

The TarHelium

Volume 32, Number 3

April, 2002



STATE OF THE SECTION

- 116th NC-ACS Sectional Conference
 - Local Section Program
 - NC Distinguished Lecturer
 - Hobbs Award
 - Chemical Demonstration Workshop
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116th North Carolina-ACS Sectional Conference

Saturday, April 13, 2002
NC School of Science and Mathematics

The program for the 116th NC-ACS Sectional Conference is on pages 3-6 of this issue. The oral and poster presentations will take place from 8:20-11:40 am. The General Session will be held immediately after the technical program. During the General Session the 2002 Marcus E. Hobbs Award will be presented to Dr. Thomas A. Lehman, in addition to other awards. The General Session will conclude with the 2002 NC-ACS Distinguished Chemist Lecture presented by Dr. Myung-Hwan Whangbo of North Carolina State University. Lunch will follow immediately.

Everyone planning to stay for lunch must register (no later than April 10th) online at the main ACS webpage: <http://membership.acs.org/N/NCarolina> or by contacting the program chair (Dr. John A. Myers) via phone (919-560-6461), FAX (919-560-5135), or email (jmyers@wpo.nccu.edu).

Professor Whangbo Named 2002 NC Distinguished Lecturer

The 2002 NC Distinguished Lectureship has been awarded to Professor Myung-Hwan Whangbo from the Department of Chemistry, North Carolina State University. Professor Whangbo will present his lecture during the general session of the NC-ACS Local Section Conference held at the North Carolina School of Science and Math on April 13th, 2002 (see program announcement on following pages).



Professor Whangbo has numerous scientific achievements throughout his distinguished career of almost twenty-five years in the Research Triangle area. Professor Whangbo's influence in the area of structure and bonding is a result of his ability to communicate complex aspects of molecular orbital and band theory in a way that is extremely useful to experimental scientists. In the field of Inorganic Chemistry it is not uncommon for scientists to describe a question of structure and bonding based on a "Whangbo-type description of the problem." Scientists from around the world regularly

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2002 NC Distinguished Lecturer

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seek Professor Whangbo's expertise in unraveling mysteries of structure/property relationships. This has resulted in more than 300 independent and collaborative peer-reviewed research publications, as well as numerous books and speaking engagements. His distinguished work was further recognized in 1999 by the HoAm Award, the Korean equivalent to the Nobel Prize.

2002 HOBBS AWARD

The Recipient of the 2002 Hobbs Award, given in recognition for service to the NC-ACS Local Section, has been awarded to Dr. Thomas A. Lehman. Dr. Lehman will be recognized for his



service during the general session of the NC-ACS Local Section Conference held on April 13th, 2002 at the North Carolina School of Science and Math.

In 1996, Dr. Lehman was the Chair of the local Section. During this year he organized a symposium on "The Future of Chemistry" to celebrate the Centennial Anniversary of the NC Section. This symposium was the highlight of the two-day celebration. Speakers included, then ACS President, Dr. Ronald Breslow, Mark Burk (Duke), Maurice Bursey (ACS Directory and UNC Chapel Hill), Mary Welch Jordan (ACS Research Analyst), Michael Heylin (former Editor C&E News), Reuben Carbonell (Head, NCSU Chemical Engineering), and Mario Geysen (Glaxo Wellcome Research Vice President). This celebration brought together 15 past chairs of the NC Section at a banquet where Dr. Thomas Meyer (UNC) spoke. In addition, the celebration included a student workshop presented by Proctor and Gamble on Analytical Careers in Industry. The two-day event ended with the annual Local Section Conference.

During his year as Chair, Tom was instrumental in getting the Local Section to exhibit in the Cyberspace Exhibit at the North Carolina State Fair. This activity has grown to be tremendously successful and is by far the outreach effort that reaches the largest number of people. He has volunteered to work at all of the State Fair Exhibits in subsequent years. Data on the number of people reached in 1996 and 1997 has been lost, but in 2000 and 2001, it was estimated that we spoke to about 170,000 and 155,000 people respectively.

Tom served as co-chair of the 1998 Southeastern Regional Meeting. He stepped into the position in late 1997 when the previous co-chair moved from the area. He served during the last full year of planning when the work load was the heaviest.

Tom has also served on the Awards Committee for several years particularly focusing on the nominations for this, the Hobbs Award, for the 3 years from 1999-2001. He has served the Local Section continuously for the last 7 years and continues to support Section efforts.

Chemunity News Now Available!

The Winter 2001/2002 online edition of Chemunity News, the ACS newsletter that connects chemistry educators to the activities of the ACS Education and International Activities Division, is now available. As with the former paper version of this newsletter, staff hopes to provide chemists interested in education programs with timely news about the programs and services at ACS and occasionally include some thought-provoking insights and commentaries on national issues in chemistry education. The goal is to publish a new issue every two months. If you would like to receive an email reminder when new issues are available, please email education@acs.org with your contact information.

Points to Ponder

*"All mankind is divided into three classes:
Those that are immovable.
Those that are movable.
Those that move."*

--Arab Proverb



116th North Carolina-ACS Sectional Conference
Saturday, April 13, 2002
North Carolina School of Science & Mathematics

The program for the 116th NC-ACS Sectional Conference features 36 submitted papers divided into five concurrent sessions. The oral and poster presentations will take place from 8:20-11:40 am. The General Session will be held immediately after the technical program. During the General Session the 2002 Marcus E. Hobbs Award will be presented, in addition to other awards. The General Session will conclude with the 2002 NC-ACS Distinguished Chemist Lecture presented by Dr. Myung-Hwan Whangbo of North Carolina State University. Lunch will follow immediately.

REGISTRATION & LUNCH RESERVATIONS

Everyone planning to stay for lunch must register online at the main NC-ACS webpage:

<http://membership.acs.org/N/NCarolina>

or by contacting the program chair (Dr. John A. Myers) via phone (919-560-6461), FAX (919-560-5135), or email (jmyers@wpo.ncsu.edu) no later than **April 10, 2002**. Registration is free and includes a coffee break and a buffet luncheon provided by the NCSSM Food Service (barbequed pork, fried chicken, green beans, slaw, potato salad, hush puppies, rolls, iced tea, and lemonade). The meeting registration table will open at 8:00 am. Upon arrival at the meeting, stop by the registration table to pick up a program and your lunch ticket.

DIRECTIONS / PARKING *(continued on page 5)*

NCSSM Address: 1219 Broad Street, Durham, NC 27715

A map is available at:

<http://www.ncssm.edu/General/map/>

PRELIMINARY TECHNICAL PROGRAM

Final program will be published on the web one week prior to meeting and will be available at the registration desk the day of the meeting.

Note: Posters will be displayed from 8:30-12:00 noon. Presenters will be available for discussion at the times below.

General Session

Awards, NC Distinguished Lecture . . . 11:50 am - 1:10 pm
Lunch 1:15 pm

Analytical Chemistry (ANYL)

Oral Presentations 8:20 am - 9:40 pm
Poster Presentations 9:40 am - 10:40 am

Chemical Education (CHED)

Oral Presentations 8:20 am - 10:30 am

Inorganic/Physical Chemistry (INOR/PHYS)

Oral Presentations 10:40 am - 11:40 am

Organic/Biochemistry (ORGN)

Oral Presentations 10:40 am - 11:40 am
Poster Presentations 9:30 am - 10:30 am

Polymer Chemistry (POLY)

Oral Presentations 8:20 am - 9:40 am
Poster Presentations 9:40 am - 10:40 am

ORAL PRESENTATIONS

All oral presentations will be 20 minutes; preferably a 15-minute presentation with 5 minutes for questions. The presider of the session will coordinate the session. Each room will be equipped with an overhead projector and computer-interfaced projection system. Powerpoint software will be on each computer. It is recommended that you bring your presentation on CD. A speaker ready room will have a computer with a floppy drive and ZIP drive so that your presentation can be transferred to an accessible network drive. Presentations can be emailed to sturgeon@ncssm.edu.

POSTER PRESENTATIONS

Poster presenters are expected to be at their posters during the session "discussion times" (see the program). Poster boards will be set up in a designated area. The poster boards will be labeled with poster numbers and session abbreviations (i.e. 11-ANYL). Poster board dimensions are 3 feet by 4 feet; please bring your own tacks. Have your poster up by 8:30 am and please leave it up until lunch.

VIDEO PRESENTATION

A videotape presentation entitled: "*North Carolina's Research Triangle Park: An Investment in the Future*" will be shown during the meeting. This video details the development of the Research Triangle Park and it cites the involvement of several members of the NC-ACS local section. It will be continuously showing in the poster area.

ACKNOWLEDGMENTS

The NC-ACS Local Section gratefully acknowledges the North Carolina School of Science and Mathematics for hosting this event, and Dr. Bradley Sturgeon and his colleagues of the Chemistry Department for coordinating the use of the NCSSM facilities. In addition, many thanks to the projectionists and other assistants from NCSSM. The NC-ACS Local Section is especially grateful to **Paradigm Genetics** and **CIIT** for financial support for the Sectional Conference.

John Albert Myers, NCACS Program Chair
Professor of Chemistry
North Carolina Central University
1801 Fayetteville Street
Durham, North Carolina 27707
jmyers@wpo.ncsu.edu

GENERAL SESSION**Auditorium**

11:50 pm - 1:10 pm

1:15 pm: Buffet Lunch*

Susan Sumner, NC-ACS Chair, Presiding

- Presentation of the 2002 Marcus E. Hobbs award
- Recognition of the 50-year ACS members
- Presentation of the 2002 Barbara Whittaker Award
- Recognition of the Undergraduate Scholarship Awards
- Recognition of the 2001 ACS ChemLuminary Award
- Presentation of the 2002 NC-ACS Distinguished Lecture Award to **Dr. Myung-Hwan Whangbo**
Professor of Chemistry, NCSU

Introduction by: *Prof. William Switzer*
Department of Chemistry, NCSU

* LUNCH will be served in the NCSSM Cafeteria on the lower floor immediately after the General Session and NC-ACS Distinguished Lecture.

ANALYTICAL CHEMISTRY (ANYL)

8:20 am - 9:40 am

8:20, 01-ANYL. Spectrochemical Analysis of Hemopexin. **Meghan M. Flaherty**, Al Crumbliss; Dept. of Chemistry, Duke University.

8:40, 02-ANYL. Assessment of Chromium Accumulation in Rodent Tissues: Method Development and Sample Analysis. **Amal Essader**, T. Clark, G. Ross, C. Murrell, K. Levine, R. Fernando, Research Triangle Institute.

9:00, 03-ANYL. Determination of Trace Metals in Biological Fluids by Inductively Coupled Plasma Mass Spectrometry (ICP-MS). **T. D. Burnette**, F. X. Weber, J. J. Giglio, P. M. Grohse, Trace Element Analysis, RTI International.

9:20, 04-ANYL. A New Method of Producing Mixed-Valency for Optical Electron Transfer Studies. **Amanda S. Harper** (1), Enders Dickinson V (2), John C. Hutchinson (1), Royce W. Murray (1); (1) Department of Chemistry, UNC-CH; (2) Northern Kentucky Univ.

9:40, BREAK/Poster Session**ANALYTICAL CHEMISTRY - POSTER SESSION**

8:30 am - 12:00 pm (posted times)

9:40 am - 10:40 am (discussion times)

05-ANYL. Development and Performance of an Electrically Tunable Compensated Cylindrical Ion Trap Mass Spectrometer. **Desmond A. Kaplan**, Ryan M. Danell, Kenneth L. Ray, Gary L. Glish, Department of Chemistry, UNC-CH.

06-ANYL. Heavy Metal Contamination in Herbal Supplements. **Anne-Marie Turner** (1), Guang-Wei Wei (2) and Bradley E. Sturgeon (1), (1)North Carolina School of Science and Math and (2) NIEHS/NIH.

07-ANYL. P.M. 2.5 Speciation Gravimetric Mass Urban vs. Rural. **Jessie A. Deal**, R. K. M. Jayanty, RTI International.

CHEMICAL EDUCATION (CHED)

8:20 am - 10:20 am

8:20, 01-CHED. Utilizing Software Tools to Enhance the Educational Experience. **Sherry L. Gregory**, Antony Williams, Robin Martin, Advanced Chemistry Development.

8:40, 02-CHED. Evaluation of an Active Learning Environment. **DeeDee A. Allen**, Maria T. Oliver-Hoyo, Department of Chemistry, NCSU.

9:00, 03-CHED. Teaching Chemistry Online. **Myra Halpin** and Chuck Roser, Department of Chemistry, North Carolina School of Science and Math.

9:20, BREAK

9:40, 04-CHED. K-12 Education Resources from the NSF Center for Environmentally Responsible Solvents and Processes. **Mary L. Bellamy**, David G. Haase, The Science House, NCSU.

10:00, 05-CHED. Art in Chemistry. **Chuck Roser** and Sarah Allen, Department of Chemistry, North Carolina School of Science and Mathematics.

INORGANIC/PHYSICAL CHEMISTRY

(INOR/PHYS) 10:40 am - 11:40 am

10:40, 01-INOR. The Effect of an Iron(II) Chelator on the Reduction of Ferrioxamine B by Ascorbate. **Joseph I. Wirgau**, A. L. Crumbliss, Dept. of Chemistry, Duke University.

11:00, 02-INOR. Fe(III) Coordination Properties of a New Saccharide Based Exocyclic Trihydroamate Analogue of Ferrichrome. **Suraj Dhungana** (1), Susanne Heggemann (2), Peter Gebhardt (2), Ute Mollmann (2), and Alvin L. Crumbliss (1); (1) Department of Chemistry, Duke University, (2) Hans Knoll-Institut für Naturstoff-Forschung, Jena, Germany.

11:20, 01-PHYS. Photochemistry of Methylnitrite on Silver. **Laura S. Sremaniak** and Jerry Whitten, Department of Chemistry, NCSU.

ORGANIC/BIOCHEMISTRY (ORGN)

10:40 am - 11:40 am

10:40, 01-ORGN. Design and Synthesis of a Combrestatin A-1 Derivative as a Tubulin Inhibitor and Vascular Targeting Agent. **Anne M. Fabricius** (1), Kevin G. Pinney (2), Viroopaksha, Velishala (2); (1) North Carolina School of Science and Math, (2) Baylor University.

11:00, 02-ORGN. Molecular Recognition of Nucleotides with Beta-Hairpin Peptides. **Sara M. Butterfield**, Marcey L. Waters, Department of Chemistry, UNC-CH.

11:20, 03-ORGN. Syntheses of 1-Phenyl-2,4-Azetidinediones and N,N'-Diphenylpropanediamides from Diethylmalonyl Chloride and Substituted Anilines. **Saran L. Carrington**, Ivuoma O. Igwe, Robert A. Izydore, Department of Chemistry, NCCU.

ORGANIC/BIOCHEMISTRY - POSTER SESSION

8:30 am - 12:00 noon (posted times)

9:30 am - 10:30 am (discussion times)

04-ORGN. HPLC Detection of Dopa. **Justin Neill**, and Bradley E. Sturgeon, North Carolina School of Science and Math.

05-ORGN. An Investigation into the Dimerization of Tyrosine Containing Peptides. **Nitin K. Kulkarni**, Alec Gibson, Bradley E. Sturgeon, North Carolina School of Science and Math.

06-ORGN. Acrylamide: Metabolism and Hemoglobin Adducts Following Intraperitoneal, Dermal, or Inhalation Exposure. **Carla C. Williams**, S.C.J. Sumner, R.W. Snyder, W. Krol, T.R. Fennell, CIIT Centers for Health Research, RTP, NC.

07-ORGN. Detection of DNA Lesions: The Synthesis of Aldehyde Reactive Probes for the Quantification of Abasic Sites. **Whitney A. Stafford**, R. Sangalah, K. Jayaraj, A. Gold, H. Koc, J. Nakamura, Department of Chemistry, UNC-CH.

08-ORGN. A Carbohydrate Derivative Used as a Chiral Auxiliary in the Synthesis of *alpha*-Hydroxy Carboxylic Acids. **C. Eric Ballard**, Binghe Wang, Hongwu Yu, Paul D. Boyle, Department of Chemistry, NCSU.

09-ORGN. Synthesis of Modified Pyrrolizine Diesters as Precursors to Anti-leukemic Agents. **Misha L. Johnson**, John A. Myers, Department of Chemistry, NCCU.

PHYSICAL CHEMISTRY - POSTER SESSION

8:30 am - 12:00 pm (posted times)

9:30 am - 10:30 am (discussion times)

01-PHYS. Multivalency and the Thermodynamic Solvent Isotope Effect in Simple Model Systems: 18-Crown-6/Ba(II) and EDTA/Ca(II). **Joyce E. Kung**, Trine Christensen, David M. Gooden, Eric J. Toone, Department of Chemistry, Duke University.

02-PHYS. Interfacial Structure and Dynamics of CO₂/Environments Probed with SFG. **Michael L. Hurrey**, Scott L. Wallen, Department of Chemistry, UNC-CH.

03-PHYS. How Solid-State NMR Unambiguously Defines Acidity in Solid-Acid Zeolites and Molecular Sieves. **Justyna E. Wolak**, Jeffery L. White, X. Wang, Department of Chemistry, NCSU.

POLYMER CHEMISTRY (POLY)

8:20 am - 9:40 am

8:20, 01-POLY. Morphologies, Phase Structures, and Properties of a Self-Organized Biodegradable Crystalline Diblock Copolymer, **Min Wei**, Alan E. Tonelli, Fiber and Polymer Science Program, NCSU.

8:40, 02-POLY. Conformations and Mobilities of the Poly(ethylene phthalates) and Poly(ethylene-2,6-naphthalate). **Alan E. Tonelli**, College of Textiles, NCSU.

9:00, 03-POLY. Assessment of Dual Divinylbenzene Polymer Syntheses in Terms of Resultant Fe(III) Affinity. **Marie A. Schroeder**, Meghan M. Flaherty, A. L. Crumbliss, Department of Chemistry, Duke University.

9:20, 04-POLY. ¹³C-NMR Study of Polymer-Cyclodextrin Inclusion Compounds. **Francis E. Porbeni** (1), I.D. Shin (2), X. Shuai (1), J. L. White (1), A. E. Tonelli (1); (1) Fiber and Polymer Science Program, NCSU, (2) Campbell University.

9:40 Break Poster Session

POLYMER CHEMISTRY - POSTER SESSION

8:30 am - 12:00 pm (posted times)

9:40 am - 10:40 am (discussion times)

05-POLY. Template Synthesis of Nanostructured Materials. **Bin Cheng**, Edward T. Samulski, Department of Chemistry, UNC-CH.

06-POLY. Properties of Epoxy/Siloxane Coatings. **Jennifer A. Ayres**, C. M. Balik, Department of Materials Science and Engineering, NCSU.

07-POLY. Miscibility in Solid Polyolefin Blends. **Xin Jia**, Jeffery White, Department of Chemistry, NCSU.

08-POLY. NMR Studies in CO₂. **Clarence W. Murray, III**, Edward T. Samulski, Department of Chemistry, UNC-CH.

09-POLY. Temperature-dependent FTIR Study of Estane 5703 Thermal Behaviors. **Yanqia Wang** (1), Steven R. Aubuchon (2), Richard A. Palmer (1); (1) Department of Chemistry, Duke University, (2) TA Instruments-Waters, LLC.

DIRECTIONS / PARKING (continued)

FROM I-85: Take Guess Road Exit heading south. Turn right at Broad Street. Turn right into parking lot right before W. Club Boulevard.

FROM I-40: Take Durham Freeway (147), then take Swift Avenue (Exit 14) heading north. Swift Avenue becomes Broad Street at Main Street. Turn left on W. Club Blvd.

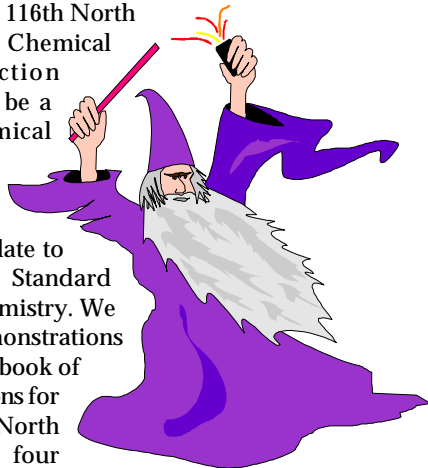
FROM 15-501: Take 15-501 Bypass. Take 147 South (Durham Freeway) to Exit 14 (Swift Avenue & Duke East Campus). Turn left onto Swift Avenue (which becomes Broad Street at Main Street). Turn left on W. Club Blvd.

Ample parking is available on W. Club Avenue. Once on campus, signs will be posted to direct you to the Registration area.

CHEMICAL DEMONSTRATION WORKSHOP

2:00 pm - 4:00 pm

In conjunction with the 116th North Carolina American Chemical Society Local Section Conference, there will be a workshop on Chemical Demonstrations. The goal of the workshop is to present a series of demonstrations that relate to the North Carolina Standard Course of Study in Chemistry. We hope to compile the demonstrations into a 1st Edition Handbook of Chemical Demonstrations for use by teachers in North Carolina. There are four "Competency Goals" defined in the NC Standard Course of Study, which are further categorized into Objectives:



1. The learner will build an understanding of the structure and properties of matter.
2. The learner will build an understanding of regularities in chemistry.
3. The learner will build an understanding of energy changes in chemistry.
4. The learner will build an understanding of equilibrium and kinetics.

A full list of the NC Standard Course of Study, including Competency Goals and Objectives can be found on the main DPI website:

(<http://www.dpi.state.nc.us/curriculum/science/Chemistry/chem.htm#competency>)

Planning Committee

North Carolina School of Science and Mathematics
Chemistry Faculty

Sarah Allen - allen@ncssm.edu
Marian Brisk - brisk@ncssm.edu
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Myra J. Halpin - halpin@ncssm.edu
Bradley E. Sturgeon - sturgeon@ncssm.edu
Tom Trocano - trociano@ncssm.edu

Current Presenters include:*

William Switzer, NCSU Dept. of Chemistry
Chuck Roser, NCSSM, Dept of Chemistry
Mark Summerville, GlaxoSmithKline,
Myra Halpin, NCSSM, Dept of Chemistry
Darrell Coleman, Sphinx Pharmaceuticals
Bradley E. Sturgeon, NCSSM, Dept of Chemistry
Tim Collier and Brian Sweeney, NCSSM Students.

* Those interested in presenting at this workshop please email the following information to Brad Sturgeon (sturgeon@ncssm.edu):

1. A short description of the demonstration or series of demonstrations, (include the NC Standard Course of Study Competency Goal and Objective if known),
2. Detailed procedure on how to perform the demonstration,
3. A list of supplies used (some common supplies can be provided, please email with questions)
4. Any SAFETY issues related to demonstration.

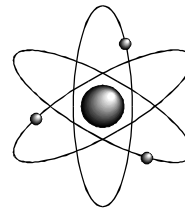
This information will be collated into a workshop handout.

Registration for participants: Registration is part of the Local Section Conference. Online registration information is available at the main NC-ACS webpage:

<http://membership.acs.org/N/NCarolina>

Workshop Format

Attendees will meet in the Lecture Hall for introductory remarks regarding the study of chemistry in the state of North Carolina. The group will then split into three adjacent laboratories where presentations will be performed. Groups will rotate into each of the three labs. In addition, online chemical demonstrations will be presented.

**Point to Ponder**

"Leadership consists not in degrees of technique but in traits of character; it requires moral rather than athletic or intellectual effort, and it imposed on both leader and follower alike the burdens of self-restraint."

Lewis H. Lapham

19th Triangle Chromatography Symposium and Instrument Exhibit

Thursday, May 16, 2002



McKimmon Center, Raleigh, NC

The 19th Annual Triangle Chromatography Symposium and Instrument Exhibit will be held May 16, 2002 at the McKimmon Center, Raleigh, NC. This symposium offers state-of-the-art presentations in diverse areas of chromatography by nationally known experts in the area of chromatography. You will have the opportunity to interact with the symposium speakers on specific chromatography issues and laboratory problems. The symposium also offers the area's largest vendor concentration for chromatographic instruments and supplies with more than 40 vendors represented. For further information and registration check the TCDG web site:

www.RTPnet.org/tcdg

Schedule

Thursday, May 16, 2002

- | | |
|------------|--|
| 8:25 AM | Opening Remarks, Steve Cooper, TCDG President |
| 8:30 AM | Professor Ziad El Rassi, Oklahoma State University, "Novel Stationary Phases for Capillary Electrophoresis of Biological Substances" |
| 9:15 AM | Refreshment Break – Instrument Exhibit – Poster Session |
| 10:00 AM | Kathi J. Williams, Caliper Technologies Corp, "Microfluidics Applications for Protein Assays & Analysis" |
| 10:45 AM | Refreshment Break – Instrument Exhibit – Poster Session |
| 11:15 AM | Dr. Howard Jordi, Jordi Associates, Inc., "Polymer-Based HPLC Separations" |
| 12:00 Noon | Luncheon at the McKimmon Center – Instrument Exhibit – Poster Session |
| 1:15 PM | Professor Joe P. Foley, Drexel University, "Novel Separation Modes and Pseudo-stationary Phases in Capillary Electrophoresis" |
| 2:00 PM | Refreshment Break – Instrument Exhibit – Poster Session |
| 2:45 PM | Professor Jeffrey L.C. Wright, UNCW Center for Marine Science, "Using Chromatography to Fish Out Bioactive Marine Natural Products" |

3:30 PM Refreshment Break – Instrument Exhibit – Poster Session

4:00 PM Professor Willie L. Hinze, Wake Forest University, "Electrophoretic and Chromatographic Separation of Bacteria: A Viable Approach for Identification?"

4:45 Prize Drawing

Seminars

Advanced Chemistry Development

"HPLC Separation of Novel Compounds: Utilizing Prior Chromatographic Knowledge and Physicochemical Prediction" Presenter: Daria Jouravleva

"New Approaches to Integrated Data Management in Chromatography and Mass Spectrometry Laboratories" Presenter: Antony Williams

Waters Corporation

"Improving Capillary LC/MS(MS) Analysis for Proteomics" Presenter: S. A. Cohen

"Recent Advances in Analytical LC/MS" Presenter: Thomas Wheat

SPEX Certiprep, Inc.

"Statistical Quantification of Uncertainty Associated with Reference Materials for Ion Chromatography" Presenter: Ralph H. Obenauf and Nimi Kocherlakota

The Nest Group, Inc.

"Two Dimension Separation of Macromolecules" Presenter: Amos Heckendorf

Micro-Tech Scientific, Inc.

"Recent Advances in Two-Dimensional Capillary Column IC-LC"

"Technique and Instrumentation for Proteomics Applications"

Registration fees for the Symposium and Exhibit (all fees include lunch on May 16, 2002):

Advanced Registration:	\$35 Regular/\$10 for Students
On-Site Registration:	\$55 Regular/\$15 for Students
Exhibit-Only Registration:	Free

On-Line Registration: www.adhtech.com/tcdg



2002 SEMRC

32nd Southeastern Magnetic Resonance Conference and Symposium Honoring Edward O. Stejskal

October 24-27, 2002

Sheraton Imperial Hotel and Conference Center,
RTP, NC

The 32nd Annual Southeast Magnetic Resonance Conference (SEMRC) will be held October 24-27, 2002 at the Sheraton Imperial Hotel and Conference Center in the Research Triangle Park, NC. The SEMRC provides an ideal opportunity for scientists in all areas of magnetic resonance to come together and share new applications and technique developments. This year's meeting will be particularly special, as we will gather to honor the many significant contributions that Edward O. Stejskal has made to the science of magnetic resonance.

Preliminary Schedule

Thursday, Oct. 24, 2002

4:00 - 8:00 PM Conference/Symposium Registration
6:00 - 8:00 PM Mixer

Friday, Oct. 25, 2002

Symposium in Honor of E.O. Stejskal

8:00 AM-
4:00 PM Conference/Symposium Registration
8:00 - 9:00 AM Continental Breakfast
9:00 -10:00 AM Plenary Speaker - Alex Pines
11:00 -12 noon Invited Symposium Speakers
12:00 noon Lunch
1:30 - 2:30 PM Plenary Speaker-Jacob Schaefer
2:30 - 5:30 PM Invited Symposium Speakers
7:00 PM Dinner honoring E.O. Stejskal

Invited Symposium Speakers

Alex Pines - Berkeley
Jacob Schaefer - Washington Univ
Dave Cory - MIT
Alan English - DuPont CR&D
Charles Johnson - UNC
Ken Pacer - Univ. of Nottingham

Dan Raftery - Purdue
Ed Samulski - UNC
Alan Tonelli - NCSU

Saturday, Oct. 26, 2002

SEMR Conference

8:00 -10:00 AM Conference Registration
8:00 - 9:00 AM Continental Breakfast
9:00 - 12:00 noon Contributed Papers
12:00 - 1:30 PM Lunch
1:30 - 4:30 PM Contributed Papers
6:00 - 9:00 PM Poster Session and Buffet Dinner

Invited Conference Speakers (to date)

R. David Britt, UC Davis

Sunday, Oct. 27, 2002

SEMR Conference

8:00 - 9:00 AM Continental Breakfast
9:00 - 12 noon Contributed Papers
11:45 - 12 noon Business Meeting

Sponsors

Bruker
GlaxoSmithKline
Eli Lilly
Magellan Laboratories
NCACS
NC State University
Varian

Southeastern Magnetic Resonance Conference Co-Chairs

Alex I. Smirnov and Tatyana I. Smirnova
NC State University

E. O. Stejskal, Symposium Chair

Jeffery L. White, NC State University

Southeastern Magnetic Resonance Conference Science Committee

John Cavanagh, NC State University
Andrew Kolbert, Magellan Laboratories
Thomas O'Connell, GlaxoSmithKline

For further information about the conference, symposium, and registration go to:

www.ncsu.edu/chemistry/semrc/index.html

or call: 919-515-8900



NC-ACS Discussion Groups



NC-ACS Discussion Groups

Triangle Area Mass Spectrometry Discussion Group (TAMSDG) <http://membership.acs.org/N/NCarolina/tamsdg/tams1.htm>

Polymer Discussion Group (PDG)
<http://membership.acs.org/N/NCarolina/pg/>

Triangle Chromatography Discussion Group (TCDG) <http://RTPnet.org/~tcdg>

Triangle Magnetic Resonance Discussion Group (TMRDG)
<http://membership.acs.org/N/NCarolina/tmrdg/>

Younger Chemists Committee (YCC)
<http://membership.acs.org/N/NCarolina/ycc/index.html>

Chemical Education/High School Chemistry Teachers Discussion Group (ChemEd)
<http://membership.acs.org/N/NCarolina/chemed>

ACS Polymer Discussion Group
<http://membership.acs.org/N/NCarolina/pg/>

All scientists, engineers, and students working in polymer-related fields are welcome to participate in the ACS Polymer Discussion Group. Please attend any or all of the meetings on the schedule below. Monthly meetings include dinner, a seminar by an invited speaker, and discussion. Meetings are held at the University Club of NC State University on the second Thursday of each month. Social hour begins at 5:30 pm, with dinner at 6:30, and the seminar at 7:30.

For more information or to be added to the email list, contact Keith Dawes (515-7010) or email: Keith.Dawes@ncsu.edu

Triangle Area Mass Spect. Discussion Group -
<http://membership.acs.org/N/NCarolina/tamsdg/tams1.htm>

The Triangle Area Mass Spectrometry Discussion Group (TAMS) was created to provide an opportunity for scientists involved in mass spectrometry to get together and share ideas and experiences. The group typically holds six meetings per year, which include a social time, refreshments, general announcements, and a seminar by an invited speaker.

All correspondence is through the TAMS e-mail distribution list and the TAMS website. Membership in the group

is free and anyone can join by sending an e-mail to Daniel Morgan at dm19700@gsk.com.

Triangle Chromatography Discussion Group
<http://RTPnet.org/~tcdg>

The purpose of the TCDG is to maintain and promote an interest in and to provide an opportunity for discussion and exchange of information with respect to all fields of chromatography. The membership is open to anyone interested in the field of chromatography. The TCDG sponsors a number of speakers throughout the year and an annual Triangle Symposium and Instrument Exhibit. This coming year will be the 19th symposium and will be held in May 16, 2002.

For more information regarding this discussion group please visit the website <http://rtpnet.org/~tcdg>.

Chemical Education/High School Teachers Discussion Group (ChemEd)
<http://membership.acs.org/N/NCarolina/chemed>

The ChemEd discussion group has been formed to disseminate information relevant to chemistry/science education. It is the hope that this discussion group will involve educators at all levels of chemical education. High school chemistry teachers are currently organizing the group, but we hope that everyone interested in chemical education will use this discussion group as a method to communicate ideas.

If you are interested in becoming involved in this discussion group please contact Dr. Myra Halpin at the NC School of Science and Math (halpin@ncssm.edu).

The group has a listserv as a means to communicate with interested individuals. To signup for the listserv send an email to listserv@listserv.ncsu.edu with a message saying: subscribe nchemed <your name>.

Younger Chemists' Committee (YCC)
<http://membership.acs.org/N/NCarolina/ycc>

The YCC was developed to encourage greater participation in the ACS in the Local Section by its younger members. The YCC's primary goal is to make the ACS more accessible and relevant to the younger chemist. The

programs are designed to provide informative lectures and discussions relevant to YCC members.

The North Carolina Section YCC committee received the distinction of receiving an award for the best new YCC committee in 2000. Last year, they were recognized for hosting the most Outstanding Local Section YCC Event for their major participation in the North Carolina State Fair Biofrontiers Exhibit! Over 45 YCC volunteers presented demonstrations and served as guides for this 10 day event. The attraction drew more than 168,000 visitors to the exhibit and was widely acclaimed as one of the favorites of the show!

Meetings are planned for once a quarter and we will be involved with National Chemistry Week and the NC State Fair as well as other projects that promote Chemistry in the Section. More information about the YCC can be found on the NC-ACS website.

Need Salary Information?

The popular, new ACS Salary Comparator is posted on the ACS Department of Career Services website <http://center.acs.org/applications/acscparator/pag e01.cfm> and is available for ACS members only. It can provide answers to your salary-related questions by providing current information applicable to specific employment situations.

This new tool reports the complete range of full-time base salaries being paid to ACS members in a variety of jobs. The comparator gives attention to many specific factors that influence pay, including experience, level of education, professional specialties, job functions, types of employers, and geographic location. Both academic and non-academic positions are covered.

The second edition of the comparator has been completely updated with new data from ACS employment surveys conducted in 2001. It is presented by the Committee on Economic and Professional Affairs and DCS.

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How does the comparator work?

It uses member data from ACS's annual employment surveys of its working members in the U.S. You will need to define an employment situation. The system will then generate the median (50th percentile) base salary for such positions, plus a series of additional percentiles (from 10th to 90th) that show the ranges of pay for these jobs. Salary figures will be automatically updated bi-monthly to allow for inflation since the last ACS salary survey was conducted.

You can even test potential effects of such things as getting an advanced degree or changes in your duties.

The comparator can be run repeatedly to see how career changes influence the pay of chemists. For example, you can compare base salaries for people in R&D who are doing basic research with those for people who have become R&D managers.

Points to Ponder

"Never be afraid to sit awhile and think. "

--Lorraine Hansberry, Playwright

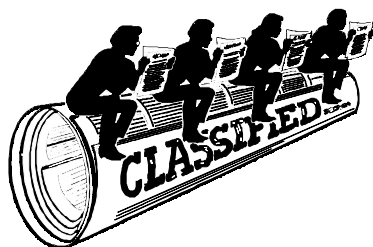


ADVERTISING

The TarHelium is published four times a year and all issues of the TarHelium accept and welcome 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 three or more issues in a publication year which runs bimonthly from September through April.

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

Contact the editor, Brad Sturgeon at sturgeon@ncssm.edu



Employment Aids from the Local Section

As many of you are aware, the NC Section has a web page:

<http://membership.acs.org/N/NCarolina/>.

This page and the links therein are intended to be a resource for chemists in the Section. There are several links of interest particularly to those seeking employment. One link has a list of companies in the Section who hire ACS members; and another links to classified ads in the local paper and to a job search service for the area as well as to several other less targeted sources. Also there are links directly to company job opening web pages where we have been able to find them and links to some of the services offered on ACS web pages.

An additional resource for the most up-to-date job postings is the NCACS listserv. This listserv is operated as a public service of the NC Section and NC State University. There is no charge to anyone. It is operated as a moderated list, which means that only the list owner can approve posted material. Only valid job openings and meeting announcements are approved. To subscribe, address mail to: listserv@listserv.ncsu.edu. Include a 1-line message saying: **subscribe ncacs <your name>**

The subject line is ignored and your return address is taken as the subscription address. Anyone having a valid job opening can contact Bill Switzer at: bill_switzer@ncsu.edu. To unsubscribe, reply to any posted message requesting that your name be removed.

Also contact Bill at the same address if you have suggestions for other links that might serve as useful resources on the web page or if you would be interested in taking responsibility for maintaining one or more pages.

North Carolina State Bureau of Investigation
<http://webs.jus.state.nc.us/doj/hr/>

Magellan Laboratory
<http://excellentadventure.magellanlabs.com/>

News and Observer <http://www.trianglejobs.com/>

Scynexis Chemistry & Automation, Inc
(<http://www.scynexis.com/pages/opps.html>)

Research Triangle Foundation links to jobs in RTP including the following

<http://www.rtp.org/local/jobs/home.html>

Aventis
BASF
Bayer Biological Products
BD Technologies
Biogen
CIIT
Covance Biotechnology Services Inc.
Eisai Inc.
Eli Lilly
Glaxo SmithKline Inc.
International Business Machines Corporation (IBM)
Lineberry Research Associates
Lockheed Martin Technical Services, Inc.
MCNC
National Institute of Environmental Health Sciences
North Carolina Biotechnology Center
Paradigm Genetics
Research Triangle Institute
Underwriters Laboratories Inc.
U.S. Environmental Protection Agency

These links can all be access through the NC-ACS web site found at:

<http://membership.acs.org/N/NCarolina/jobs.html>

If you would like your company's employment link added to this list please send an email to sturgeon@ncssm.edu



Free Links to Journal Articles in C&EN

Chemical & Engineering News Online (<http://pubs.acs.org/cen>) offers free links to journal articles in a growing number of publications. Links to journal references in C&EN articles include not only ACS journals, but also journals published by the Royal Society of Chemistry (such as Chemical Communications) and Angewandte published by Wiley-VCH. Readers do not need to be subscribers to these journals to read the linked journal articles.

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The TarHelium

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.

NC Section Electronic Communications

The NC Section of the ACS offers two services which may be of interest to members: 1) a listserv and 2) a web page: <http://membership.acs.org/N/NCarolina/>.

The listserv is used for ACS meeting announcements and for job announcements. Unlike some lists, the number of postings is quite limited--usually no more than 3 or 4 a month. This list is moderated, which means that all messages must be approved by the list owner before they are posted. If you have a valid opening within the NC Section, please mail an appropriate announcement to bill_switzer@ncsu.edu. Very occasionally openings outside of the NC Section are posted. If you wish to subscribe, address mail to: listserv@listserv.ncsu.edu. The subject field is ignored, but in the message field type: subscribe ncacs first_name last_name. Your name is required; spaces are allowed. Your return address becomes your subscription address. These instructions as well as those for removing your name are linked to the web page.

If you have not looked at the web page recently, please do so. The Executive Committee is committed to making this page a useful resource. It is constantly being updated to include new information. Please feel free to suggest additional links and PLEASE offer to take responsibility for maintaining one or more of the local links. Contact: bill_switzer@ncsu.edu.
