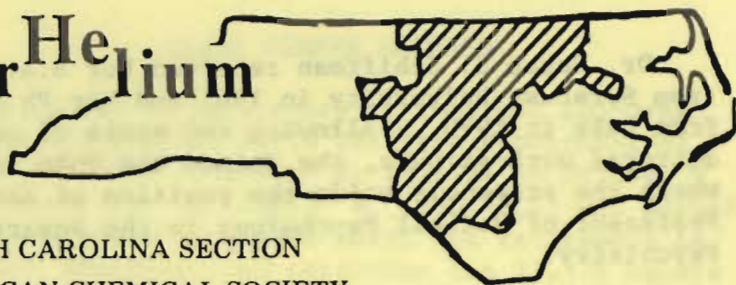


# Tar Helium



NORTH CAROLINA SECTION  
AMERICAN CHEMICAL SOCIETY

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Vol. 8, No. 3

Raleigh, N. C.

November, 1977

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## "The Physicochemical Correlates of Taste and Smell"

Speaker: Dr. Susan Schiffman  
Department of Psychiatry  
Duke University

Date: Tuesday, November 15, 1977

Place: North Carolina Central University  
Durham, North Carolina

Time: 5:30 Happy Hour  
Washington Duke Motor Inn  
605 West Chapel Hill Street  
Durham, N. C.  
(Exit Business Freeway at  
Chapel Hill Street)

6:30 \*Dinner  
Washington Duke Motor Inn  
(\$5.50-full members; \$2.75-  
student & student affiliates)

8:00 Lecture  
112 Hubbard Chemistry Building  
NCCU

\* Please make reservations by Friday, November 11, 1977. Call: Sue Hester at 966-1566 in Chapel Hill, Bill Gutknecht at 684-2414 in Durham or Linda Hill at 737-2548 in Raleigh.

Dr. Susan S. Schiffman received her B.A. degree from Syracuse University in 1965 and her Ph.D. degree from Duke in 1970. Following two years of post-doctoral work at Duke, she joined the Duke faculty where she presently holds the position of Assistant Professor of Medical Psychology in the Department of Psychiatry.

\* \* \*

Models do not exist in taste or smell which strictly relate quantitative measures of sensory quality with quantitative physicochemical measures. Existing theories relating sensory quality and physicochemical properties span a wide and diverse range. In olfaction, for example, these theories include such properties as molecular size and shape, low energy molecular vibrations, energy of desorption from a lipid-water interface, gas chromatographic data, and functional groups. Although each of these suggestions has introduced important factors for deepening our understanding of quality coding in the chemical senses, none provides a basis for developing a complete model which could accurately order all olfactory stimuli. A new approach will be demonstrated which, when extended to a wide range of stimuli, can provide us with means for predicting quality from physicochemical parameters. This approach utilizes computer-oriented multidimensional scaling techniques which arrange chemical stimuli in spatial maps on the basis of quantitative measures of similarity based on psychophysical and neural data. The relations of physicochemical parameters to the spatial arrangements will be discussed.

\* \* \* REMEMBER TO VOTE \* \* \*

## LOCAL MEMBER HONORED

The Constable Laboratory of the Food and Drug Protection Division, North Carolina Department of Agriculture, was dedicated in Raleigh on October 6, 1977. Named for DR. ERNEST W. CONSTABLE, who served as state chemist from 1944 until his retirement in 1970, the three-storied structure has 53,570 square feet and cost \$3.1 million. It replaces the laboratory formerly housed in the state Agriculture Building. The ultra-modern facility is located off Blue Ridge Road west of Raleigh.

## POSITION WANTED

B.S. Chemical Engineer, 1969, seeks position as environmental or chemical engineer. Experience includes: 2 years organic R & D, plant start up, water pollution design, 1 year tech writer, quality assurance [wet and instrumental methods for paint, oil, JP-4, grease, hydraulic fluid, etc.], 3-years air pollution control, permit issuance, compliance inspection. Contact Linda Hill, 737-2548 in Raleigh.

## BYLAW CHANGES ADOPTED

The following Bylaw changes were adopted at the October meeting of the section:

1. Bylaw V, Section 3. The Executive Committee shall consist of the officers of the Section, the three immediate past Chairmen, the Councilors, the Alternate Councilors and the Editor of the Local Section Publication.
2. Bylaw VI, Section 6. The officers, Councilors and Alternate Councilors shall be elected by a mail ballot of the members of the Section, prior to the November meeting.

## THE GOOD OLD DAYS

"*CHEMISTRY* treats of the composition of bodies and the specific properties of matter. - Examples: water consists of two gases, hydrogen and oxygen; gold is yellow. *ORGANIC CHEMISTRY* deals with those substances which have been produced by life. Examples: flesh and wood. *INORGANIC CHEMISTRY* is confined to those which have not been formed in life. Examples: sand, glass, metals.

Steeles Series in the Natural Sciences-Chemistry,  
p. 17, ca. 1887.

\* \* \*

Next meeting of the Section - December 6, 1977 at  
Meredith College.

\* \* \*

## AREA SEMINARS

NCSU, 4:00 p.m., Room 124 Dabney Hall

Dec. 5 Dr. Gabor Fodor, West Virginia  
University  
"The Mechanism and Correlation of the  
Bischler, von Braun and Ritter  
Reactions"

UNC-CH, 11:00 a.m., Room 308 Venable Hall

Nov. 16 Dr. V. Adrian Parsegian, National  
Institutes of Health  
"Long Range Forces in Biological  
Systems"

\*Nov 30-Dec 2

Symposium on "Chemical Application of Lasers - Present Status"

Dr. R. M. Hochstrasser, University of  
Pennsylvania  
"Picosecond Studies in Chemistry-Why?"

Dr. W. H. Flygare, University of  
Illinois  
"Rate Processes and Light Scattering"

Dr. T. B. Hirshfeld, Block Engineering  
"High Sensitivity Spectroscopies"

Dr. M. D. Levenson, University of  
Southern California  
"Are Non-linear Optical Effects too  
Esoteric for Chemists?"

Dr. R. P. Van Duyne, Northwestern  
University  
"Raman Effects"

Dr. E. Grunwald, Brandeis University  
"Laser Induced Chemical Reactions"

Duke, 3:30 p.m., Room 130 Gross Chemical Laboratory

Nov. 18 Dr. L. T. Taylor, Virginia Polytechnic  
Institute  
"Reactions of Manganese Complexes with  
Small Molecules"

Dec. 2 Dr. William A. Chupka, Yale University  
"Photoionization, Fragmentation, and  
Reactions Initiated by Vacuum UV  
Radiation of Gases"

\* Registration required - Registration Fee of \$20.00 (\$7.50 for students) includes banquet and refreshments; contact Dr. C. S. Johnson, Jr., 933-6317; registration limited to 150 participants.

### EXECUTIVE COMMITTEE

Suzanne Purrington (NCSU), Chairman  
Richard Palmer (Duke), Chairman-Elect  
Kathy MacLeod (EPA), Secretary  
Forrest Getzen (NCSU), Treasurer  
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Monica Nees (NCSTRC), Past Chair  
Maurice Bursey (UNC), Past Chairman

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