



The TarHelium

Volume 25, Number 1

September 1994

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Nominations

1	At the September picnic, Dr. Bob
1	Voyskner, Chair of the Nominating Com-
2	mittee, will present a slate of candidates
2	for the Local Section Elections in October.
2	If you plan to make nominations from the
2	floor, please come with a biography of the
2	candidate.
3	Chair Elect: Tom Lehman , Duke Medi-
3	cal Mass Spectrometry Facility, Duke
3	University Medical Center and Alex
3	Tropsha , School of Pharmacy,
5	University of North Carolina, CH
5	Treasurer: Joan Bursey , Radian and Paul
8	Flowers , Department of Physical Sci-
8	ence, Pembroke State University
9	Councilor: Richard J. Palmer , Chemistry
9	Department, Duke University
10	Alternate Councilor: Bob Shaw , Army
11	Research Office and Allen Tonelli , De-
11	partment of Textile, Engineering,
12	Chemistry and Science, NCSU

September Picnic Planned

Sunday, September 25, 1994 from 1-5 at the NC Museum of Life & Science. The cost will be \$8 per person for food for members and guests, \$4 for students and high school teachers. Discount admissions will be available at the Museum for \$2.50 per person additional.

We will have a brief business meeting at 3:00 p.m. to accept nominations for the Local Section elections. The picnic will follow immediately. The meeting and picnic will be held in the covered pavilion on the south side of the museum grounds.

Reservation required by Wednesday, September 21, 1994. In Chapel Hill call Becky Smith, 962-2172; in Durham, Bonnie Turner, 660-1506; in Raleigh, Joyce Dunn, 515-2546; in Fayetteville, Sandra Smith, 486-1571; or by e-mail at Internet: bill_switzer@ncsu.edu

The TarHelium

c/o William L. Switzer, Editor
Department of Chemistry-8204
North Carolina State University
Raleigh NC 27695-8204

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M. T. Riebe (Glaxo), Chair Elect	941-3608
C. A. Haney (NCSU), Secretary	515-3746
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D. D. Sternbach (Glaxo), Alternate Councilor '92	990-6238
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A. Tropsha (UNC), TMMDG, <i>Ex Officio</i>	966-2955

Voice-mail Information Line: (919) 541-7183 in the RTP

- 10-General ACS
- 11-Polymer Discussion Group
- 52-Magnetic Resonance Spectroscopy Discussion Group
- 53-Mass Spectrometry Discussion Group
- 54-Triangle Chromatography Discussion Group

National ACS meetings:

- April 2-7, 1995, Anaheim
- March 24-29, 1996, Seattle
- August 20-25, 1995, Chicago
- August 25-30, 1996, Boston

Deadline for October Publication: September 12, 1994

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W. L. Switzer, Editor

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P. A. Flowers, Advertising

The TarHelium is a publication of the North Carolina Section of the American Chemical Society. The views expressed herein are not necessarily those of the Section. Public lectures and seminars as well as announcements of interest to the ACS membership will be listed as deemed appropriate by the editor and as space permits. Short commentaries or contributed articles will also be considered. Also, we are happy to publicize, free of charge, any job openings for chemists. (We also accept paid advertisements for more extensive recruiting announcements.) The **Deadline** for each publication is usually the first of the month prior to publication.

Contributions for *The TarHelium*: Send to W. L. Switzer, Editor, Chemistry-8204, North Carolina State University, Raleigh NC 27695-8204. Phone: (919) 515-2945, Fax: (919) 515-5079 and Internet: bill_switzer@ncsu.edu.

Advertising: All nine issues of the *TarHelium* will accept advertising. The cost is \$25 per column-inch based on a 3.5 inch width; two-inch minimum. There is a 10% discount for advertising in four or more issues in a publication year which runs from September through April plus one issue in the summer. Contact Paul Flowers, Advertising Manager, Department of Physical Science, Pembroke State University, Pembroke NC 28372, Phone: (919) 521-6247 Fax: (919) 521-6649 and Internet: paul@nat.pembroke.edu.

Donations to the NC Section of the ACS help sustain Local Section activities. All contributions are tax deductible and greatly appreciated.

If you wish to change your membership status or *The TarHelium* mailing address, please submit your new address along with your old address in the form of a recent *C&EN* or *TarHelium* address label to:

Manager, Membership & Subscription Services
American Chemical Society
P. O. Box 3337
Columbus, OH 43210
meminfo@acs.org

When communicating electronically, include your membership number and a return telephone number in your message. You may request membership applications electronically, but when completing them please write NC Section in the blank labeled Local Section/Division Commission Claim in the lower right hand corner of the first page. You may also request add/drop subscriptions among other services.

If you wish to receive job announcements and announcements of Local Section ACS events by electronic mail, please subscribe to the NCACS list. Send e-mail to: listserv@listserv.ncsu.edu. Include a one-line message saying: subscribe ncacs <your name>. To remove your name, send a message to the same address saying: unsubscribe ncacs. Other features of the list can be obtained by sending mail to the same address with the one-line message saying: info ncacs. Questions may be addressed to the *TarHelium* Editor.

To subscribe to a Local Section bulletin board to discuss general topics of interest to the chemical profession, follow the same procedure described above, but include the one-line message saying: subscribe ncacsdialog <your name>. To post to the list, send mail to ncacsdialog@ncsu.edu.

To communicate with the entire Executive Committee, send mail to: acsexcomm@ncsu.edu.

On-line copies of recent issues of *The TarHelium* are now available on the Triangle FreeNet at the University of North Carolina, Chapel Hill. One may telnet to: tfnet.ils.unc.edu with login: freenet and password: guest. Issues are archived under:

4. Business/
3. Professional organizations/
 1. ACS - American Chemical Society/
 1. ACS TarHelium (newsletter)/

Alternatively one may reach the server by gopher. From the State of North Carolina:

University of North Carolina at Chapel Hill, Info system
Other information services
Triangle Free-Net development gopher
Business
Professional organizations
ACS - American Chemical Society
ACS TarHelium (newsletter)

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October Issue

Because of the late meeting date at which nominations for Local Section elections will be made, the October issue of *The TarHelium* will be late since it contains the ballot.

Video Conference Huge Success

The ACS video conference held in June attracted 107 paid registrants. This conference was co-sponsored by the Local Section and the North Carolina Quality Assurance Discussion Group. The organizers were told that this was by far the single largest audience to view the presentation. Thanks to ACS members **Bill Switzer** and **Richard J. Patterson** for their work in down linking this conference. Also thanks to **CYAL, Inc.** for donating refreshments and supplies to the participants.

Quantitative Technology Inc. - p.

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Elemental Analysis

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5 PO Box 470

6 Whitehouse NJ 08888

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8 (908) 534-4445

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Companies Support Local Conference

The NC Section wishes to thank the following companies for their support of the 108th Local Section Conference held at Duke University in April 1994. Their contributions helped significantly offset the cost of this meeting which in recent years has been held annually.

Burroughs Wellcome Company

Ciba-Geigy Corporation

Glaxo Inc.

Rhône Poulenc Ag

Union Carbide Chemicals and Plastics Company, Inc.

High School Teachers

by Dr. Sarah Allen, Chair High School Committee

The High School Chemistry column is a new addition to *The TarHelium* this year. The Executive Committee felt that it might be of interest to the membership to keep informed about what is going on in the secondary schools. The High School Chemistry Teachers Committee of the Local Section felt that the teachers might find it interesting to keep informed about what is going on in the local chemistry community. The High School Chemistry Teachers Committee of the Section has for many years published a twice a year newsletter. The High School Committee and the Executive Committee have mutually agreed to try for one year sending the full *TarHelium* to all high school teachers in the Local Section as well as to teachers in counties surrounding the Local Section who are not served by any local section.

The NC Section includes the following counties: Bladen, Caswell, Chatham, Cumberland, Durham, Edgecombe, Franklin, Granville, Halifax, Harnett, Hoke, Johnston, Lee, Martin, Moore, Nash, Northampton, Orange, Person, Randolph, Robeson, Sampson, Scotland, Wake, Warren and Vance. Adjacent counties not served by any section include: Bertie, Brunswick, Camden,

Chowan, Columbus, Currituck, Dare, Gates, Hertford, Hyde, Pasquotank, Perquimans, Tyrrell and Washington. The State Department of Public Instruction supplies the data base of names and addresses for public schools. This data base is updated in June and, therefore, has some omissions. The data base does not include private schools. If you know of teachers who might have been omitted either because they are new or because they teach at a private school, please send the name and address to the editor, Bill Switzer. His address can be found on the inside cover.

Affiliate membership in the NC Section of the ACS and the ACS Division of Chemical Education (DivCHED) is available to high school chemistry teachers without charge. You do not have to join ACS to become an affiliate of DivCHED. By requesting affiliate status, you will receive the DivCHED Newsletter, which is published three times a year. This is an outstanding newsletter which addresses concerns of chemistry teachers and allows a variety of opportunities to collaborate with colleagues, to contribute to specific programs that enhance teaching of chemistry, etc. For further information and an application form contact Linda Stroud, 2808 Rue Sans Famille, Raleigh NC 27608.

The Local Section is once again offering two **\$500 Professional Development Awards** for High School Chemistry Teachers. The objective of the award is to facilitate teachers' efforts to improve their professional skills and opportunities. Teachers may request funds to help defray costs of a course or a workshop, travel expenses to a professional meeting, expenses for research projects, etc. Proposals will be reviewed by a committee of the NC Section ACS Members and awards will be presented at the NC Section Conference in April 1995. Awardees will be asked to report on the benefits of their professional development activity. Eligibility: Applicants must teach within the counties served by the NC Section. These counties were listed above. Qualifications: Applicants must have taught at least one chemistry class for at least one year and be scheduled to teach at least one chemistry class next year. The application procedure has been streamlined to encourage participation. Please request a proposal form from Sarah Allen, Chair High School Chemistry Committee; contact information at the end of the column.

Two news items: 1) The Science House, which is an outreach effort of the School of Physical and Mathematical Sciences at NC State University, invites you to request a visit of the "Chemistry on the Road" show. This show is a motivational set of demonstrations designed for high school chemistry classes. Contact The Science House at (919) 515-6118 for information and scheduling. 2) Saturday, September 17, 1994, NC State University is holding its campus-wide open house from 9:00 a.m.-1:00 p.m. Prospective students, teachers and parents are invited to attend. All colleges in the University will hold activities on campus. The Department of Chemistry along with other departments in the College of Physical and Mathematical Sciences will focus most of its activities in Dabney Hall, the Chemistry building which is located on Yarborough Street about a block for the intersection with Dan Allen Dr. Entertaining demonstrations will be given in chemistry and physics. Also displays and activities will be available from all departments and faculty will be on hand to discuss all programs in the physical sciences.

Please become a contributor! If you know of announcements which high school chemistry teachers might be interested in, please send them to the column editor, Sarah Allen, NCSSM,

1219 Broad St., Durham NC 27705; (919) 286-3366 X225; Internet: allen@odie.ncssm.edu

Two New Electronic Services Offered

Over the summer two new electronic services were added. One is a second bulletin board called **ncacsdialog** and the other a direct link to the Local Section Executive Committee.

Instructions for subscribing to **ncacsdialog** are given in the "boiler plate" column immediately to the left on this page. This service is intended to give chemists in the Section an opportunity to dialog on anything of interest to the profession. It is not for every one since, if it catches on, postings could become numerous and, therefore, annoying to some. However for those interested, the new bulletin board might offer a mechanism for feeling more a part of the chemistry community.

To express concerns to the Local Section Executive Committee, send mail to **acsexcomm@ncsu.edu**. This bulletin board has closed subscription, but is intended to give you an opportunity to see that the Executive Committee is aware of your concerns.

Chem Week Volunteers Needed

The NC Section and the Museum of Life and Science will sponsor a Chemistry Fair at the Museum on November 12 from 10:30 to 4:30. This event will provide all of the Museum's visitors with an opportunity to engage in a variety of hands-on chemistry activities. Activity stations will be set up in the Mercury Meeting Room. We are looking for volunteers who would like to share their enthusiasm for chemistry by participating in this event. For more information, please call Erin Keating at 220-5429, ext. 367.

DIONEX c. - p.

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IC, Automation and HPLC

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5 1950 Lake Park Drive, Suite 175

6 Smyrna GA 30080

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8 (404) 432-8100 (voice)

9 (404) 432-8300 (fax)

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College Graduations

Duke University: The summer issue of the *TarHelium* reported news about the Duke undergraduate graduation. Besides the un-

dergraduates finishing, there were two students graduating with master degrees and 14 with PhD degrees. Those graduating with the masters degree were: **Karen Lackey** (Roanoke, VA) and **Glenn Remar** (Lancaster, PA)

Those graduating with the PhD were: **Stephanie Bell** (Peabody, MA), **Matthew Caudle** (Winston-Salem), **David Cooke** (Manchester, NH), **Lei Geng** (Baoshan, PRC), **William Grubbs** (Winston-Salem), **Su-Hsiu Hsu** (Taipei, ROC), **Thomas Johnston** (Pittsburgh, PA), **Leonidas Jones** (Schenectady, NY), **James Merritt** (Wilmington), **Karen Mills** (Ridgewood, NJ), **Ian Rosenstein** (New York, NY), **Robert Stevens** (Mt. Airy), **Jeffrey Widder** (Columbus, OH) and **Wen-Xue Wu** (Xiangtan, PRC).

North Carolina Central University recognized 11 graduates at its spring graduation. They included **Treva Rochelle Stevens** (Greenville), **Kendra Renee Edward** (Durham), **Ramone Donnell Givens** (Charlotte), **Darius Brian Grissom** (Charlotte), **Jason Ray Harris** (Detroit MI), **Kimberlee Dionon Harrison** (Durham), **Constance Regina Monroe** (Middlesex), **Anthony Lee Poole** (Durham), **Anita Chernelle Smith** (Asheville), **Carson Eugene Wise** (Washington DC) and **George S. W. Wu** (Durham).

The University of North Carolina, Chapel Hill graduated 48 students with the BS degree in chemistry and 45 with a BA in chemistry.

BS:

Sonali Agrawal
Jason Phillip Bogart
Cecelia Horne Branan
Michael Anthony Brinson
Shanda Sue Buckley
Vu Long Bui
Quan Ninh Chau
Wei-Ling Cheng
Sangeeta Chugha
Amanda Harris Corbett
Krisztina St. Fanie Danek
William Soloman Dean
Heath Kendal Dedmond
Richard Dobbs Speight Dixon, IV
Delwin Lerone Elder
Natalya Maria K. Elder
Julie Elizabeth Fields
Teri Antoinette Gray
Claudine Alonzo Gregorio
Christopher Joseph Handy
Ronald Clay Harris, Jr.
Solon Gray Hughes
Maria Yadira Hurlay
Keith Wiandt Jarvis
Jeffrey Richard Jones
Heather Anne Koons
Dana Borden Lacy
Thuan Quoc Le
Leigh Catherine Masten
Robert Mark Matthews
Desiree Monique McCarthy
John Scott Moody
David Michael Mourning
Rita Nahta
Tuong-Linh Ngoc Nguyen
John Ashley Parker
Daniel Bruce Patterson
Brian Todd Peck
Alycen Easterling Pond
Franklin Cooper Reyner
Matthew Austin Ripperton
Stephen Edward Schneider
Marc Shalaby
Shelly Sue Stecker
Patrick Fain Taylor
James Martin Ward
Stacie Cecile Weninger
Natalie Rebecca Young

BA:

Amy Elizabeth Bertha
Leslie Leigh Bleecker
Shelley Rene Chandler
Leslie Victoria Coward
Shaun Christopher Donegan
Jennifer Ann Dorrity
Brett Hugh Foreman
Gavin James Gordon
Daniel Scott Greenberg
Karen Alicia Hardy
Amy Lynn Harvey
Susan Nicole Hastings
Darryl Lynn Hatchett
Justin Fletcher Haynie
Stephanie Camille Hayworth
Stephen Shawnan Hsich
George Triantafilos Katsoudas
Aalok Kuthiala
Janet Renee Lassiter
Colby Elizabeth Mangum
Charles Henry Moseley, III
Kevin Todd Neal
Asmita Ramji Patel
Shannon Dawn Peacher
Mark Andrew Perini
Alethia Lynette Ponder
Richard Michael Powell, Jr.
Meredith Lynn Quimby
Joshua Denison Rabinowitz
Naeem Ur Rahman
Kurtis Elvin Reed
Rafael Rivera, Jr.
Jeffrey Jon Rosenthal
Hubert Paul Seagle, Jr.
Robert Milton Selden, III
Sardar Mustafa Shah-Khan
Brad Eugene Shaver
Brenda Lee Smith
Jennifer Connor Smith
Yun U. Song
Andrew John Taylor
Phillip Dzung Tran
William Alfred Wainwright, Jr.
Nicole Marie Wedick
Sandy Yee

A number of students received distinguished scholarships. **Vu Long Bui**, **Delwin Lerone Elder**, **Susan Nicole Hastings**, **Thuan Quoc Le**, **John Ashley Parker**, **Daniel Bruce Patterson** and **Natalie Rebecca Young** were named **James M. Johnston Scholars**. **Jennifer Ann Dorrity** and **Robert Mark Matthews** were named **Fred W. Morrison Scholars**. Others named

included: **Joshua Denison Rabinowitz-Herbert Worh Jackson Scholar**, **Stephanie Camille Hayworth-Herbert & Mayme Pegg Scholar**, **Colby Elizabeth Mangum-William A. Whitaker Scholar**, **Robert Milton Selden, III-Joseph E. Pogue Scholar** and **Julie Elizabeth Fields-Morehead Scholar**. **Joshua Denison Rabinowitz** also was named the **Barry M. Goldwater Scholar** and the **Churchill Scholar** which are awarded on a competitive basis. Other competitive scholars were: **Dana Borden Lacy-1992-194 PPG Scholar-Intern** and **Robert Milton Selden, III-Goard of Governors' Dental Scholar**.

Venable Medals, sponsored by the Rho Chapter of Alpha Chi Sigma, were given to **Delwin Lerone Elder** and **Dana Borden Lacy**, the two most outstanding seniors majoring in Chemistry. **John Scott Moody** received the **American Institute of Chemists Student Award** and **Marc Shalaby** received the **Emmett Gladston Rand Premedical Scholarship**. **Sangeeta Chugha**, **Solon Gray Hughes**, **Daniel Bruce Patterson** and **Stacie Cecile Weninger** received the **Merck Index Awards**. Other awards included: **1993-94 Parent's Council Research Awards** were given to **Sangeeta Chugha**, **Delwin Lerone Elder**, **Leigh Catherine Masten** and **Stephanie Edward Schneider**. **Sangeeta Chugha** received the **1993 Undergraduate Award in Analytical Chemistry**. **Dana Borden Lacy** and **Stephen Edward Schneider** received **NC Section ACS Undergraduate Research Grants**. **Solon Gray Hughes** and **Dana Borden Lacy** received the **CRC Press Freshman Achievement Awards**. **Marc Shalaby** received the **POLYED Undergraduate Research Scholarship**. **Julie Elizabeth Fields** received the **Athletic Director's Scholar-Athlete Award** for Women's Fencing. Music Awards were given to: **Robert Mark Matthews** (UNC Marching Band), **Matthew Austin Ripperton** (Pep Band), **Vu Long Bui** (UNC Symphony Orchestra) and **Krisztina Stefanie Danek** (UNC Concert Band). **Shelly Rene Chandler** and **Jeffrey Jon Rosenthal** were named Student Marshals.

Joshua Denison Rabinowitz was elected **1993-94 President of Phi Beta Kappa**. He was one of 18 students in the society. Others included: **Sangeeta Chugha**, **Delwin Lerone Elder**, **Julie Elizabeth Fields**, **Bryan Ross Fine**, **Solon Gray Hughes**, **Dana Borden Lacy**, **James Taylor Lea**, **Leigh Catherine Masten**, **John Scott Moody**, **David Michael Mourning**, **Daniel Bruce Patterson**, **Mark Andrew Perini**, **Richard Michael Powell, Jr.**, **Stephen Edward Schneider**, **Marc Shalaby**, **Andrew John Taylor** and **Stacie Cecile Weninger**.

Four students received their M. S. Degrees including: **Kevin Edward Blanchard**, **Paul Lawrence Miller, Jr.** **Erin Dayle Sheets** and **Michael Eric Webb**. Also 22 candidates received their Ph. D. Degrees including: **William Douglas Bates II**, **Melinda Beth Bauer**, **Maria Teresa Bautista**, **Keisa Revonda Birdwell**, **Robert Michael Boerner**, **Mark Stephen Denker**, **Greg David Dzingeski**, **Thomas F. Fister**, **Meena Grover**, **Victoria F. Guarisco**, **Ming M. Li**, **Qiong Lin**, **Forrest Gregg McIntosh**, **John Norris Richardson**, **James Edward Rozzelle, Jr.**, **Timothy James Schroeder**, **Thomas Schuster**, **Valerie V. Sheares**, **Terrence James Stark**, **Liu Yang**, **Yibing Yan** and **Liu Yang**.

Huffman Laboratories, Inc. - p.

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3 Elemental Analysis

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5 4630 Indiana Street
6 Golden CO 80403
7 (303) 278-4455
8 (303) 278-7012 (FAX)

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Fall Symposium

The Fall Local Section Symposium this year will be held jointly with the 26th Southeastern Magnetic Resonance Conference at The University of North Carolina, Chapel Hill, October 23-25. The preliminary list of speakers includes:

James S. Hyde	Medical College of Wisconsin
Daniel P. Weitekamp	California Institute of Technology
James R. Norris Jr.	Argonne National Laboratory
Sharon Campbell-Burke	University of North Carolina CH
Paul Agris	North Carolina State University
Ed Janssen	Oklahoma Medical Research Foundation
Wallace Brey	University of Florida
Hans van Willigen	University of Massachusetts, Boston
Ned Jackson	Michigan State University
Ronald Mason	NIEHS
Rick McCullough	Carnegie-Mellon University
David Schultz	North Carolina State University
Tom Pochapsky	Brandeis University
Keith Madden	Notre Dame Radiation Laboratory
Art Rodriguez	East Carolina University
Paul Lahti	University of Massachusetts
Andrzej Rajca	University of Nebraska
John Dawson	University of South Carolina
Barbara Ramsay-Shaw	Duke University
Martin Bakker	University of Alabama
Robert Weisskopf	Massachusetts General Hospital
Weiguo Zhang	Carnegie-Mellon University
John McCracken	Michigan State University
Ron Crouch	Burroughs Wellcome, Inc.
Ffrancon Williams	University of Tennessee
Ed Samulski	University of North Carolina, CH
Craig Ogle	University of North Carolina, Charlotte
David Westmoreland	Rohm & Haas Corp.
Rob Tycko	AT&T Bell Laboratories
David Singel	Montana State University
Dave Doetschman	SUNY-Binghamton

Planned session topics include: Protein and Nucleic Acid Structure by NMR, Organic Magnetic Materials, *In Vivo* NMR and Functional MRI, EPR Spectroscopy, Solid State NMR of Semiconductors and Polymers and Electron Transfer and Photosynthesis.

Registration can and abstract forms are included as center folds to this issue. Complete and return them to Malcolm D. E. Forms at the address shown. You may also submit this information by FAX to the number shown or by electronic mail to:

forbes@uncvx1.oit.unc.edu

Duke Symposium

Title: "Radicals in Chemistry and Biochemistry", a symposium in honor of Professor Ned Porter's 25th year at Duke University

Dates: September 16 - 17, 1994

Place: P.M. Gross Chemical Laboratories, Duke University

Registration: \$65 with dinner September 17th; \$50 without; (Students: \$40 with dinner; \$25 without)

Information: Contact George Dubay at 660-1532 or by e-mail at: grdubay@chem.duke.edu

On Saturday there will be a catered lunch and morning coffee, juice, and snacks followed by an evening dinner.

Friday, September 16:

3:30 Marye Anne Fox, University of Texas at Austin, "Long Distance Electron Transfer in Rigid Organic Macromolecules and Supramolecular Arrays"

Saturday, September 17:

9:00 Introduction and Welcome

9:05 Larry Marnett, Vanderbilt University, "Radical Mechanisms in Catalysis by Prostaglandin Endoperoxide Synthase"

9:45 Max Funk, University of Toledo, "Structure and Mechanism of Lipoxigenases"

10:30 Break

10:45 Keith Ingold, Ottawa-Carleton Chemistry Institute, "When and How Does Local Environment Influence the Reactivities of Free Radicals"

11:30 Laura de Gaeta, RiboGene, Inc., "Chemistry After Ned: From Radicals to Drugs"

12:00 Lunch

1:45 Patrick Dussault, University of Nebraska, "With Stability to Spare: Advances in Peroxide Synthesis"

2:30 Dennis Curran, University of Pittsburgh, "Stereocontrol in Organic Synthesis. From Ionic and Pericyclic Reactions to Radical Reactions, and Back Again."

3:15 Break

3:30 Russell Boyd, Dalhousie University, "Recent Theoretical Studies on Radicals"

4:00 Karen Mills, Pfizer Pharmaceuticals, "Mechanistic Studies of Allylperoxyl Rearrangements"

4:25 Mark Kearly, Creighton University, "Mechanism Based Inhibition of Phospholipase A-2"

Dinner: Barbecue and Evening of Discussion

ChemInnovation Software - p.

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3 Structure Drawing Software

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5 8190-E Mira Mesa Blvd., Suite 428
6 San Diego CA 92126

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8 (619) 566-2846

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Job Openings

All job announcements are broadcast immediately upon receipt to the NCACS recipients list. If you wish to be included, see subscription instructions given on the front inside cover. The INFO file for the NCACS bulletin board has instructions on searching job opening with the State of North Carolina, North Carolina State University and University of North Carolina, CH.

Burroughs Wellcome: Job Line (919) 315-8347.

EPA-RTP: Job line (919) 541-3014. Updated every Friday.

Glaxo: Job Line (919) 248-2565.

NCSU: Laboratory Supervisor-Electronics. The Department of Chemistry at NCSU seeks to fill a professional position to provide hardware and software support for mass spectrometry, NMR, X-ray, and general purpose laboratory equipment. The successful candidate will have the M.S. degree or equivalent experience in an appropriate field. Experience is preferred in ion and electron optics and radio-frequency electronics. The candidate will be expected to develop skill in maintenance of new instruments as they are acquired and to keep abreast of changes in technology for commercial instruments. Please send applications to Laboratory Supervisor-Electronics, Department of Chemistry-8204, Raleigh NC 27695-8204. NCSU is an eo/aa employer and seeks applications from underrepresented groups.

Novo Nordisk: Pilot Plant Research Assistant-The research Assistant provides support to the Pilot Plant Manager and scientists to include: setting up equipment and running experiments according to specifications from the manager and scientists, cleaning, mixing substrates, sterilizing and seeding minifermentors, following and conducting fermentation experiments and setting up and conducting recovery and purification experiments. The Research Assistant also ensures regular maintenance on mini-fermentors, ensures accurate and timely data and documentation of experiments, and maintains positive collaboration with other departments. **Qualifications:** BS degree with a minimum of 2 years relevant laboratory experience. A combination of formal training beyond high school and 10 years relevant experience will be considered. **Chemical Engineer** (for Fermentation Department) The Chemical Engineer will be responsible for monitoring, troubleshooting, and optimizing fermentation processes in production. This person will participate in the exchange of process improvements techniques with other Novo Nordisk Production Units and R&D operations worldwide. **Qualification:** MS or PhD in Chemical Engineering with relevant course work in the life sciences. Thesis work should be related to fermentation processes. Candidates with fermentation manufacturing experience at production and/or pilot scale preferred. BS in Chemical Engineering with minimum of 3 years of fermentation manufacturing experience will be considered. **Contact:** Ginny Hobson, Novo Nordisk BioChem, Inc., at 494-2014 X 269 in Franklinton NC.

RTI: Contact: Research Triangle Institute, Office of Human Resources, PO Box 12194, Research Triangle Park NC 27709-2194. Phone: (919) 541-6466. **Chemist I** F0444 63A B.S./B.A. in Chemistry with laboratory experience in organic synthesis and chromatography desired. Will synthesize, characterize and purify peptides. **Chemist I** F0463 63A B.S./B.A. in Chemistry with training in organic synthesis. Will synthesize organic compounds. **Chemist I/II** F0460 64A B.S./B.A. in Chemistry or related area with extensive training in chemistry. Some research experience in chemistry preferred. Will conduct studies of drug metabolism and environmental chemicals which will include analyzing biological fluids for these chemicals. **For. An. Tox.**

III/Res. For. An. Tox. I F0455 64A B.S./B.A. in Chemistry or related area with at least 1-2 years experience with review/certification of GC/MS and immunoassay data and forensic chain of custody procedures. **Postdoctoral Chemist** F0446 63A Ph.D. in Chemistry with experience in organic synthesis. Will synthesize novel organic compounds. **Postdoctoral Chemist** F0447 63A Ph.D. in Chemistry with research experience in organic synthesis. Will conduct research in the synthesis of organic compounds. **Postdoctoral Chemist** F0450 63A Ph.D. in Organic Chemistry with experience or training in organic synthesis. Will conduct research to synthesize novel organic compounds. **Postdoctoral Chemist** F0462 63A Ph.D. in Organic Chemistry with research experience in organic synthesis. Will conduct research to synthesize novel organic compounds. **Postdoctoral Chemist** F0464 64A Ph.D. in Organic Chemistry with research experience in organic synthesis. Will synthesize haptens and conjugates for catalytic antibody programs. Some analytical (kinetics) work. **Postdoctoral Chemist** F0466 64A Ph.D. in Organic Chemistry with research in the analysis of natural products. Will conduct studies on the disposition and metabolism of taxol. **Postdoctoral Chemist** Ph.D. in Chemistry with research experience in synthetic organic chemistry. Will synthesize novel organic compounds. **Res. Forensic Analytical Tox. I/II** F0440 64A Ph.D. or equivalent in Chemistry, Toxicology, Pharmacology or related discipline with experience directing a drug testing laboratory or with training or experience as a NLCP laboratory inspector. Will review laboratory inspection reports, SOP's, laboratory data, determine laboratory certification status. administer remedial action.

Awards Given at TCDG Symposium

The Eleventh Annual TCDG Chromatography Symposium and Instrument Exhibit, was held May 19 at the McKimmon Center in Raleigh. Of the 21 posters presented, 12 were student posters from Duke, North Carolina State University and the University of North Carolina, Chapel Hill. Students competed for awards. First place went to **Kenneth C. Lewis** from the UNC-CH for a poster entitled: "Electrospray-Condensation Particle Counting: A Macromolecule Counting Detector For Capillary Separations." This poster was co-authored by Dr. J. W. Jorgenson. Second place was a two-way tie. One went to **Scott T. Wills** from the UNC-CH for a poster entitled: "Capillary Hydrodynamic Chromatography And The Analysis Of Single Particles," which was also co-authored by J. W. Jorgenson. The other second place winner was **Jeff Bumgarner** from NCSU for his poster entitled: "Selectivity Control In Electrokinetic Chromatography Using Mixed Micelles," which was co-authored by Dr. M. G. Khaledi. The first place award was \$400 and the second place awards were \$200 each.

Galbraith Laboratories - p.

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Microanalysis Services

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5 PO Box 51610

6 Knoxville TN 37921-1750

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8 2323 Sycamore Dr

9 Knoxville TN 37921-1750

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11 (615) 546-1336

12 (615) 546-7209

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Beckman Instruments, Inc. - p.

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3 Chemical Instrumentation

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5 Howard Rosenberg, Ph. D.

6 1210 Ashbrooke Dr.

7 West Chester PA 19380

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9 (215) 429-1375 (PA)

10 (201) 818-8900 (NJ)

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University Grants and Contracts

Camille and Henry Dreyfus Foundation: "Modern Computational Methods for Advanced Undergraduate Courses", **Alvin Crumbliss**, Duke

Glaxo: "Synthesis of Non-natural Amino Acids by Asymmetric Hydrogenation", **Mark Burk**, Duke

Hoechst Celanese Corporation: "New Chiral Ligands for Carbonylation Reactions", **Mark Burk**, Duke

Los Alamos National Labs: "Asymmetric Catalysis in Supercritical Media", **Mark Burk**, Duke

National Institutes of Health: "Induced Deamination of Cytosine and 5-Methyl C in DNA", **Barbara R. Shaw**, Duke

National Science Foundation: "Research Experiences for Undergraduates in Chemistry", **Steven Baldwin**, Duke

Office of Naval Research: "Discovery of Molecular Tools Through Combinatorial Synthesis", **Michael C. Pirrung**, Duke

Public Health Service-National Institute of Health: "Synthesis and Synthetic Utility of 1-Acyldihydropyridines," **D. L Comins**, NCSU

Research Triangle Institute: "Theoretical Studies of Oxygen Dosed Carbon Surfaces," **J. L. Whitten**, NCSU

U.S. Department of Energy: "Preparation of Oligonucleotide Arrays for Hybridization Studies", **Michael C. Pirrung**, Duke; "Band Electronic Structures and Crystal Packing Forces of ET Salts," **M. H. Whangbo**, NCSU

Area News

BBI: Boron Biologicals, Inc. has named W. James Wilson Director of Operations. Wilson joins BBI after a stint as a pharmaceutical manufacturing consultant. Prior to that he was general manager of Alcon Laboratories' manufacturing facility in Sanford.

Duke: **Mark Burk** received the Union Carbide Innovative Recognition Award - 1994 and the Pew Scholar Award - 1994-1998.

Professor **C. H. Lochmüller** served as an invited lecturer during the University of Helsinki's Summer Session in a special course on Polymer Chemistry, decomposition, pyrolysis and ignition. Professor Lochmüller has had active research contacts and collaborative programs with the University for almost a decade. After the Summer Session he will go south to Estonia under NSF support to write a proposal for joint research with scientists of the Estonian Academy of Sciences' Institute of Chemistry. The NSF grant to write a grant was one of 2 out of 4,000 applications funded this year under the COBASE initiative. Just before leaving in August, he learned that he was elected to national office in the North American Section of the International Chemometrics Society. He is Co-Chair of the first, all-electronic, international conference on the Internet devoted to this multi-disciplinary area of research and teaching. The conference has hundreds of participants, numerous sponsors and is called INC-INC'94.

Professor **Ned Porter** spent 3 months in Freiburg, Germany as a Senior Humboldt Prize winner. He lectured during that time at the University of Basel, a meeting of the Swiss Chemical Society in Fribourg, Switzerland; the German Chemical Society in Freiburg, Germany; and the EUCHEM meeting in Champéry, Switzerland. During this period he also began work on a book with Professor B. Giese (the University of Basel and Professor Dennis Curran (the University of Pittsburgh) on Stereoselective Free Radical Reactions in Synthesis. He also gave a plenary lecture at the ACS Symposium on Polymer Chemistry in Washington the last week in August.

Glaxo/NCSSM: WINNERS, Wake Initiative/NCSSM Educational Reform in Science, is an exciting effort funded by The Glaxo Foundation and implemented jointly by a team of science teachers from East Wake Middle School, Zebulon Middle School and NCSSM science faculty. The Glaxo Grant is now beginning its third year in an effort by science teachers and students to study science using both traditional and new methods, and to revitalize it through the incorporation of exciting technology. Through the Grant, the efforts of both teachers and students to use computers and multimedia not only to present but also to study and examine basic science principles has been very exciting to everyone involved. Several sessions will be presented at NCSTA in November, 1994, by various groups and individuals from the two Wake County Middle Schools in an effort to share ideas and experiences and to get feedback from peer teachers.

For the summer of 1995, plans are underway to have the Glaxo Grant Middle School Teachers offer a Teacher Workshop for

other Middle School Teachers in the state. Also planned is the application for a Second Phase of this effort to improve High School Science Education. That phase will be coordinated with the Science Faculty at East Wake High School during the 1994/95 school year.

Glaxo: Women in Communications, Inc. (WICI) announced that Glaxo Inc. has been selected recipient of the WICI 1994 Vanguard Award. This award is presented annually to the corporation or organization that has taken significant actions and instituted programs to advance women to positions of equality in the workplace. "Glaxo has proven that it can meet business objectives and also provide programs and options that help all employees maintain a healthy balance between their personal and professional lives. Their vision, commitment and flexibility have opened doors for women at all levels of operations," said WICI president Jennifer K. Engle. Glaxo will receive the award on September 24 at WICI's 1994 Annual Conference in Dallas.

NCSU: William Fred McClure, Professor of Biological and Agricultural Engineering, received the **Tomas Hirschfeld Award** at the 1994 Pittsburgh Conference. McClure was one of the first in the nation to recognize the potential of fiber optics for remotely monitoring optical properties of biological products. His most outstanding contribution to basic knowledge has been his work on the development of NIR technology for rapidly measuring the quality and chemical composition of many different agriculture materials. McClure is the author of more than 80 refereed publications, holds three patents and is the author of ten chapters in books dealing with NIR. In 1991 he received the Eastern Analytical Symposium Award for Outstanding Achievement in Near Infrared Analysis. **S. T. Purrington** gave an invited lecture at the 14th International Symposium of Fluorine Chemistry in Yokohama, Japan in Early August.

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5	3815 Lancaster Pike
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National Chem Week TV Seminars

The ACS plans two video seminars during National Chemistry week. The first is aimed at teachers of introductory chemistry and the second aimed at high school and college students considering careers in chemistry. The Local Section plans to sponsor presentations of both. Look for further details in a later issue.

An Anthology on Using Materials Science to Teach Introductory Chemistry: On November 7, 1994, ACS will broadcast Teaching Chemistry, 1994, a two-hour satellite TV seminar that examines how to use materials science to illustrate important chemistry concepts in introductory chemistry courses. This interactive program will air from 6:00 PM to 8:00 PM during National Chemistry Week.

Dr. Ned D. Heindel, 1994 ACS President, will host the program featuring high school, two- and four-year college, and university-level speakers who will discuss how they have successfully incorporated materials science topics into their curricula, and they will demonstrate their teaching methods in actual workshop settings. Some of the examples will illustrate how computers can be integral to the teaching and learning process.

In addition to the interesting examples to be presented on television, everyone who registers will receive a comprehensive seminar book containing complete instructions, background materials, and references for many materials science activities, even some not shown during the broadcast. The broadcast and book will serve as an anthology of applications of materials science that are currently in use in introductory chemistry courses in a variety of academic settings.

Materials science was chosen as the focus for this seminar in a nationwide poll of educators who participated in the 1993 ACS Satellite TV Seminar, Teaching Introductory Chemistry. A survey was sent to a random sample of participants in the 1993 seminar, and materials science was clearly the top choice.

Also in response to suggestions from previous participants, the 1994 seminar will include optional workshop activities for participants to be conducted locally before and after the broadcast. ACS will provide viewers with instructions for local discussions and laboratory activities that will tie in with information presented during the broadcast. Local groups that choose to conduct the workshops will make this program truly a hands-on experience for participants.

Teaching Chemistry, 1994 is a "must see" event for high school, two- and four- year college, and university instructors. Viewers will see how others are integrating materials science applications into their introductory chemistry courses to increase their students' interest and demonstrate the real-world relevance of chemistry.

Because materials science and its applications include important chemical principles (such as bonding in the solid state and the relationship of chemical characteristics to such physical properties as thermal and electrical conductivity, strength, and resistance to various chemical and physical environments) and because materials science exists at the interface of chemistry, physics, and engineering, it can be successfully taught at many levels. Materials science is also an excellent example of the interdisciplinary nature of scientific study.

Elements of Your Chemistry Career: The American Chemical Society Education Division is sponsoring this unique video conference for undergraduates and high school students considering a career in chemistry. This one-hour program will air 6:30

- 7:30 p.m. Thursday, November 10, 1994, during National Chemistry Week.

The program will feature a panel of three experienced professionals and six recent graduates who hold chemistry-related positions in industry. These panelists will discuss topics of vital concern to the audience, including career opportunities at various degree levels, salaries, and employment outlook. Important work-related issues that students will likely encounter once employed (such as the changing role of chemical technicians, skills development, and job satisfaction) will also be explored. The program will include question-and-answer sessions with toll-free telephone numbers to give the audience ample opportunities to speak directly to the panelists.

ACS Career Services

The Career Services Unit, under the guidance of Mary Funke, provides one-on-one career assistance, direct contact with employers, and information on employment trends and issues. The unit's programs are available at low-cost or no-cost to ACS members as part of the Society's commitment to serve chemical professionals' needs, particularly now when the dynamics of the chemistry workforce are constantly changing.

Some programs to aid members in competitive job markets include the Career Consultant Program, which has more than 50 ACS members who have volunteered to serve as trained advisors on such topics as job search strategies, interviewing techniques, career transitions, salaries, resumes, and effective networking. The Telephone Assistance Service is an at-your-fingertips method to get answers to career-related questions.

To connect members with prospective employers, the National Employment Clearing House (NECH) gives job searchers a chance to interview one-on-one with potential employers at ACS national and regional meetings. The year-round Professional Data Bank lets employment-seekers enter their qualifications into a computer registry for potential employers to peruse. Career Services also runs C&E News "Situation Wanted" ads, confidential employment listings, and Chemjobs USA bulletins which abstract job openings in national newspapers.

Trends and issues in today's chemical workplace are tracked by a number of workforce analysis activities. For example, surveys compare salaries at differing degree and professional levels; Workforce Report, published three times a year, focuses on workplace issues such as retirement, discrimination, and fringe benefits; and the Career Services Bulletin, also published three times a year, provides statistics on the present chemistry labor force.

Other publications address issues such as employment guidelines; resume and job interview preparation; career transitions; and the professional needs of disabled and foreign-born chemists.

The Career Services Unit also conducts workshops and presentations at national and regional meetings, and in local sections upon request. Staff members can lead workshops on resume and job interview techniques; conduct mock interviews; present information on job security and employment outlook; and teach audiences how to target specific job markets.

For information regarding specific programs, contact:

Mary Funke, Head of Career Services, 202-872-4431

Program Planning, Design and Scheduling

Committee on Economic and Professional Affairs

Ann-Claire Anderson, 202-872-6076

Program Development and Implementation

Joan Burrelli, 202-872-4433

Workforce Analysis, Salary Surveys

Career Services Bulletin

Louis Carrillo, 202-872-6213

Professional Data Bank

Karen Dyson, 202-872-4432

General Information, Program Logistics

Publication Production and Distribution

Tanya Fogg, 202-872-4436

Career Consultant Program

Mock Interviews

National Resume Reviews

Amy Frankart, 202-872-4436

ChemJobs USA

Beverly Harrison, 202-872-6210

Situation Wanted Ads

Employer Mailing List

Corinne Marasco, 202-872-4438

Work Force Report

Chemists with Disabilities Committee

Younger Chemists Committee

Denise Sicienski, 202-872-4432

General Information

Anjalika Silva, 202-872-6211

National Employment Clearing House, Foreign-Born Chemists

John Sophos, 202-872-6209

National Employment Clearing House, Regional Meetings

Polymer Group Seeks Members

The Polymer Group is seeking all people interested in polymer chemistry whether they are currently ACS members or not. Membership dues for the year will again be \$10. Please pay dues promptly since the group depends upon them and outside contributions to cover operating costs which include mailings, speaker plaques and student meal subsidies. Consequently, we can no longer afford to continue mailing notices to those who have not paid dues for the last two years. If you wish to continue to receive meeting notices, please pay dues by the October meeting. Payment can be made in person at the meetings or by mail to Trudy Raumann, 4004 Picardy Dr., Raleigh NC 27612. Checks should be made to the NC Section ACS Polymer Group.

New Local Section Members

John Gordon Allen	Julie D H Glenn	Danae Michele Mundt	George M Singer
Willie Armistad	Christopher Bigler Gorman	Vasantha P Mutucumarana	Henry Gilbert Smith Jr
Ryan Antonio Baldwin	Darla Kaye Graff	Guisug Gina Nam	Jay M Stevenson
Jeffrey A Barnes	T Brent Gunnoe	Sara Kimberly Nauhaus	Donald Roy Stillwell Iii
Catherine Ann Basa	Ahmad Hasan	Troy D Noggle	Daniel Todd Stoelting
Steven S Boady	William Patrick Hawe	Jeffrey David Nornhold	Jennifer J Stokes
Peter R Bossman	Eileen M Hawkins	John J O Dea	Deborah Lynn Sunick
Donald Wayne Brenner	Keith R Helinsky	Derek H Owen	Richard Dunn Todd
Lei Cai	Ken Hogle	Melvin Andrew Park	Ling Tong
Sarah E Caldwell	Zhengping Huang	Dennis A Parrish	Steven Michael Truckenbrod
Michael L Caswell	John R Huizenga	Kimberly C Pate	Christopher E Tubbs
Donna Marie Cedroni	Valerie Anne Jacobs	Donald N Payne	Sheryl Ann Tucker
Joseph H-L Chau	Marty C Johnson	Kenneth Reuben Peterson	Richarо Woodward Vachet
Jian Chen	Paul Johnson	Carol Anne Pettersen	David Vanvliet
Chris William Chronister	Stephaine L Johnson	Donna Ponton	Thomas M Vess
James Kenneth Cicila	John E Jones Iii	Jason B Prabel	Vernon Vines
Teena Cochran	Robert Frederick Korb	Christopher T Privalle	David E Volk
William Marcus Cooke	Betsy L/Or Kraus	Weiming Qiu	Russell Douglas Walls
Stacy M Cranston	Lisa Carol Kroutil	Denise Rasmus	David Micheal Wechsler
George Bryan Crist	Christopher Kwok-Yin Lam	Nicholas Charles Ray	Kevin Wenger
Christopher D Crump	Christopher P Laudeman	Prakash V Reddy	Scott Alex White
Yi Dang	Mary K Lawless	John Eric Reissner	Rebecca Anne Wood
John P Dekker	Scott S Lee	James M Roberts	Brian Woodworth
Gregory E Despopoulos	Jeffrey Lichiello	Anorew N Romach	Hildelisa Woos
Charles A Ditusa	Karla S Litaker	Timothy Uames Romack	Jason Hongliu Wu
Curtis William Emenhiser	Ueffrey W Long	Sarah Zahra Sajedi-Vegh	Darrin M York
Dana Fowlkes	George/Or Maguire	Jean Salemme	Chunshan Andy Zhang
Margaret Wilde Frey	Uames D Martin	Michael John Eugene Sanchez	Xinsheng Zhang
Duane Allan Friesen	Christopher L May	Tracy Ann Savage	Xiaoling Zheng
Lynne Fulks	Vsevolod S Mihailov	Paula Rene Davis Searles	Xiaoming Zhou
Philip Ernest Garrou	Masaki Minato	Katherine Ann Shaffer	
Kanchan Ghosal	Lisa A Mulhollem	Marvin Ira Siegel	

Polymer Group Meeting

Thursday, September 8, 1994

Professor Harald Ade

Department of Physics

North Carolina State University

"New Polymer Imaging Techniques with Compositional and Orientational Sensitivity"

NCSU Faculty Club

4200 Hillsborough St., Raleigh

5:30 p. m. Social Hour

6:30 p. m. Dinner[†](members-guests: \$15; students \$8)

7:30 p. m. Lecture

[†]Reservations by noon, September 6: Richard Venditti (515-6185 or richard_venditti@ncsu.edu)