\_\_ JACK PRESTON

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