

the Catalyst



Official publication of the Philadelphia Section, ACS
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January 2015
Volume 100, No. 1



**Introducing
Our New Section Chair
Dr. Bill Smith**

HIGHLIGHTS

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ADVANCE NOTICE

FEBRUARY MEETING

Thursday, February 19, 2015

Amanda Grannas, Villanova University
Arctic Photochemistry
Location TBA

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

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INTRODUCING OUR NEW CHAIR —Dr. Bill Smith

Bill Smith has been teaching in the Bristol Borough (Pennsylvania) public schools since 1986 and is a retired United States Army Major having served in the Pennsylvania Army National Guard for 23 years. Bill has been a Director and volunteer for our Section since 2008. He and his students can be seen regularly at the Ulliyot lecture and our poster session. Additionally Bill and his students have operated the Section's booth at the Philadelphia Science Festival for the last four years. At the National level, Bill was a founding member of the Advisory Council for ACS ChemClubs.

Bill holds a BS from Widener University and an EdD in science education from Temple University. He completed his dissertation on a study of effective techniques for training chemistry teachers. He is a contributing author to *The Science Quest: Using Inquiry/Discovery to Enhance Student Learning* published in 2008 by John Wiley & Sons and to the *American Chemical Society Guidelines and Recommendations for the Teaching of High School Chemistry* published in 2012 by the American Chemical Society. Additionally, Bill received a Toyota TAPESTRY Award in 2007 and The Philadelphia Section ACS Award for Outstanding Teaching of High School Chemistry in 2014.

Bill's proudest teaching moments came during the two times that he traveled to the Barrow Arctic Science Center in Alaska to assist in Dr. Amanda Grannas' chemistry research and involve his students by video-conference.

Bill resides in Bensalem, Pennsylvania with his wife Laurie and is the proud father of Daniel Smith and new proud grandfather of Blair Marie Smith.



Comments From The Chair



Dr. Bill Smith

Wow! 2014 was a wonderful year for me and for our Section! As Chair-Elect, I got to know our Section and its many committees and volunteers in a way that I could not have known as a member of the Board of Directors, and it has been a great experience. I cannot thank everyone to whom I owe gratitude, but I would like to mention a few. First, I would like to thank Steve Fleming, our Chair for 2014, for good advice, for setting the bar high, and for moving the Section in the right direction with a significant number of initiatives. Most importantly, in my book, Steve, together with

Deborah Walsh, has reinvigorated our Section's participation in the ACS Project SEED program. As a high school chemistry teacher, I have seen first-hand the success that this program has had in taking underprivileged high school students and starting them on careers in our enterprise. I also want to thank Libby Harper, Joe Martino, Christine McInnis and Tom Straub. Libby keeps the wheels turning for our Section and makes all of our volunteer work manageable. Joe, Christine and Tom chair our Career Services Committee, Younger Chemists Committee, and Education Committee respectively. They are role models of the tactful and hard-working volunteers and the entire Section owes them their gratitude. Finally, I would like to thank the members of the Section for placing their trust in me. I look forward to meeting many of you and to working with even more of committees in the coming year.

Many of the events on this year's calendar will have an industry focus. We will begin the year with our January 15th meeting hosted by Solvay in Bristol, PA. Solvay is headquartered in Brussels, Belgium and employs about 29,000 people in 55 countries. They operate several Research and Innovation Centers in the USA with one of the largest located in Bristol. Solvay serves diversified markets, and its products and technologies are found in countless industrial processes and consumer items. Solvay's business portfolio also includes products for such critical applications as pollution control, water treatment, pharmaceutical and consumer packaging, and many others. Solvay sees the opportunity to host our January meeting as an important part of networking with their industry partners. There will be social hour, a buffet dinner, a presentation and a tour. I hope that you will all plan on joining us!

There will be many volunteer opportunities available for our general membership this year. Please consider serving on one or more of the Section's 19 committees and 4 topical groups. Additionally, Tom Straub and I would like to ask for volunteers to prepare for a planned mini-convention of all of the area ACS sponsored high school ChemClubs to be held at the Chemical Heritage Foundation in October during National Chemistry week. This event will be the first of its kind since the ACS started the high school ChemClub program in 2005 and has great support from the national organization.

Remember, we are a volunteer organization with nearly 5000 Section members. For those wishing to get more involved with our Section, my door is always open.

willsmith2@aol.com (215) 638-7453

JANUARY MEETING

**THE PHILADELPHIA SECTION,
AMERICAN CHEMICAL SOCIETY**

presents

**A Visit to Solvay Industries
Research and Innovation Center
350 George Patterson Blvd.
Bristol, PA 19007**

Thursday, January 15, 2015

5:15 – 8:00 PM

5:15 – 6:00: Network and Social Hour

6:00 – 6:30: Dinner Buffet

6:30- 6:45: First Presentation and Introduction

Dr. Francine Palmer (*Research & Innovation Director NA*)

6:45-7:30 – Main Presentation

Green Solvents and Microemulsions for Hydraulic Fracturing

Amit Sehgal

7:30-8:00 Solvay Tours

Dinner cost: \$25; Students with ID: \$10

RESERVATIONS should be made by calling Mrs. Libby Harper at the section office, (215) 382-1589, 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.**

DIRECTIONS: See next page

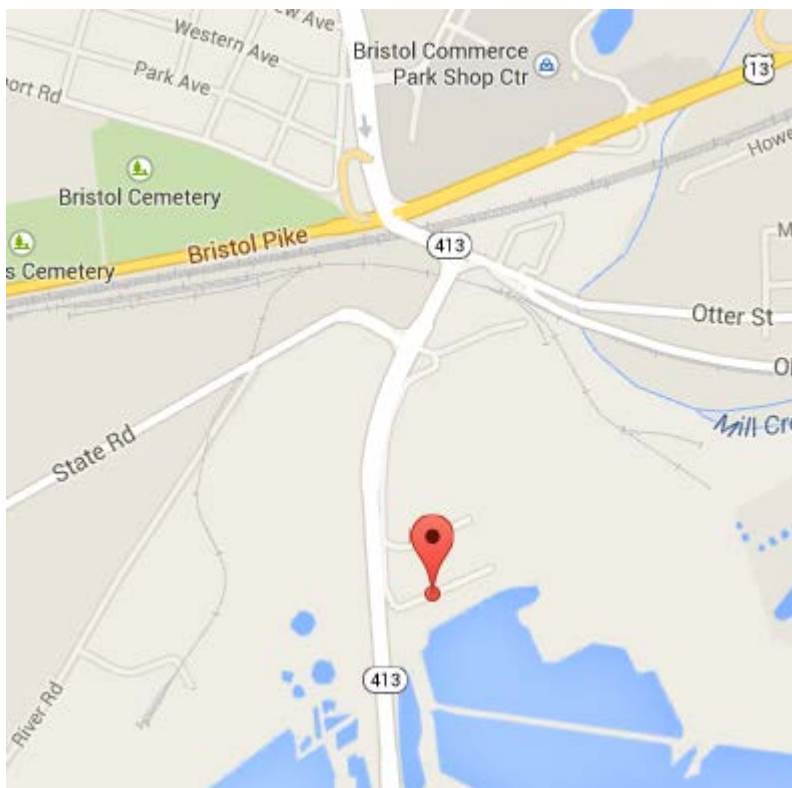
PARKING: Follow parking signage once inside the business park

The Board of Directors will meet at 4:00 PM in Conference Room A324 (3rd floor)



Solvay
Research & Innovation Centre
350 George Patterson Blvd
Bristol, PA 19007

Driving Directions



From NJ Turnpike: Exit 6 take I-95 Exten. west over the bridge changing into I-276. After PA toll continue west to first Exit 358 to Route 13 South.

From PA Route 13 South: look for large sign and “jug handle” on right for Route 413 South. Cross New Rodgers Road and bear Right.

On 413 South go under railroad overpass, straight through the traffic signal and keep right at fork in road towards Old Rt. 13/Pond Street. Make a right before the blinking traffic signal over the railroad tracks. At stop sign, make a right onto Rohm and Haas Drive. Go about 250 ft and make left onto the interior road (George Patterson Blvd.) Follow directional parking signs.

NEWS ATOMS—*Alan Warren*

Andrew E. Huemmler, senior lecturer in the University of Pennsylvania's department of chemical and biomolecular engineering, was elected president of the board of the Energy Coordinating Agency of Philadelphia. Penn's **Amos B. Smith III** received the Paul G. Gassman distinguished service award sponsored by the ACS division of organic chemistry. **Feng Gai** was named Edmund J. & Louise W. Kahn term professor of chemistry in Penn's school of arts and sciences.

DEATHS

Victor Mattei, retired research chemist, December 27, 2013 at 88. He was a research chemist with Rohm and Haas for 40 years.

Nathan D. Field, retired polymer chemist, June 27, 2014 at 88. He was employed at DuPont's Experimental Station as a research chemist in textile fibers. In 1962 he was named supervisor of polymer research at ARCO, and in 1964 became laboratory manager at GAF. From 1970 to 1981 he worked for Playtex and was named vice president of marketing and research. From 1981 to 1985 Field taught in City College of New York's chemical engineering department. Later he served as vice president of R&D for Dartco Manufacturing, retiring in 1990.

He held 45 patents and was an adjunct professor at Brooklyn Polytechnic Institute, and at Rutgers and Temple Universities. He chaired the 1992 Gordon Research Conference on polymers and was a member of the advisory board of the *Journal of Polymer Science*. He was an emeritus member of ACS.

William J. Sipio, research chemist and patent lawyer, June 28th at 59. After 10 years in research at DuPont he studied law at night school and practiced pharmaceutical patent law for several law firms. He was an accomplished musician and played saxophone, flute, clarinet and piano.

James A. Shea, chemical engineer and consultant, September 1st at 56. From 1984 to 1998 he was a research scientist with DuPont, and then started his own consulting firm, Brandywine Analytical.

John H. MacMillan, industrial chemist and adjunct professor, September 12th at 70. From 1980 to 1983 he was a senior chemist with Morton Thiokol and then served as director of the rigid foam laboratory at Homasote Company from 1983 to 1991. He was named technical service manager of United Chemical Technologies from 1993 to 2002.

MacMillan also held a number of post-doctoral and adjunct faculty positions over the years at University of Utah, Eureka College, Montgomery County Community College, Delaware County Community College, Bryn Athyn College and Temple University.

Norman P. Willett, retired microbiologist, September 19th at 86. He was born on a farm and thus learned about animal infections and treatment. He conducted research at Harvard and then worked at the Squibb Institute for Medical Research from 1957 to 1961. Following research at Penn's school of veterinary medicine he joined Temple University in 1967 as chairman of the microbiology department in the dental school. He served as treasurer, vice president and president of the Eastern Pennsylvania branch of the American Society for Microbiology.

Ralph Tekel, retired chemistry professor, October 8th at 94. He worked on the Manhattan project in 1944 and later began full time employment as a researcher with the Pediatric Research Laboratories of Jewish Hospital in Brooklyn. After settling in Philadelphia he conducted research at Wyeth and National Drugs. From 1965 until his retirement in 1985 he was professor of organic chemistry at La Salle University.

Jon H. Olson, chemical engineering professor, October 26th at 80. Following three years of research at DuPont's experimental station he joined the faculty of chemical engineering at the University of Delaware, retiring in 2002 after a career of 40 years. In retirement he continued as a volunteer by advising undergraduates and alumni and conducting research. He served as the first president of the university faculty senate.

Leon F. Dumont, chemical researcher, November 2nd at 88. He retired from DuPont after a 38-year career in research, engineering, and business management positions.

Robert S. Ayerle, former chemical engineer and medical director, November 6th at 93. Following several years in research with Rohm and Haas he obtained his medical degree and worked in industrial and occupational medicine at Pennsylvania Railroad and was then named medical director of Pennsylvania Bell Telephone. After retiring from Bell he became international medical director of Scott Paper.

Ayerle served on many boards and committees related to occupational health and safety, and helped design one of the first corporate drug and alcohol treatment programs. He served on the president's councils for alcoholism and physical fitness.

Edward Broge, retired industrial chemist, November 23rd at 92. He worked on the National Defense Research Committee team that developed the implosion device that triggered the atomic bomb. His entire career was with DuPont in research, sales and management.

William R. Jones, retired pharmaceutical executive, November 23rd at 95. He had a 34-year career with McNeil Laboratories, retiring in 1981 as vice president of the control division. He served as a trustee of the University of the Sciences.

PHILADELPHIA SECTION ACS 2014 ELECTION RESULTS

2015 Chair: William R. Smith

2015 Chair-elect: W. Rick Ewing

2015-2016 Treasurer: David J. Cichowicz

2015-2017 Directors

Melissa Betz Cichowicz
Victor J. Tortorelli
Judith Summers-Gates
John (J.P.) Northrop
Judith Cohen

2015-2017 Councilors

Ella L. Davis
Melissa Betz Cichowicz
Georgia Arbuckle-Keil
John Tierney

2015-2017 Alternate Councilors

Judith Cohen
Judith Currano
Marge Matthews
James Tarver

Join the Joseph Priestley Society for Lunch

The Joseph Priestley Society meets at the Chemical Heritage Foundation on the second Thursday of the month, September through April from 11:30 AM-2:00 PM, including lunch and a speaker. Members of the Philadelphia Section are invited to attend the January meeting at no charge. It will start at 11:30 with a networking period, followed by lunch at 12:15. At 1:00 the speaker will be Edward Richman, President of Richman Chemical Inc. His topic is *Richman Chemical: One Entrepreneur's Story*.

Advance registration is required at www.chemheritage.org/JPS

Delaware Valley Science Fairs

The Delaware Valley Science Fairs will be coming up before you know it. Judges and mentors are always needed. Check the website www.dvsf.org for more information and to volunteer.

CALL FOR NOMINATIONS



**The 24th 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 2015 will be accepted until Thursday, February 26, 2015. The nomination package 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. The nomination package may be emailed to PhilaACS@aol.com or a copy of the nomination materials may be mailed to:

Dr. Rick Ewing
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 2015 Section meeting with a certificate and an honorarium.

2014 ACS FELLOW ANNE S. DEMASI

Anne S. DeMasi was elected as an ACS Fellow on the basis of her dedication to science and long term dedication to serving the American Chemical Society, particularly in the Philadelphia Local Section. A Philadelphia native, Anne received a BS in chemistry/biochemistry from Chestnut Hill College (1986) and pursued graduate studies at Villanova University, receiving a MS in biochemistry (1989).

Anne's career began at Rohm and Haas (now Dow Chemical) as a senior research scientist (1988-2000). She was then senior hazard communication and regulatory affairs specialist (2000-2009), subsequently moving to Chemtura in 2010 to her current position as hazard communication manager.

In ACS national offices Anne is currently on the Committee on Corporation Associates (2007-present), Chair (2007-2012 and Awards Chair); Finance and Budget subcommittee (2013-present). Most of Anne's volunteer work for ACS has been on the local level for the Philadelphia Section. She joined ACS in 1991 and immediately became an active member of the Section. Anne has been on the board of directors since 1991. Some of her other positions are: councilor (2004-present); Council Committee Chair (2007-2011); secretary (2006-2007, 2000, 1994-1995); past-chair (2003), chair (2002), and chair-elect (2001); National Chemistry Week Committee (1992-present) and chair (2004-2005); Graduate School Forum co-chair (1992-2010); Middle Atlantic Regional Meeting publicity chair (2007); 100th Anniversary Committee (1998); Project Labs (1998); and Younger Chemists Committee chair (1991-1997). She is also a member of the Division of Chemical Health & Safety.

Some of the other awards Anne has received are: ACS YCC Outstanding Event (1997); ACS Philadelphia Section Service Award (1996); and Ulliyot Award for Meritorious Service.

On the ACS website for the 2014 list of ACS Fellows Anne has stated her contribution to the science profession: "Implemented sustainable processes and developed employees to assure safety and compliance with the global requirements for Safety Data Sheets and Labels across consumer, agricultural, and industrial businesses." Her comment about contribution to the ACS community is "Initiated and co-chaired the Philadelphia Local Section Graduate School Forum; for more than 18 years, hundreds of undergraduate chemistry students were afforded the opportunity to interact in person with representatives from the top graduate chemistry departments throughout the US."

The above is just a sampling of various awards and dedicated service to ACS and indicates why Anne was chosen as one of the 2014 ACS Fellows.

CALL FOR NOMINATIONS



**The 13th Annual
Philadelphia Section, American Chemical Society
AWARD FOR EXCELLENCE IN UNDERGRADUATE TEACHING IN
CHEMICAL SCIENCES**

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 2015 will be accepted until Thursday, February 26, 2015. 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. The nomination package may be emailed to PhilaACS@aol.com or the nomination materials may be mailed to:

Dr. Rick Ewing
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

The award recipient will be honored at our May 2015 Section meeting with an honorarium and a plaque.

CHEMICAL CONSULTANTS NETWORK JANUARY 14, 2015 MEETING

CREATIVITY IN CONSULTING

Roman Bielski and John Newport

[Click here to register to attend the event](#)

Date and Time: Wednesday, January 14, at The Cynwyd Club, Bala Cynwyd, PA;
Networking, 5:30 PM; Dinner, 6:30 PM; Talk and Business Session, 7:30 PM

Abstract: Creativity is a key for a successful consultant. Creativity in finding work year after year, creativity in preparing proposals, creativity in negotiating contracts and creativity in solving problems i.e., meeting the client's objectives. The speakers will review some established techniques for enhancing creativity such as lateral thinking, brainstorming, oblique strategies, mind maps, idea pads and lead a discussion with the audience on what has worked for them so we can all benefit from each other's successes and failures.

Biography: Dr. Roman Bielski, present Chair of CCN, has been a chemical consultant for a dozen years. In the process he developed a formulation for an oral device, new reactions for synthesizing sugars, a technology to transform tires and other polymers into fuels, carbohydrate waste into HMF and other technologies. He co-edited two books and publishes while being a consultant. He is an expert in phase transfer catalysis, organic and polymer syntheses, formation of fuels from wastes, green chemistry and applications of polymers including micro and nanoencapsulation.

Dr. John Newport, immediate past Chair of CCN, provides consulting and R&D services through Chemventive LLC and ChemInnoLab LLC, in which he is a partner. Previous to this he was a Senior Research Fellow at Hercules Incorporated where, in his 34-year career there, he worked on the R&D side of the fibers, film, RIM, resins and paper chemicals businesses. His areas of expertise cover polymer chemistry, surface chemistry, emulsions, rheology and transport phenomena.

Location: The Cynwyd Club, 332 Trevor Lane, Bala Cynwyd, PA 19004. From I-76, drive S on City Line Ave. (US Rte. 1). Turn right on Conshohocken State Rd. (Rte. 23); stay in right lane. After second light watch for white left-turn arrows painted on street (about 0.14 mile). Do not follow Rte. 23 left at turn but instead go straight ahead onto Llandrillo Rd. (passing to the right of Valley Press printing). After one block bear left onto Trevor Lane at stop sign. Clubhouse and parking are on the left. Please park in lot if space is available; otherwise park on Trevor Lane. If lost, call the club at (610) 667-4524, ext. 312. [MAP](#)

Reservation: [Click here to register to attend the event](#), or e-mail CCNReservations@aol.com or call the ACS office at (215) 382-1589 (leave message on voicemail if necessary). Fee, including food and beverages (wine, beer and sodas), is \$25 by Saturday, January 10th. Dietary restrictions accommodated on a limited basis. There is no charge for talk only, but registration is suggested using contact information above.

2015 OFFICERS AND BOARD OF DIRECTORS

OFFICERS

CHAIR	William R. Smith
CHAIR-ELECT	Rick Ewing
SECRETARY	Alan Heldon
TREASURER	David Cichowicz
IMMEDIATE PAST CHAIR	Steven A. Fleming

DIRECTORS

<u>2013-2015</u>	<u>2014-2016</u>	<u>2015-2017</u>
Christine McInnis	Thomas Straub	Melissa Cichowicz
Deborah Cook	Kathleen Shaginaw	Victor Tortorelli
Denise Thomas	Anne DeMasi	Judith Summers-Gates
Ella Davis	Douglas Hausner	John (J.P.) Northrop
James Tarver	Cynthia Palmer	Judith Cohen

COUNCILORS

<u>2013-2015</u>	<u>2014-2016</u>	<u>2015-2017</u>
Anne DeMasi	Deborah Cook	Ella Davis
Kathleen Shaginaw	Kathryn Lysko	Melissa Cichowicz
William (Rick) Ewing	Mark Forman	Georgia Arbuckle-Keil
Anthony Addison	James K. Murray, Jr.	John Tierney

ALTERNATE COUNCILORS

<u>2013-2015</u>	<u>2014-2016</u>	<u>2015-2017</u>
Carol Jean Bruner	Douglas Hausner	Judith Cohen
Robert Levis	Judith Summers-Gates	Judith Currano
Russell Phifer	John (J.P.) Northrop	Marge Matthews
Cassandra Burcham	Alan Heldon	James Tarver

663rd BOARD OF DIRECTORS' MEETING
Thursday, October 16, 2014
University of Pennsylvania, Department of Chemistry, Philadelphia, PA

Present: Deborah H. Cook, Anne DeMasi, Steven Fleming, Alan R. Heldon, Christine McInnis, John (J.P.) Northrop, Cynthia Palmer, Kathleen Shaginaw, William Smith, Thomas S. Straub, Judy Summers-Gates, Denise Thomas, and Victor Tortorelli.

Excused: David J. Cichowicz, Melissa Betz Cichowicz, Ella Davis and Douglas Hausner.

Absent: Judith Cohen, Michelle Johnson, and James Tarver.

Also present: Elisabeth Harper, Judith Currano, and Carol Jean Bruner.

The 663rd Board Meeting of the Philadelphia Section, ACS, was called to order at 4:25 PM. A quorum was present.

1. Minutes: The September Board Meeting Minutes were approved, with amendments, with 0 nays and 3 abstentions.
2. Communications: Three Board Members asked to be excused.
3. Committees
 - A. Career Services: Joe Martino acsphillycareerservices@gmail.com
Joe Martino submitted the Career Services report electronically as follows:
 - 1) Publicity has commenced on the Career Services workshop on non-research careers for BS/MS chemists on November 15th from 9AM to 12 Noon at the Howard Gittis Student Center at Temple University in Philadelphia. Joe Martino thanks Steve Fleming for his assistance in reserving the venue at Temple. Panelists will include the following:
 - a. Bill Smith (Bristol Borough School District)
 - b. Mandy Martino (Amedra Pharmaceuticals)
 - c. Elizabeth Secord (Bristol-Myers Squibb)
 - d. Shawn Springfield (Asymchem)
 - e. Reba Holley (SPEware Corporation)A \$10 refundable deposit will be charged to all participants. Joe Martino thanks Dave Cichowicz for his help with setting up the Eventbrite website system for collecting deposits. Publicity for the event has begun in earnest. Career Services will be making expenditures from its budget for this event. Expenditures will include reimbursements for parking, catering, venue fees and thank-you gifts for the panelists.
 - 2) Our next Career Club meeting will take place on December 2nd at the Community Center of the Giant Super Food Store in Willow Grove, PA. ACS Career Consultant Lori Spangler will be moderating this meeting.
 - 3) Career Services has reserved March 31st, June 2nd, September 15th and December 1st – all in 2015 – for next year's Career Club meetings, and May 12th and November 17th for Career Workshops. All dates have been reserved at no cost to the Section at the Community Center at the Giant Super Food Store in Willow Grove as per our arrangement with this venue.
 - B. Younger Chemists Committee: Christine McInnis CMcInnis@dow.com
Drexel University hosted the YCC webinar-workshop event on October 7, 2014, which was a success. The Quizzo Event will be November 4th at the Landmark Americana Tap & Grill, 3333 Market Street. Teams will consist of 4 to 6 members. This event will also raise funds for the Drexel Chem. Club. The Section's annual Poster Session is scheduled for March 31, 2015. ACS Leadership Training is available. Training will be the last weekend in January 2015. Fifteen full expense paid positions are available and an additional 15 positions are available without paid expenses. This is the same training offered to section chair-elects. The deadline for applications is November 1, 2014.

The Dow trip and dinner scheduled for January 2015 will include 50 people.

C. Women in Chemistry Committee: Kathy Shaginaw

PAGES™ will be November 8th at Chestnut Hill College from 9 AM to 1:30 PM. The sign-up of participants is slow this year but the availability of volunteers is good.

The speaker will be Aja Carter, a University of Pennsylvania graduate student.

D. Ulliyot Committee: Deborah Cook

Three nominees are currently under consideration for the 2015 Ulliyot Lecture.

Note: The 2014 Ulliyot Lecture will be Wednesday, November 12th. The Philadelphia Section Board Meeting will precede the lecture.

Officers

A. Chair: Steve Fleming sfleming@temple.edu

The Chair requested Board approval of a letter to the Philadelphia School Reform Commission concerning better funding of STEM (science, technology, engineering and mathematics) education. A draft of the letter is appended hereto.

The Section's December 2014 Board meeting will be on either the 4th or 11th.

B. Chair-Elect: Bill Smith willsmith2@aol.com.

The process of securing venues and speakers for the 2015 Section meetings is moving along. The Chair-Elect is optimistic about industrial support and participation in meetings and Section activities in 2015.

A high school chem. club meeting scheduled for fall 2014 was bumped to 2015; a contract for that time will be secured with CHF.

C. Secretary: Alan Heldon alanheldon@comcast.net.

No report.

D. Treasurer: D. Cichowicz cichowicz@lasalle.edu

As the Treasurer was absent the Treasurers report was submitted electronically.

On motion the Treasurer's Report was accepted with no nays or abstentions.

4. Other Business

Anne DeMasi, and other Philadelphia Section members, will be representing the Section at the Maryland Section centennial event. Libby Harper reported that Pennsylvania Senator Stewart Greenleaf submitted a resolution, R500, to the Pennsylvania Senate for a National Chemistry Week proclamation.

Alan Heldon volunteered to report on requirements for upgrading the Section office's aging computer and on hardware, software and internet requirements for web streaming Section events, particularly meetings.

There being no additional business before the Board, on motion, the meeting was adjourned at 4:55 PM.

Respectfully submitted,

Alan R. Heldon,

Secretary: alanheldon@comcast.net

664th BOARD OF DIRECTORS' MEETING
Thursday, November 12, 2014
Chemical Heritage Foundation, Philadelphia, PA

Present: Melissa Betz Cichowicz, Judith Cohen, Deborah H. Cook, Anne DeMasi, Steven Fleming, Alan R. Heldon, John (J.P.) Northrop, Kathleen Shaginaw, Thomas S. Straub, Judy Summers-Gates, Denise Thomas, and Victor Tortorelli.

Excused: David J. Cichowicz, Douglas Hausner, Christine McInnis, Cynthia Palmer, William Smith, and James Tarver.

Absent: Ella Davis and Michelle Johnson.

Also present: Elisabeth Harper, Kelsey Van Gelder and Lindsay Wood Leal.

The 664th Board Meeting of the Philadelphia Section, ACS, was called to order at 4:04 PM. A quorum was present.

1. Minutes

The October Board Meeting Minutes were approved as submitted with 0 nays and 0 abstentions.

There was a brief discussion by the Board of the Section Bylaws requirements concerning Board Meeting attendance by members and the availability of excused absences where attendance is not possible.

2. Committees

A. Career Services: Joe Martino acsphillycareerservices@gmail.com

Joe Martino submitted the Career Services report electronically as follows:

- 1) The November 15 workshop for Non-Research Careers for BS/MS Level Chemists at Temple University has been drastically restructured due to lack of participants registered (only four participants registered). To minimize cost as well as to provide a continued service to our members, Career Services, at the recommendation of Steve Fleming, will offer a modified workshop on this same topic. Career Services Committee members will moderate this meeting. These members include Steve Fleming, Bill Smith, Lori Spangler and Joe Martino. Also through Steve's efforts, the location has been changed from the Howard Git-tis Student Center to the Conference Room in Beury Hall at Temple University. The time for the workshop has also been truncated to two hours, and will take place on November 15 from 9:30 AM to 11:30 AM. All previous panelists for the workshop have been informed of this change in event structure and have been properly thanked and released from any obligation to participate in this event. Bill Smith, who was one of the original invited panelists, has graciously volunteered to continue to participate in this modified event. Also, Joe Martino is working with Dave Cichowicz on issuing refunds to any registered participant who has paid their \$10 deposit for this event as a result of the event restructure. Joe Martino would like to thank Steve, Bill, Lori and Dave for their help and efforts on this event. Career Services will be discussing possible reasons for low turnout at workshops geared toward the student population at its next monthly teleconference.
- 2) Our next Career Club meeting will take place on December 2nd at the Community Center of the Giant Super Food Store in Willow Grove, PA. ACS Career Consultant Lori Spangler will be moderating this meeting, and publicity has commenced in earnest.

B. Younger Chemists Committee: Christine McInnis CMcInnis@dow.com

Christine McInnis, excused from meeting attendance, submitted the following electronically:

Synopsis of YCC events:

On Nov 4th we held our Quizzo event at the Landmark Americana. It was held the same night as a fundraiser for the Drexel Chem Club. Special thanks to Bill Smith for stopping by.

Upcoming Events:

January—Industry tour

Feb 24th Program on Chemistry in TV and movies, location TBD

A discussion of YCC activities followed.

It is increasingly difficult to get the entire YCC community involved. The YCC has traditionally held meetings and events in Philly to accommodate students without a car. Poor attendance by suburban members at the last two events has prompted the decision to have events at local chemical businesses in the suburbs with occasional events Downtown.

YCC is targeting January for a tour at Evonik and is considering hosting a tour and discussion panel at Dow to correspond to the Feb 24th Program. There will be a sign up for these events as a limited number of people (50 or so) can be accommodated in these locations.

The demographics of the YCC's membership have changed from the beginning of the YCC. The majority of YCC members are now recent graduates working in a variety of small companies in the suburbs. Participation by students is wanting. All board members are encouraged to help publicize section events, including the YCC events, especially to students.

C. Tellers Committee

The results of the Section election were reported to the Board. The results for all candidates will be officially reported in *the Catalyst*.

Electronic voting is working well. The Section had 563 responses out of a total of 4607 members eligible to vote.

Some members were unaware that cumulative voting is no longer permitted under the new Bylaws.

Paper and electronic ballots are cross checked against each other to prevent double voting.

On motion the report of the Tellers Committee was accepted without nays or abstentions.

J. Tierney will be a new Councilor. This election results in some reshuffling of councilors and alternates.

D. Nominations Committee: J.P. Northrop

Nominations to fill vacancies in the Awards Committee should be sent to Libby Harper.

Anthony Addison continues as our MARM delegate for a two year term, 2015-2016.

Section Service Awards. Awarding of Section Service Awards has fallen behind. The records need to be reviewed to bring the list up-to-date.

Note – the Section also gives a Volunteer of the Year Award. The criteria for these awards are different. The Volunteer of the Year Award is to be based on one year of service.

Libby will report on criterion specifics in December.

E. Women in Chemistry

PAGESTM - November 8th at Chestnut Hill College was a success. 127 girls from 31 schools participated. The keynote speaker was Aja Carter, a University of Pennsylvania graduate student. There was a record 70 volunteers at the event. The largest volunteer groups were volunteers from Dow, Merck and the Community College of Philadelphia.

The next PAGESTM will be April 18, 2015.

3. Officers

A. Chair : Steve Fleming sfleming@temple.edu

1.) The Chair introduced two University of Pennsylvania graduate students, Kelsey Van Gelder and Lindsay Wood Leal, to give a presentation to the Board on the ACES program, which grew out of a Women in Chemistry group. ACES stands for Activities for Community Education in Science

The program targets 5th and 6th grade students. The program enjoyed a large growth in participation, 410%, from the pilot program in the summer to the fall program. Student registration rose from 20 to 102.

Funding sources include the ACS, Fisher Scientific, Wheaton, Arkema, University of Pennsylvania Chemistry Department and WinChem.

A proposal will be submitted to create funding for ACES and ACES Plus as an item in the Section's annual budget.

2.) The Chair requested that Secretary Heldon report on his research regarding upgrading the Section's office system and acquiring the capacity to web conference or live stream meetings and events. Secretary Heldon reported:

The hardware and software requirements for web conferencing are mostly unrelated to the requirements for an office system and will be addressed later.

The current office system is over 10 years old, except for the printer, and needs to be replaced as soon as possible. Equipment from two manufacturers with good reputations was considered. Reliability and longevity were prime considerations. Desirable equipment is currently on sale. The hardware and necessary software for the office system will cost \$2000.00 or less. Funding for these acquisitions was previously allocated.

Vigorous discussion followed. Actual purchasing should begin within two weeks.

Reminders: Committee Chairs, etc should submit budget requests for 2015 promptly.

The annual report of a group or committee's 2014 activities should be submitted to the Chair as quickly as possible for inclusion in the Section's Annual Report to National.

B. Chair-Elect : Bill Smith willsmith2@aol.com.

Excused absence.

C. Secretary : Alan Heldon alanheldon@comcast.net.

No report.

D. Treasurer: D. Cichowicz cichowicz@lasalle.edu

Excused absence.

4. Other Business

Anne DeMasi reported that ACS National is looking for committee members for the Grants and Awards Committee. This Committee is seeking to increase the diversity of award recipients by increasing the diversity of its membership. ACS National is looking for volunteers to work on many committees.

There being no additional business before the Board, on motion, the meeting was adjourned at 4:57 PM.

Respectfully submitted,

Alan R. Heldon,

Secretary: alanheldon@comcast.net

Congratulations to Our ACS Student Chapters!

We are pleased to learn that two of our local student groups, the Temple University Chemistry Society (TUCS) and the University of the Sciences ACS Student Chapter, have been named "Outstanding" for the academic year 2013-2014.

Additionally, the Drexel University ACS Student Affiliates were designated "Commendable" and the Arcadia University ACS Student Club received "Honorable Mention."

The award winning chapters will be honored at the 249th ACS National Meeting in Denver, CO on Sunday, March 22, 2015.

Guidelines for Student Affiliate Chapters to Request Funds to attend National ACS Meetings

Undergraduate students from ACS Student Affiliate Chapters in the Philadelphia Section are encouraged to consider attending National Meetings of the American Chemical Society. In this regard, a limited amount of funding will be provided to chapters requesting sponsorship based on the following general guidelines.

General Guidelines

- 1) First consideration will be given to student(s) who wish to attend a National Meeting of the American Chemical Society (ACS) to give a presentation (oral or poster). Students attending for other purposes, i.e., to receive an award or attend a specific workshop, etc., are also eligible to apply for support.
- 2) The student(s) must have requested support from their College or University (including department and/or advisor) to assist in defraying the travel costs. Please attach a copy of the correspondence.
- 3) The student(s) should have a clear idea of the benefits of attending the meeting. Please attach a short paragraph from each student indicating which sessions, including workshops, etc., the student plans to attend and why these sessions will help them obtain their professional goals.

All applications must include an itemized list of the projected costs of the trip, i.e., registration, airfare, train or car expenses, hotel, etc., and indicate which of these costs (if any) are being provided by other sources.

An application for travel support can be made at any time to the Philadelphia Section, but for full consideration, the application must be received by the section office by January 31st for the Spring meeting and May 31st for the Fall meeting.

The Philadelphia Section will evaluate all applications received by the deadline and vote at the February meeting for the Spring ACS meeting applications and at the June meeting for the Fall ACS meeting applications. The amount of funding available may be influenced by the number of applications for a particular meeting and the costs of attending that meeting, i.e., where it is being held.

The successful applicant must submit a brief report highlighting the conference experience to the Philadelphia Section at the completion of the trip. The original receipts should also be submitted to the Section Office for reimbursement.

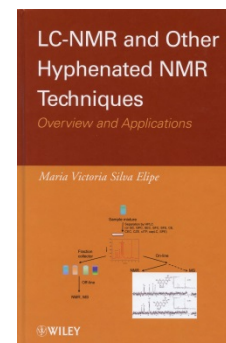
BOOK REVIEW—Alan Warren

LC-NMR and Other Hyphenated NMR Techniques by Maria Victoria Silva Elipse. 238 pages, casebound, 6 ¼ by 9 ½ inches, John Wiley & Sons, Hoboken, N.J., 2012, ISBN 978-0-470-54834-9, \$79.95.

Nuclear magnetic resonance or NMR spectroscopy has been used many years to elucidate the structure of organic compounds. An overview of NMR and its history are followed by the development of LC-NMR (liquid chromatography) to combine separation and analytical methods in the study of complex mixtures. The development of hyphenated techniques such as LC-NMR and LC-MS-NMR are described as well as the problems that arise such as bubbles, carryover in autosampler devices, sample solubility and precipitation, flow cell and system cleaning, and quantitation.

Two chapters discuss applications of LC-NMR and LC-MS-NMR in the study of natural products, drug discovery and metabolism, food analysis, impurity characterization, and many other areas. The hyphenation of other analytical and separation techniques to NMR are explored including GC-NMR (gas chromatography), SPE-NMR (solid phase extraction), as well as capillary electrophoresis (CE), size-exclusion chromatography (SEC), capillary electrochromatography (CEC) and many others. Future trends in hyphenated NMR techniques are suggested.

An index and list of abbreviations, symbols, and units complete this book. Better proofreading would have prevented typographical errors like Noble for Nobel, and quantiation for quantitation.



ChemCrafter APP

ChemCrafter, an iPad app based on mid-20th-century chemistry sets, has earned four W3 Awards. ChemCrafter is a chemical reaction game app for the iPad developed by Bluecadet, a Philadelphia-based digital agency, for the Chemical Heritage Foundation. ChemCrafter has been downloaded by 400,000 users in 127 countries since it was introduced in April of this year. The W3 Awards recognize the design of the app and its success with users. For more information on these awards and to download the free ChemCrafter app, visit www.chemheritage.org/chemcrafter.

CHF boasts the largest collection of chemistry sets in the world. In its archives are hundreds of oral histories of leading scientists who grew up in the mid-20th century. Many of them credit their childhood chemistry set with sparking their interest in science. With ChemCrafter, CHF hoped to make the experience of the chemistry set widely available in the 21st century.

As funding becomes available, CHF hopes to add an Android version of ChemCrafter and to begin development of ChemCrafter 2. The Alfred P. Sloan Foundation provided the funding for ChemCrafter.

DIRECTORY OF SERVICES

ResMed: Residential School on Medicinal Chemistry and Biology in Drug Discovery
June 7-12, 2015
Drew University, Madison, NJ

This graduate level course concentrates on the fundamentals that are useful in drug discovery spanning initial target assay evaluation through clinical development. Several case histories of recent successful drug development programs will also be presented. The five-day program covers:

Principles of Med Chem	DMPK
Cheminformatics	Toxicophores
Lead ID & Optimization	GPCRs
Epigenetics	Kinase Inhibitors
Fragment-based Drug Design	Ion Channels
Structure-based Drug Design	Enzyme Inhibitors
Drug-like Properties	Bioisosteres
Plasma Protein Binding	Preclinical Tox
Molecular Modeling	Clinical Dev
Protein-Protein Interactions	Case Histories

W. Greenlee, V. Gullo and R. Doll -Co-organizers

For more information and application forms:
www.drew.edu/resmed
e-mail: resmed@drew.edu
phone: 973/408-3787; fax: 973/408-3504

ResMed: Residential School on Medicinal Chemistry and Biology in Drug Discovery
June 7-12, 2015
Drew University, Madison, NJ

The ResMed School offers an intensive week long graduate-level course organized to provide an accelerated program for medicinal chemists, biologists and other industrial and academic scientists who wish to broaden their knowledge of drug discovery and development. The aim of the school is to concentrate on the fundamentals that are useful in drug discovery spanning initial target assay evaluation through clinical development. Several case histories of recent successful drug development programs will also be presented. The five-day program consists of lectures, seminars and case histories.

For more information and application forms visit our website, www.drew.edu/resmed, email: resmed@drew.edu, phone 973/408-3787 or fax 973/408-3504.

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**PHILADELPHIA SECTION, ACS
CURRENT CALENDAR OF ACTIVITIES**

Date	Event	Locations
Thursday, Jan. 8 (Luncheon)	Joseph Priestley Society: Edward Richman, President, Richman Chemical Inc: <i>Richman Chemical: One Entrepreneur's Story</i>	Chemical Heritage Foundation Philadelphia, PA www.chemheritage.org
Monday, Jan. 12	Delaware Valley Mass Spectrometry Discussion Group: Jim Glick, Novartis Institutes for BioMedical Research: <i>Historical Perspectives and Future Considerations for Differential Mobility Spectrometry-MS</i>	Room 101 Mendel Hall Chemistry Department, Villanova University Villanova, PA http://science.widener.edu/svb/msdg/
Wednesday, Jan. 14	Chemical Consultants Network: Roman Bielski and John Newport: <i>Creativity in Consulting</i>	The Cynwyd Club Bala Cynwyd, PA www.chemconsultants.org
Thursday, Jan. 15	ACS Webinar: Allison Frontier: <i>Rookie Lab Mistakes and Other Facts Not Found in Textbooks</i>	www.acswebinars@acs.org
Thursday, Jan. 15	Visit to Solvay Industries Inc.	Bristol, PA
Thursday, Jan. 22	ACS Webinar: Timothy Long and Christopher Williams: <i>3D Printing: The Future of Manufacturing</i>	www.acswebinars.org
Tuesday, Jan. 27	Chromatography Forum of the Delaware Valley: Abraham Lennoff, University of Delaware: <i>Protein Transport in Ion Exchange Media</i>	Double Tree by Hilton Hotel Wilmington, DE http://www.cfdv.org/
Thursday, Jan. 29	ACS Webinar: Paul Leeson: <i>2015 Drug Design and Delivery Symposium: Module 1: Designing Better Drug Candidates</i>	www.acswebinars.org
Thursday, Jan. 29	Philadelphia Organic Chemists Club: Donald Watson, University of Delaware: <i>TBA</i>	Carolyn Hoff Lynch Lecture Hall Dept. of Chemistry, University of Pennsylvania Philadelphia, PA http://www.pocclub.org/
Thursday, Feb. 19	Amanda Grannas, Villanova University: <i>Arctic Photochemistry</i>	TBA
Thursday, March 19	Edgar Fahs Smith Lecture: Benjamin Widom, Cornell University	University of Pennsylvania Philadelphia, PA
Tuesday, March 31	Younger Chemists Committee Annual Poster Session	University of the Sciences Philadelphia, PA PhillyYcc.org
Saturday, April 18	Philadelphia Girls Enjoying Science Program for Sixth Grade Girls (PAGES™)	Chestnut Hill College Philadelphia, PA www.pagesprogram.org
Thursday, April 16	Undergraduate Scholastic Achievement Awards	McCall's Meeting and Conference Center Upper Darby, PA
Thursday, May 21	Philadelphia Section Teaching Awards	TBA
Thursday, June 18	Luncheon Honoring Our Fifty-year Members	TBA

249th ACS Spring National Meeting
March 22-26, 2015
Denver, CO

250th ACS Fall National Meeting
August 16-20, 2015
Boston, MA