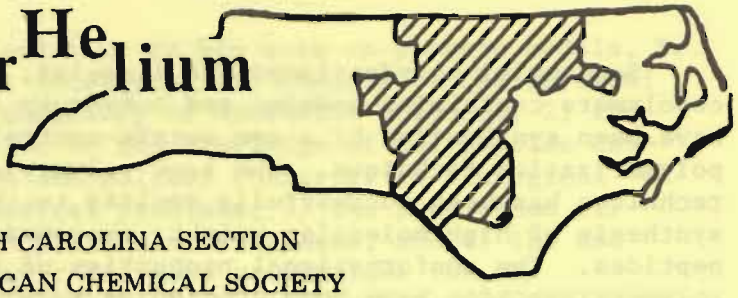
TarHelium



NORTH CAROLINA SECTION
AMERICAN CHEMICAL SOCIETY

Vol. 8, No. 7 Raleigh, N. C. March 1978

"THE SYNTHESIS AND CONFORMATIONAL ANALYSIS OF PROTEIN MODEL SYSTEMS USING ESTER-AMIDE COPOLYMERS"

Speaker: Dr. Murray Goodman
University of California, San Diego

Date: Tuesday, March 21, 1978

Place: Burroughs Wellcome Co.
Research Triangle Park

Time: *5:30 Cocktails and Hors D'oeuvres
Burroughs Wellcome
Exit I-40 at Cornwallis Road

6:30 Lecture
Burroughs Wellcome Auditorium

* Compliments of Burroughs Wellcome. Please make reservations only on Thursday and Friday, March 16 and 17 by calling 549-8371, ext 559.

Sequential polydepsipeptides (regular, sequence copolymers containing α-amino and α-hydroxy acids) have been synthesized by a new matrix-controlled polymerization technique. The same polymerization technique has been successfully applied to the synthesis of high molecular weight, sequential polypeptides. The conformational properties of these polydepsipeptides have been studied as models for polypeptides and proteins using theoretical and spectroscopic techniques. We have also carried out a statistical thermodynamic treatment of the helix coil transitions for these polymers.

DR. MURRAY GOODMAN is a native of New York City. He received his BS degree from Brooklyn College and his Ph.D. from the University of California at Berkeley. Following post-doctoral work at MIT and Cambridge, Dr. Goodman joined the staff of the Polytechnic Institute of Brooklyn. Before leaving for the University of California, San Diego, where he is now Chairman of the Chemistry Department, Dr. Goodman became Director of the Polymer Research Institute.

Dr. Goodman's work includes the synthesis of polypeptide model compounds which he studies by a variety of physicochemical techniques to derive information about their conformational behavior. He has constructed a novel approach for understanding the principles governing the stability of complex conformation of native proteins. In the course of these investigations, oligopeptides containing up to 13 amino acid residues were prepared in a state of complete optical purity. These substances were then used to show how the stability of their helical conformation depends on chain length, on the incorporation of interfering amino acids into the chain and on a variety of side chain interactions.

In addition to his work on protein models, Dr. Goodman's interests also include 1) the physical organic chemistry of synthetic polymers, 2) the application of the knowledge of polypeptide conformation and polymer chemistry to biological and biomedical problems, 3) the phenomenon of taste, in particular sweetness, and 4) the use of synthetic polymers as matrices for the immobilization of bioactive agents.

POST LECTURE PLANS

A formal dinner is not planned for this meeting. A small group will gather for dinner following Dr. Goodman's lecture. Anyone wishing to accompany the speaker to dinner should contact Dr. Palmer before the lecture.

MEETING-IN-MINIATURE - CALL FOR PAPERS

This year the Meeting-in-Miniature for the North Carolina Section of the American Chemical Society will be held at Duke University. The date is Tuesday, April 18, 1978. The Plenary Lecturer will be Dr. Alan G. McDiarmid of the University of Pennsylvania.

Application material for presenting a paper is enclosed in this issue of the TarHelium. Please note the March 21, 1978 deadline. Your early response will aid in preparing a complete program for the April issue of the TarHelium.

Contributions from both academic and nonacademic laboratories are requested. If one of the co-authors is a student, he is encouraged to present the paper. A poster session will be included this year if there is sufficient interest. Your cooperation in helping to make this meeting a success is greatly appreciated.

APPLICATION
Meeting-in-Miniature
Tuesday, April 18, 1978
Paul M. Gross Laboratory
Duke University

Author(s):_____

_____

_____

Position(s):_____

_____

_____

Presented by:_____

Institution:_____

Title of Paper:_____

_____

_____

_____

Section: Analytical:___ Inorganic:___ Organic: ___

Biochemical:___ Physical:___ Polymer:_____

Chemical Education:____

Type: Regular Session Only: ___

*Poster Session Only: ____

*Either Regular or Poster Session:____

*If sufficient interest is shown, a poster session will be added to this year's program.

Type of Projector (if any):_____

Application Deadline: Tuesday, March 21, 1978

Mail to: Dr. Eric Wiechert
Cutter Laboratory - Highway 70 East
Clayton, N. C. 27520

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TARHELIUM

Editor:	William Switzer	(NCSU - 737-2945)

IOTA SIGMA PI

A Metropolitan Chapter of Iota Sigma Pi, a national chemical society for women, is being organized. Members can include professional women in the triangle area as well as qualified female graduate and undergraduate students at the local universities/colleges. Anyone interested in joining or helping to establish the Chapter should contact:

Dr. Suzanne Purrington
Department of Chemistry
North Carolina State University
Raleigh, North Carolina 27650

Anyone who is already a member of Iota Sigma Pi is encouraged to participate also.

AREA SEMINARS

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

Mar 16 Dr. Samuel Danishefsky, University of Pittsburgh

"New Strategies for the Synthesis of Natural Products"

Mar 22 Dr. Murray Goodman, University of California, San Diego

"The Molecular Basis for the Sweet Taste of Certain Peptide Derivatives"

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

Mar 22 Dr. Martin Gouterman, University of Washington

"Electronic Structure of Metalloporphyrins"

Mar 29 Dr. M. Bonner Denton, University of Arizona

"The Use of Interactive Computer Control for Studying Spectrometric Processes"

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

Mar 20 Dr. Frank H. Stillinger, Bell Laboratories

"Molecular Recognition and Self-Organization in Fluorinated Hydrocarbons"

Apr 3 Dr. Scott Goode, University of South Carolina

"Computerized Curve Fitting to Determine the Equivalence Point to Titration Curves"

TARHELIUM IS PUBLISHED BY THE NORTH CAROLINA SECTION OF THE AMERICAN CHEMICAL SOCIETY. THE VIEWS EXPRESSED HEREIN ARE NOT NECESSARILY THOSE OF THE SECTION. DIRECT ALL CORRESPONDENCE TO DR. WILLIAM L. SWITZER, EDITOR, C/O CHEMISTRY DEPARTMENT, NORTH CAROLINA STATE UNIVERSITY, RALEIGH, N. C. 27607.