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the Catalyst

A Publication of the Philadelphia Section of the ACS
http://membership.acs.org/p/philadelphia

June 2009 ISSN 0008-767X

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Official Publication of the Philadelphia Section, American Chemical Society
Founded April 15, 1899

Volume 94, No. 6 **June 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 215-665-0515

ADVANCE NOTICE

SEPTEMBER MEETING

Speaker and Location to be Announced

Thursday, September 17, 2009

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

BOOK REVIEW

Asymmetric Phase Transfer Catalysis, ed. Keiji Maruoka. 228 pages, 7 by 9 ¾ inches, casebound, Wiley-VCH, Weinheim, Germany, 2008. ISBN 978-3-527-31842-1, $145 from John Wiley & Sons, 111 River St., Hoboken, NJ 07030.

Phase transfer catalysis has several advantages over ordinary metal-catalyzed reactions. This book sets forth the latest achievements in this field, beginning with an introductory chapter that provides the basic principle of phase-transfer catalysis and some of its mechanistic aspects. Subsequent chapters describe the use of these methods to synthesize amino acids, use of quaternary ammonium salts derived from cinchona alkaloids, various types of chiral phase-transfer catalysis, and use of chiral quaternary ammonium fluorides for asymmetric synthesis.

Some of the methods described are more maturely developed than others, offering a fertile field for further exploration by synthetic chemists in academia and industry.

—Alan Warren

THOUGHTS TO PONDER

Creativity can solve almost any problem. The creative act, the defeat of habit by originallity, overcomes everything. —George Lois

What lies behind us, and what lies before us, are tiny matters compared to what lies within us.—Ralph Waldo Emerson

High achievement always takes place in a framework of high expectation. —Jack Kinder

A mistake is simply another way of doing things.—Katharine Graham

How we think shows through in how we act. Attitudes are mirrors of the mind. They reflect thinking.—David J. Schwartz

The beginning of wisdom is to desire it. — Ibn Gabirol

Life is not easy for any of us. But what of that? We must have perseverance and, above all, confidence in ourselves. We must believe that we are gifted for something, and that this thing, at whatever cost, must be obtained.—Marie Curie

NEW "SMART" POLYMER REDUCES RADIOACTIVE WASTE AT NUCLEAR POWER PLANTS

Scientists in Germany and India are reporting development of a new polymer that reduces the amount of radioactive waste produced during routine operation of nuclear reactors. Their study, which details a first-of-its-kind discovery, has been published in the ACS' *Industrial & Engineering Chemistry Research*, a bi-weekly journal.

Börje Sellergren and colleagues note that structural materials such as carbon steel in power plants' water cooling systems form deposits of metal oxides when they interact with coolants. In nuclear power plants, these oxides trap radioactive ions, leading to buildups of radioactivity that require costly cleanups of reactor surfaces. Cobalt, present in some alloys used in the reactors' water systems, is a major contributor toward this problem because of its long half-life.

In the study, the researchers created an adsorbent material that — unlike conventional ion-exchange resins that are frequently used in reactors — is selective for cobalt but has the unique ability of disregarding iron-based ions. The polymer's high selectivity increases its appeal, the researchers add, for use in decontamination processes in reactors that utilize a variety of structural materials.

INTERESTED IN WORKING AS A VOLUNTEER FOR ACS?

We are drawing up the slate of candidates for the fall 2009 election. Specifically, there are openings for chair-elect, secretary, directors and councilors. The chair-elect has several responsibilities, including chairing the Section awards and program committees during the first year of the term and running the Section during the second year. The secretary is primarily responsible for taking the minutes at board meetings. Directors form the governance of the local Section and meet monthly September-June. Councilors represent the Section at ACS national meetings.

If you would like to run, please get in touch with Ella Davis (ellaldavis@comcast.net or 610-279-4935) or Libby Harper (PhilaACS@aol.com or 215-382-1589).

NEWS ATOMS

Jin Gao received a Project SEED scholarship for 2008-2009 and attends Temple University.

DEATHS

Norman H. Blumberg, chemical engineer formerly with Merck & Co., February 26, 2008 at 91. He joined Merck in 1939 and held a number of positions in R&D, production and engineering for the first 15 years. He then installed and managed the first centralized computer service center in the company. In 1959 he established a new department of organization and management development. From 1962 until retirement in 1980 he managed marketing and sales research for Merck Sharpe and Dohme. Blumberg was a 67-year member of ACS.

Michael R. Brigham-Burke, principal scientist at Centocor, November 20, 2008 at 47. He was employed as a research investigator for 17 years at GlaxoSmithKline and then joined Centocor in 2002. He obtained three patents and published numerous technical papers. Brigham-Burke chaired the advisory board of the Biomolecular Interactions Technology Center at the University of New Hampshire.

Monteiro Harris Nelson, Jr, retired chemist, January 18, 2009 at 82. He worked first for Virginia Smelting Co. and then as chemist and assistant superintendent of waste water treatment for the City of Portsmouth. He was employed also by Kentucky Color and Chemical, and in technical sales for Air Reduction Chemical, eventually retiring from Air Products.

Lester S. Cohen, retired chemist formerly with DuPont, March 22nd at 87. During World War II he served as an Army medical laboratory technician. He helped take care of the wounded at Omaha Beach on D-Day. Cohen joined DuPont in 1964 where he worked at both Grays Ferry and Wilmington, retiring in 1989.

Edward M. Phillips, retired chemical engineer and educator, March 25th at 73. He was a research engineer with Arco and then Esso from 1959 to 1972. Following a 12-year career with Air Products & Chemicals he became a professor of science and engineering at Rutgers University, serving from 1986 until he retired in 2003.

Craig Dunlap Culbert, chemistry professor, March 27th at 82. He joined the faculty of Beaver College in 1963 and retired in 1993 as assistant professor of chemistry. In 1977 he received the Lindback award for distinguished teaching. Following retirement he continued to supervise the chemistry lab at Arcadia University until 1999.

Grace Ann Banks, professor emeritus, March 30th at 66. She was professor of chemistry and physics at Chestnut Hill College where she taught basic, inorganic, physical and analytical chemistry, and principles of physics and acoustics. She authored a number of papers, and served on the Philadelphia Section's Continuing Education Committee.

Joseph Samuel Carter, retired research chemist, April 19th at 90. He was a research chemist for Rhoads Leather Co., then Houdry Analytical Co., and finally Air Products, Inc., retiring in 1983.

Thiru M. Thirugnanam, formerly with Rohm and Haas. Following retirement from Rohm and Haas he became founder and president of Pharmagrow, Inc. He won a small business innovative research (SBIR) grant from USDA.

George A. Gallagher, no further details available.

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.

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DRYWALL IMPORTED FROM CHINA RAISES HEALTH AND SAFETY CONCERNS

Homeowners throughout the nation are complaining of stinky odors, copper pipe and wire corrosion, and respiratory problems in an ongoing crisis that officials say is linked to drywall imported from China. An article on this topic appears in the May 4th issue of *Chemical & Engineering News*, ACS' weekly newsmagazine.

C&E News associate editor Bethany Halford explains in the article that drywall—also known as wallboard, plasterboard, and gypsum board—is composed of a gypsum, a chalk-like material. Spurred by complaints from homeowners that their homes smell like rotten eggs, investigators have traced the problem to drywall imported from China starting in 2004.

Researchers suspect that the odors are caused by certain sulfur-containing substances in the drywall. Released as gases, these substances can corrode copper pipes, wiring, and air conditioning coils. Although officials believe that the gases do not pose a serious health threat, many homeowners with the drywall have reported nosebleeds, sinus problems, and respiratory infections. Several government agencies are now investigating the exact health effects caused by exposure to these gases as well as the electrical safety issues related to corrosion of copper wiring.

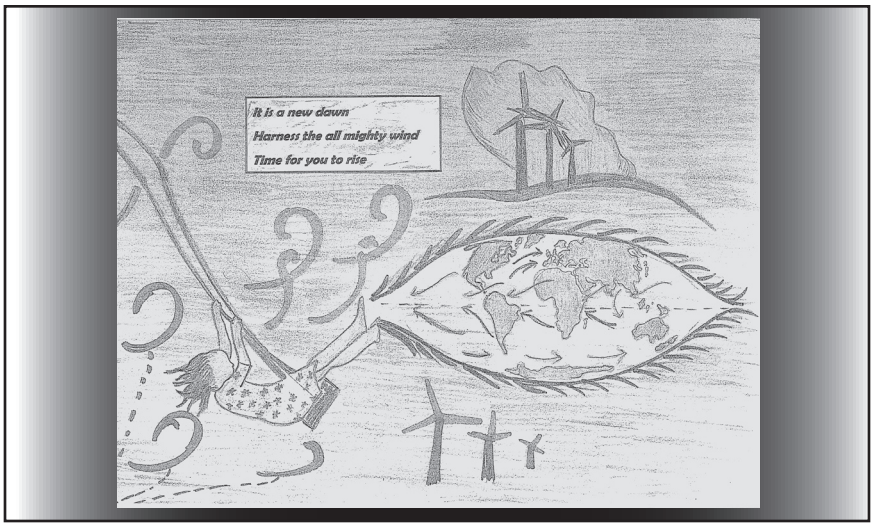
CHEMISTS CELEBRATE EARTH DAY HAIKU CONTEST WINNER!

The Philadelphia Local Section is proud to announce that one of our own students is the winner in the 9th to 12th Grade Category for this year's National Chemists Celebrate Earth Day Illustrated Haiku Contest….. Drum roll….

Neharika Ramani is in 11th Grade at Conestoga High School in Berwyn, PA and her teacher is **Dr. Jean Mihelcic.** The theme for CCED 2009 was: **"Air—The Sky's the Limit."**

Her winning entry (below) and those in the other age categories can be viewed online at: http://acsmatters.word-press.com/

CONGRATULATIONS FROM THE PHILADELPHIA LOCAL SECTION ON YOUR OUTSTANDING ENTRY!



JUNE MEETING

The Philadelphia Section,
American Chemical Society
presents

JEANNETTE ELIZABETH BROWN
Ullyot Fellow

Chemical Heritage Foundation

African American Women Chemists–Yesterday, Today and Tomorrow. An Update for the 21st Century

and
Presentation of 2009 50-Year Member Certificates

Thursday, June 18, 2009
1:00 PM
Surrey Room (please use rear entrance)
William Penn Inn
1017 DeKalb Pike
Ambler, PA 19002

Luncheon at 12:00 Noon

Luncheon cost $22; Students with reservations and ID $11

LUNCHEON 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, June 11th**. **Cancellations**, if necessary, cannot be accepted after **NOON** on **Tuesday, June 16th**. **UNCANCELLED RESERVATIONS WILL BE BILLED.**

DIRECTIONS: http://williampenninn.com

The Board of Directors will meet at 2:15 PM in the Surrey Room (please use rear entrance).

SPEAKER'S ABSTRACT AND BIOGRAPHY

Jeannette Elizabeth Brown

African American Women Chemists - Yesterday, Today and Tomorrow. An Update For the 21st Century

Abstract: African American women in science have always labored under the "double bind" of being a woman and a minority in science. In the U S the first African American woman earned a PhD degree in chemistry in 1948, while the first white woman received this degree in the late 19th century.

We will discuss the accomplishments of Marie Daly, the first known African American woman to receive a PhD in chemistry, some of the pioneers who came before her and some contemporary women chemists and chemical engineers.

We will also look into the future to talk about emerging African American women chemists and chemical engineers and speak about how you can help increase the number of minorities in science.

Biography: Ms. Jeannette Elizabeth Brown is a former Faculty Associate in the department of Pre-College Programs at the New Jersey Institute of Technology. She held the title of New Jersey Statewide Systemic Initiative (NJSSI) Regional Director having previously served as the NJIT NJSSI Coordinator. In this position she designed, developed and coordinated the Professional Development Program.

Ms. Brown is a Fellow of the WestEd National Academy for Science and Mathematics Leadership. She is the Chemical Heritage Foundation 2004 Société Fellow.

She previously held the position of Research Chemist and worked at Merck & Co. Inc. for 25 years in that capacity. She synthesized new compounds for testing as potential new drug candidates for human and animal health. At Merck she was co–author of 15 publications and 5 patents and has 1 patent in her name alone. She earned a Management Award for her work with the Merck Black University Liaison Committee in which she worked with Grambling University to try to improve the chemistry department. She started her industrial career at CIBA Pharmaceutical Co. as a junior chemist and worked there for 11 years. She has an MS from the University of Minnesota and a BS in Chemistry from Hunter College. She was elected to the Hunter College Hall of Fame for her work as a mentor for young students.

She was appointed to the National Science Foundation Committee on Equal Opportunities for Women Minorities and Persons with Disabilities and served on that committee for two terms. She has been elected Councilor of the American Chemical Society from the North Jersey Section three times and is currently a Councilor. She was Chair of the Project SEED Committee and reorganized the committee to make it function efficiently. She also acted as chief fundraiser for the program until it was taken over by a professional fundraiser. She is a member of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, the Association for Women in Science and the American Association for the Advancement of Science.

She studied the history of African American women chemists and is currently lecturing and writing a book about her work. She recently received the Ullyot Fellowship from CHF to work on her book about African American Women Chemists.

Her awards include the ACS Women Chemists Committee Regional Award for Contributions to Diversity 2002. She is listed in *Who's Who in America 2004*. Her biography is profiled in *African American National Biography*. She is also listed in the current issue of *Who's Who in Science*. She is the 2005 recipient of the ACS Dreyfus Award for mentoring minorities in Science. She received an Outstanding Alumni Achievement Award from the University of Minnesota in 2005. She also received an Alumni Award from Hunter College Chemistry Department and her most recent award is the North Jersey ACS Harvey Russell Award for service to High school teachers. She is a 2007 AWIS Fellow.

SCHOLASTIC ACHIEVEMENT AWARD WINNERS, 2009

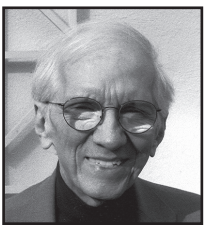
Arcadia University		Narottam Lamichhane
Bryn Mawr		Eden McQueen
Chestnut Hill College		Tetyana Stulkivska
Delaware Valley College		Christina Forbes
Drexel University (Chemistry)		Adria Wilson
Drexel University (Chemical Engineering)		Ishai Padawer
Eastern University		Christina Rabeler
Haverford College		Ethan Alguire
Immaculata College		Carol Cipolla
La Salle University		Elizabeth B. Cerkez
Lincoln University		Gladys Murage
Rutgers, The State University		Priten C. Patel
St. Joseph's University		Rebeka Shumock
Swarthmore College		Sunjay M. Barton
Temple University		Christopher Kozak
University of Pennsylvania	Chemistry:	Christopher Prier
	Chemistry:	Chenghong Huang
University of the Sciences	Chemistry:	Brittany Ebersole
in Philadelphia	Biochemistry:	Ashleigh Rapp
Ursinus College		Claire E. Smith
Villanova University (Chemical Engineering)		Kyle Doolan
West Chester University		Michelle Owens
Widener University (Chemistry)		Kaitlyn Gerhart
Widener University (Chemical Engineering)		Tam Lieu

2009 Scholastic Achievement Award Winners: Seated, left to right: Ethan Alguire, Christina Forbes, Ishai Padawer, Christopher Prier, Brittany Ebersole; rear: Claire E. Smith, Christopher Kozak, Christina Rabeler, Ashleigh Rapp, Eden McQueen, Elizabeth B. Cerkez, Adria Wilson, Carol Cipolla, Narottam Lamichhane.

HONORING OUR 50-YEAR MEMBERS

At our June Section meeting, we honor our 50-year members, presenting them with a certificate and luncheon at the William Penn Inn in recognition of their long and faithful service to the Society. Those being honored include the following:

Dr. William J. Ambs



As a youth, I recall the corner pharmacist advising me to have the fire department back up a truck to the house before attempting a certain experiment.

With the indispensable assistance of a merit scholarship, I obtained a BS in Chemistry from Villanova College in 1952. I then worked my way to a MS from Stevens Institute of Technology, and later, a PhD in Physical Chemistry from Catholic University of America in 1961. My career included work for the National Bureau of Standards, Air Products, General Electric, and Lockheed Martin, not always in chemical research. I retired in 1999 and have done occasional consulting work. An early publication of mine (1952) contained the first mention of the possibility of a molecule with a knot in it. It was recently cited in the *European Journal of Organic Chemistry*, in October 2008. Present and past memberships include Sigma Xi, ASTM, Philadelphia Catalysis Club, and the Chemical Consultants Network.

Two years ago my beloved wife of 49 years passed away. Residing near my daughter and son-in-law, I volunteer some time at St. Stanislaus Church, Lansdale, PA. My interests include physical/chemical calculations, alternative medicine, and I am attempting to write a book on faith and science.

Dr. John J. Baldwin

Dr. John J. Baldwin received his BS in chemistry from the University of Delaware and his PhD in Organic Chemistry from the University of Minnesota.

Dr. Baldwin spent the next 49 years in drug discovery and on novel technologies to increase the efficiency of the discovery process. While at Merck Research Laboratories, he made important contributions to the discovery and development of Trusopt and Cosopt, Edecrin, Aggrastat and Crixavan. During his research on histamine H2 receptor blockers, he identified and championed the acquisition of famotidine, thereby establishing a position for Merck in antiulcer therapy with Pepcid.

After Merck, Dr. Baldwin became a founder and Chief Science Officer of Pharmacopeia Inc. where he pioneered the integration of combinatorial chemistry and high throughput screening into the drug discovery process. In 2001 Dr. Baldwin co-founded Vitae Pharmaceuticals where he was President and Chief Science Officer. At Vitae, he successfully integrated rational drug design strategies with medicinal chemistry.

Dr. Baldwin was one of the first to recognize the drug discovery assets available in China. He was a founder of WuXi PharmaTech in Shanghai and served on the Board of Directors. In addition to WuXi Pharma Tech, Dr. Baldwin is also a member of several Corporate and Academic Boards.

Dr. Baldwin has been recognized for his accomplishments by the American Chemical Society with the E.B. Hershberg Award and his nomination to the Medicinal Chemistry "Hall of Fame." He has also received the Outstanding Achievement Award by the University of Minnesota and the Philadelphia ACS Section Award.

He and his wife Ann reside in Gwynedd Valley, PA. They have three children, John, Alysia and Tracy.

Marshall L. Fishman

Dr. Fishman is a Retired Research Chemist Emeritus and Collaborator at the Eastern Regional Research Center (ERRC), Agricultural Research Service, US Department of Agriculture in Wyndmoor, PA. He graduated from West Philadelphia High School in 1955, received an AB from Temple University in 1959, an MS from Villanova University in 1961 and a PhD and post doctoral fellowship from Polytechnic Institute of Brooklyn in 1969. In 1969 he was granted a National Research Council, NSF fellowship to perform research at ERRC. In 1971 he joined the R.B. Russell Research Center, ARS, USDA in Athens, GA as a research chemist. In 1980, Marshall returned to ERRC and worked there as a research chemist and lead scientist until he retired in 2007.

During his career Dr. Fishman was an author or co-author of over 100 research papers, 4 patents and co-edited 3 books. His areas of research included, thermodynamics of the anionic polymerization of styrene, interaction of sodium dodecyl sulfate with polyvinylpyrrolidone, characterization of proteins in grasses and in sorghum, characterization of numerous polysaccharides in solution, flash extraction of pectin; and the fabrication and rheological properties of edible pectin, starch, glycerol films and biodegrable pectin, polyvinylalcohol films. He has won several awards related to his scientific activities and research. He has been active in the ACS, AGFD division, CFDV, DVSC and FACCS.

Dr. Fishman is an avid sports fan, enjoys riding his bicycle and enjoyed playing tennis for many years.

William C. Gannon

A Bachelor of Science degree from Albright College in 1952 began my career in chemistry. As soon as I finished college, I was drafted into the Army, where I was trained as a Small Arms Repairman at Aberdeen, MD. Then I spent the remainder of the time as a cadre at Camp Gordon, GA.

In 1955 I was employed by Kawecki Chemical Company in Boyertown, PA, as an assistant Chemical Engineer, and soon became an Analytical Chemist as the volume of work shifted to that laboratory. In a recent letter to *C&E News*, I learned that I worked in "ancient analysis" which was wet chemical analytical methods for metals.

For three years in the early 1960s I took courses for an advanced degree in Analytical Chemistry at Saint Joseph's College Night School.

My varied titles were chemist, supervisor, manager of analytical methods development, senior chemist, quality assurance engineer, and radiation safety officer. All 41 years of my career were spent at the same location in Boyertown, PA. During that time though, the company had different owners and the name changed several times. At my retirement in 1996, it had become Cabot Performance Materials.

I still enjoy reading my *C&E News* and maintain my interest in chemistry, its history and advances.

Dr. Jenny P. Glusker

Dr. Glusker is an X-ray and neutron crystallographer at the Fox Chase Cancer Center. She is studying structures of chemical carcinogens and their adducts with portions of DNA, protein structure, particularly that of the enzyme D-xylose isomerase and metal ion binding in proteins. Her work on proteins involves collaborations with scientists at Los Alamos National Laboratory. The neutron diffraction studies reveal new information on the mode of action of the enzyme. She obtained an MA and PhD at Oxford University in England and did her graduate studies on

the structure of vitamin B12 with Dorothy Hodgkin. She was then a postdoc at Caltech in the laboratory of Linus Pauling and Bob Corey. She came to Philadelphia to work with Lindo Patterson at Fox Chase Cancer Center and has remained there. She received the Garvan Medal and the Philadelphia Section Award from ACS in 1979.

Dr. Bruce Hwang

Dr. Bruce Hwang completed his PhD program in 1964 at Ohio State University. His thesis was on the first synthesis of a stable naphtho derivative of cyclobutadiene (this work appeared on the front cover of *C&E News* in 1963 before graduation). He joined SmithKline as a medicinal chemist until retirement in 1994. During the 29 years of tenure, he worked on synthesis, metabolites identification, drug metabolism, and drug analyses. He also completed the "Two-Year Management Program" of the Wharton School of the University of Pennsylvania in the 1970s. Utilizing the training received, he also owned and operated an electroplating company (president) for seven years.

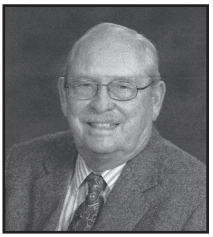
When the Chemical Consultants Network (CCN), a topical group of the Philadelphia Section of the ACS, was founded in 1994, he joined it. He consulted with numerous companies such as Clintox Lab, Chem Service, Fisher Scientific, Institute for Scientific Information (ISI), as well as NIH on anti-tuberculosis drug business development, and The McKinsey Global Institute on chemical out-sourcing and marketing.

Besides chemistry, he enjoys indoor and outdoor gardening, as well as maintaining wooded acres of property with a fish pond around an old farm house.

Dalia Nenortas Jakas

Coincidentally, I am planning to attend the reunion for class of 1959 at U-Conn and at the same time celebrate 50 years of membership in the American Chemical Society! They have been wonderful years of work, family, travel and volunteering. Most of my professional life as a medicinal chemist was devoted to 40 rewarding years of basic research in the pharmaceutical area of what is now GlaxoSmithKline Corporation. Since retirement I have enjoyed travels with my family experiencing the beauty of the United States, Canada, Europe and South America. Lately, I have been devoting more volunteer time for our church activities, have been a voice on the Lithuanian-American Community radio for more than 22 years, and since moving into a golf community, am trying to "master" the golf swing.

Richard H. Kolloff



I am an analytical chemist with a BS in Chemistry, University of Michigan, 1955 plus one year of graduate study at the University of Minnesota, 1955-56 (education voluntarily interrupted by serving 1951-53 as Section manager in the US Army Medical Corps to train Combat Medics for overseas duty in the Korean War).

Employment: Monsanto, St. Louis, Missouri, 1956-64; Agricultural Div., Analytical Methods Development.

F&M Scientific Corp., Avondale, PA 1964-65, GC R&D Mgr. (Acquired by Hewlett-Packard in 1965).

Hewlett-Packard, Analytical Div., Avondale, then Wilmington, 1965-98, Prod. Assurance Mgr. & then R&D Proj. Mgr. (Retired in 1998).

Agilent Technology, Inc. 1999- (H-P, Anal. Div. reincorporated as a separate company, Wilmington, DE).

Publications & Patents: At least a dozen papers in the 1984-1995 period were presented at the Pittsburgh conference for Analytical Chemistry, the International Symposium on Capillary GC, HP Seminars (across Canada), and the Eastern Analytical Conference.

The authorship of three of my patents on thermal conductivity detectors, I have been told, is currently being displayed, along with patents of other authors I am sure, at Agilent Technology probably to promote what Dave Packard used to require: Invention!

At H-P and later Agilent we had a running team that really kept us going. I did six Marine Corps Marathons in Washington, DC, a number of Philadelphia Distance Runs, several Long Beach Island, NJ 18 milers, and many West Chester runs.

I currently sing with the Calvary Lutheran Church Chancel Choir in West Chester, and not long ago also with the Chester County Choral Society. When I was with Monsanto in St. Louis, MO, I also sang with the Lutheran Hour Choir which did world-wide broadcasts.

Dr. James E. Lyons

Dr. James (Jim) Lyons joined Sunoco after receiving a PhD from UC Davis, eventually becoming Chief Scientist in Chemicals and R&D. His research contributions included advances in production of polyalkyl aromatics, manufacture of high energy fuels, production of new fuel oxygenates and catalytics hydrocracking of fused-ring aromatics.

Jim authored over 90 publications, holds over 100 US Patents and presented over 90 invited lectures at national and international meetings on catalysis. Jim was a director of the Philadelphia Science Council, member of the editorial board of the *Journal of Catalysis*, chairman of the Advisory Board of the Center for Catalytic Science and Technology at the University of Delaware where he was Adjunct Professor, and was named Sunoco's Chemistry Fellow. He was the 1987 recipient of the Philadelphia Catalysis Club Award, the 1991 Schuit Lecturer at UD, program chairman of the World Congress on Catalytic Oxidation in 1997 and received the Murphree Award in Industrial Chemistry from the ACS in 2003.

After retiring from Sunoco, Jim was appointed to the Scientific Advisory Board of The Catalysis Group where he pursued work in catalytic science and technology. Now in retirement, Jim and his wife, Marlyne, live in Wallingford and visit their beach house on the Delaware shore as often as possible.

Dr. Vaidyanath Mahadevan

I was born in India and received my BS in chemistry from the University of Travancore in 1942 and a MS in organic chemistry from the Indian Institute of Science, Bangalore in 1944. At the end of WWII, I boarded a liberty ship, *Marine Adder*, for a 30-day voyage from Bombay to San Francisco and then traveled by train to Vancouver, British Columbia, Canada on a Government of India Scholarship. I received a MA in 1946 from the University of British Columbia. Contractual obligations required my return to India for two years, after which I came to the University of Minnesota in 1951 and received my PhD in Biochemistry in 1956. Due to visa regulations, I spent two years at the Banting Institute, University of Toronto on a postdoctoral fellowship and returned to the

University of Minnesota, Hormel Institute. I went back to India and was married in 1959. I was an Assistant Professor at Hormel Institute from 1958-1967, Senior Biochemist at the VA Hospital in Minneapolis from 1967-1972, worked at Supelco in Bellefont, PA from 1972-1978, and was an Assistant Professor at Temple University Medical School from 1978-1986.

My research work in the chemistry and biochemistry of lipids led to studies as diverse as dilatometric and X-ray diffraction studies on the polymorphism of Tristearin, synthesis of water-soluble phosphadidyl-cholines, lipids in relation platelet aggregation, fatty aldehydes from plasmologens, GC analysis of volatile fatty acids and mercaptans in blood and breath of patients with liver disease, purification and production of antibody to the enzyme Lecithin-cholesterol acyl tranferase (LCAT)

After retirement, I started and operated my own company, Deva Biotech Inc., for 12 years developing and marketing a variety of lipid and carbohydrate biochemicals used in research in various parts of the world.

I am the author or co-author of 75 scientific papers, reviews and book chapters. I served as an editor of the annual review of literature of the *Journal of the American Oil Chemists Society*, 1960-1965.

I am a member of the American Oil Chemists Society and Sigma Xi. I live with my wife Lakshmi in Warrington PA. Our two daughters and a son are all engineers, one each in electrical, mechanical and chemical engineering. We have four grandchildren. I enjoy traveling abroad with my wife and especially to historical and religious places in India. I spend my time reading historical books and visiting my children.

Dr. Victor E. Mello

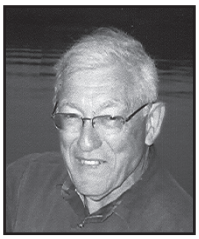
Dr. Victor E. Mello retired from E. I. Dupont in 1989 as Senior Engineering Consultant, after a career of 35 years with the company. He received his BS from Northeastern University (1949) and his PhD from Yale University (1957), both in chemical engineering.

After two years at the Dacron® Research Lab., Kinston, NC, he transferred to Eastern Laboratory, Gibbstown, NJ, working in process development of intermediates for fibers and resins (polyamides, polyesters and others), particularly in nitration and oxidation. One memorable study was improving multiphase reaction efficiency by means of high-speed cinematography of a transparent reactor to elucidate the role of mixing.

In 1972, he became a consultant in Dupont's engineering department, Newark, DE, for the remainder of his career, specializing in evaluation of new processes and improvement of existing plants. With the advent of environmental concerns, his work became focused more on environmental impact of the company's processes and products and development of uniform methods of assessment. He had a substantial role in developing engineering solutions for disposal of radioactive wastes. (Whether a political solution can be developed remains unanswered.)

Retirement to West Chester, PA brought the luxury of indulging in lifelong interests in books, horticulture and music, and "spending more time with his family" - his wife Anita Greenlee (a musician), and daughter and grandson of New York City.

Dr. Francis R. Pfeiffer



Education: BS, Rutgers University, chemistry; PhD, Temple University, organic chemistry (Dr. Francis H. Case). Post-doctorate, (Dr. Vlasius Gregorian, staff at Tufts and Harvard Universities).

Employment: GlaxoSmithKline (1960-1986) – pharmaceutical research, from medicinal chemist to Senior Investigator (28 patents and a total of 60 peer reviewed publications).

Drug Screening Systems (1989 to 1994) – Vice President of R&D and Technology, developed and manufactured eight different FDA-reviewed and approved portable assays for on-site detection of drugs of abuse, which led to a patent on new immunology technology, recruited all scientific staff for the projects.

F.R. Pfeiffer Associates (1987 to current), ongoing consultant in chemical and biological sciences – as a Forensic Scientist, has been accepted, and given testimony, in courts in six states and in federal courts in areas of chemistry, toxicology, pharmacology and immunology.

Married to Kay (1960), with three children and six grandchildren.

Hobbies: golf (member of Riverton Country Club for 31 years), saltwater fishing, completely renovated a NJ shore house, and international travel.

Service: Cinnaminson Township Board of Health; Cinnaminson PAL-coach, manager and league director in baseball and basketball, high school varsity soccer referee.

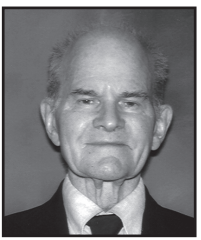
Dr. John A. Quinn

Dr. John Quinn received his BS in Chemical Engineering from the University of Illinois in 1954 and his PhD from Princeton in 1958, when he returned to Illinois to join the faculty. In 1971 he moved to the University of Pennsylvania and in 1978 he was named the first recipient of the Robert D. Bent Chair. He served as Chairman of the Department from 1980 to 1985. Among other appointments, he has been visiting professor at Imperial College, London, visiting scientist at MIT, Sherman Fairchild Scholar at Caltech and visiting professor at the University of Rome.

In recognition of his research contributions, he received the Colburn Award of the American Institute of Chemical Engineers in 1966 and the Institute's Alpha Chi Sigma Award in 1978. He delivered the Mason Lectures at Stanford, the Katz Lectureship at Michigan, and the Reilly Lectures at Notre Dame; he was the inaugural 1995 Alan S. Michaels Lecturer in Biological and Biomedical Engineering at MIT as well as Carnegie Mellon's 1997 Distinguished Research Lecturer in Chemical Engineering. He was elected to the National Academy of Engineering in 1978 and to the American Academy of Arts and Sciences in 1992.

On his retirement in 2003 his former students endowed an annual lecture in his name; the 6th lecture in the series was held at Penn last month. Currently he maintains his office at Penn and remains active as Emeritus Professor. He resides in Merion with his wife, Frances; their family includes three adult children and four grandsons.

William Retallick



About myself, I have completed over 25 years as a consultant to the process design course at the University of Pennsylvania. In my skunk-works lab I am developing a process for capturing the CO_2 in the stack gas from a power plant. This is a follow on to a design problem given to the students.

I stay in shape by running and playing racquet ball.

Frank Thomas Sanderson

I received my BS in Chemistry from the University of Delaware in 1954, and about that time also received a medal from the American Institute of Chemists. I then moved to the University of Illinois and was awarded an MS in Biochemistry from that institution in 1959. From 1957 to 1959 I served at the US Army Medical Research Laboratory in Fort

Knox, KY, synthesizing model compounds for a study of blood clotting mechanisms. I returned to Delaware and worked for Atlas Chemical Industries developing specialty urethane coatings and also unsaturated polyesters for corrosion-resistant reinforced plastics. In 1967, I joined the Rohm and Haas Company and from then to 1992 developed acrylic emulsion polymers for pressure-sensitive adhesives. I retired in 1992 and spent some years as a customer service volunteer at the Warminster Hospital and as a Bux-Mont Meals-On-Wheels volunteer.

In 2004, my wife and I moved into the Ann's Choice continuing care community in Warminster, PA where there are at least two other 50-year ACS members. Here I have been involved in the Ann's Choice Chorus, Model Railroad Club and Protestant Faith Council, retaining my role as Elder Emeritus at the nearby Trinity Orthodox Presbyterian Church. Travel mostly involves trips to visit grandchildren in Bolton, CT.

Please note that my friend, Thomas Frank Sanderson of Hercules graduated from the U of D at approximately the same time as I, and that has sometimes caused some confusion, although he has been a much more effective chemist than I as well as a super golfer and tennis player.

Dr. James S. Smith, CPC

I don't envy professional athletes. They play a game with umpires/referees and rule books. They make lots of money, but I make enough. They have ends to their careers, but I'm still having fun with chemistry.

The wonderful teachers at Williams College got me started with an AB in 1960, followed by a 1964 PhD in organic chemistry from Iowa State University, where professors held the bar high. Postdocs with D.Y. Curtin (University of Illinois) and F.W. McLafferty (Cornell) provided excellent guidance for testing scientific hypotheses through experimentation. Teaching chemistry to nonchemistry majors at Eastern Michigan University was rewarding. Working with industrial chemists for 12 years at Allied Chemical (now Honeywell) gave me a chemical manufacturer's viewpoint about research, development, and the environment. In the 1970s, the combination of organic, inorganic, physical, and analytical chemistry came together in the new field of environmental forensics.

Stints with Weston and Satterthwaite Associates and a passion for environmental forensics and expert testimony evolved into a new company, Trillium, Inc. Founded in 1987, Trillium works with clients to understand the chemistry of anthropogenic chemical releases to the environment. The past 22 years of chemical detective work has provided new and fascinating challenges. I cannot want for more.

Earl R. Sullivan

Born and raised in the Germantown Section of Philadelphia, Mr. Sullivan graduated from La Salle University in 1959 with a BS in Chemistry.

From 1959 until 1967, he was an Analytical Research Chemist with the Atlantic-Richfield Corporation.

He served in the United States Army Reserves from 1961-1967.

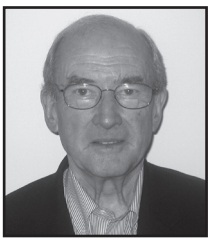
In 1967, he joined the American Society for Testing and Materials (ASTM), the largest standards development organization in the United States and was there until he retired as the Director of Technical Committee Activities in 2000.

While there, in addition to his many management functions, he served on USA Technical Advisory Groups (TAGs) to International Organization of Standards (ISO) Committees on Petroleum and Petroleum Products, Water Quality, Air Quality, and Steel, Stainless Steel. Additionally, he was appointed by the Secretary of the Interior to serve on the Advisory Committee on Water Quality of the US Geological Survey to represent the standards organizations of the United States.

With respect to his community activities, he served on the Hilltown Township, Bucks County Water and Sewer Authority as well as the township's Police Review Board.

His hobbies include outdoor activities, especially hunting and fly fishing, reading American History of the Revolutionary and World War II periods as well as enjoying activities with his four children (three sons and a daughter) and eight grandchildren (seven boys and a girl). He currently resides in the Harleysville, PA area.

Hank Whalen



After receiving a BS in Chemistry from Villanova University and attending night classes at Wharton, I spent three years at the Naval Boiler and Turbine Laboratory located at the end of Broad Street, to fulfill my NROTC Scholarship requirements. The lab consisted of 8 officers and 300 civilians. I never went aboard a ship unless it was docked.

Next, I went to a consulting firm (just the president and me) where I learned what the chemical business is all about. After this, I spent the next 10 years at Rohm and Haas in New Business Development on Acrylic films including pressure sensitive decals and reflective products and a tough thermoplastic sheet. I established a small marketing research group. One of our summer interns was the co-founder of Genentech.

I left Rohm and Haas and went to the First National Bank of Chicago as a Vice President. Here all my customers were chemical companies to whom I lent money. Returning to Philadelphia I spent my last 25 years to age 65 at PQ Corporation as Vice President and Director of Corporate Development. This included developing new businesses as well as acquisitions and overseas joint ventures.

All through these years, I was very active in the American Chemical Society (ACS). When I retired from PQ, I became a consultant to ACS as Director of Industry Relations. In this capacity, I called upon chemical industry senior management to promote the ACS, had them participate in symposia at National ACS meetings, and attended their meetings at the American Chemistry Council (ACC).

My involvement with ACS started when I was a Student Affiliate and continued through many major governance functions. It culminated with my being elected a Director and Chair of the Board. Some of my fondest memories are of the Executive Director's planning and budgeting meetings where one really got to know his or her peers and how everyone could better work together. One final point, I always felt that my company benefited from my work for ACS, where how to manage is part of the process.

God bless chemistry and the people who work in it.

Dr. Carl F. W. Wolf

My professional odyssey extends from the chemical engineering education (MIT SB 1953 SM 1954), to Professor Emeritus of Clinical Pathology and Laboratory Medicine at Cornell University in NY City. After MIT, ROTC led to two years in Army Medical Service Corps, Surgeon General's Environmental Health Laboratory in radiation protection. Next came DuPont's Experimental Station, Wilmington for eight years in the Polychemicals/Plastics Department. As an engineer with PhD chemists, we studied extrusion processes and looked for uses of ethylene copolymers, especially ethylene methacrylic acid and the newly discovered "ionomers," in packaging film and cable insulation. patients with liver failure using cultured liver cells grown on hollow fibers.

I demonstrated that concept in the Gunn rat before turning my attention wholly to clinical responsibilities as the subspecialty evolved into Transfusion Medicine and Cellular Therapy.

As I have wandered in the wonderland of biological and medical science's evolution into increasingly physical scientific disciplines, I have benefitted greatly from my ACS membership and Chemical and Engineering News, enjoying sharing that publication with my colleagues in medicine.

After eight DuPont years, I attended medical school at Philadelphia's Hahnemann Medical College, received an MD, while returning summers to DuPont to market research dialysis treatment of kidney failure using hollow textile fibers DuPont recently developed. Next came The New York Hospital/Cornell Medical Center, NY City for four years residency training in pathology and laboratory medicine with subspecialization in Blood Banking. I have spent my medical career at Cornell doing clinical work and teaching as Director, Blood Bank Laboratory and Chief, Transfusion Medicine, while simultaneously consulting at New York Blood Center on application of bar codes to blood products and codes used in the hospital environment, and doing R&D on my concept bioartificial liver support of patients with liver failure using cultured liver cells grown on hollow fibers. I demonstrated that concept in the Gunn rat before turning my attention wholly to clinical responsibilities as the subspecialty evolved into Transfusion Medicine and Cellular Therapy.

ALSO CELEBRATING 50 YEARS

Dr. Kenneth Batzar, Richard A. Baxter, Norman F. Bruce, Dr. Sheldon W. Dean, Dr. Guy Dominic Diana, Dr. James L. Diebold, Ellsworth E. Faust, George A. Frank, Paul L. Garwig, Dr. S. A. Giddings, Dr. Janice Taylor Gordon, Clair Warren Graver, Dr. Paul A. Kittle, Ray E. Kuhn, Dr. Robert Lehrer, Dr. Marvin L. Lewbart, Elizabeth D. Matz, Dr. A. Laird Slade, Dr. Jerry S. K. Yao.

SECTION MEMBERS CELEBRATING 60 YEARS WITH THE ACS

Richard G. Alexander, Dr. Kathryn S. Anderson, Donnell A. Ballard, John P. Barker, Raymond George Bistline, Dr. Scott J. Childress, Dr. Alfred W. Chow, Dr. Jack Dickstein, Dr. Bernard Joseph Downey, Dr. Dennis L. Funck, Daniel Louis Goffredo, Richard Stiles Greeley, Dr. Peter Hosler, Dr. Edward Maurice Kohn, Dr. Bernard Loev, Victor Mattei, Dr. Maurice James McDowell, Dr. Howard Carl Peterson, Edward L. Phillips, Louis George Pobo, Dr. Blaine Mote Sutton, Dr. Joseph Weinstock, Dr. Lester Weintraub, William C. Young.

609TH BOARD OF DIRECTORS MEETING

Thursday March 12, 2009

University of Pennsylvania

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, R. Gates, J. Summers-Gates, K. Thrush Shaginaw, S. Miller, V. Tortorelli, M. Matthews, A. Dent, D. Cook, R. Ewing, K. Yoder.

Excused: J. Tierney, M. Cichowicz, D. Cichowicz, T. Straub, D. Thomas, W. Smith.

Also Present: L. Harper, D. Hausner, H. Whalen.

The meeting was called to order at 4:05 PM per E. Davis acting on behalf of Chair Gates. The minutes for the February meeting were approved as amended.

COMMITTEES REPORTS:

Younger Chemists Committee (D. Hausner): Philaycc.org website should be up and running in the next two weeks.

Women Chemists Committee (K. Shaginaw): P.A.G.E.S.™ 6th grade girls program will take place at Chestnut Hill College on April 4th. Dr. Julia Plummer from Arcadia University is the keynote speaker. A full house is anticipated and perhaps one dozen will need to be turned away due to space limitations. A few volunteers are still needed.

OFFICERS' REPORTS:

Chair: R. Gates is still working on the May meeting, McCall Conference Center is a potential site.

Chair-Elect (J. Summers-Gates): Nanoexpress – site visit cost being investigated, October NCW is goal, Delaware and North New Jersey contacted (ACS Career Services collaboration).

Earth day, no formal events, expect packages to arrive to be distributed to P.A.G.E.S.™ participants. AWIS is doing monkey survey, looking to put together a one-day career workshop in the Fall, could ACS collaborate with AWIS, perhaps approach Trenton and Princeton with a follow-up call, perhaps our webmaster could assist?

Secretary (A. DeMasi for J. Tierney): no report.

Treasurer: C.J. Bruner reported that small bills have been paid. National will process local section allotments on March 17th. This means that monies should arrive while we are at the National meeting. C.J. Bruner is having funds put into the bank while we are in Salt Lake. All bills should be paid by the end of this month.

C.J. Bruner explained several line items including:

Line 1015 Withholding tax: C.J. explained the inputs and outputs.

Line 2100 NCW $677 - from Graduate School Forum last year.

The Board noted that the January meeting was very expensive. We had only budgeted $1500 for the whole year under the line item "Social." There was a recommendation that we consider a fee to participate; discussion followed. Other suggestions included having a corporate sponsor fund the event. Chair-Elect Gates was asked to follow-up. Doug Hausner would be interested depending on his availability. Offering a brochure/poster advertisement can carry a lot of weight. Now is the time to approach companies to do this. The Board agreed that the January meeting expenses should be charged against the Program budget rather than Social.

Treasurer's report was accepted as amended.

OTHER BUSINESS:

Bylaws: E. Davis began a discussion concerning the bylaw review process. She would like some input from the Board members. She will be working with D. Cichowicz in this endeavor. Key areas include allowing us to adopt electronic voting; National will provide "boiler plate." J. and M. Falcone, D. Cichowicz and V. Tortorelli have also volunteered. The process for identifying and replacing candidates for office also needs to be addressed. Documents will be distributed to the Board, Ella will then follow-up.

There being no further business the meeting was adjourned at 5:00PM.

Respectfully submitted,

Anne DeMasi (for John Tierney)

ADVANCE TOWARD PRODUCING BIOFUELS WITHOUT STRESSING GLOBAL FOOD SUPPLY

Scientists in California are reporting use of a first-of-its-kind approach to craft genetically engineered microbes with the much-sought ability to transform switchgrass, corn cobs, and other organic materials into methyl halides — the raw material for making gasoline and a host of other commercially important products. The new bioprocess could help pave the way for producing biofuels from agricultural waste, easing concerns about stress on the global food supply from using corn and other food crops. Their study is published in the May 20th issue of the *Journal of the American Chemical Society*, a weekly publication.

Christopher Voigt and colleagues note in the new study that using crop waste to produce methyl halides is one of the most attractive ways of transforming biomass into liquid fuels and chemical raw materials now derived from petroleum. Plants and microbes produce methyl halides naturally, but in amounts too small for commercial use.

Using a database of 89 genes from plants, fungi, and bacteria known to produce methyl halides, the researchers identified genes that were the most likely to produce the highest levels of these substances. The scientists then spliced these genes into Brewer's yeast — used to make beer and wine — so that the yeast cells churned out methyl halides instead of alcohol. In laboratory studies, the two engineered microbes helped boost methyl halide production from switchgrass, corn cob husks, sugar cane waste, and poplar wood to levels with commercial potential.

June Historical Events in Chemistry
by Leopold May
The Catholic University of America
Washington, DC

June 1, 1907	Frank Whittle, who designed and patented a jet aircraft engine, was born on this date. Hans von Ohain and Sir Frank Whittle are both recognized as being the co-inventors of the jet engine.
June 4, 1834	One hundred and seventy-five years ago, Jacob Volhard was born on this date. He did research in organic synthesis, including creatine, brominated organic acids, and thiophene compounds.
June 7, 1811	James Y. Simpson, an obstetrician, was born on this date. He was first to use chloroform as an anesthetic and introduced the use of ether in Great Britain.
June 10, 1832	Nikolaus A. Otto, who invented and patented a four-stroke an internal-combustion engine (first practical alternative to steam engine as a power source), was born on this date.
June 13, 1923	Lloyd Conover, who was born on this date, invented tetracycline.
June 16, 1897	Georg Wittig, a researcher in conversion of C=O to C=C (Wittig reaction), was born on this date. He shared the Nobel Prize in Chemistry in 1979 with Herbert C. Brown for their development of the use of boron- and phosphorus-containing compounds, respectively, into important reagents in organic synthesis
June 18, 1870	Charles Baskerville, who was born on this date, developed processes for refining and hydrogenation of oils, plastic compositions, and reinforced lead. He also did research in anesthetic chemistry.
June 23, 1775	Two hundred years ago in 1809, Etienne-Louis Malus discovered the polarization of light. The next year, he developed the theory of double refraction of light in crystals. He was born on this date.
June 25, 1864	Walther H. Nernst, who was born on this date, elucidated the theory of galvanic cells in 1889. In the same year he derived equations by which solids precipitate from saturated solutions. Seven years later, he discovered the Third Law of Thermodynamics. He developed an atomic chain reaction theory in 1918, an improved electric lamp (Nernst lamp) and an electric piano (which did not gain acceptance of musicians). In 1920, he received the Nobel Prize in Chemistry in recognition of his work in thermochemistry.
June 27, 1909	One hundred years ago, Arthur Clay Cope was born. He was a researcher in synthetic organic chemistry including medium-sized ring compounds.
June 28, 1825	Richard A.C.M. Erlenmeyer, researcher in synthesis of aliphatic compounds, isobutyric acid and guanidine, was born on this date. He also invented the Erlenmeyer flask.

Additional historical events can be found at Dr. May's website, http://faculty.cua.edu/may/Chemistrycalendar.htm or *This Week in Chemical History* on the ACS website, http://www.acs.org/whatischemistry.

CHEMICAL CONSULTANTS NETWORK

JUNE 10, 2009 MEETING

Visit our NEW web page at **www.chemconsultants.org**

Date & Time: Wednesday, June 10, at the Cynwyd Club, Bala Cynwyd, PA; Networking, 5:30 PM; Buffet, 6:15 PM; Forum and Business Session, 7:30 PM

Topic:

ANNUAL OPEN FORUM

AL FRESCO BUFFET

SPOUSES WELCOME!!!

Program: As in the past, we will informally exchange questions and experiences relating to our activities as independent chemical consultants or our interests in becoming one. This gathering has been one of our most popular and enjoyable events, so don't miss it!

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 .14 mi/750 ft). Do not follow Rte. 23 left at turn but instead go straight ahead onto Llandrillo Rd. (passing to right of Valley Press printing). In 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. 2. MAP

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 for individuals or $40 per couple. Reservation deadline is Thursday, June 4. DRESS IS CASUAL. Late reservations and walk-ins subject to availability. No-shows will be invoiced. Dietary restrictions accommodated on a limited basis. There is no charge for Forum only, but registration is suggested using contact information above.

BOOK REVIEW

Handbook of Vinyl Formulating, 2nd edition, ed. Richard F. Grossman. 544 pages, 6 ¼ by 9 ½ inches, caesbound. Wiley Interscience, Hoboken NJ, 2008. ISBN 978-0-471-71046-2, $125 from John Wiley & Sons, Inc., 111 River St., Hoboken, NJ 07030.

A large number of specialists in the field of polyvinyl chloride formulation contributed chapters to this thoroughly revised and updated version of the previous 1993 edition. The first several chapters review formulas, and costs, and specific gravity of various additives as well as the selection of resins for different applications.

Antidegradants are discussed in one chapter including antioxidants and stabilizers. Further chapters each deal with fillers, colorants, plasticizers, flame retardants, processing aids, and lubricants. Other formulating technologies are described for specialized applications.

One chapter elaborates on laboratory methods of measuring physical properties of PVC products, and another is devoted to regulatory and legislative matters that affect the plastics industry, including health, safety, and environmental issues.

Two chapters focus on formulating flexible PVC for coating and molding applications, and on formulating rigid PVC for extrusion. A final chapter addresses experimental design. The handbook will be useful to technologists the world over who are engaged in the formulation of the popular and widely used polyvinyl chloride goods.

—Alan Warren

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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
June 10	Chemical Consultants Network Annual Open Forum www.chemconsultants.org	Cynwyd Club Bala Cynwyd, PA
June 18	**Fifty-Year Recognition Luncheon**	**William Penn Inn Ambler, PA**
July 22-25	Second International Workshop on Hyperpolarized Carbon-13 and its Applications in Metabolic Imaging http://cmetracker.net/uprad	University of Pennsylvania Philadelphia, PA
Aug. 16-20	ACS Fall National Meeting	Washington, DC
Sept. 18	**September Section Meeting**	**TBA**
Oct. 15	**Philadelphia Section Award**	**TBA**
Nov. 19	**Ullyot Public Affairs Lecture: Dr. Joseph DeSimone, University of North Carolina**	**Chemical Heritage Foundation Philadelphia, PA**