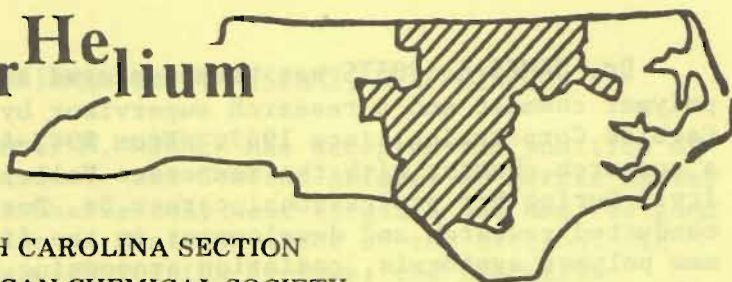


Tar Helium



NORTH CAROLINA SECTION
AMERICAN CHEMICAL SOCIETY

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February 1979

THE EFFECT OF POLYMER STRUCTURE ON BIODEGRADABILITY

- Speaker: Dr. James E. Potts
Union Carbide Corporation
- Date: Tuesday, February 13, 1979
- Place: Burroughs-Wellcome
Research Triangle Park, N.C.
- Time: 5:30 Happy Hour
Hors D'oeuvres-Cocktails
Burroughs-Wellcome
Exit I-40 at Cornwallis Road
- 6:30 Lecture
Auditorium-Burroughs-Wellcome

Dr. JAMES E. POTTS has been employed as a polymer chemist and a research supervisor by Union Carbide Corporation since 1947. From 1942-46 he was a research chemist with the Tennessee Valley Authority. During his professional career Dr. Potts has conducted research and development in the fields of new polymer synthesis, radiation processing, agricultural applications for plastics, biodegradability and photodegradability of plastics, solid rocket propellant binders, ammonium nitrate and nitrocellulose chemistry and pyrolysis of plastics. He has lectured in Japan, Europe and the U.S. and is an A.C.S. lecturer. Dr. Potts has collaborated on three books, has over forty patents and has coauthored several publications.

* * *

In addition to environmental factors such as pH, temperature, moisture level, mineral nutrient concentration and the types of microorganisms present, the tendency of a synthetic polymer to biodegrade is related to its chemical structure. Although most synthetic polymers resist biodegradation, specific structural features favor biodegradation. The effect of these factors on the biodegradation tendency of addition and condensation polymers will be discussed. Several applications for biodegradable plastics will be discussed.

* * *

This month's meeting is jointly sponsored by the POLYMER GROUP and the NORTH CAROLINA SECTION, ACS.

POST LECTURE PLANS

Anyone interested in accompanying the speaker to dinner following the lecture, please contact Dr. Eric Wiechert during the cocktail hour to discuss dining arrangements.

CHAIRMAN-ELECT RESIGNS, REAPPOINTED

Dr. SALLY M. HORNER has accepted the position of Dean of Academic and Student Affairs at Morris Harvey College in Charleston, West Virginia and has resigned her position as Chairman-elect of the Section. In accordance with Section by-laws, the Executive Committee has appointed Dr. FORREST W. GETZEN of NCSU Chairman-elect. At the regular Section elections in the fall, positions of both Chairman and Chairman-elect will be filled by vote of the membership. Congratulations to both Dr. Horner and Dr. Getzen.

JOB OPENINGS?

Employers having positions for Section members are reminded that openings may be advertised free in the TarHelium. Publication deadlines usually coincide with monthly Section meetings.



North Carolina
Academy of
Science Inc.

Dear Colleague:

The A.C.S. and our local section do an excellent job of serving many of our professional needs in the field of chemistry. However, there is an additional need for interaction with chemists and other scientists in all sections of North Carolina. The North Carolina Academy of Science helps to promote such interaction, serving the interests of science throughout the state. In addition to providing a forum for reports and discussion, it encourages the development of young scientists through its sponsorship of the Collegiate Academy (for college undergraduates), the Student Academy (for junior and senior high school students), and the Junior Science and Humanities Symposium; and it identifies and responds to current problems through its committees on conservation and energy and other areas as the need arises. The 76th Annual Meeting of the Academy will be at UNC-G in Greensboro on March 30-31.

The NCAS needs and deserves the support of all scientists in North Carolina. You may join by filling in the form below and sending it with your check for 1979 dues to the undersigned.

Sincerely,

R. H. Loeppert, Chairman
NCAS Membership Committee
NCSU Department of Chemistry
Raleigh, North Carolina 27650

NORTH CAROLINA ACADEMY OF SCIENCE

APPLICATION FOR MEMBERSHIP

Name: Dr. Prof. Mr. Ms. _____

Mailing Address _____

Business Address (if different) _____

Official Position _____

Professional Interests _____

Type of Membership [] Regular Active (\$5.00 per year)

[] Subscribing (\$10.00 per year)

AREA SEMINARS

- Feb. 12 Dr. J. F. WHIDBY, Philip Morris, "Conformation of Nicotine Alkaloids and Their Internal Motion. An Application of Multi-Nuclear Magnetic Resonance," 4:00 p.m., Room 124 Dabney Hall, NCSU.
- 13 Dr. JAMES POTTS, Union Carbide, "The Effect of Polymer Structure on Biodegradability," Joint Polymer Group/ACS Lecture, 6:30 p.m., Auditorium Burroughs-Wellcome.
- 14 Dr. CEDRIC J. POWELL, National Bureau of Standards, "Recent Advances in Surface Science," 11:00 a.m., Room 308 Venable Hall, UNC-CH.
- 21 Dr. PASUPATI MUKERJEE, University of Wisconsin, Madison, "Formation and Some Properties of Micelles," 11:00 a.m., Room 308 Venable Hall, UNC-CH.
- 23 Dr. JACQUELINE B. REYNOLDS, Duke University, "To be announced," 3:30 p.m., Room 130 Gross Chemical Laboratory, Duke.
- 26 Dr. N.A.P. KANE-McGUIRE, Furman University, "Transition Metal Photochemistry and Solar Energy Utilization," 4:00 p.m., Room 124 Dabney Hall, NCSU.
- 28 Dr. F. S. ROWLAND, University of California, Irvine, "Stratospheric Ozone Chemistry: Man's Threat to the Ozone Layer," Venable Lecture, 8:00 p.m., Room 207 Venable Hall, UNC-CH.
- Mar. 1 Dr. J. SCHAEFER, Monsanto, "High Resolution ^{13}C and ^{15}N NMR Studies of Solids," 4:00 p.m., Room 124 Dabney Hall, NCSU.
- 2 Dr. H. B. MARK, University of Cincinnati, "The Chemistry of Vitamin B₁₂ and Related Cobalamins," 3:30 p.m., Room 130 Gross Chemical Laboratory, Duke.
- 9 Dr. R. DITCHFIELD, Dartmouth College, "Theoretical Studies of Molecular Properties," 3:30 p.m., Room 130 Gross Chemical Laboratory, Duke.

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