



# The Chemical Record

Volume 46, Number 4 - May, 2004

Columbus Section of the American Chemical Society, Inc.

George W. Greene, Editor

<http://www.acscolumbus.org/>

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### MEETING NOTICE

COLUMBUS SECTION OF THE AMERICAN CHEMICAL SOCIETY, INC.

MEETING # 794

Wednesday, May 5, 2004

*The Blackwell, at The Ohio State University*

2110 Tuttle Park Place

Columbus, Ohio 43140

614-247-4000; toll free: 866-247-4003

Web: [theblackwell.com](http://theblackwell.com)

#### **AWARDS DINNER HONORING:**

**PROFESSOR SUSAN OLESIK, 2004 COLUMBUS SECTION AWARD**

**MS. BONNIE BLOOM, HIGH SCHOOL CHEMISTRY TEACHER OF THE YEAR**

**AND OUTSTANDING COLLEGE STUDENTS**

6-7 PM	Poster Session with cheese/fruit reception and cash bar
7-8 PM	Buffet Dinner
8-9 PM	Presentation of Awards and Lecture by Prof. Olesik: "Advances in Glassy Carbon Chemistry"
Buffet Dinner Menu	French Onion Soup; Spinach Salad with Bacon, Sautéed Mushrooms, Radishes, Eggs and Croutons Served with Grained Mustard Vinaigrette Fusilli Pasta and Pesto Salad Roasted Marinated Chicken with Oranges, Almonds and Rosemary Baked Cod with Capers, Tomatoes and Parsley Butter Sauce Braised Pork Loin with Caramelized Onions and Sautéed Mushrooms in Au Jus with a Hint of Sage Creamy Roasted Redskin Potatoes Chef's Selection of Fresh Vegetable Strawberry Rhubarb Crisp Banana Chocolate Chip Cake New York Cheesecake Dinner Rolls and Butter
Cost	Members and nonmembers \$20.00 Retired and Unemployed members \$18.00 Students not presenting posters \$8.00
Guests	All High School Chemistry Teachers are Guests of the Section; undergraduate Students presenting posters are also guests of the Section, but in both cases reservations are required and cancellations, if necessary, will be greatly appreciated.



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Reservations	Please use the voice mail reservations service by calling <b>614-447-3600 extension 7047</b> . Follow template for reservations. Alternatively, please send e-mail to The Columbus Section at the following e-address: <a href="mailto:acscols@cas.org">acscols@cas.org</a> .
Voicemail/ e-mail Template	First and last name: please spell last name. Membership category: member, retired, emeritus, unemployed, High School Teacher, student, other. Employer. Your phone number, in case we have to contact you.
<b>Reservations Deadline</b>	<b>Friday, April 30, 2004.</b> Your reservation is a dinner order that must be paid. Please help us to control costs by honoring your order.
Program Contacts	Jon Parquette E-mail: <a href="mailto:parquett@chemistry.ohio-state.edu">parquett@chemistry.ohio-state.edu</a> Phone 614-292-5886  Maria Rosenthal E-mail: <a href="mailto:mrosenthal@cas.org">mrosenthal@cas.org</a> Phone: 447-3600 x 3578
Parking	OSU stickers: park at your convenience. Parking for pay is available in the Tuttle Park Pl. Parking Garage (A), 2050 Tuttle Park Place. RECOMMENDED: The Blackwell offers convenient valet parking at \$5.00 and a receptionist will greet and guide attendees to the meeting area.

### **ABOUT THE TOPIC: by Susan Olesik, 2004 Columbus Section Award**

Our research group has a long history of developing analytical separation techniques and devices using functionalized glassy carbon materials. This has involved the characterization and development of unique glassy carbon materials for the separation of a broad range of analytes. For example we presently have a separation device traveling toward Saturn to sample the components of Titan's atmosphere. Alternatively, we used glassy carbon media to develop extraction devices to detect the early stages of lung cancer. More recently we have synthesized and characterized a fluorinated glassy carbon. This material is expected to selectively interact with halogenated organic compounds and potentially may be biocompatible. Finally, new polymers were synthesized that produce glassy carbon particles with controllable size from 100s of microns to nanometers and also produce nanofibers. This talk will describe these advances and will also describe the potential applications of these materials.



### ABOUT THE SPEAKER

Susan Olesik received her A.S. from Vincennes University, B.A. from DePauw University in 1977 and her Ph.D. in 1982 from the University of Wisconsin-Madison, working with James Taylor. She was also a postdoctoral fellow for Milos Novotny at Indiana University from 1982-1984 and for Tomas Baer at University of North Carolina-Chapel Hill from 1984-1986. She has been a faculty member at The Ohio State University since 1986, being promoted to Associate Professor in 1992 and Professor in 1997. In 1987, she received the American Society for Mass Spectrometry Research Award; in 1990 she received the Eli Lilly Research Award; in 1998 she received a Commendation from NASA for work on Cassini-Huygen's Probe; and in 2000 she received the AWISCO Woman in Science Award from the Association for Women in Science in Central Ohio.

She has an extensive publication record, has served on numerous editorial advisory boards, as well as review boards. She is most known for work in two areas of separation science - Enhanced-fluidity Liquid Chromatography and Low temperature Glassy Carbon Chromatography. Most recently her research has expanded polymer synthesis in supercritical fluids, new separation science for highly complicated mixtures and the synthesis of carbon micron and nanoparticles and fibers. Also in 1999 she started a science outreach program entitled, Wonders of Our World. This program allows volunteer scientists to assist elementary school teachers with their classroom science by providing hands-on, science experiments and scientists volunteers to assist the teacher with these experiments. This program has almost doubled in size every year of its existence. It presently serves nearly 3000 elementary school students, 140 elementary school teachers and has nearly 400 volunteer scientists involved in any given year.

### HIGH SCHOOL CHEMISTRY TEACHER OF THE YEAR AWARD

Ms. Bonnie Bloom is this year's recipient of the ACS High School Chemistry Teacher of the Year Award. Ms. Bloom teaches Chemistry at Hilliard Davidson High School and is being recognized for her creativity and dedication in preparing lessons that challenge students and her dedication in mentoring both students and colleagues.

Ms. Bloom graduated from Franklin & Marshall College with a B.A. in Chemistry and received a M.S. in Chemistry and a M.A. in Science Education from The Ohio State University. She is a National Board Certified Teacher in Adolescent/Young Adult Science.

Bonnie is an active member of the ACS and the Columbus Section, the National Science Teacher's Association, Science Education Council of Ohio, and the Association for the Supervision of Curriculum and Development.

Ms. Bloom serves on various committees in the Hilliard District, involved in teacher development, science curriculum, and assessment efforts. She is a cooperating teacher for student teachers and student interns from OSU, Otterbein and other local colleges. She has participated in ACS Student



Affiliate forums on careers in chemistry teaching at the high school level and in Public Outreach efforts of the Columbus Section to bring science literacy to the public, especially during National Chemistry Week.

Ms. Bloom is a true scientist and educator in all her endeavors, and she is willing to share her experience and knowledge in all forums, from the Teacher Summer Workshops organized by Jeff Bracken, ACS Teacher Group Coordinator, to her synagogue education programs.

### **COLUMBUS SECTION AWARD - AMERICAN CHEMICAL SOCIETY**

Professor Susan Olesik will be honored with the Columbus Section Award, in recognition of her scientific endeavors and her contributions to science education. Research efforts include development of glassy carbon stationary phases for analytical separations that have found broad applications from spacecraft missions to cancer detection instruments. Prof. Olesik is the founder and director of the Wonders of our World (WOW) program, which brings together practicing scientists and elementary school teachers, to enrich science curricula, provide for teacher training and development, and acquaint young students with the marvels of scientific discovery.

More information on the WOW program is found at <http://wow.osu.edu/>

Susan Olesik received her A.S. from Vincennes University, B.A. from DePauw University in 1977 and her Ph.D. in 1982 from the University of Wisconsin-Madison, working with James Taylor. She was also a postdoctoral fellow for Milos Novotny at Indiana University from 1982-1984 and for Tomas Baer at University of North Carolina-Chapel Hill from 1984-1986. She has been a faculty member at The Ohio State University since 1986, being promoted to Associate Professor in 1992 and Professor in 1997. In 1987, she received the American Society for Mass Spectrometry Research Award; in 1990 she received the Eli Lilly Research Award; in 1998 she received a Commendation from NASA for work on Cassini-Huygen's Probe; and in 2000 she received the AWISCO Woman in Science Award from the Association for Women in Science in Central Ohio.

As an active member of the ACS and the Columbus Section, Prof. Olesik serves in the Editorial Advisory Board for "Analytical Chemistry" and in the sub-division of chromatography of the Analytical Division of ACS. Dr. Olesik is also the Director of the OSU NSF GK-12 Program, among other responsibilities.

Dr. Olesik leads an active research group of undergraduate and graduate students, post-doctoral associates, and has also hosted and mentored high school students in summer research projects. She is the co-author of more than 85 publications, including patents.

The Columbus Section Award is presented every two years to an outstanding scientist in the field of chemical sciences, including chemistry, biochemistry, biomedical sciences, chemical engineering, materials sciences, and science education.

The award, presented by the members of the ACS Columbus Local Section, consists of a plaque to be held by the recipient for two years, a medallion, and a check.



## **COLUMBUS SECTION COUNCILORS REPORT**

AMERICAN CHEMICAL SOCIETY  
227TH ACS NATIONAL MEETING  
ANAHEIM, CA  
MARCH 26-31, 2004

### ACTIVITIES OF COUNCILORS..

Don Songstad attended the meeting of the Divisional Activities Committee (DAC) as member , as well as that of the Minority Affairs (CMA), as DAC liaison.

Maria Rosenthal was appointed Chair of the Sub-committee for selection of recipients of the Stanley C. Israel Award, of the Committee on Minority Affairs (CMA) , of which she is a member. This award will be presented at Regional Meetings, in recognition of support of programs to promote underrepresented minorities in the chemical sciences.

Jeff Trent, attended committee meetings, of YCC, CMA, CHED, LSAC, as well as Kids and Chemistry Workshop and events of Chemical Education and Analytical Chemistry Divisions..

All three attended the Council Meeting.

### ACTIONS OF THE COUNCIL

#### Election Results

· The Committee on Nominations and Elections presented to Council the following nominees for selection as candidates for President-Elect, 2005: Edward M. Eyring, F. Sherwood Rowland, Gary B. Schuster and Isiah M. Warner. By written ballot the Council selected F. Sherwood Rowland and Isiah M. Warner as candidates for 2005 President-Elect. They join E. Ann Nalley, who was certified as a petition candidate for 2005 President-Elect.

· The Committee on Nominations and Elections presented Lawrence Barton and Connie J. Murphy to Council as candidates for election to the Committee on Committees (ConC) to fill a vacancy. The vacancy was created by the resignation of Nancy B. Jackson, who was elected to the Board of Directors as a Director-at-Large. By written ballot the Council elected Connie J. Murphy.

· Candidates Roger A. Parker and John F. Riley were presented to Council for election to the Committee on Nominations and Elections (N&E). The election was to fill a vacancy on the committee that was created by the resignation of James W. Long. By written ballot the Council elected Roger A. Parker.

#### Registration Report for National Meeting

· As of March 30, 2004, the ACS spring national meeting had attracted 14,141 registrants as follows: Regular attendees, 7,595; Students, 3,801; Guests, 467; and Exhibitors, 2,278.

#### 2005 Member Dues

· The Council VOTED to set the member dues for 2005 at the fully escalated rate of \$123.00. Each year the Council approves member dues as authorized in the Bylaws.



### Member Statistics

· Membership in the American Chemical Society was 159,332 as of year-end 2003. This number represents a decline of 1% in the overall membership. However, the number of student members increased by 3.7% and the number of recent graduates increased by 50%.

### Division Request and Action

· The Council VOTED to formally dissolve, as of June 30, 2004, the probationary Division of Laboratory Automation. This action was taken at the request of the Division's leadership.

### Petitions for Consideration

· The Council received for consideration three petitions: Petition for Electronic Balloting; Petition to Change Division Annual Report Deadline; and Petition for Membership Requirements for Teachers. Action is expected on these petitions at the 2004 fall national meeting in Philadelphia.

### Special Discussion Item

· A special discussion item was put on the Council agenda for this meeting. ACS President Charles Casey and Board Chair James Burke briefed the Council on the status of partnership efforts between the American Chemical Society and the American Institute of Chemical Engineers (AIChE) and noted the implication of these efforts for ACS. Councilors then participated in a discussion of this issue. Currently the ACS and the AIChE are pursuing a programmatic alliance that will more fully serve the needs of their members and the chemical enterprise, while enhancing both organizations' abilities to achieve their missions. Consideration also is being given to a membership alliance that could include expanded opportunities for members to participate more fully in both organizations. The discussion at Council revealed strong support for moving forward with these initiatives and identified key factors for consideration.

### Committee Report Highlights

#### Education (SOCED):

- Planning symposia for the Biennial Conference in Chemical Education on Exploring the Molecular Vision and on curricular needs of students as they move from 2-year to 4-year colleges in collaboration with CMA.
- Preparing a Policy Statement for ACS on Teaching of Evolution, in collaboration with the Office of Legislative and Government Affairs.

#### Economic and Professional Affairs (CEPA)

Despite some respite, the unemployment in the chemical profession is at an all-time high. A task force has been formed to develop programs on the impact of global outsourcing. The Career Consultant program has been enhanced and members have the option to select own consultant online. Online career tools have also been enhanced for the National Employment Clearinghouse of ACS. CEPA submitted the latest revision of the ACS Professional Employment Guidelines.



### Local Section Activities (LSAC)

The follow-up leadership conference will take place on October 8-10 in Saint Louis, MO, And will focus on development of leadership skills.  
The Annual Report Form for 2004 is being revised and aligned with the new ACS Strategic Plan. LSAC encourages Local Sections to continue and enhance relations and programs with AIChE Local Sections.

### The 2004-2006 Strategic Plan of ACS:

#### Our Mission:

1. Advance the Chemical Sciences and Technologies
2. Communicate the value of chemistry and chemical engineering to the public
3. Support the chemical profession and its practitioners
4. Lead the divers chemically related professions for the benefit of society

#### Three Core Strategies:

1. Providing State of the Art Chemical Information
2. Serving as Premier Professional Organization for Practitioners of Chemistry
3. Enhancing the Public Appreciation of the Chemical Sciences and Technologies

#### Development Strategies:

1. Transform the definition of chemistry to encompass its true multidisciplinary nature
2. Create leading, dynamic, and integrated portfolio of products and services
3. Promote inclusiveness and diversity throughout the chemical enterprise

Respectfully submitted,  
Maria Rosenthal  
Don Songstad  
Jeff Trent

## Columbus Section Sponsors Summer Chemistry Teachers' Workshop

By Jeff Bracken

For the fifth consecutive year, the Columbus Section of the ACS is pleased to support the summer chemistry teachers' workshop, which will be held at Westerville North High School August 9 – 13. Leading this year's workshop will be high school chemistry teachers Jeff Bracken and Pat Funk. Enrollment is limited to the first 30 teachers to register. Interested teachers should contact Jeff at (614) 797-8071 or via email at [bracken.5@osu.edu](mailto:bracken.5@osu.edu) quickly because 15 teachers have already registered.

This year's workshop will feature new hands-on chemistry labs and demonstrations. Teachers will also have the opportunity to make a number of Home Depot construction projects like the Flame



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Tornado Demonstration and The Come-Back Can. Workshop participants will also learn the chemistry associated with paper marbling and tie dyeing. It's no surprise that many teachers return year after year for this incredible week of fun in the high school chemistry lab!

Additional funding has been provided by Akzo Nobel Coatings and the Ann Sherry Foundation. If your company would be interested in offering financial support or donating "unwanted" laboratory equipment to this workshop, please contact Jeff Bracken at [bracken.5@osu.edu](mailto:bracken.5@osu.edu)



**National Chemistry Week**  
**Health and Wellness**  
**October 17-23, 2004**

### **NATIONAL CHEMISTRY WEEK—GETTING THE BALL ROLLING**

National Chemistry Week (NCW) will be here sooner than you think, and planning is already underway for local and national activities. The theme for NCW 2004 is "Health and Wellness" and the unifying event is hosting a "health fair." Bayer Pharmaceuticals is aiding in this effort by donating Clinistix and Multistix (urine test strips) for use by local sections. The ACS Office of Community Activities (OCA) staff is writing activities which use these strips to demonstrate how diseases like diabetes are detected. Because we are chemists and not certified medical professionals, we cannot do screening with these test strips, so we will need to invite a local medical doctor to be part of our health fair. The doctor can offer screening for diabetes, and our local ACS volunteers can explain the chemistry of how the screening tests work. OCA is currently researching groups that can help us to host a health fair. With the current emphasis that health and wellness is getting in the media, this will be an ideal opportunity for us to contribute to our community with pertinent activities and relevant information. Anyone with ideas related to the NCW celebration is invited to email [ncw@acs.org](mailto:ncw@acs.org). Information is currently on the NCW website ([chemistry.org/ncw](http://chemistry.org/ncw)) and new information will be posted as it becomes available.

Theme: Health and Wellness

Date: October 17-23, 2004

Unifying Event: Community health fairs held during NCW

K-12 Event: National Poster Contest focused on chemistry's contributions to our health and wellness

Student Affiliate Event: NCW Chemvention Contest – invention contest using chemical principles

ChemMatters Magazine for high school students will dedicate its October issue to the chemistry of health and wellness

Celebrating Chemistry Hands-on activity newspaper for elementary school students related to:

diagnosis of diabetes/kidney function - urinalysis and blood testing

nutrition/obesity – antioxidants, caloric intake

infection – hand-washing, the body's defenses



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dental health – preventative use of plastics  
prevention of skin cancer – sunscreens

[chemistry.org/ncw](http://chemistry.org/ncw) Interactive website with materials for students, educators, communicators, coordinators and industry representatives  
Each year National Chemistry Week reaches over 30 million people with positive messages about the contributions of chemistry.

In 2003:

Over 10,000 volunteers from academia, government and industry dedicated themselves to spend time with kids across the country to explain the importance of science in daily life.

More than 50 chemical companies donated employee time, materials/supplies or funding for NCW activities in the US.

NCW activities were conducted in all 50 states, the District of Columbia, Puerto Rico, and on US Military bases in Japan and the Mediterranean.

American Chemical Society

Membership Division - Office of Community Activities

1155 Sixteenth Street, NW, Washington, DC 20036

800-227-5558, ext. 6078

[chemistry.org/ncw](http://chemistry.org/ncw)

[ncw@acs.org](mailto:ncw@acs.org)



## JOB OPPORTUNITIES IN THE SUMMER INSTITUTE IN SCIENCE AND MATHEMATICS AT CAPITAL UNIVERSITY

The Summer Institute in Science and Mathematics for Preprofessional Students at Capital University in Columbus, Ohio is looking for adjunct lecture and laboratory instructors for the science major **organic chemistry** sequence in summer 2004. The twenty-eight week, two semester sequence is condensed into two four week terms in the summer. Students who choose the program are highly motivated and a pleasure to teach. See the website for more details at

<http://www.capital.edu/acad/summer.htm>.

Minimum qualifications: Ph.D. in organic or bioorganic chemistry to teach lecture section and an M.S. in chemistry and a passion for teaching for the laboratory section. Compensation: Lecture \$ 3500-5000/ session and lab \$2500-3000/ session, dependent upon experience. Contact Dr. Nyenty Arrey, (614) 236-6100, [narrey@capital.edu](mailto:narrey@capital.edu) for additional information.



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### 2004 COLUMBUS SECTION ACS CALENDAR OF EVENTS

*Compiled by Maria Rosenthal*

<b>May</b>	5	Annual Awards Banquet: Columbus Section Award, High School Chemistry Teacher of the Year
	8	State Science Day - ACS Awards
<b>June</b>	2-4	Central Regional Meeting, Indianapolis
<b>August</b>	22-26	228 <sup>th</sup> ACS National Meeting and Exposition, Philadelphia
<b>October</b>	6	Dr. William Carroll, ACS President-Elect, visits the Columbus Section
	14	Mini-Meeting with Dr. Alfred Bader
	17-23	NATIONAL CHEMISTRY WEEK THEME: HEALTH AND WELLNESS
<b>November</b>	TBA	Family Event
<b>December</b>	TBA	Joint meeting with AIChE

### About *The Chemical Record*

*The Chemical Record*, official newsletter of the Columbus Section of the American Chemical Society, is published monthly, September-December and February-May (eight issues per year.) Opinions expressed by editors or contributors do not necessarily represent the official position of the Columbus Section. We welcome your contributions to your *Chemical Record*. Please submit them via postal or electronic mail to George Greene, PO Box 360941, Columbus, Ohio 43236-0941, [george.greene@abbott.com](mailto:george.greene@abbott.com). Electronic mail contributions should be in plain-text messages or in Word 97 (or earlier release) file attachments. Please do not add unnecessary spaces and carriage returns in the bodies of the paragraphs, etc. *Thank you very much!*

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### CHANGE OF ADDRESS

Changes in postal or e-mail address should be reported to the Membership Chair, George Noethlich, 2740 Bella Via Avenue, Columbus OH 43231-2305, e-mail [gnoethlich@wideopenwest.com](mailto:gnoethlich@wideopenwest.com). George will forward the change-of-address information to ACS Headquarters.



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