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the Catalyst

A Publication of the Philadelphia Section of the ACS

<http://membership.acs.org/p/philadelphia>

February 2009

ISSN 0008-767X



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Dr. Kurt W. Kolasinski

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the Catalyst

Official Publication of the Philadelphia Section, American Chemical Society

Founded April 15, 1899

Volume 94, No. 2

February 2009

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Published monthly except July, August and December by the Philadelphia Section of the American Chemical Society. All views expressed are those of the editors and contributors and do not necessarily represent the official position of the Philadelphia Section of the American Chemical Society. Periodical class postage paid at Philadelphia, PA. Subscription rate: Section member, \$2.00; regular subscription, \$4.25; for foreign mailing, \$5.25. Editorial matters should be sent to the attention of the Editor-in-Chief c/o the Philadelphia Section ACS, Department of Chemistry, University of Pennsylvania, 34th and Spruce Streets, Philadelphia, PA 19104-6323 or philcatalyst@aol.com.

Advertising: Vince Gale, MBO Services, P.O. Box 1150, Marshfield, MA 02050
phone: 781-837-0424 • email: cust-svc@mboservices.net.

Printed by Priestley Printers, Philadelphia, PA
phone: 215-665-0515 • email: priestly@nni.com

ADVANCE NOTICE

MARCH MEETING

Dr. A. Paul Alivasatos

Lawrence Berkeley National Laboratory and University of California, Berkeley
University of Pennsylvania

Thursday, March 12, 2009

See the March *Catalyst* for details,
call the Section Office at 215-382-1589, or email PhilaACS@aol.com

From The Chair

Robert A. Gates



As I sit here writing this column, I am also writing up the paperwork for retirement from my chemist's position at USDA. After a little over 35 years in the Agricultural Research Service, I find it is a good time to turn the page to a new chapter of my life and to relinquish my position to one of the next generation of chemists. It has been a long and fruitful career with many projects and challenges that consistently sparked and sated my scientific curiosity.

In the time I have spent at the ERRC (Eastern Regional Research Center), I have seen the labs transformed from the type more at home in the '40s and '50s to those that are truly state of the art. I have seen organic analyses of mostly food matrices change from the use of gallons of solvents per sample to a much 'greener' approach using just a few milliliters for each sample. At the same time many detection limits have been lowered from parts per million to parts per billion and, in many cases, to parts per trillion. Changes in instrumentation to allow these transformations moved at a miraculous rate and helped sustain my interest in various projects.

Additionally, and most importantly, all during my career I have been fortunate to have worked and interacted with some of the most affable, intelligent and scientifically well-versed people in the field of chemistry, many of whom I am proud to call my friends. Dealing with these folks on a day-to-day basis made every workday a worthwhile experience. Of course, within any sizable, diverse mixture of people, statistically there will also be a few arrogant curmudgeon outliers, but these were truly few and far between. The combination of the challenging work and the people associated with such has made my career a true delight and the years feel as if they have flown by. As I look back

over these years I would like to paraphrase the famous baseball player, Sammy Sosa: chemistry has been very, very good to me. While I am leaving this job, I will not be leaving chemistry behind, but will merely continue in whatever different direction it may take me. To close this little diatribe, it is my deepest wish for all of you to find that niche in chemistry that is really right for you and for each of you to have a career that makes work an enjoyable endeavor rather than drudgery. My advice: keep looking until you find the right match.

NEWS ATOMS

Bruce E. Marynoff, distinguished research fellow and team leader at Johnson & Johnson Pharmaceutical Research and Development, will receive the 2009 Edward E. Smissman award sponsored by Bristol-Myers Squibb. The award is given by the ACS division of Medicinal Chemistry to someone whose research, teaching, or service has a substantial impact on intellectual and theoretical development in the field of medicinal chemistry.

Marynoff and Magid Abou-Gharbia, professor of medicinal chemistry and director of Temple University's center for drug discovery research, respectively, were also inducted into the division's Medicinal Hall of Fame in 2008.

Scott Diamond, professor of chemical and biomolecular engineering at the University of Pennsylvania, was named a Fellow of the Biomedical Engineering Society.

Kara Mittel named director of development at the Chemical Heritage Foundation where she will administer all aspects of the foundation's frontline fund-raising program including corporate and foundation relations and individual giving.

DEATHS

Edward L. Phillips, retired chemical engineer formerly with Permutit Company, March 28, 2008 at 81. He served in the United States Navy during WWII in both the Atlantic and Pacific theatres. He joined Permutit (now Sybron Chemicals) in 1948 where

he worked in the pilot plant at increasingly responsible positions including production area supervisor. He retired in 1990. He was a 50-year member of ACS.

John A. Tallmadge, Jr., retired chemical engineering professor at Drexel University, June 7th at 80. After working for 3 years at DuPont he taught chemical engineering for 10 years at Yale. He joined Drexel University in 1966 and retired in 1991. He was a visiting professor at several US universities and also the Imperial College of London.

Tallmadge authored 80 technical papers. In 1982 he cofounded a biennial coatings conference which became the International Society of Coating Science and Technology. The society presents a Tallmadge Award every two years.

Andrew R. Matz, director and owner of Clintox Laboratories, September 10th at 84. In retirement he served as president of the local Meals on Wheels. He was a 51-year member of ACS.

Ralph Matz, chemist, November 12th. After working as an organic analytical chemist at Smith Kline & French Laboratories, he was employed by the city of Philadelphia and the state of Pennsylvania in the medical examiner's office where he often conducted drug testing. Those who knew Ralph admired his wonderful sense of humor. He was a 49-year member of ACS.

Robert H. Depue, Jr., retired biochemist, November 15th at 77. After serving in the United States Army chemical corps he became a commissioned officer in the US Public Health Service. He was a director of the National Cancer Institute and retired in 1985.

Charles Cameron McDonald, retired research chemist with DuPont, November 16th at 82. He retired from DuPont after 30 years in 1985.

Allan L. Smith, professor emeritus of chemistry at Drexel University, December 9th at 70. After teaching at Yale he joined Drexel as associate professor in 1975, advanced to full professor in 1984 and retired in 2003. He authored over 60 papers and held patents in the field of calorimetry. He received the

Lindbach Foundation distinguished teaching award in 1987, and was an early proponent of the use of desktop computers in science education.

Smith served as chair of the ACS Division of Computers in Chemistry and program chair of the Division of Chemical Education. He also served on the board of the *Journal of Chemical Education*, and the executive board of the Calorimetry Conference. For the Philadelphia Section he served as director, alternate councilor, and a member of the awards committee.

Note: News Atoms seeks to report on people in the field of chemistry in the greater Philadelphia area. If you have news about new hires, significant promotions, honors and awards, and those who have recently passed away, send it by email to philcatalyst@aol.com or by mail to the Philadelphia Section ACS.

WASTE COFFEE GROUNDS AS BIODIESEL FUEL

Researchers are reporting that waste coffee grounds can provide a cheap, abundant, and environmentally friendly source of biodiesel fuel for powering cars and trucks. Their study has been published online in the American Chemical Society's (ACS) *Journal of Agricultural and Food Chemistry*.

The major barrier to wider use of biodiesel fuel is lack of a low-cost, high quality source, or feedstock, for producing that new energy source. Spent coffee grounds contain between 11 and 20% oil by weight.

Growers produce more than 16 billion pounds of coffee around the world each year. The scientists estimated that spent coffee grounds can potentially add 340 million gallons of biodiesel to the world's fuel supply. To verify it, they collected spent coffee grounds from a coffeehouse chain and separated the oil. They then used an inexpensive process to convert 100% of the oil into biodiesel.

The resulting coffee-based fuel — which actually smells like java — had a major advantage in being more stable than traditional biodiesel due to coffee's high antioxidant content, the researchers say. The scientists estimate that the process could make a profit of more than \$8 million a year in the US alone.

NOMINATIONS INVITED FOR 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: John J. Baldwin (Vitae Pharmaceuticals 2008), Robert J. Levis (Temple University 2007), Patrick J. Walsh (University of Pennsylvania 2006).

INSTRUCTIONS FOR SUBMITTING NOMINATION

(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 may be emailed to PhilaACS@aol.com or nine COMPLETE SETS may be sent by April 2, 2009 to Mrs. Judith Summers-Gates, Chair, Awards Committee, at the Section Office address above.

Looking for a Job???

Know About a Job at Your Company???

We all know that networking is the best way to find a job and to find a good employee. So the North Jersey and Trenton sections of the ACS have set up two methods for spreading the word.

First, sign up at Yahoo Groups for chemjobs: <http://tech.groups.yahoo.com/group/chemjobs/>

If any of our members know about a job, they will post it there and it will automatically be emailed to the list. You can sign up for digest form (so you only get one email a day), or you can just check the web page yourself.

Second, the Trenton ACS has added a job board to their new website at:
<http://www.trentonacs.org/index.php?page=employment-opportunities>.

To post a job send an email to jobs@trentonacs.org.

We can all help each other to find that perfect job!

FEBRUARY MEETING

The Philadelphia Section,
American Chemical Society
presents

DR. KURT W. KOLASINSKI
Department of Chemistry
West Chester University

Surface Science and Sustainability

Thursday, February 19, 2009
6:00 PM

Simon Pearce Restaurant
1333 Lenape Road, Route 52 North
West Chester, PA 19382

Social Hour: 5:00-6:00 PM

Hors d'oeuvres and Non-alcoholic Beverages

Social Hour Cost: \$17.50; Students with Reservation and ID: \$9.00

Dinner reservations may be made on an individual basis by those who would like to have dinner at the restaurant after the lecture.

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, February 12th**. **Cancellations**, if necessary, cannot be accepted after **NOON on Tuesday, February 17th**. **UNCANCELLED RESERVATIONS WILL BE BILLED.**

DIRECTIONS: http://simonpearce.com/CSTM_restaurantsBrandywineMap.aspx

The Board of Directors will meet at 4:00 PM in the private dining room.

SPEAKER'S ABSTRACT AND BIOGRAPHY

Dr. Kurt W. Kolasinski

Surface Science and Sustainability

Department of Chemistry,
West Chester University

Abstract: In 2007 Gerhard Ertl received the Nobel Prize in Chemistry “for his studies of chemical processes on solid surfaces.” Having worked at the Fritz-Haber-Institut in Berlin under Ertl, I was able to witness his impact on the field of surface science firsthand. In the first part of this talk I will discuss the development of the surface science approach, of which Ertl was one of the primary developers. I will discuss some of the topics to which he contributed and then present an example from my own work that demonstrates the surface science approach. This specific example is the etching of silicon in fluoride solutions, which can be used to create either atomically flat surfaces or nanocrystalline porous silicon. Detailed studies of reaction mechanisms have allowed us to develop new synthetic protocols for producing porous silicon via chemical means (stain etching).

In the second part of this talk, I will discuss a topic to which surface science—and chemistry in general—has much to contribute. This is the issue of sustainability. The human population is now so large that its impact on the environment no longer causes simply local changes. It is forcing global changes. The human impact on global climate is but one aspect—albeit an immensely important one—of the challenges facing civilization going forward. The focus of this part of my talk will be that of sustainable energy. What the laws of physics tell us is that given enough energy, we can do almost anything, even slow time. But we do not have limitless sources of energy and what does an energy-constrained future mean to the future of humanity? What are the scientific challenges (particularly in chemistry) and technologies that need to be addressed in the future?

Biography: Kurt W. Kolasinski has been an Assistant Professor of physical chemistry at West Chester University since 2006. He received his BS in Chemistry from the University of Pittsburgh, where he performed undergraduate research with John Yates and was co-author on the first publication from the University's Surface Science Center. Richard Zare was his PhD thesis advisor at Stanford University, where they used laser spectroscopy to investigate the dynamics of molecules scattered and thermally desorbed from solid surfaces. Then from 1991-1994 he assumed an Alexander von Humboldt Fellowship to work in Gerhard Ertl's division of the Fritz-Haber-Institut in Berlin, Germany. Under the direct supervision of Eckart Hasselbrink, he studied laser induced desorption, thermal desorption and catalytic reactions on surfaces with the aid of laser and electron energy loss spectroscopy. Before taking his first faculty position, he returned to the US as a National Research Council Resident Research Associate at the National Institute of Standards and Technology in Gaithersburg, MD, where he worked with John Stevenson, Lee Richter and Richard Cavanagh. He has held faculty positions at the University of Virginia (2004-2006), Queen Mary University of London (2001-2004), and the University of Birmingham (UK) (1995-2001). His research focuses on surface science, laser/surface interactions and nanoscience. A particular area of expertise is that of making nanostructures in silicon and porous silicon using a variety of chemical and laser-based techniques. Instrumental in establishing an initiative at UVA concerning sustainability and energy issues, he continues to be active in this area at WCU, and was named the Sustainability Coordinator at WCU in 2007. In connection with this he has been coordinating the creation of a website to facilitate, organize and highlight sustainability efforts at WCU. He is the author of over 80 scholarly publications as well as the widely used textbook *Surface Science: Foundations of Catalysis and Nanoscience*, which appeared in a second edition in 2008.

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www.chemconsultants.org

Date and Time: Wednesday, February 11th, at the Cynwyd Club, Bala Cynwyd, PA; Networking, 5:30 PM; Dinner, 6:30 PM; Talk and Business Session, 7:30 PM.

Speaker and Topic: James Chan, PhD—*How To Make Money 'Long Term' in Consulting.*

Abstract: Sharing real-life stories and real-world experiences of 40 men and women including himself, James Chan will relate the five “stations” that all consultants must go through to make money ‘long term’ in consulting. These “stations,” which James calls (1) Self-Knowledge, (2) Passion, (3) Action, (4) Realization, and (5) Evolution (the SPARE frame of mind) mirror the inner journey of all successful independent consultants who seek fortune, fame and selfhood. They choose clients they like to work with. They enjoy their work and their work is meaningful. They know, and practice, the art of making money in consulting. The SPARE mindset and the lessons learned are documented in James’ book, *Spare Room Tycoon: Succeeding Independently, the 70 Lessons of Sane Self-Employment*. You can read sample chapters of his book at: www.SpareRoomTycoon.com.

Biography: James Chan, PhD, president of Asia Marketing and Management, www.AsiaMarketingManagement.com, is entering his 25th year of running a one-person consultancy based in Center City, Philadelphia. He specializes in helping US firms build relationships in China.

Location: The Cynwyd Club, 332 Trevor Lane, Bala Cynwyd, PA 19004.

Reservation: To make or cancel a dinner reservation, 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 & sodas), is \$25 by the deadline, **Thursday, February 5th**, \$35 afterwards. Late reservations and walk-ins subject to availability. No-shows will be invoiced.

604th Board of Directors Meeting Thursday, October 16, 2008 William Penn Inn 1017 DeKalb Pike Ambler, PA 19002

This is the edited version of the minutes. A full copy of the minutes can be obtained from the Section Office.

Present: E. Davis, M. Cichowicz, D. Cook, A. DeMasi, R. Gates, J. Summers-Gates, K. Thrush Shaginaw, D. Thomas, J. Tierney, V. Tortorelli, K. Yoder, C.J. Bruner, S. Miller, C. Petucci, T. Straub, D. Thomas, C. Rulli.

Absent: J. Falcone, M. Falcone, D. Cichowicz, P. Cao.

Also Present: L. Harper, G. Cowperthwaite, S. Burcham, A. Heldon.

The meeting was called to order at 4:19 PM by Chair-Elect Gates, standing in for Chair Davis. The minutes for the September 2008 meeting were approved unanimously as amended.

COMMITTEE REPORTS:

Women Chemists Committee (K. Thrush Shaginaw): A problem has arisen with the Expand your Horizons program that could affect this section and any other section that uses this name for a program. An organization called Expand Your Horizons in Science and Mathematics, which claims to have trademarked these words for their conference geared towards young women, has sent notice that we are impinging on their trademark.

It was decided that we did not want to be connected with this organization and will investigate the situation as to both programs’ names and then respond to their notice. Ironically, there is an Expanding Your Horizons program on October 18, 2008.

Budget Audit Finance Committee (G. Cowperthwaite): It was asked what happens if a committee is formed after the budget is approved for the year? The response was that it was not a problem.

A. DeMasi indicated that she may have a budget request for the Graduate School Forum. Fourteen Schools are signed up. V. Tortorelli wondered if the graduate school night might be held every other year rather than every year.

OFFICERS’ REPORTS:

Chair (E. Davis): none.

Chair-Elect (R. Gates): no report.

Secretary: J. Tierney reported that he had contacted Eric Borguet at Temple re hosting the January poster session at Temple. J. Tierney also indicated that he had contacted the Lehigh Valley Section with regards to the letter from National about changes in membership in our two sections.

No one could understand the reason for this letter. We have contacted National to determine the reason for the letter; we await a response.

Treasurer: C.J. Bruner gave a detailed explanation as to the information included in her spreadsheets. She indicated that if anyone has a problem, they just need to contact her for an explanation of any particular line-item.

The September Treasurers Report was approved unanimously.

OTHER BUSINESS:

R. Gates is looking for speakers and venues for next year.

Sheldon Miller's proposal for 'a plan to provide college undergraduates with information on potential summer employment' was discussed. It was determined that Sheldon and Chair Davis would form an *ad hoc* committee to move this plan forward.

T. Straub (Tellers Committee) reviewed the election costs. The bylaws committee needs to review the bylaws with a sense of urgency in order to facilitate the prospect of potentially cheaper electronic balloting within two years. All the bylaws need review.

There being no other business, the meeting adjourned at 5:20 PM.

Respectfully submitted,
John Tierney, Secretary

PROJECT SEED FOR DEBORAH KILMARTIN

The Philadelphia Section would like to fund a Project SEED Endowed Student Stipend as a memorial to Deborah Kilmartin. Any gift made to **Project SEED Endowment** and earmarked as a memorial to her can be included. If we do not reach the goal of \$50,000, any funds contributed will still be used by Project SEED in her memory.

To make your gift online, go to www.acs.org/giving, click on Project SEED, then scroll down to Dedicate this Gift to Someone Special and enter Deb's name. If you prefer to write a check, you must enclose a note or write on your check that the gift is for Project SEED in memory of Deborah Kilmartin and make it payable to the American Chemical Society.

If you are planning to make a gift with your dues payment under "voluntary contribution," be sure to label it for Project SEED in Deb's memory. If you have already made a voluntary contribution, you may notify ACS that you would like it used for Project SEED in Deb's memory.

Members who are 70 ½ or older may make their gift directly from their IRA; see www.acs.org/giftplanning.

DELAWARE VALLEY SCIENCE FAIRS

The Delaware Valley Science Fairs will be underway at the end of this month. Judges and mentors are always needed. Check the website **www.dvsf.org** for more information and to volunteer.

605th Board of Directors Meeting Thursday November 19, 2008 Chemical Heritage Foundation Philadelphia, PA

This is the edited version of the minutes. A full copy of the minutes can be obtained from the Section Office.

Present: E. Davis, A. DeMasi, C.J. Bruner, M. Cichowicz, J. Falcone, Jr., M. Falcone, R. Gates, J. Summers-Gates, K. Thrush Shaginaw, S. Miller, C. Petucci, T. Straub, K. Yoder.

Excused: D. Cook, J. Tierney, D. Cichowicz, D. Thomas, C. Rulli, V. Tortorelli.

Absent: P. Cao.

Also Present: L. Harper, W. Golton, G. Cowperthwaite, S. Haynie.

The meeting was called to order at 4:05 PM per Chair-Elect Gates. The minutes for the October meeting as amended were approved unanimously.

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COMMITTEE REPORTS:

WCC: K. Thrush Shaginaw contacted Mark O'Brien at ACS National (LOCAL SECTION ACTIVITIES), who consulted with ACS Council (Dave Smorodin). "Expand Your Horizons" is not a registered trademark, though we should change the name of our program anyway to avoid any association. The Board proposed changing the name to G.I.R.L.S. (Girls Involved in Real Laboratory Science). Kathy will consult with the WCC Committee.

We honored Deb Kilmartin at the EYH event on October 18th. The next event will be on April 4, 2009. Please mark your calendars.

Finance, Budget and Audit (G. Cowperthwaite): Request numbers are current and there have been no new requests since November 2, 2008. Council Affairs will be \$15K (not \$24K as listed on the budget). Publications is high because of the August issue of *the Catalyst*. Income from the National meeting has not arrived. The Board discussed the awards and decided the following (The Undergraduate Teaching Award is no longer sponsored by Merck):

High School Teaching Award \$500

Elementary Teaching Award \$500

Undergraduate Teaching Award \$1500

Thus we will request \$2600 for the Philadelphia Teaching Awards.

J. Falcone will ask V. Tortorelli to send a letter to the Board to vote on the use of the new Awards account for awards with specifics.

Student Affiliate Travel grant – should be increased to \$500 so as to cover the costs associated with two meetings.

Income from MARM is in a separate capital account, we do not have a mechanism to draw that account down. We will have to open a line item to show a transfer from the Award account. This is in our operational budget. This will cover all awards. This would practically balance the budget. Someone needs to step up and do development work. G. Cowperthwaite requests any budget changes/additions be communicated before the next meeting on December 11th.

We need to open a separate account for the Edgar Fahs Smith Award and remove it from the Program budget. It is currently \$1K, V. Tortorelli would like to increase it.

Officer's expense was increased to \$1500 to cover the cost of two attending the ACS Leadership Conference.

Teller's Report: T. Straub presented the Teller's report. The NCW flyer was included in the mailing, Teller's Committee line item picked up the cost. Bylaws will need to be included in next year's mailing.

The Board needs to discuss where to charge the costs. The Teller's report was adjusted; C.J. Bruner will be the one-year replacement for D. Kilmartin. The Board approved the Teller's Committee Report. The Bylaws revision should be brought to the Board by the January meeting. The Board needs to ask the Policy and Bylaws Committee to present. T. Straub agreed to approach D. Cichowicz with the request.

OFFICERS' REPORTS:

Chair-Elect (R. Gates): Speakers are being lined up for next year. The February meeting speaker has been identified, location to be announced. Speaker's Bureau has been contacted, Bob is waiting for a response.

Secretary (A. DeMasi): no report.

Treasurer (C.J. Bruner): Income/Expenses year to date numbers are correct. Board voted unanimously to approve the report.

OTHER BUSINESS:

Madeleine Joulle sent a thank you to the Board for their support during this difficult time for her.

Northampton was re-assigned to the Lehigh Valley Section. National did not make it clear that there were 18 members who were being incorrectly counted. The 18 individuals were notified that they were being re-assigned to Lehigh Valley but could petition to remain with the Philadelphia Section.

Graduate School Forum – Took place at Villanova University on November 10th. Eighteen Universities were represented. Approximately 70 students attended. A. DeMasi will report on the total program in December.

A. DeMasi will moderate "Science & the Congress" on December 2nd in Washington, DC as Vice-Chair of Corporation Associates. She will also participate in a summit provided by a CA Seed Grant which the Division of Chemical Technicians (TECH) and the Committee on Technician Affairs (CTA) will be holding December 12-14, 2008 at ACS Headquarters in Washington DC.

Annual report – E. Davis is asking folks to get their input together.

Meeting adjourned at 5:30 PM.

Respectfully submitted

Anne DeMasi, Acting Secretary

BOOK REVIEWS—Alan Warren

Acid Catalysis in Modern Organic Synthesis, Volumes 1 and 2

Hisashi Yamamoto and Kazuaki Ishihara, eds., 1160 pages, 7 by 10 inches, casebound, Wiley-VCH, Weinheim, Germany, 2008. ISBN 978-3-527-31724-0, \$435 from John Wiley & Sons, Inc., 111 River St., Hoboken NJ 07030.

A number of experts authored the individual chapters of this book. In recent years the expansion of Lewis acid promoted organic transformation has grown rapidly. The latest developments in acid chemistry and catalysis are reported here.

The first chapter describes the combined acid strategy for asymmetric catalysis. The four examples are Brønsted acid-assisted Lewis acid (BLA), Lewis acid-assisted Lewis acid (LLA), Lewis acid-assisted Brønsted acid (LBA), and Brønsted acid-assisted Brønsted acid (BBA). The next chapter focuses on super Brønsted acids and chiral Brønsted acids.

The remaining chapters in the two volumes are directed to the various Lewis acids such as alkali metals; Mg, Ca, and Zn; boron Lewis acids; and those of aluminum, gallium, indium, silicon, tin, bismuth, scandium, yttrium, lanthanide Lewis acid, titanium, zirconium, hafnium, transition metals, copper, silver, gold, and polymer-supported metal Lewis acids.

Catalysis: Concepts and Green Applications

Gadi Rothenburg, 294 pages, 7 by 10 inches, casebound, Wiley-VCH, Weinheim, Germany, 2008. ISBN 978-3-527-31824-7, \$80 from John Wiley & Sons, Inc., 111 River St., Hoboken NJ 07030.

The author teaches scientific writing as well as chemistry. This text is directed to senior undergraduates and research graduates. The introductory chapters cover green chemistry and the basics of catalysis. Subsequent chapters focus on homogeneous catalysis, heterogeneous catalysis, biocatalysis, and ending with computer applications in catalysis research.

One nice feature of the book is the appearance of technical terms in bold print the first time they are used, followed by their definitions. As a teaching treatise, each chapter ends with several exercises along with literature references. There is also a web site for the book at www.catalysisbook.org.

Nine-Language Dictionary of Polymers and Composites

Andrei Grafov and Eloisa B. Mano, eds., 1110 pages, 7 by 10 inches, casebound, Wiley-Interscience, Hoboken NJ, 2008. ISBN 978-0-470-28248-9, \$250 from John Wiley & Sons, Inc., 111 River St., Hoboken NJ 07030.

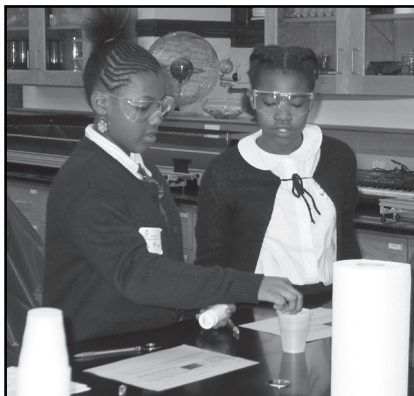
Nearly 50 years ago Giulio Natta published a four-language terminology paper for polymer sciences in English, German, French, and Italian. The present volume is designed to meet the needs of scientists with the increasing globalization of polymer science and its industries. The additional languages are Chinese, Japanese, Russian, Portuguese, Spanish, and Ukrainian. German is now omitted.

Topics that are touched upon with the terms selected include polymer chemistry, polymer related materials science, laboratory practices including analytical instrumentation, occupational safety, and equipment and techniques for processing and recycling polymers and composites.

Terms are listed in English alphabetically followed by the other eight languages across every two adjacent pages. Each term has a numerical identifier from 1 to 6950. The numbers are used in a series of national language keys for cross reference. For Chinese, Hanyu pinyin transcriptions are included for phonetics.

A brief appendix identifies English and national abbreviations. Over 50 print and web site scientific and lexicographic references are listed near the beginning of the dictionary.

SIXTH GRADE GIRLS SCIENCE EVENT PHOTOS



Girls learn about water quality and water testing in the Deb Kilmartin Memorial Lab at Chestnut Hill College in October.



L: The girls make slime with Deb Kilmartin's sister, Maureen Kelly. R: A whole rainbow of colors can be generated by changing the pH of a series of solutions with the same pH indicator.



During butter and cheese making, the girls are separating their curds from the whey using cheesecloth.

Selected February Historical Events In Chemistry

by Leopold May

- February 2, 1802 Jean Baptiste Boussingault, who demonstrated that plants absorb nitrogen from soil in form of nitrates and not from air as previously believed, was born on this day.
- February 7, 1834 175 years ago, Dimitri I. Mendeleev was born. He discovered the Periodic Law (Table) at same time as Lothar Meyer, who published later.
- February 12, 1826 Moritz Traube, who was born on this date, did research in semipermeable membranes, sugars, respiration, fermentation, oxidation, protoplasm, and muscle.
- February 16, 1955 F.P. Bundy, H.T. Hall, H.M. Strong and R.H.O. Wentoff announced synthesis of diamonds at General Electric Research Laboratories on this date.
- February 23, 1884 125 years ago Casimir Funk was born. He isolated nicotinic acid from rice polishing and used it against pellagra and pursued the idea that diseases such as beriberi, scurvy, rickets and pellagra were caused by lack of vital substances in the diet
- February 25, 1880 Arthur B. Lamb, who was the editor of the *Journal of the American Chemical Society* (1917-1949) was born on this day.
- February 28, 1901 Linus C. Pauling, who was born on this date, received the Nobel Prize for Chemistry in 1954 for his research into the nature of the chemical bond and its application to the elucidation of the structure of complex substances and the Nobel Peace Prize in 1962. He did research on the structure of molecules such as proteins, valency, and resonance.

Additional historical events can be found at Dr. May's website, <http://faculty.cua.edu/may/Chemistrycalendar.htm>

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Being a part of one of our teams can help you develop organizational and meeting skills as well as help you to network with people from the largest area companies. Public Relations, such as sending out meeting notices and press releases, can help you to develop a network and help you get noticed!

All committees are looking for new members and several are looking for "take charge" chairs. Some, like the Teller's Committee, involve minimal work—one night per year and pizza provided. Others, like positions on Publications or Social Committees, involve one or two hours per month.

Committee details can be found at:
<http://www.membership.acs.org/p/philadelphia>

or by calling Mrs. Libby Harper at
the Philadelphia section office
215-382-1589.

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PHILADELPHIA SECTION, ACS 2009 CALENDAR OF EVENTS

DATE	EVENT	LOCATION
Feb. 9	Delaware Valley Mass Spectroscopy Discussion Group: David Russell, Texas A&M: <i>MALDITOF for Protein/Peptide Characterization</i> http://science.widener.edu/svb/msdg	Villanova University Villanova, PA
Feb. 10	Chromatography Forum of the Delaware Valley: Matthew Klee, Agilent <i>Gas-Phase Microfluidics</i> www.cfdv.org	D'Ignazio's Towne House Media, PA
Feb. 11	Chemical Consultants Network Dr. James Chan, <i>How to Make Money 'Long Term' in Consulting</i> www.chemconsultants.org	Cynwyd Club Bala Cynwyd, PA
Feb. 19	Dr. Kurt W. Kolasinski West Chester University <i>Surface Science and Sustainability</i>	Simon Pearce Restaurant West Chester, PA
Feb. 24	AIChE: Technology Tour http://aiche-philadelphia.org	Delaware Biotechnology Institute Wilmington, DE
Feb. 26	Philadelphia Organic Chemists Club Dr. Patrick Walsh, University of Pennsylvania, <i>Asymmetric C-C and C-O Bond-Forming Reactions</i> www.pocclub.org	University of Pennsylvania Philadelphia, PA
March 12 (2nd Thurs.)	Edgar Fahs Smith Lecture: A. Paul Alivasatos, Lawrence Berkeley National Laboratory	University of Pennsylvania Philadelphia, PA
Mar. 22-26	ACS Spring National Meeting	Salt Lake City, UT
April 4	Sixth Grade Girls Science Event	Chestnut Hill College Philadelphia, PA
April 16	Scholastic Achievement Awards	TBA
May 21	Teaching Awards	TBA
June 18	Fifty-Year Recognition Luncheon	TBA
Aug. 16-20	ACS Fall National Meeting	Washington, DC