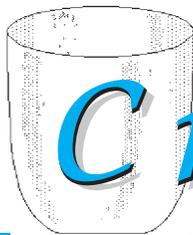




The Crucible



<http://membership.acs.org/P/Pitt>

Volume: XCV No. 1

September 2009

MARK YOUR CALENDAR!

National Chemistry Week is Coming!!!

Join the Pittsburgh Section of the American Chemical Society as we celebrate NCW 2009 with the theme

“Chemistry - It’s Elemental”

Where: Carnegie Science Center

When: Friday, October 23rd (9 AM to 3 PM)

Saturday, October 24th (10 AM to 5 PM)

What’s Happening: Over 25 tables of hands-on experiments, activities, and demonstrations, hourly raffle prizes, and special theater-style shows

The Pittsburgh Section ACS could use your help to make this year’s NCW celebration a success. Are you interested in volunteering to help with the event? Do you have an organization that would like to sponsor a hands-on activity at the event?

If you, or your organization, are interested in participating in this year’s NCW event, please contact:

Michael Mautino

Phone: 412-777-4792

E-mail: michael.mautino@bayerbms.com or vmikem@comcast.net

For more information about the NCW celebration in Pittsburgh, visit the Pittsburgh Section’s website at <http://membership.acs.org/P/Pitt>

You can also find additional information about NCW on the ACS’s website at <http://chemistry.org/ncw>

The Pittsburgh Section’s 2009 NCW activities are sponsored by the Bayer Corporation, the Carnegie Science Center, the PPG Industries Foundation, The Society for Analytical Chemists of Pittsburgh, and The Spectroscopy Society of Pittsburgh

2009 Pittsburgh Award and Distinguished Service Dinner Details on Page 2

Contents . . .

Mark Your Calendar	1
National Chemistry Week is Coming!	
Pittsburgh Award Dinner	2
ACS Pittsburgh Chemists Club	3
Society for Analytical Chemists of Pittsburgh	3
Pittsburgh September Meeting	
Spectroscopy Society of Pittsburgh	4
September Meeting	
Invest in Yourself by Attending ACS	5
ProSpectives Conferences	
Society for Analytical Chemists of Pittsburgh	5
Pittsburgh October Meeting	
Spectroscopy Society of Pittsburgh	6
Technology Forum - September Meeting	
This Month in Chemical History I	7
Energy Technology Group	7
Discover Boil This Down	7
Maintain Cutting-Edge Skills with ACS Continuing Education Courses	8
This Month in Chemical History II	9
Great Online Resources Debuts at 238 th ACS National Meeting in DC	9
Advertiser’s Index	11
Calendar	12



AMERICAN CHEMICAL SOCIETY
Pittsburgh Section
PITTSBURGH AWARD



Honoring 2009 Pittsburgh Award Recipient
Theodore Cohen
and
2009 Distinguished Service Award Winner
Mildred B. Perry

November 12, 2009
University Club
123 University Place, Pittsburgh, PA

Social Hour: 6:00 Cash Bar
Dinner: 6:45 PM
Award Presentations: 7:45 p.m.

Cost:

By October 25, 2009: \$40.00 Student or Postdoc \$20.00
After October 25, 2009: \$45.00 Student or Postdoc \$22.50
The awards ceremony is free and open to the public

Parking at Soldiers and Sailors

Registration Form: Make Checks payable to Pittsburgh Section ACS
To be registered for the dinner, you must include payment

Name _____

Address _____ State _____ Zip _____

E-mail _____

Affiliation: _____

Mail To :
Garry Warnock
Carnegie Mellon University
Department of Chemistry
1317 Doherty Hall
5000 Forbes Ave.
Pittsburgh, PA 15213

ACS Pittsburgh

Chemists Club

Pittsburgh Section, American
Chemical Society

September Meeting

Tuesday, September 29, 2009

Spaghetti Warehouse 2601 Smallman St.

Social Hour: 6:00 PM

Dinner: 6:40 PM

Program: 7:50 PM

“A Look at Stack Testing to Monitor Air Quality & Emissions”

Jill Merrill

President, Air/Compliance Consultants, Inc.

Abstract

Today many industries from power to incinerators to manufacturing plants face regulations regarding gaseous emissions. Gaseous monitoring with chemical testing and analysis are essential for companies to determine if they are in compliance and meet EPA standards. Emissions testing may involve sampling for a wide number of regulated pollutants, air toxins and fine particulates. This testing may involve a variety of analytical techniques including on-site sample titrations, FTIR, and GC. Stack testing is a way to monitor air contaminants. The local Pittsburgh company Air/Compliance Consultants, Inc. (ACCI) established in 1997 is listed on the Stack Testing National Directory. This talk will give us current information about the sampling techniques and analysis done in emission monitoring with stack testing.

Biography: Jill W. Merrill graduated in 1980 with a B.S. in Chemical Engineering from Pennsylvania State University and received her M.S. in Chemical Engineering from Illinois Institute of Technology. She began her career as Lead Engineer at Westinghouse Electric Company. In 1990 she became an Air Quality Manager at Shaw Environmental. In 1993 Jill became a Senior Engineer at ARCADIS/Geraghty & Miller. In 1997 the staff of Geraghty & Miller's Pittsburgh office formed Air/Compliance Consultants, Inc. (ACCI). For twelve years Jill has been president of ACCI, a company known to specialize in air quality and environmental compliance services and to provide consulting, engineering, testing and permitting services to industrial clients across the nation. Jill has written papers for several environmental journals, chaired several air quality committees at conferences and is involved in AWMA and AIChE.

*For Reservations, please call Ed Martin by noon
Friday September 25, 2009 at (724) 335 - 0904 or
by e-mail at edwardmartin1046@verizon.net*



Society for Analytical Chemists of Pittsburgh

September Meeting

Monday

September 14, 2009

8:00 PM

Duquesne University

Laura Falk Hall

“Quantitative Proteomics by Mass Spectrometry”

Thomas P. Conrads, Ph.D.,
University of Pittsburgh

Dinner Reservations:

Please e-mail William Straub, Arrangements Co-Chair at straub@pittcon.org, by Thursday, September 10, 2009 to make dinner reservations. Should you not have email, please call Bill at 412-372-9312. Dinner will cost \$8 (\$4 for students) and checks can be made out to the SACP. If you have any dietary restrictions, please let Bill know when you leave message.

Parking:

Duquesne University Parking Garage entrance is on Forbes Avenue. Upon entering the garage, you will need to get a parking ticket and drive to upper floors. Bring your parking ticket to the dinner or meeting for a validation sticker. Contact Dr. Mitch Johnson at Duquesne University if any difficulties arise.



SPECTROSCOPY SOCIETY OF PITTSBURGH

September Meeting, September, 16, 2009



Duquesne University, Mellon Hall of Science (Laura Falk Hall)

“Interlacing Basic Biophysical Research with Translational Clinical Studies: From Bench to Bedside and Back”

Ira W. Levin, Ph.D. - National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health

6:00 PM - Social Hour; 6:30 PM - Dinner, City View Cafe, 8:15 PM - Technical Program

Within biomedical venues significant emphasis is currently directed toward advancing medical science through interdisciplinary collaborations in which laboratory methodologies are readily modified both for understanding the molecular biology of human disease and for adaptation to clinical usage. We will introduce these concepts with several examples from our laboratory in which we apply spectroscopic techniques toward elucidating structural and biochemical characteristics of systems ranging from supramolecular assemblies to cellular organelles, tissues and organs. Specifically, we will touch upon high throughput spectroscopic imaging approaches to identify molecular biomarkers, in, for example, pharmacodynamic assessments of global protein modifications in cells treated with anticancer agents, such as histone deacetylase and proteasome inhibitors, agents used in ongoing clinical trials. In continuing collaborations with pathologists and oncologists, high-throughput vibrational spectroscopic imaging approaches have been successfully adapted to studies developed for histopathologic recognition. In examining structural elements relevant to the cellular membrane, we have investigated the putative roles of fluctuating lipid microdomains in regulating lipid bilayer behavior in various biological processes. We note that vibrational spectroscopic imaging techniques applied at the supramolecular level provide additional insights into biochemical processes as the spatial resolution approaches the nanometer scale. Our laboratory has participated directly at the patient level in collaborations with cardiologists and transplantation surgeons. For example, we will describe procedures in which visible reflectance imaging techniques are used to aid surgeons in performing laparoscopic procedures by allowing the assessment of tissue oxygenation and vessel differentiation despite significant visual limitations.

Bio: Dr. Levin received his B.S. degree from the University of Virginia and his Ph.D. degree from Brown University, as well as having engaged in postdoctoral experience at the University of Washington and having served a tour in the military. Having spent his professional career at the National Institutes of Health, he is currently Director of the Division of Intramural Research, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, in addition to being Chief, of the Section on Molecular Biophysics, at the NIH campus in Bethesda, Maryland. His research interests lie primarily in the applications of vibrational infrared and Raman spectroscopic techniques toward the elucidation of the conformational, dynamical, thermodynamic, and functional properties of both intact and model membrane assemblies and related systems. Emphasis is placed on investigating the specific lipid-lipid and lipid-protein interactions governing biomembrane reorganizations. In particular, his efforts are directed toward defining and characterizing lipid microdomain formation as it pertains both to the existence of lateral heterogeneities and transverse asymmetries within biological membranes and to the ability and extent of these fluctuating microclusters, or domain motifs, to modulate integral membrane protein behavior. He has been at the forefront of developing spectroscopic infrared, Raman and visible reflectance imaging instrumentation. Specifically, his laboratory has provided pioneering technologies and studies in spectroscopic Fourier-transform infrared and Raman microimaging. Current efforts are in actively translating laboratory imaging research into clinical venues ranging from monitoring disease progression by means of spectroscopic histopathologic classifications to in vivo hyperspectral visible reflectance imaging for assessing tissue perfusion, vascular disease and endothelial dysfunction. Recent research efforts also involve the use of vibrational infrared spectroscopic imaging to pharmacodynamically characterize, monitor and quantify molecular changes mediated by specific drug introduction.

Dr. Levin has been internationally recognized for his spectroscopic accomplishments and has been honored with many awards, including the Bomem-Michelson Award by the Coblenz Society, the Meggers Award (three separate award occasions) presented by the Society for Applied Spectroscopy, the distinguished Harold A. Iddles Lecture Series sponsored by the University of New Hampshire, and is a Fellow of the American Physical Society's Biophysical Division and, separately, a Fellow in their Division of Chemical Physics. He has also received the Lippincott Award in Vibrational Spectroscopy presented by the Optical Society of America. Dr. Levin is a Fellow of the Society for Applied Spectroscopy and has received Honorary Membership in the Society for his pioneering technologies and studies in spectroscopic Fourier transform infrared and Raman microimaging. Dr. Levin has also received the New York Section of the Society for Applied Spectroscopy Gold Medal Award for his spectroscopic research contributions. He has served on numerous editorial and foundation advisory boards and committees in various leadership capacities, has lectured extensively, and has authored and coauthored approximately two hundred and thirty publications, in addition to several patents, over the course of his career. Dr. Levin is a member of the American Chemical Society, the American Physical Society, the American Society for Biochemistry and Molecular Biology, the Biophysical Society, the Coblenz Society, and the Society for Applied Spectroscopy.

Dinner Reservations: Please email Carolyn Benga at crbssp@yahoo.com or call (412) 487-0915 to make dinner reservations NO LATER THAN FRIDAY, September 11, 2009. Dinner will cost \$8 and checks can be made out to the SSP. If you have dietary restrictions, please let Carolyn know when you RSVP. **Parking Instructions:** The Duquesne University Parking Garage is located on Forbes Avenue. Upon entering the garage, receive parking ticket and drive to upper floors. Pick up a parking chit at the dinner or meeting. If any difficulties arise, contact Dr. Mitch Johnson at Duquesne University.

INVEST IN YOURSELF by Attending ACS ProSpectives Conferences

STAYING CURRENT in the latest advances in drug development & design is perhaps the best job security you can have

SMALLER CONFERENCES guarantee great networking opportunities

NUMEROUS CASE STUDIES mean you learn in context

REGISTER EARLY AND SAVE \$\$

Tactical Approaches to the Challenge of Drug Failure

(Formerly Topics & Tactics in Current Drug Design)

Oct. 4 - 6, 2009 in Philadelphia, PA

at the Crowne Plaza Philadelphia Center City

*Co-chairs: Nick Meanwell of BMS, Milind Deshpande of Achillion

Process Chemistry in the Pharmaceutical Industry with Special emphasis on Continuous Manufacturing

Nov. 2 - 4, 2009 in Durham, NC at the Sheraton Imperial

*Co-chairs: Vittorio Farina of Johnson & Johnson,
Mo Movassaghi of MIT

*Continuous manufacturing program developed by James Evans of the
Novartis-MIT Center for Continuous Manufacturing
and Kevin Bittorf of Vertex

Please check www.acsprospectives.org regularly to obtain the most complete, up-to-date information available on all 2009 conferences, including confirmed speakers and abstracts as they become available.

If you have any questions, please email acsprospectives@acs.org or call 1- (800) 227-5558 and ask for ACS ProSpectives.

ACS Cut and Paste July/August 2009

A good vacuum system

needs a great vacuum trap:

Posi-Trap positive flow
vacuum inlet traps!

- No "blow-by" . . . **ever!**
- Filter elements matched to **your** application.
- **Easy** cleaning and changing.

When you want the best, you want MV Products.



PRODUCTS

A Division of Mass-Vac, Inc.

247 Rangeway Road ■ PO Box 359 ■ North Billerica, MA 01862
978 667 2393 Fax 978 671 0014 sales@massvac.com www.massvac.com



Society for Analytical Chemists of Pittsburgh

October Meeting

Monday

October 5, 2009

8:00 PM

Duquesne University

Laura Falk Hall

Speaker:

James P. Landers, Ph.D.

University of Virginia

Dinner Reservations:

Please e-mail William Straub, Arrangements Co-Chair at straub@pittcon.org, by Thursday, October 1, 2009 to make dinner reservations. Should you not have email, please call Bill at 412-372-9312. Dinner will cost \$8 (\$4 for students) and checks can be made out to the SACP. If you have any dietary restrictions, please let Bill know when you leave message.

Parking:

Duquesne University Parking Garage entrance is on Forbes Avenue. Upon entering the garage, you will need to get a parking ticket and drive to upper floors. Bring your parking ticket to the dinner or meeting for a validation sticker. Contact Dr. Mitch Johnson at Duquesne University if any difficulties arise.

Spectroscopy Society of
Pittsburgh

Technology forum

Wednesday, September 16, 2009

Dr. W. Jeff Hurst- The Hershey Company, Hershey PA

"Ethnobotanical Uses of Cocoa In Mesoamerica or Take 2 Kisses and Call Me in the Morning"

Duquesne University

Mellon Science Hall, Laura Falk Hall
5:30 p.m.

On a regular basis, the popular and scientific press makes mention or publishes a story on the positive health aspects of cocoa. A recent Pub Med search using chocolate cocoa and cardiovascular resulted in 130 citations and 32 reviews. The current interest in the topic commenced in the early 1980's when a scientist interested in hypertension came across a journal entry by a Dr. B.H. Kean, a physician who worked among the Kuna who were Maya descendants. Kean noticed a lower incidence of hypertension among the Kuna who had become resident of an isolated region called the San Blas archipelago. The search was not exhaustive but to illustrate the available information and interest in the topic. While not health related, our recent report on a discovery in the American Southwest resulted in over 255 media spots. This presentation will initially discuss some history of cocoa, some introductory chemistry and the medicinal/ethnobotanical uses of this important commodity in Mesoamerican at the time of the Maya and Aztec.

Bio

Dr. W. Jeffrey Hurst is a Principal Scientist at the Hershey Company Technical Center. His emphases are in separation science using standard, micro and nanotechniques, laboratory automation, the evaluation of new and emerging analytical technologies, the development and evaluations of methods for the determination for food allergens and the application of nontraditional analytical methods to food analysis. He was the founding editor and editor in chief of Laboratory Robotics and Automation, an international journal with a focus on all facets of automation in the laboratory until it ceased publication. He is the founding editor of the Wiley-Interscience book series on laboratory automation serves on the editorial board of the Journal of Liquid Chromatography and was founding editor of Seminars in Food Analysis. He was a contributing editor for Scientific Computing and Instrumentation and prepared a monthly column on some aspect of instrument and laboratory operations. He is a member of the American Chemical Society (ACS), Laboratory Robotics Interest Group of New Jersey (LRIG), a Professional Member of the Institute of Food Technologies, American Society of Mass Spectrometry (ASMS), a Fellow of the American Institute of Chemists (FAIC), a Certified Professional Chemist (CPC), a Fellow of the Royal Australian Chemical Institute (FRACI) and a Chartered Chemist (CChem). Within the AIC, he is chair of the committees on Advanced Professional Thinking, Local Institutes and co-chair of the Editorial Board of The Chemist. He has served a co-leader of the Chemical Measurement Subgroup in the ACS/AICHe/CMA Chemical Industry Technology Roadmap. He is a member of the Continuing and Distance Education Faculty of Penn State University and serves as Adjunct Professor of Comparative Medicine and a member of the graduate faculty at the M.S. Hershey Medical Center. He also has served on graduate examination committees at McGill University, Montreal, Quebec, Canada, Duquesne University and the University of Cordoba, SPAIN. In 1986 he was awarded a Pioneer in Laboratory Automation award by the International Symposium on Laboratory Robotics and in 2000 was named a Fellow of AOAC International. He is senior author of Laboratory Robotics, A Guide to Planning Programming and Applications, editor of Automation in the Laboratory, English language editor of Analytical Techniques for Food and Agricultural Products, editor of Electronic Noses and Sensor Array Based Systems and is editor of Analysis of Functional Foods and Nutraceuticals. He is an author on over 200 papers and presentations. He has developed in excess of 175 methods using chromatography, spectroscopy, spectrometry, immunoassay and assorted analytical techniques on food, environmental and biological samples. He also serves on the Analytical Methods Review Committee of the American Herbal Pharmacopoeia (AHP). He has participated in a peer review panel of the Institute for Regulatory Sciences on Chemical Analysis Automation and also participated on NSF Review Panels for Educational Chemical Instrumentation. He also serves as a reviewer for numerous journals including J. Chromatography, Journal of Liquid Chromatography, Journal of Ag and Food Chem. Journal of Food Science, Analytical Chemistry and Annals of Internal Medicine to list a few.

He is active in his community by serving as President of the Mt Gretna Campmeeting Association Board of Managers, Additionally, he is a member of the Mt Gretna Arts Council, Chair of the Scholarship Committee, a Trustee of the Mt Gretna Area Historical Society and Chair of the Museum Committee.

This Month in Chemical History I

Harold Goldwhite
California State University, Los Angeles
hgoldwh@calstatela.edu

In one of my recent, periodic forays, in search of interesting older books on chemistry I purchased a volume on "Chemistry of Insecticides and Fungicides" by Donald E. Frear, Ph.D., Assistant Professor of Agricultural And Biological Chemistry, the Pennsylvania State College. This book was originally published by the D. Van Nostrand Company, Inc. in New York in 1942 and obviously had some popularity. It was reprinted in 1943 and in 1945; my copy is of the third printing. It was apparently the first book by a U.S. author on this topic.

Donald Frear was a widely recognized expert on the chemistry and analysis of pesticides. His career is summarized in the second volume of "American Chemists and Chemical Engineers", Wyndham D. Miles and Robert F. Gould, Editors, Gould Books, Guilford Connecticut, 1994. Following his B.S. from Penn State in 1926 he earned an M.S. at the University of New Hampshire two years later. His association with Penn State resumed in 1930, as an instructor in animal nutrition. He earned his Ph. D. there in 1937 and was appointed Assistant Professor. He was promoted to Professor in 1944.

Frear's scientific and authorial output was prodigious. He was the author of over 30 books, counting various editions, and over 125 articles. He was editor of "The Pesticides Handbook" for over 20 years. Penn State opened in 1968 its Pesticides Research Laboratory and Frear was appointed its Director and Professor of Chemical Pesticides. His research focused on pesticide analysis and he was a pioneer in the detection of DDT residues in soils and animals. He also contributed largely to the study of mineral requirements in the

nutrition of farm animals. He developed elegant techniques for assaying various pesticides, including biological systems for microassays. He was one of the most distinguished chemists working on agriculturally related subjects in the period 1930 to 1970. Frear died in 1973, at the age of 67; he is buried in State College Pennsylvania.

The book I purchased recently has the "classic" look of a Van Nostrand scientific book, immediately recognizable for its period. It is bound in black, with the spine decorated in maroon and gold with the title, author, and publisher. I have a handful of similar volumes in my library, but the company moved away from that recognizable style in later years.

In his Preface Frear notes that the book is the outgrowth of the notes he used in a graduate lecture course on the subject of insecticides and fungicides, and to make it as useful as possible he included an extensive bibliography to help readers in their search for further information.

To put the period of this book into context it was written before the introduction of halogenated hydrocarbons and phosphorus-centered compounds as insecticides. These compounds revolutionized the field after World War II, with some far-reaching consequences, some of which, like the detection of DDT residues, became the subjects of Frear's later research. In the following column I will look at the state of pesticide and fungicide chemistry in 1940.

ACS Cut and Paste July/August 2009

ENERGY TECHNOLOGY GROUP

Pittsburgh Section,
American Chemical Society

The Energy Technology Group will resume monthly meetings in October. We have several interesting talks in the works for the months ahead, and will keep everybody informed via the Crucible and email notices.

We need your input on potential speakers and topics, places to eat, and any other ideas you may have for the Group. We would also like to enlist one or two volunteers who would consider helping with the leadership of the Group, especially for planning meetings. Please contact us soon. Thanks.

Tom Ruppel, Chair
412-995-8943
truppel@verizon.net

Al Mann, Chair-Elect
412-661-5947
alfred.mann@verizon.net

Discover Boil This Down

Curious to know how some chemists got to where they are in their industry career? Visit <http://boilthisdown.org> to read short interviews with chemists in the various industry sectors and their suggestions on how you can get there too.

ACS Cut and Paste July/August 2009

BOOST OUR RATINGS

When you tell our advertisers that you saw their ads here they have more confidence in our newsletter's viability as an advertising medium. They advertise more. This supports our many activities.

Maintain Cutting-Edge Skills with ACS Continuing Education Courses

According to a recent article in the Wall Street Journal, “maintaining cutting-edge skills” ranked among the top 5 tips for avoiding being a target for layoffs. ACS offers courses designed to help chemical scientists and technicians keep current in today’s competitive marketplace. Our Short Course Circuits, ACS National Meeting Courses, and Laboratory/Lecture Courses are offered in convenient locations around the country to minimize travel costs and time spent away from the office.

Short Course Circuits

The ACS Short Course Circuit offers the opportunity to take advantage of a wider range of course offerings in a single location and network with a variety of your colleagues.

September 14-16, 2009 | Seattle, WA Circuit

Courses in Analytical Chemistry, Organic Chemistry, Engineering, Management, Cheminformatics, Polymer Chemistry, Quality Assurance and Toxicology

September 21-25, 2009 | Chicago, IL Circuit

Courses in Analytical Chemistry, Biochemistry, Organic Chemistry, Medicinal Chemistry, Engineering and Quality Assurance

October 12-16, 2009 | Central New Jersey Circuit

Courses in Analytical Chemistry, Biochemistry, Organic Chemistry, Medicinal Chemistry, Engineering, Management and Quality Assurance

October 18-20, 2009 | Louisville, KY Circuit in conjunction with the 2009 FACSS meeting

Courses in Analytical Chemistry, Organic Chemistry, Laboratory Safety and Quality Assurance

November 2-6, 2009 | La Jolla, CA Circuit

Courses in Analytical Chemistry, Organic Chemistry, Medicinal Chemistry, Laboratory Safety, Management, Cheminformatics, and Quality Assurance

December 7-11, 2009 | Houston, TX Circuit

Courses in Organic Chemistry, Laboratory Safety, Engineering, Management, Cheminformatics, Polymer Chemistry and Quality Assurance

Laboratory/Lecture Courses

Get in-class and hands-on experience with Laboratory/Lecture Courses from the ACS.

October 5 - 9 | Chicago, IL

High Performance Liquid Chromatography: Fundamentals, Troubleshooting, and Method Development

November 9 - 13; | Chicago, IL

Gas Chromatography: Fundamentals, Troubleshooting, and Method Development

August 9 - 14; December 6 - 11 | Virginia Tech, Blacksburg, VA

Polymer Chemistry: Principles and Practice

October 4-9 | Virginia Tech, Blacksburg, VA

Fundamentals of Polymers and Interfaces for Adhesives, Composites, and Sustainable Structures

ACS Cut and Paste July/August 2009

This Month in Chemical History II

Harold Goldwhite
California State University, Los Angeles
hgoldwh@calstatela.edu

In one of my recent, periodic forays, in search of interesting older books on chemistry I purchased a volume on "Chemistry of Insecticides and Fungicides" by Donald E. Frear, Ph.D., Assistant Professor of Agricultural And Biological Chemistry, the Pennsylvania State College. This book was originally published by the D. Van Nostrand Company, Inc. in New York in 1942 and obviously had some popularity. It was reprinted in 1943 and in 1945; my copy is of the third printing. It was apparently the first book by a U.S. author on this topic.

Donald Frear was a widely recognized expert on the chemistry and analysis of pesticides. His career is summarized in the second volume of "American Chemists and Chemical Engineers", Wyndham D. Miles and Robert F. Gould, Editors, Gould Books, Guilford Connecticut, 1994. Following his B.S. from Penn State in 1926 he earned an M.S. at the University of New Hampshire two years later. His association with Penn State resumed in 1930, as an instructor in animal nutrition. He earned his Ph. D. there in 1937 and was appointed Assistant Professor. He was promoted to Professor in 1944.

Frear's scientific and authorial output was prodigious. He was the author of over 30 books, counting various editions, and over 125 articles. He was editor of "The Pesticides Handbook" for over 20 years. Penn State opened in 1968 its Pesticides Research Laboratory and Frear was appointed its Director and Professor of Chemical Pesticides. His research focused on pesticide analysis and he was a pioneer in the detection of DDT residues in soils and animals. He also contributed largely to the

study of mineral requirements in the nutrition of farm animals. He developed elegant techniques for assaying various pesticides, including biological systems for microassays. He was one of the most distinguished chemists working on agriculturally related subjects in the period 1930 to 1970. Frear died in 1973, at the age of 67; he is buried in State College Pennsylvania.

The book I purchased recently has the "classic" look of a Van Nostrand scientific book, immediately recognizable for its period. It is bound in black, with the spine decorated in maroon and gold with the title, author, and publisher. I have a handful of similar volumes in my library, but the company moved away from that recognizable style in later years.

In his Preface Frear notes that the book is the outgrowth of the notes he used in a graduate lecture course on the subject of insecticides and fungicides, and to make it as useful as possible he included an extensive bibliography to help readers in their search for further information.

To put the period of this book into context it was written before the introduction of halogenated hydrocarbons and phosphorus-centered compounds as insecticides. These compounds revolutionized the field after World War II, with some far-reaching consequences, some of which, like the detection of DDT residues, became the subjects of Frear's later research. In the following column I will look at the state of pesticide and fungicide chemistry in 1940.

ACS Cut and Paste July/August 2009

Great Online Resource Debuts at 238th ACS National Meeting in DC

Look for the debut of a new innovative and paperless electronic online experience for ACS members and potential members. Called ACS Now More than Ever, it's the next generation ACS e-annual report plus an overview of ACS member benefits available now. This interactive Web site showcases many of the ACS resources that can help you further your research, jumpstart your career and plan your professional future.

Beginning on Aug. 12, you can check it out online at www.acs.org/now. Better yet, visit our ACS Now More than Ever booth at the Washington Convention Center during the 238th ACS National Meeting in Washington, D.C., Aug. 16- 20. Those who visit the booth will be eligible to win an iPod touch.

In the 2008 ACS e-annual report, you will still find our financial information, yearly highlights and officers' message. If you would like to just read the e-annual report, go to www.acs.org/annualreport.

But we hope you will take time to enjoy the fuller multimedia experience available at www.acs.org/now, which not only offers access to the ACS e-annual report, but also showcases many of the ACS resources that can help you further your research, jumpstart your career and plan your professional future.

From career advice to educational opportunities to networking possibilities and beyond, this online overview will lead you in the right direction. It's also a great recruiting tool if people ask you why they should join ACS.

ACS Cut and Paste July/August 2009

Business Directory

Services

NMR Service 500MHz

*Mass

*Elemental Analysis

NuMega Resonance Labs

numegalabs.com P- 858-793-6057

Services

TELL OUR ADVERTISERS

Membership surveys show that you want more articles in our newsletter. If you tell our advertisers that you saw their ad here, they will provide more financial support and this will allow us to add more articles.

Specialized Analytical Testing

INDSPEC Chemical Corporation

- Chromatography
- Absorption Spectroscopy
- Physical Measurement
- Chemical Analysis
- Thermal Analysis

For further information, please contact the Manager
Analytical Testing Services Hamarville Technical Center
412-826-3666, E: Barbara_Buchner@oxy.com

Services



**SOCIETY FOR
ANALYTICAL CHEMISTS
OF PITTSBURGH**

Calling New Members

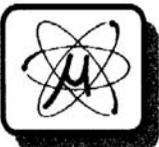
Dues Only \$5.00/year, Call Valarie Daugherty
412-825-3220 Ext. 204 **Right Now!**

**SPECTROSCOPY SOCIETY OF
PITTSBURGH**



We're beating the drum for new members

Dues Only \$5.00/year
Call Jennifer Cassidy Right Now!
412-825-3220 ext 218



Micron Analytical Services

**COMPLETE MATERIALS CHARACTERIZATION
MORPHOLOGY CHEMISTRY STRUCTURE**

SEM/EDXA • EPA/WDXA • XRD XRF • ESCA • AUGER • FTIR • DSC/TGA

Registered with FDA • DEA GMP/GLP Compliant

3815 Lancaster Pike Wilmington DE. 19805

E-Mail micronanalytical@compuserve.com

Voice 302-998-1184, Fax 302-998-1836

Web Page: www.micronanalytical.com

WANT MORE ARTICLES

When you tell our advertisers that you saw their ads here they have more confidence in our newsletter's viability as an advertising medium. They advertise more. This supports our many activities.



Robertson Microlit Laboratories

Where speed and accuracy are elemental

Elemental CHN, S, X, Analysis (*same day service*)

Metals by ICP-OES, ICP-MS, A/A

FTIR, UV/VIS Spectroscopy

Ion Chromatography

Bioavailability

Polarimetry

DSC, melting point

KF Aquametry, Titrmetry

P.O. Box 927 • 29 Samson Ave. • Madison, NJ 07940 • 973.966.6668 • F 973.966.0136

www.robertson-microlit.com • email: results@robertson-microlit.com

Rapid Results • Quality • Accuracy • Competitive Pricing

Stay up-to-date on all the happenings of the Pittsburgh Section ACS by visiting the section's website.

[http://
membership.acs.org/P/Pitt](http://membership.acs.org/P/Pitt)

Business Directory

Services

PITTSBURGH SECTION OFFICERS

Chair:

Nick Tsarevsky
Department of Chemistry
Carnegie Mellon Univ.
4400 Fifth Ave.
Pittsburgh, Pa. 15213
412-735-4869
nvt@andrew.cmu.edu

Chair-Elect

Garry Warnock
DH 2114 Doherty Hall
5000 Forbes Ave.
Pittsburgh, PA 15213
412-268-4229
warnock@andrew.cmu.edu

Secretary

Joseph Jolson
5867 Solway Street
Pittsburgh, PA 15217
412-480-3049
joe@customclientsolutions.net

Treasurer

Simion Coca
PPG Industries Inc.
Research Center
4325 Rosanna Drive
Allison Park, PA 15101
412-492-5558
coca@ppg.com

Services

Crucible Deadline

The deadline for items submitted to The Crucible is the 1st of the month prior to publication.

For example, all items for the October 2009 issue must be to the editor by September 1, 2009.

The Crucible

The Crucible is published monthly, August through May. Circulation, 2,500 copies per month. Subscription price, six dollars per year. All statements and opinions expressed herein are those of the editors or contributors and do not necessarily reflect the position of the Pittsburgh Section.

Editor

Traci Johnsen
124 Moffett Run Rd.
Aliquippa, PA 15001
Phone: 724-378-9334
Fax: 724-378-9334
tracijohnsen@comcast.net

Advertising Editor

Vince Gale
MBO Services
P.O. Box 1150
Marshfield, MA 02050
Phone: 781-837-0424

Career Opportunities

SEARCHING FOR THAT SPECIAL JOB?

There are many companies and organizations searching for chemical and biochemical personnel to fill important jobs in their organizations.

- Companies for laboratory and management positions
- Universities & Colleges for teaching positions and laboratory personnel
- Hospitals for technical and research personnel

There are several web sites that may help you search for these open positions.

- www.mboservices.net
- <http://www.acs.org>

ADVERTISERS INDEX

INDSPEC Chemical Corporation	10
MASS VAC, Inc.	5
Micron inc.	10
NuMega Resonance Labs	10
Robertson Microlit Laboratories	10
Society for Analytical Chemists of Pittsburgh	10
Spectroscopy Society of Pittsburgh	10

The Crucible

A newsletter of the Pittsburgh Section of the American Chemical Society
124 Moffett Run Rd.
Aliquippa, PA 15001

NON-PROFIT ORG.
U. S. POSTAGE

PAID

PITTSBURGH, PA
Permit No. 196

Change of Address

If you move, notify the American Chemical Society, 1155 Sixteenth Street, N.W., Washington, D.C. 20036.

To avoid interruption in delivery of your CRUCIBLE, please send your new address to Traci Johnsen, 124 Moffett Run Rd., Aliquippa, PA 15001. Allow two months for the change to become effective.

Pittsburgh Area Calendar

Monday, September 14

Society for Analytical Chemists of Pittsburgh

"Quantitative Proteomics by Mass Spectrometry"

Thomas P. Conrads, Ph.D., University of Pittsburgh
Duquesne University, Laura Falk Hall

Wednesday, September 16

Spectroscopy Society of Pittsburgh Technology Forum

"Ethnobotanical Uses of Cocoa in Mesoamerica or Take 2 Kisses and Call Me in the Morning"

Dr. W. Jeff Hurst, The Hershey Company, Hershey PA

"Interlacing Basic Biophysical Research with Translational Clinical Studies: From Bench to Bedside and Back"

Ira W. Levin, Ph.D., National Institute of Diabetes and Digestive
and Kidney Diseases, National Institutes of Health
Duquesne University, Mellon Hall of Science (Laura Falk Hall)

Tuesday, September 29

ACS Pittsburgh Chemists Club

"A Look at Stack Testing to Monitor Air Quality & Emissions"

Jill Merrill, President, Air/Compliance Consultants, Inc.
Spaghetti Warehouse, 2601 Smallman St, Pittsburgh

Monday, October 5

Society for Analytical Chemists of Pittsburgh

James P. Landers, Ph.D., University of Virginia

Duquesne University, Laura Falk Hall

October 23 & 24

National Chemistry Week Celebration

Carnegie Science Center

*Additional chemistry related seminars and events in the Pittsburgh area can be found
on the Pittsburgh Section's website at <http://membership.acs.org/P/Pitt>*