

NETCHEM NEWS

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Managing Your Career in the 21st Century

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According to John Borchardt, writing in *TODAY'S CHEMIST*, Feb. 2000 issue, the U.S. Bureau of Labor Statistics (BLS) reports some good news and some bad news about employment opportunities for chemists.

First the good news, especially for students: Overall employment for chemists will increase 13.9% from 1998 to 2008. This is great for high school students who are looking for a career with good employment opportunities. It is also encouraging for 2-year and 4-year

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

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college and graduate students in chemistry and chemical engineering who will soon be looking for jobs.

However, there is bad news for chemical professionals in mature industries, e.g., chemical and petroleum, restructuring in the 1980's and 1990's is resulting in long-lasting, basic changes in the chemical and related industries.

We east Tennesseans, know that from first hand experience. The 20th century corporate "buzz" of restructuring, takeovers, and downsizing taught many local professionals that their view of employment was woefully out of date. Now job security to them means being able to find another position and quickly. The 21st century "buzz" for employees is "career resiliency," i.e., remaining employable.

In Borchardt's article, the author stresses that chemists must stay alert to the ever-changing world of employment. In Table 1, shown below, the BLS forecasts which jobs will decline and which will grow. It is this type of information that is essential to east Tennessee chemists who were "buzzed" in 1999. Today's savvy professionals and aspiring "wannabes" must develop their own long term, career self-management (CSM) plans to become and to remain employable.

When corporate restructuring hit east Tennessee, ETSU Prof. Lori Wilson, NETS' Chair, realized that the local section could help local students in high school, 2-year and 4-year colleges and graduate schools and chemical professionals to take responsibility for their own careers. As a first step to meet this need she appointed me as NETS' first Career Program Coordinator (CPC).

In this new job, I joined a nationwide corps of volunteer CPC's in 110 other local sections. ACS' Department of Career Services (DCS) trains us help out in these areas of career management. Providing information on salaries and employment trends. Assisting with job/career transitions, e.g., CSM plans, job searching, resume prep and review, Self-

Table 1. Selected U.S. Bureau of Labor Statistics for Chemists.

| Industry | No. of Chemists 1998 | %Employment Change 1998-2008 |
|---|-----------------------------|-------------------------------------|
| <i>Chemical</i> | 30,804 | -0.2 |
| <i>Inorganics</i> | 1910 | -21.0 |
| <i>Plastics</i> | 2173 | -22.8 |
| <i>Drugs</i> | 13,676 | +12.9 |
| <i>Services & Education</i> | 6061 | +11.5 |
| <i>Research & Testing¹</i> | 14,647 | +73.6 |

¹Corporations to increase outsourcing of these functions.

analysis, interview skills development, networking, and continuing education.

The major role I see for me as a CPC is to provide you with up-to-date and focused information on the areas of interest shown above. To do this I am available for presentations, workshops and one-on-one counseling sessions.

Please feel free to contact me to discuss what I can do to help you to either join the ranks of chemical professionals or to improve your "career resiliency."

¹. Who's O'Neill ? Born a d—nyankee (it's one word!) in Wilmington, DE. Learned who really won The War Between the States at the Virginia Military Institute, B.S. Chemistry. Re-born as a yankee: Ph.D. organic chemistry, U. Delaware. Finally and unequivocally succumbed to southern charm and became a naturalized citizen who worked at: VMI as an Asst. Prof. Chem. The Eastman in Kingsport, straight days, as a polymer research scientist and manager. Director of Research in Osaka, Japan.

Today, I am a Career Program Coordinator, NET Section of ACS, Consultant, Dept. Career Services, American Chem. Soc. Chairman, ACS' Task Force, Chem. Tech. Ed.



EAS Deadline Approches:

Call for Papers

The deadline for receipt of preliminary abstracts for the 2000 Eastern Analytical Symposium (EAS) is March 31, 2000. Papers in all area of the analytical and allied sciences are welcome. The meeting will be held October 29 - November 3 at the New Atlantic City Convention Center, Atlantic City, NJ. Detailed information is posted on the EAS website, www.eas.org.

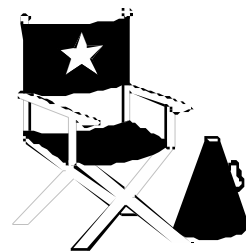
Investigators interested in presenting a paper at EAS should submit a 200 to 250 word abstract of the proposed paper, including preference for oral or poster form. The abstract should be sent to Program Committee, P.O. Box 633, Montchanin DE 18710-0633 USA. Abstracts may be submitted by mail, FAX, or e-mail. If the Paper is accepted, the title and author(s) will be considered final. A special form is not required, but submissions must be typed.

For additional information, contact the EAS Hotline at (302) 738-6218 or the EAS Faxline (302) 738-5275 or easinfo@aol.com.

Upcoming Meetings

| | | |
|------------|--|--------------|
| March 21st | Matthew Studholme Universal Fiber Systems, LLC | NSTCC |
| April 25th | Annual Awards Banquet | Johnson City |
| Sept. 11th | Annual Education Meeting | Kingsport |

From the Chair.....



The year 2000 looks to be an exciting year for the local section. We have a group of volunteers who are excited about the American Chemical Society and the activities of the local section. I offer an open invitation to attend the meetings, talk with the officers, become involved in the section, or all of the above. I think the local section is an excellent way for the chemistry professional to be a resource to the community in the area of science and, specifically, chemistry education. Just a few examples of involvement might be:

Through the local section, one can participate on a public outreach committee and help communicate the value of science and chemistry to the community.

A volunteer in the local section can be on a team that helps prepare and present a program of career services for the chemistry professional.

Another person might feel a strong obligation to help schools teach chemistry and science by being a coordinator of the chemistry demonstration teams that visit area schools to be the hands-on ambassadors of the local section.

I would encourage you to evaluate your interest in the local section of the ACS and to look at your personal goals and aspirations with regard to your chosen vocation. We have applied the discipline of education and/or the rigor of experience in order to be the professionals that we are. We can now best serve society by sharing our knowledge and experiences with the next generation. If we take from the body of knowledge but never give back to the body, the body will wither and die. You can give by volunteering in your local section of the American Chemical Society. All you have to do is call. You can call any officer or you can call me. I look forward to working with you.

Serving the section,
Gerry Rhodes

1999 Annual Report Excerpts from the Narrative

The following are excerpts from narrative of the Northeast Tennessee Section of the ACS 1999 annual report. More information about the annual report and section activities can be found on the website <http://membership.acs.org/N/NETENN/>

Top Activities

Activity # 1

Title: **Fourth Graders Day at Eastman Chemical Company, National Chemistry Week**

Contact person: Gerry Rhodes, Eastman Chemical Company

Description: 1999 marks the 9th consecutive year the Section has held this activity during NCW. Fourth Grader Day is a 2-day event involving 26 elementary schools that come to Kingsport for a series of: demonstrations, hands-on activities, presentations by local industries, and a magic show. This is a highly organized event with students being escorted by scientists to various areas on a designated schedule to view the variety of activities. Activities include exhibits or demonstrations on: gases, chemiluminescence, chemistry of blood cells, electricity, endothermic/exothermic reactions, fluorescence, glass blowing, household chemicals, microscopy, oscillating reactions, pH, oxidation, paper recycling, energy and recycling of batteries, materials testing of various rocks, paper pulping for making paper, polymers, plastics recycling, safety in the home with combustible liquids and gases, and properties of matter. Local companies within our region also participated to talk about what their company provides as a service or a product that they produce that the general public benefits from in their every-day lives. One of our many highlights this year was the visit of Dr. William Robertson from NASA who came from OK State to discuss the use of the Space Station for experiments. Over 1,300 fourth grade students and teachers attend with financial assistance for busing provided by the Section. Students get an idea of the éplainness and everydaynessí of chemistry which takes place around them all the time. They also become more aware of the science behind all that they see to gain a better understanding or at least to become more comfortable with science and technology in their community. The event is promoted to our

community through a massive media blitz and includes opening up to visiting parents, teachers, and local dignitaries in addition to three TV stations, radio, and newspapers and newsletters. See Appendix 3.A.1

Activity # 2

Title: **Global Salute to Polymers**

Contact person: Lori J. Wilson, East Tennessee State University

Description: On Tuesday, November 9, 1999, Eastman Chemical Company, headquartered in Kingsport, TN, was honored with a Global Salute to Polymers at the Hands On Regional Museum in Johnson City, TN. Eastman Chemical Company is a leading international chemical company that produces plastics, chemicals, and fibers. The Northeast Tennessee Section of the American Chemical Society (NETS-ACS) selected Spectar copolymer, Eastman's fastest-growing specialty plastic for their Global Salute. Spectar copolymer is a cost-effective alternative to acrylic and† polycarbonate plastics for displays, signs, and store fixtures. In a joint meeting with the Appalachian Section of Sigma Xi, The Scientific Research Society, NETS Chair, Dr. Lori Wilson, presented Dr. Greg O. Nelson, Vice President of Polymers Technology at Eastman, with a plaque honoring Spectar. The plaque will be on display at Hands On Regional Museum for about one year. Following the presentation by Dr. Nelson, mechanical engineer Carl Williams, carried out demonstrations on the unique properties of Spectar. One of the demonstrations uses a 10-lb. cannonball that when dropped onto acrylic causes it to break easily. However, when dropped on Spectar the copolymer absorbs the impact. Also, when a nail is hammered through acrylic it cracks but Spectar can be machined and formed much like wood using nails or screws. Finally, the thermoforming properties of Spectar were demonstrated by preparing signs for the audience using a vacuum thermoformer. To celebrate this event Eastman has donated an exhibit to the Hands On Regional Museum. The exhibit takes advantage of the unique properties of Spectar. Located in the Wizardís Round, the exhibit uses colored Spectar in the shapes of the planets of the solar system prepared by thermoforming. In addition to the brightly colored planets that fluoresce under black light, there is a description of polymers and of the

Global Salute to Polymers event. A unique partnership has been formed as part of this event between the Hands On Regional Museum, Eastman Chemical Company and the Northeast Tennessee Section of the American Chemical Society. See Appendix 3.A.2

Activity # 3

Title: **Demonstration Program**

Contact person: Kids and Chemistry: Rick Eldreth or Allen Crain Eastman Chemical Company

Dr. Kopp's Chemical Magic Show Explained: Dr. Richard Kopp East Tennessee State University

Description: NETS-ACS encourages members to carry out chemical demonstrations as part of its outreach to the community. In addition to National Chemistry Week the following demonstration programs were carried out:

I) The Kids & Chemistry Demonstration Team is an ongoing partnership between NETS-ACS, Eastman Chemical Company's Putting Children First (PCF) program and Eastman Chemical Company's Research Laboratories. The K&C program was initiated in 1995 in the NETS-ACS Section. The program is administered by PCF who facilitates communication with schools to gather programs, schedules events and orders supplies needed for the K&C kits. NETS-ACS provides a coordinator who recruits volunteers, oversees the training of the volunteers and tracks the use of supplies to insure their timely replacement. Training of ACS members at Eastman sites in Arkansas, Texas, and South Carolina has been provided by two NETS-ACS K&C certified trainers. The program continues to grow this year; 23 volunteers offered 19 programs reaching 3355 students, a significant increase from 8 presentations in 1997. In addition two presentations were made this year at community events. Contact: Rick Eldreth (423) 229-6864 or Allen Crain (423) 229-1548 .

II) Dr. Kopp's Chemical Magic Show Explained focuses on finding the explanation behind the chemical demonstration. Each semester Dr. Kopp takes his "Chemical Magic Show - Explained" on the road and visits local elementary, middle and high school classes. Audiences as small as 20 AP Chemistry students, or as large as 225 elementary school kids, have witnessed Dr. Kopp igniting balloons filled with hydrogen,

making a universal indicator from red cabbage, or demonstrating the effects of liquid nitrogen. While these are some of his standards, he says each show is a little different.

Over 15 years ago, Dr. Kopp visited University School to give Dr. Jeff Wardeska a hand, not knowing it was the start of a road show. He now visits at least 10 schools a year, and even though its been years since he has done any formal advertising- he used to be listed in the Tennessee Academy of Sciences Visiting Scientist Roster- he still receives plenty of invitations. That's because the word is out that Dr. Kopp does magic and explains it too.

When asked why he does the shows Dr. Kopp replies, "Its fun! And the kids seem to enjoy it. The teachers like it too because it supplements what they teach. They usually schedule my visit with their section on chemistry and it seems to reinforce what they've taught. I try to get the kids excited about chemistry."

This year Dr. Kopp has visited the following schools in Northeast Tennessee Region:

Alpha Elementary School, Morristown, TN
East Ridge Middle School, Morristown, TN
Elizabethton High School, Elizabethton, TN
Hampton Elementary School, Hampton, TN
Rutledge Middle School, Rutledge, TN
Blountville Middle School, Blountville, TN
Carter's Valley Elementary School, Church Hill, TN

During National Chemistry Week, Dr. Kopp helped the American Chemical Society - Student Affiliates present a program on the ETSU campus entitled, "The Fun and Magic of Chemistry - Chemical Demonstrations Designed to Amaze, Startle and Delight." This was quite different from his "Chemical Magic Show-Explained" programs and drew a standing room only crowd in Room 261 Brown Hall. See Appendix 3.A.3

New Activities

Activity # 1

Title: **Global Salute to Polymers** (See Top Activity # 2, and Appendix 3.A.2)

Activity # 2

Title: **Establishment of a Government Relations Committee**

Contact person: Jeff Wardeska, East Tennessee State University

Description: This is first year we have had a Government Relations Committee. Jeff Wardeska,

Immediate Past Chair, volunteered to serve as chair. Even though it was our first year the committee was very active. Our first order of business was to visit Bill Jenkins, House Republican, at his Bristol office. Lori Wilson and Ed Elam joined 4 members of Sigma Xi for the visit. The main purpose of the visit was to let Mr. Jenkins know about the scientific community in his district and that we were for increased funding of federal programs for scientific research. In addition, letters were sent to Senators Fred Thompson and William Frist. Finally, during National Chemistry Week at 4th Grader's Day (Top Activity #1) we invited the mayor of Kingsport to see the demonstrations and learn about our local section. The letters, their responses, and a picture of the mayor participating are in Appendix 3.B.2.

Activity # 3

Title: **World of Color**

Contact person: Steve Perri, Eastman Chemical Company

Description: The Northeast Tennessee Section distributed the World of Color booklet to 23 middle schools that are part of Eastman Chemical Company's Education Initiatives (EI). The schools were encouraged to contribute to the worldwide web database of locally naturally occurring pigments. Furthermore, we sent 50 booklets to 19 other middle schools not covered by EI, plus about 5-10 to each of the elementary schools that have corresponded with us about our National Chemistry week activities. See Appendix 3.B.3

Activity # 4

Title: **Establishment of a Career Program Liaison and Response to Layoffs at Eastman Chemical Company**

Contact person: George J. O'Neill, Ph.D.

Description: In early November, Eastman Chemical Company announced it would reduce its workforce by 1200 employees and approximately 800 of those would come from the Kingsport plant. Our section responded to this announcement by appointing George O'Neill, retired from Eastman and Career Consultant for ACS, as Career Program Liaison and gave him the task of organizing a workshop for retired or terminated employees. The workshop was scheduled for January 18, 2000 at Northeast State Technical Community College. Notices were sent out via regular mail, email and internal mail at

Eastman. The section was prepared to pay for the course to be taught by Ms. Dorothy Rodmann and provide lunch for those attending so there would be no cost involved. However, due to low registration (only 4 people) the workshop was cancelled. It was thought that the time chosen may have prevented some from attending. We plan to offer a similar program on career development in the coming year that will be of interest to employed and unemployed chemists throughout the region.

In response to the workforce reduction a link to Career Services at ACS was put on the webpage and the following paragraph was put in the Chair's article in the fall newsletter:

This fall has brought some changes that are certain to affect our section eventually. The early retirements and layoffs at Eastman Chemical Company, our largest employer of chemists in the area, will certainly bring hard times to some of our membership. The section will do its best to respond to the needs of our members. The Department of Career Services (DCS) of the ACS offers many resources to help ACS members in seeking new employment opportunities, a change in their career, or changes within their organizations. DCS has a number of publications that will help you cope with sudden workplace changes, or provide guidance with your current job. Workforce analysis reports provide information on chemists' salaries, current trends in the chemical workforce, and international opportunities. The Career Videos series provides additional resources on changing your career, developing the right resume, and tips on a winning interview. Workshops & Presentation, which are given at the national and regional ACS meetings and provide the opportunity for you to interact with career advisors, and shape your future employment opportunities to your individual needs. (For more information, call ACS Career Services at 1-800-227-5558; Select† 6153; or e-mail: k_smith@acs.org). For those facing the decisions brought about by early retirement the ACS has some resources for you as well (For more information visit <http://www.acs.org:80/insurance/tools.htm>).

Career specialists predict that people entering the workforce in the new millennium in all professions can expect to change jobs ten times and have five different employers. I would suspect that chemists change jobs less frequently but nonethe-

less this is part of doing business in the new millennium. While it will bring changes to our section we are still hopeful about the future of chemistry in Northeast Tennessee and Southwest Virginia. See Appendix 3.B.4

Activity # 5

Title: **Electronic Communications Initiatives**

Contact person: James Duchamp, Emory & Henry College

Description: The first step we took to increase the sections use of electronic communications was to find a webmaster. James Duchamp volunteered for the job and updated our website and moved it onto the ACS server (<http://membership.acs.org/N/NETenn/>). For the first time the section's newsletters are available electronically weeks before the published version is out. A PowerPoint presentation with a report on our largest event, 4th Graders Day at Eastman Chemical Company during National Chemistry Week, is available with statistics and information for the media or visitors of the site. An up-to-date meeting schedule with locations is available. This is used by people that have lost their meeting notices or did not receive them due to an address change or mailing error. A list of officers and committees is available as well as a description of their duties in an electronic version of the Job Manual. In addition the section's bylaws are available for browsing. Finally there are links to the national ACS page, Career Services (in response to layoffs at Eastman) and Chemical Abstracts.

Secondary to the website is our use of email. We maintain a mailing list of all section members which is used to announce meetings or post notices. We plan to cut down on our use of regular mail next year. Since we are spread over a large geographic region we have used email voting for executive committee issues. The chair sends out an email to executive committee members and they cast their vote or comments by return email. We sent out sample letters to senators over email from our Government Relations committee. All of our articles for the newsletter are submitted by email. Finally, we used email to deliver our meeting notices and newsletter to the company where it is printed and mailed to members. See Appendix 3.B.5

C. SUMMARY OVERALL SECTION ACTIVI-

Submissions welcome!!!



NETCHEM NEWS submissions are welcome!!!

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