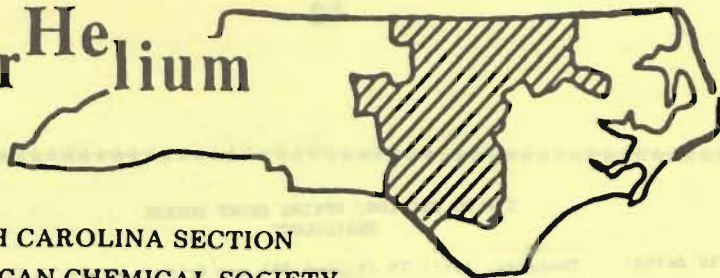


Tar Helium



NORTH CAROLINA SECTION
AMERICAN CHEMICAL SOCIETY

Vol. 14, No. 8

April, 1984

1984

MEETING - IN - MINIATURE
APRIL 7, 1984

Place: Paul M. Gross Laboratories
Duke University
Durham, North Carolina

Events: Registration, 8:50 A.M. - 11:00 A.M.
Lobby, Paul M. Gross Laboratories

Papers, 9:20 A.M. - 12:00 P.M.
Paul M. Gross Laboratories

Lunch, 12:00 P.M., Porch of Paul M. Gross
Laboratories--No charge for speakers, pre-
siding officers, and projectionists. All
others - \$4.00 (\$2.00 for students).

Awards: The Centennial Scholarship, the High School
Chemistry Teacher Award and Fifty Year ACS
Membership Certificate Awards will be
announced during lunch.

For lunch reservations, please call one of the fol-
lowing by Tuesday, April 3: In Durham, Ms. Nancy
Kearns at 684-3010; in Chapel Hill, Ms. Helen Heri-
ford at 962-4403; and in Raleigh, Ms. Tana Taylor at
737-2548.

THE NC SECTION, SPRING SHORT COURSE
TOXICOLOGY

LECTURE DATES: Thursday, April 26 (9:30-4:30) and Friday, April 27 (9:45-3:00)

PLACE: RTI
Dreyfus Auditorium
Cornwallis Road
Research Triangle Park, NC 27709

INSTRUCTOR: Dr. G. Carl Holsing
Union Carbide Agricultural Products Company, Inc.

G. Carl Holsing received his Ph.D. degree from Rutgers University in biochemistry and physiology in 1952. He has held positions with Hazleton Laboratories and Standard Oil Co. of Indiana. Dr. Holsing is currently employed with Union Carbide Agricultural Products Co. as a toxicologist. He is a member of the Society of Toxicology, a diplomate of the American Board of Toxicology and a member of ACS. He has been involved in various aspects of toxicology for over twenty years with emphasis in pesticides and food additives.

Dr. Holsing will be assisted in the course by Dr. Robert Naismith, a genetic toxicologist, who is the director of research at Pharmacon Labs, Scranton, Pa., and Mr. Dean Rodwell, a teratologist and Director of Research, WIL Laboratories, Ashland, Ohio.

COURSE DESCRIPTION:

This short course is intended as an introduction to toxicology. Principles of toxicology, factors affecting toxicity and disposition of toxicants will be reviewed. Mutagenicity, carcinogenicity, and teratogenicity will be discussed in light of their current societal impact. Ways and means of conducting toxicological studies and their interpretation will also be presented.

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Enclosed is a check (payable to the North Carolina Section, American Chemical Society) as registration fee for "Toxicology," the NC Section's spring short course to be held April 26-27 at RTI.

<u> </u> \$75 non-members	<u> </u> \$60 ACS members
<u> </u> \$20 students, teachers, retired, post-doctoral	<u> </u> No charge to unemployed ACS members

NAME: _____ HIGHEST DEGREE: _____ PHONE: _____

BUSINESS ADDRESS: _____

SEND TO: Dr. Eric Bigham, Burroughs Wellcome Company, 3030 Cornwallis Rd.,
Research Triangle Park, NC 27709.

1984
MEETING-IN-MINIATURE
AT
DUKE UNIVERSITY
DURHAM, NORTH CAROLINA

APRIL 7, 1984



Sponsored by
The North Carolina Section
of the
American Chemical Society *

* Projectionists provided by the Duke Graduate
Student Union

Analytical Chemistry
 William F. Gutknecht, Presiding
 Room 110

- 8:50 Registration, Lobby, Paul M. Gross Chemical Laboratory
- 9:20 Modification of a Direct Current Plasma Jet for the Analysis of Phosphoric Metal Alkyls, Jeff S. Gentry and Charles B. Boss, North Carolina State University
- 9:40 Time Series Analysis of Environmental Measurements, Robert W. Shaw, Jr., Army Research Office
- 10:00 Studies of Aerosols in Flame by Coulombic Manipulation, Michael J. Pearce and Charles B. Boss, North Carolina State University
- 10:20 Break
- 10:40 Measurement of Stray Light in Flame Atomic Absorption Spectrometry, Charles B. Boss and Sador S. Black, North Carolina State University
- 11:00 An Examination of the Enhanced Emission in Tandem Flames, A.G. Edwards and Charles B. Boss, North Carolina State University
- 11:20 The Mechanism of the Enhancement of Flame Spectrometric Signals by Surfactants, Sador S. Black and Charles B. Boss, North Carolina State University
- 11:40 Classification of Monosubstituted Phenyl Ring Substituents by Pattern Recognition, Richard W. Waggoner, Jr., and William L. Switzer, North Carolina State University

Inorganic Chemistry
 Richard A. Palmer, Presiding
 Room 105

- 8:50 Registration, Lobby, Paul M. Gross Chemical Laboratory
- 9:20 Ring-Opening of 1-Methylcyclopropane by W(II), Catherine A. Rusk and Joseph L. Templeton, University of North Carolina at Chapel Hill
- 9:40 Cation Effects in a Prussian Blue Surface Modified Electrode, P.S. Lugg and A. L. Crumbliss, Duke University; N. Morosoff, Research Triangle Institute
- 10:00 Solution FTIR Studies of the Structure of 18-Crown-6-Complexed Metal Ion-Nitrate Ion Pairs, R.B. Dyer, R.A. Palmer, Duke University and R.G. Ghirdelli, Army Research Office
- 10:20 Break

- 10:40 Ligand Based Intervalece Transitions for Reduced Ru-Diimine Complexes, Brent MacQueen, Keith DeArmond, Kenneth Hanck, and Dennis Wertz, North Carolina State University
- 11:00 The Synthesis and Characterization of a Bis-Diphosphine Bridged Dirhodium (I) Complex Containing a Rh_2P_4 Ring System, R.J. Topping, A.L. Crumb-liss, L. D. Quin, and J. Szewczyk, Duke University
- 11:20 Studies of Some Non-Heteroatom-Stabilized Ruthenium Carbenes, William E. Studabaker and Maurice Brookhart, University of North Carolina at Chapel Hill; G. Ronald Husk, Army Research Office
- 11:40 Resonance Raman of Reduced $Fe(bpy)_3$, D.W. Wertz, M.K. DeArmond S.M. Angel, and R.J. Donohoe, North Carolina State University

Organic Chemistry
Samuel G. Levine, Presiding
Room 104

- 8:50 Registration, Lobby, Paul M. Gross Chemical Laboratory
- 9:20 Thermodynamics of Ionization of β Di- and Tricarbonyl Compounds in Dimethylsulfoxide and Ion Pairing of their Alkali Salts, E.M. Arnett, J.A. Harrelson, S.G. Maroldo, and S.L. Schilling, Duke University
- 9:40 Selective Fluorination with N-Fluoro-2-Pyrildone, S.T. Purrington and W.A. Jones, North Carolina State University
- 10:00 Chiral Recognition in Dynamic Surfactants Monolayer at the Air/Water Interface, E.M. Arnett and E.A. Johnson, Duke University
- 10:20 Break
- 10:40 Thermodynamic Comparison of Acid-Base Interactions of Some Catalytic and Fossil Fuel Solids, E.M. Arnett, B. Chawla and R.A. Hoaksma, Duke University.
- 11:00 Addition of Oxygen and Sulfur Nucleophiles to Acetylenes Containing A Donor Group - Comparison of Calculations with Experiments, John Bunch, M.H. Whangbo, and C.L. Bumgardner, North Carolina State University.
- 11:20 Carbocation-Carbanion Reactions, E.M. Arnett, K.E. Molter, and E.B. Troughton, Duke University

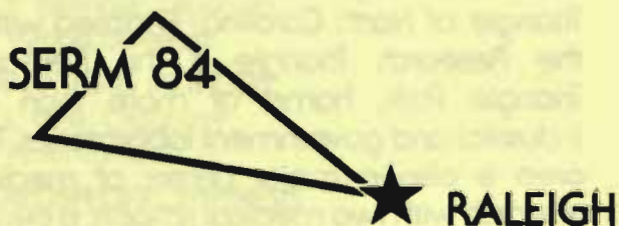
Organic/Medicinal Chemistry
 John A. Myers, Presiding
 Room 103

- 8:50 Registration, Lobby, Paul M. Gross Chemical Laboratory
- 9:20 The Intramolecular Diels Alder Reaction of a Derivative of Diacetone Glucose, Zoltan Benko and B. Fraser Reid, Duke University
- 9:40 Use of Phospholene Oxides in the Synthesis of Six-Membered and Bridged Phosphorous Heterocycles, John C. Kisolus and Louis D. Quin, Duke University
- 10:00 Boron Analogs of Amino Acids in Neutron Capture Cancer Therapy, Bernard F. Spielvogel, Andrew T. McPhail, Fahim Ahmed and Gary Silvey, Duke University; Ralph Fairchild, Brookhaven National Laboratory
- 10:20 Break
- 10:40 Hypolipidemic N-Benzoylsulfonates and Benzylsulfonamides, Steven D. Wyrick, and Iris H. Hall, University of North Carolina at Chapel Hill; Agnes Dubey, Research Triangle Institute
- 11:00 Studies Related to the Synthesis of the ANSA Chain of Streptovaricin A, David Mootoo and B. Fraser Reid, Duke University

Physical/Polymer Chemistry
 Peter Smith, Presiding
 Room 111

- 8:50 Registration, Lobby, Paul M. Gross Chemical Laboratory
- 9:20 INDO-MO Study of Radicals Derived from α -Butyrolactone and α -Valerolactone, Charles E. Mader and Peter Smith, Duke University
- 9:40 Blends of Semicrystalline Polymers: Nylon 6/Poly(ϵ -Caprolactone), K.J. Yoon, E. Venkatesh, and R.D. Gilbert, North Carolina State University
- 10:00 Resolution of the Exchange Anomaly in the Triplet Excitation Ion Radical Salts, D.E. Chesnut and Dore C. Meinholtz, Duke University
- 10:20 Break
- 10:40 EPR Study of Radicals Derived from Cyanobutenes, Kirk R. Maples, Reuben Diaz, and Peter Smith, Duke University
- 11:00 Wave Mechanics of Hard Rods in One Dimension, Jacques C. Poirier, Duke University

36th Southeastern Regional Meeting American Chemical Society



McKimmon Center
North Carolina State University

October 24 - 26, 1984

The North Carolina Section of the American Chemical Society cordially invites you to attend the 36th Annual Southeastern Regional Meeting October 24-26, 1984. The meeting will be held at the Jane S. McKimmon Center for Continuing Education in Raleigh, North Carolina. Raleigh (home of North Carolina State University and site of the 1984 meeting), Durham (home of Duke University) and Chapel Hill (home of The University of North Carolina) lie at the corners of a region known as the Research Triangle of North Carolina. Enclosed within the Research Triangle is the Research Triangle Park, home of more than 40 industrial and government laboratories. The area is also a major center of medical research with two medical schools, a dental school and a school of veterinary medicine.

We hope that you will attend the '84 regional meeting and that you will take the time to explore what we feel is one of the nation's major centers of scientific research.

* * * * *

William F. Little, Chairman
36th Annual Southeastern Regional Meeting
Department of Chemistry
University of North Carolina
Chapel Hill, North Carolina 27514
(919) 962-6193

SYMPOSIA - Ned A. Porter
Department of Chemistry
Duke University
Durham, NC 27706
(919) 684-3420

ACTIVATION OF SMALL INORGANIC MOLECULES

R. Eisenberg, Organizer
U. of Rochester

INORGANIC MODELS FOR CYTOCHROME P-450

J. Groves, Organizer
University of Michigan

MICROELECTRONICS

K. Bachman, Organizer
North Carolina State University

C. N. REILLEY MEMORIAL SYMPOSIUM

P. Kissinger, Organizer
Purdue University

SEPARATIONS METHODS

L. Ettre, Organizer
Perkin-Elmer

STEREOSPECIFIC SYNTHESIS

G. Saucy, Organizer
Hoffman-LaRoche

DRUG DNA INTERACTIONS

S. Hecht, Organizer
Smith, Kline & French

**APPLICATIONS OF NMR SPECTROSCOPY TO
BIOLOGICAL PROBLEMS**

T. Decker, Organizer
National Institutes of Health

ENVIRONMENTAL CHEMISTRY AND TOXICOLOGY

R. Christman, Organizer
U. of North Carolina, Chapel Hill

DISPOSAL OF TOXIC CHEMICALS

D. Walters, Organizer
National Institute of
Environmental Health Sciences

GENERAL /

POSTER SESSIONS - Charles G. Moreland
 North Carolina State Univ.
 Department of Chemistry
 Raleigh, NC 27650
 (919) 737-2548

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* * * * *

SPECIAL ACTIVITIES - Kathryn E. MacLeod
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EXHIBITS - Steve Benezra
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 3030 Cornwallis Rd.
 Research Triangle Park, NC 27709
 (919) 248-4139

NATIONAL SYMPOSIUM ON RECENT ADVANCES
IN POLLUTANT MONITORING OF AMBIENT AIR
AND STATIONARY SOURCES

May 8 - May 10, 1984

This is the fourth annual national symposium sponsored by EPA's Environmental Monitoring Systems Laboratory in Research Triangle Park. The symposium is in response to a need increasingly emphasized by the nation's regulatory programs to collect data on the concentration, distribution, and personal exposure to air pollutants. In seven sessions over three days, papers and discussions will focus on state-of-the-art systems for monitoring hazardous waste, particulate and organic pollutants, acid deposition, and general and source-oriented monitoring. Analysis of complex chemical data and personal monitoring will also be discussed.

The symposium will be held at the Radisson Plaza Raleigh Hotel in Raleigh, North Carolina. There is no registration fee. For additional information, call Camilla Greene, JACA Corp., Fort Washington, Pennsylvania, (215)643-5466.

Symposium Agenda

May 8, Session I	Particulate Pollutants
May 9, Session II	Personal Monitoring
May 9, Session III	Hazardous Waste Monitoring
May 9, Session IV	Organic Pollutants
May 10, Session V	Analysis of Complex Chemical Data
May 10, Session VI	Acid Deposition
May 10, Session VII	General and Source-Oriented Monitoring

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