

the
Catalyst

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INTRODUCING OUR NEW CHAIR
Dr. Melissa Betz Cichowicz

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ADVANCE NOTICE

FEBRUARY MEETING

The Science and Art of Glassblowing

Simon Pearce Restaurant, West Chester, PA

THURSDAY, FEBRUARY 19, 2004, 6:00 PM

See the FEBRUARY issue of *the Catalyst* for details,
call the Section Office at (215) 382-1589, email PhilaACS@aol.com

DuPont Analytical Solutions Ad

DUPO103C

Chemo Dynamics LP Ad

CHEM101C

Micron, Inc.

MICR140C

JANUARY MEETING

The Philadelphia Section,
American Chemical Society

presents

The Fourth Annual Graduate Student Poster Session

5:00 - 7:00 PM

Thursday, January 15, 2004

Behrakis Hall in the Creese Student Center
Drexel University, Philadelphia
Chestnut Street at 32nd Street

POSTER PRESENTATIONS

PANEL DISCUSSION BY INDUSTRIAL SCIENTISTS

Refreshments will be served

Refreshments cost: \$10.00

Students with reservations and ID: \$5.00

RESERVATIONS should be made by calling Mrs. Libby Harper at the section office, (215) 382-1589, or emailing PhilaACS@aol.com by **5:00 PM on Thursday, January 8th**. **Cancellations**, if necessary, cannot be accepted after NOON on Tuesday, January 13th. **UNCANCELLED RESERVATIONS WILL BE BILLED.**

PARKING LOCATIONS: Free parking is available after 3:45 PM in University of Pennsylvania Lot located on the northwest corner of 34th and Chestnut Streets. Going south on 34th, turn right into the lot toward the end of the block past Market and just before reaching Chestnut. Tell the attendant that you are with the ACS. Parking is also available on the street (bring quarters for meter).

The Board of Directors will meet at 4:00 PM in room 2019/2020 of McAlister Hall.

Campus Map and directions can be found on:
http://www.drexel.edu/em/virtualtour/flash_map.html

INTRODUCING OUR NEW CHAIR

Melissa Cichowicz

Melissa Betz Cichowicz is a 25-year member of the American Chemical Society, joining as a student affiliate while in college. She has served the Philadelphia Section as a member of the Board of Directors for over ten years, was a National Councilor for three years, Secretary for two years, and also participated on a number of committees, including National Chemistry Week, Chemistry Olympiad, Teller's Committee and Continuing Education.

Melissa was born and raised in Northeast Philadelphia and went through the Philadelphia public school system. Upon graduation from Abraham Lincoln High School, she went to St. Joseph's College (now University) as a chemistry major, intending to apply to medical school. Organic chemistry in her sophomore year started to change her mind, and completion of a summer premedical internship at a local medical school convinced her that graduate study in chemistry was the more appropriate direction to take. She began graduate studies at Virginia Tech, and transferred to the University of Maryland after one year to complete her doctorate. Melissa defended her Ph.D. in synthetic organic chemistry and graduated in 1984.

Her first employment after graduate school was with Rohm and Haas Company in Spring House, PA as a Senior Research Scientist in the Herbicides Department of the Exploratory Agricultural Research Division. She worked at Rohm and Haas for two years, and taught for part of that time as an adjunct at LaSalle University in Philadelphia. This helped to convince her that she wanted to return to academia, and so in 1986 she started teaching at West Chester University. She was tenured and promoted to her current rank of Associate Professor in 1992, and currently also serves as the Director of Pre-Medical Programs. She has at various times served as Interim Associate Dean of the College of Arts and Sciences, Assistant Dean of the College of Arts and Sciences, as the Director of Sponsored

Research, and as the Director of the Center for Teaching Effectiveness. As time allows she conducts some research with undergraduate students in the field of natural product synthesis, in addition to teaching classes primarily in the area of organic chemistry.

Melissa lives in King of Prussia, PA with her husband David (also a 25-year ACS member and former Section Treasurer and Director) and their two children. Their son Douglas is 10 years old and in fifth grade—he either wants to be a scientist or a professional baseball player when he grows up. Their daughter Corinne is 6 years old and in first grade. She also likes science and doing “speriments” in the kitchen, in addition to dance and baton lessons.

Melissa tries to fit in a little time for two hobbies that she always wanted to pursue; the first is studying classical piano, which she has done for the last four years, and has resulted in two recital performances. The second is horseback riding, which she started studying about ten years ago; she has competed in two schooling shows and earned her first blue ribbon for an equitation class, as well as a second-place red ribbon for stadium jumping.

Book Review

Modern Arene Chemistry: Concepts, Synthesis, and Applications, ed. Didier Astruc, approx. 7 by 9½ inches, clothbound, 618 + xviii pages, in English, Wiley-VCH, Weinheim, Germany and New York, 2002, \$135, ISBN 3-527-30489-4.

The editor sets the stage with a brief history of benzene, recognizing the work of Faraday, Loschmidt, Kekulé and others. Then follows a brief history of aromatic chemistry. Drawing on a worldwide pool of chemists active in the broad field of arene chemistry, Editor Astruc tasks nearly 30 scientists to author individual chapters of this book.

Arene chemistry influences a broad spectrum of disciplines that touch on
cont. on page 12

***From
The
Chair***

***Melissa Betz
Cichowicz***



Many years ago, a group of “old timers” in the Philadelphia Section ACS invited a group of younger members to a dinner at the Philadelphia Engineers Club. Their motivation in doing so was to stimulate interest in our becoming involved in the Section’s activities. As I sat around that table with a group that included Glenn Ullyot, Bill Torop, Ellington Beavers, and Grafton Chase (whose textbook, *Principles of Radioisotope Methodology*, I had used as an undergraduate – I recall being so in awe of that!) it became apparent to me that these gentlemen held a genuine commitment to the Section, as well as a strong desire to “pass the torch” along to the next generation. Their strategy was successful, insofar as some of us in that “younger generation” took up the challenge, and became involved in the activities and administration of the Philadelphia Section.

I write to you today in my first column as the new Section Chair because of the support and encouragement I received from those experienced colleagues. Their loyalty to the Section, and their interest in those who were being asked to rise to the challenge of taking their places, inspired me in ways that are difficult to describe.

I thank those of you who voted for me, not only for having elected me to the office of Chair for 2004, but also for giving me the opportunity to “give back” to the Philadelphia Section. Over the years I have realized many benefits through my involvement with the Philadelphia Section. Not the least of these is the network of colleagues I have gotten to know outside of my own university’s chemistry department. They have served as a source of ideas in so many ways – teaching methods to try in my classes, activities to

conduct with students, research and employment opportunities for graduates, etc.

There are tremendous benefits to be derived from involvement in the Philadelphia Section ACS for each of you as well. Professional organizations such as ACS stage a variety of activities and programs to appeal to the many different constituencies we represent. One of these benefits is the opportunity for professional networking. In today’s corporate climate, with so much change taking place, knowing colleagues at other companies can help in the transition from one professional position to another. In the academic world, these contacts are helpful in the identification of employment opportunities for new graduates. This month’s Graduate Student Poster Session is an excellent opportunity for those preparing to enter their professional careers to meet colleagues who are already “out there” for conversation and future contacts. Please try to join us at Drexel University on January 15 for our fourth annual event, targeted to the younger segment of our Section.

Another service that we are trying to provide through the Philadelphia Section ACS is continuing education for professionals. I am very pleased to recognize Dr. Jerry Maffia of Widener University who successfully organized a short course on “Chemical Engineering Principles and Process Fundamentals” in December 2003; he is planning two more short courses for 2004 – “Process Safety in the Chemical Industry” in March and “Probability and Statistics for Chemists, Engineers and Managers” later in the spring. These courses are an excellent opportunity for a scientist to gain expertise that may prove useful in their current position, or will help him/her to qualify for a new position. If you have ideas for future programming, be sure to let us know so that we can try to be responsive to all segments of our membership.

Finally, I hope to have the chance to meet you at an upcoming Section meeting, and encourage you to share any ideas you may have for future events. There are many ways

in which you can participate in Section activities beyond the monthly Section meetings – this year in particular we will observe National Chemistry Week in October, and the Philadelphia Section is hosting the Fall 2004 National Meeting in August. Please consider responding to our request for volunteers for an upcoming activity, and meet some of those colleagues who may inspire you in the way that others have inspired me.

2003 Election Results

2004 Chair:

Melissa Betz Cichowicz

2004 Chair-Elect:

Deborah H. Cook

2004-2005 Secretary:

Carol Carr

2004-2006 Directors:

Anne DeMasi

Gary Molander

John G. Nikelly

Deborah Kilmartin

Donald Voet

2004 Director:

Catherine Bentzley

2004-2006 Councilors:

Sharon L. Haynie

George Cowperthwaite

Anthony Addison

Anne DeMasi

2004-2006 Alternate Councilors:

Carol Jean Bruner

John G. Nikelly

Cassandra Burcham

Ella Davis

553rd Board of Directors' Meeting Thursday, June 19, 2003 Chemical Heritage Foundation

These minutes have been edited. A full copy of the minutes can be obtained in the Section Office.

Board Members Present: S.L. Haynie, M. B. Cichowicz, D.E. Kilmartin, A.S. DeMasi, B. Baker, E.L. Davis, F. Goodson, B.D. May, T.S. Straub, V. Tortorelli, and E.J. Williamsen.

Also: E. Harper and C. Rulli.

Absent: C.J. Bruner, R.R. Acchione, C. Barbour, C. Bentzley, D.H. Cook, G.J. Maffia, G.F. Palladino, and K.A. Thrush.

Chair Haynie called the meeting to order at 2:32 PM. C.J. Bruner, R.R. Acchione, C. Bentzley, D.H. Cook, G.J. Maffia, G.F. Palladino, and K.A. Thrush asked to be excused from this meeting. A motion to approve the minutes of the May meeting as amended passed unanimously.

Officers' Reports

A. Chair (S. Haynie)

The Chemical Heritage Foundation (CHF) has asked to defer the 2004 Ulliot Lecture from its usual September date to November.

The Chair announced that Board members Dr. Felix Goodson of West Chester University and Dr. Catherine Bentzley of the University of the Sciences in Philadelphia were recently granted tenure. The Board congratulated them both on their achievement.

B. Chair-Elect (M.B. Cichowicz):

Chair-elect Cichowicz reported that the 2003 Philadelphia Section Award nominee is Dr. Gary Molander from the University of Pennsylvania. A motion to approve the selection was passed unanimously.

Our Awards program needs to be more visible. Several changes were proposed: to send nominations electronically, to limit the number of copies of the nomination package currently required, to post the electronic version on the web page, use the email liaison list and the public relations committee to increase awareness, and to send out to interested parties via email. A web page highlighting all our awards, including the nomination criteria, and electronic submission forms, is planned.

Chair-elect Cichowicz reported that the 2004 program is shaping up well. She expects to present her preliminary program soon. Being considered are a joint meeting with the Philadelphia Catalysis Club and West Chester University as a venue.

C. Secretary (D. Kilmartin):

Secretary Kilmartin notified the Board that S. Lockledge has resigned. B. May announced his resignation at this meeting. He will be moving out of the Section sometime in the Fall but will be serving on the Board until then. He has accepted a position at Pennsylvania State University's Juniata campus. The Board thanked Dr. May for his service.

D. Treasurer (C. J. Bruner):

cont. on page 10

NEWS ATOMS

Siemens Energy & Automation, Inc. opened a new **Chemical and Pharmaceutical Center of Competence** in Spring House, PA. The center will work closely with Siemens sales and product groups to provide industry segment support and strategies.

Honors

Lawrence Judovits, senior research scientist for Atofina Chemicals, received the 2003 ASTM award of merit and the title of Fellow, the highest recognition the society grants to an individual in recognition of contributions to standards activities. ASTM's E37 Committee on Thermal Measurements cited his leadership in the committee and his work on standardizing testing and procedures related to thermal analysis techniques.

Professor **Christopher Li** of Drexel University's materials science and engineering department, is recipient of the 2003 Mettler Toledo Thermal Analysis Education Grant in recognition of his work in thermal analysis education. Mettler Toledo will donate a differential scanning calorimeter and thermogravimetric analysis system for Drexel's new Nanotechnology Center.

Ivan J. Dmochowski, assistant professor of chemistry at the University of Pennsylvania, received the New Faculty Award of the Camille and Henry Dreyfus Foundation. The external research funding helps new faculty members in their first academic year.

Scott L. Diamond was named the Arthur E. Humphrey Professor of chemical and biomolecular engineering in the University of Pennsylvania's School of Engineering and Applied Science. Diamond is the first recipient of the Humphrey chair, which is funded by the former dean's students, and recognizes Humphrey's pioneering work in biochemical engineering.

Deaths

Samuel Heiman, chemical engineer retired from General Electric, June 9 at 93. Prior to

joining GE's Missile and Space Division in 1961, he held positions with Graham, Savage & Associates, Battelle Memorial Institute, and the Philadelphia Rust-Proof Co. He retired from GE in 1972 but continued to serve the firm as a consultant. Heiman was a past president of the American Electroplaters and Surface Finishing Society.

Joseph F. McAleer, retired engineer formerly with Pennwalt Corp., September 25 at 84. He worked for Shulte & Corning before joining Pennwalt in 1982 as director of research and development. He was a college athlete and a founding member of the Delran Athletic Association.

Oliver R. "Bud" Volk, retired chemist formerly with DuPont, October 3 at 86. He worked on the Manhattan Project during WW II. Volk had a 40-year career with DuPont at locations in Huntsville, Wilmington, and Philadelphia, retiring in 1980. His field was paint technology and he contributed articles in that field to two encyclopedias.

Howard "Marty" Martin, former chemist with Rohm & Haas, October 25 at 87. During WW II he served in the Navy as a pharmacist mate on a troop carrier in the Pacific. He joined Rohm & Haas in 1947 and retired thirty years later. He was past president of the Hulmeville Historical Society.

Joseph Naghski, retired chemist formerly with the USDA's Eastern Regional Research Center, October 2 at 88. He worked at ERRC from 1941 until 1977 in such areas as natural rubber, tobacco, maple sugar, meats, and leather. He was past president of the American Leather Chemists Association and, after retirement, continued to edit their journal. Naghski was active in scouting for many years and was a 61-year member of ACS and the Philadelphia Section.

Editor-in-Chief Wanted

Applications are being taken for Editor-in-Chief of **the Catalyst**. No experience necessary; training and equipment provided. If interested please contact the section office at 215-382-1589 (leave message if no answer) or email PhilaACS@aol.com.

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Acceptance of the Treasurer's report was deferred to the September Board meeting because Ms. Bruner was not present at this meeting.

COMMITTEES:

A. Nominations Committee (A. DeMasi):

A partial slate of candidates were distributed to the Board. A candidate for Secretary is needed, as well as for several Board and Councilor positions. A motion to accept the partial list of candidates and to allow A. DeMasi to complete the slate and take a tally on acceptance of the completed list by electronic poll passed unanimously.

A motion to place J. Nikelly on the Board for the remainder of the year passed unanimously.

B. Publications Committee (D. Kilmartin):

Chair Kilmartin reported that M. Matthews has volunteered to serve temporarily as Editor-in-Chief of *the Catalyst*. A motion passed unanimously to approve Ms. Matthews' appointment. The Board thanked Ms. Matthews for volunteering.

C. Chemical Education Topical Group (C. Rulli):

Chair Rulli proposed hosting a workshop for teachers staffed by ACS headquarters, with co-sponsors such as Ursinus and the "Science in Motion" program of Montgomery County. A half-day or whole day workshop is available for either \$250 or \$500 respectively. The program would focus on secondary school teachers. It was suggested that we could staff it with local educators, such as Dr. S. Solomon of Drexel. It was also suggested we offer PA Act 48 continuing education credits to attendees.

D. Chemical Education Committee (T. Straub):

Chair Straub reported that 168 high schools requested 178 certificates from the Section office. This recognition program has been increasing in requests each year.

Other Business

A. National Chemical Historical Site (S. Haynie):

The nomination package to have the DuPont Marshall Laboratories declared a historical chemical landmark would not be completed by the July 15th deadline. The Board urged the nomination group to complete the package in time for the December 15th deadline so that the Section could announce the DuPont Marshall Laboratories historical status at the National Meeting in 2004.

B. Section Administrative Secretary (L. Harper):

The Section's Administrative Secretary, L. Harper, reported the new computer is installed in the Section Office and works beautifully. She thanked the Board and the Chemical Consultants Network for the purchase.

There being no other business, the meeting was adjourned at 3:32 PM.

Respectfully submitted,
Deborah Kilmartin,
Secretary

CALL FOR NOMINATIONS

The 13th Annual
Philadelphia Section,
American Chemical Society

**AWARDS FOR EXCELLENCE IN
PRE-COLLEGE TEACHING**

The Philadelphia Section of the American Chemical Society will honor two outstanding science teachers from the Delaware Valley with its Awards for Excellence in Pre-College Science Teaching.

One award will be given to a full-time educator involved in teaching science in grades K-8. The second award will be given to a full-time educator at the secondary level (grades 9 - 12) who teaches chemistry. Nominees must teach in the Philadelphia Section's geographic area (Philadelphia, Montgomery, Delaware, Chester, Bucks, Burlington and Camden Counties).

Nominations for 2004 will be accepted until Thursday February 5, 2004. The nomination should consist of a letter of nomination, the nominee's resume and at least two letters of recommendation. Other supporting information, such as students' comments, is welcome. However, the total nomination package should not exceed 30 pages. Nine copies of the nomination materials should be sent to:

Chair, Awards Committee
Philadelphia Section, ACS
Department of Chemistry
University of Pennsylvania
Philadelphia, PA 19104-6323

For more information, please contact the Philadelphia Section, ACS office:

phone: (215) 382-1589 or email:
philaACS@aol.com

Award recipients will be honored at our May 2004 Section meeting with a certificate, an honorarium and an enrichment allotment.

NOMINATIONS INVITED

THE PHILADELPHIA SECTION, AMERICAN CHEMICAL SOCIETY AWARD

The Philadelphia Section invites its members and regional and topical groups to consider recommending candidate(s) for the Philadelphia Section Award.

This Award recognizes an individual, "who, by conspicuous scientific achievement through research, has made important contributions to man's knowledge and thereby aided the public appreciation of the profession." Any member of the American Chemical Society, Philadelphia Section, may be nominated for this award. Recent awardees include G. Molander (University of Pennsylvania, 2003); J. Huff (Merck Research Laboratories, 2002); G. Preti, (Monell Chemical Senses Center, 2001).

INSTRUCTIONS FOR SUBMITTING NOMINATIONS:

(1) The nominator should provide detailed biographical data of the nominee, showing educational and employment data, a list of publications and a record of other accomplishments pertinent to consideration for this award.

(2) One or two seconding letters (at least one of which should be from a person in an organization other than that of the nominee) should be requested in support of the nomination.

(3) Nominators and seconders should be identified with addresses and telephone numbers so that they can be contacted, if necessary, for additional information.

(4) Unsuccessful nominees from previous years may be renominated. In fairness to the nominee, however, renominations must be accompanied by an updating of the nominee's

biographical data and list of accomplishments in order to make the nomination competitive. Unsuccessful nominees who have been considered three years in a row should not be renominated for the fourth year in succession without prior consultation by the nominator with the chair of the Awards Committee.

Nomination forms are available from the Section Office. Contact the Administrative Secretary, Mrs. Libby Harper at:

Philadelphia Section, ACS
Department of Chemistry
University of Pennsylvania
Philadelphia, PA 19104-6323
(215) 382-1589;
email PhilaACS@aol.com

The completed packet of nomination materials should consist of 9 COMPLETE SETS, and should be sent by April 1, 2004 to Dr. Deborah H. Cook, Chair, Awards Committee, at the Section Office address above.

CALL FOR NOMINATIONS

The 2nd Annual Philadelphia Section, American Chemical Society award for excellence in undergraduate teaching in chemical science sponsored by Merck & Co., Inc.

The Philadelphia Section of the American Chemical Society will honor an outstanding undergraduate teacher from the Delaware Valley with its Award for Excellence in Undergraduate Teaching in Chemical Sciences. The award will be given to a full-time educator involved in teaching an undergraduate course in the chemical sciences (chemistry, biochemistry). Nominees must teach in an institution that is within the Philadelphia Section's geographic area (Philadelphia, Montgomery, Delaware, Chester, Bucks, Burlington and Camden Counties).

Nominations for 2004 will be accepted until Thursday February 5, 2004. The nomination should consist of a letter of nomination, the nominee's resume and at least two letters of recommendation. Other supporting information, such as students' comments, is welcome. However, the total nomination package should not exceed 30

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Philadelphia Section, ACS
Department of Chemistry
University of Pennsylvania
Philadelphia, PA 19104-6323

For more information, please contact the Philadelphia Section, ACS office: phone: (215)382-1589 or email: philaACS@aol.com

Award recipients will be honored at our May 2004 Section meeting with a plaque and an honorarium from a Merck Corporation representative.

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molecular and crystal engineering, molecular electronics, organometallics, and drug design among others. Individual chapters address the synthesis of tris-annulated benzenes by aldol trimerization, oligounsaturated five-membered carbocycles, the Suzuki reaction with aryl boron compounds, transition metal catalyzed synthesis of arylamines, alkynes

as precursors to aromatic compounds, tetraethynylethene molecular scaffolding for molecular switches in optoelectronic devices, dialkyl poly(*paraphenylene-ethynylene*)s (PPEs) for light emitting diodes and semiconductors, the Dötz reaction, and osmium- and rhenium-mediated de-aromizations.

Further topics include chromium tricarbonyl complexes in arene synthesis, activation of arenes by the CpFe⁺ group, charge transfer complexes formed between arenes and electron acceptors, oxidative aryl-coupling reactions and oxidative conversion of arenols, and use of arene building blocks to construct molecular switches and machines.

Each chapter ends with an extensive list of references, and a general index concludes the book. Structural diagrams are prevalent in every chapter to help tell the story of the present state of arene synthesis and applications.

Alan Warren

MASS VAC, Inc.

MASS131C

Robertson Microlit Labs.

ROBE140C

C&D Technologies

C&TE136C

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SCHW107C

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Shining Star Coaching	15
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phone (781) 837-0424, fax (781) 837-
8792, email: vincegale@adelphia.net.**

PHILADELPHIA SECTION
ACS 2004 CALENDAR OF EVENTS

January 8	Society of Plastics Engineers Electric Machine Forum www.phillyspe.plastics.com	Holiday Inn Bensalem, PA
January 14	<i>Getting What You Want</i> Dr. John Leslie Chemical Consultants Network www.chemconsultants.org	Cynwyd Club Bala Cynwyd, PA
January 15	Graduate Poster Session	Drexel University, Philadelphia
February 19	<i>The Science and Art of Glassblowing</i>	Simon Pearce Restaurant West Chester, PA
March 18	Edgar Fahs Smith Lecture Carlos Bustamante	University of Pennsylvania Philadelphia
October 21	Philadelphia Section Award	To Be Announced
November 18	Ullyot Lecture	Chemical Heritage Foundation
December 11	Herb Bassow Memorial Demonstration Program	To Be Announced

Process Safety in the Chemical Industry

*a short course for Chemical Engineers, Chemists and
Managers in the Chemical Industry*

Two Consecutive Saturdays
March 20 & 27, 2004
Hill Seminar Room
Drexel University
Philadelphia, PA

Principal Instructor: Dr. Jerry Maffia (gjm0001@widener.edu)
Professor and Chair, Department of Chemical Engineering, Widener University

Reservations: Reserve a spot by calling Mrs. Libby Harper at the ACS Section Office (215) 382-1589 or emailing PhilaACS@aol.com

Cost: call or email section office, information above; *includes all materials*

web site: <http://muse.widener.edu/~gjm0001/sc.html>

*part of the continuing education program of the
Philadelphia Section of the American Chemical Society*