

The Crucible

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

Volume: XCI No.1

September 2005

David Pratt Selected as 2005 Pittsburgh Award Recipient

Professor David Pratt of the University of Pittsburgh has been selected to receive the 2005 Pittsburgh Award. The award, established in 1933, recognizes contributions toward increasing chemical knowledge, promoting industry, benefiting humanity or advancing the Pittsburgh Section. A full list of past award winners can be found on the section website (<http://membership.acs.org/P/Pitt/>). An award dinner will be held later in the fall, at a time and place to be announced in a forthcoming Crucible.

Professor Pratt is renowned for both outstanding teaching and groundbreaking research. During his more than 25 years on the Pitt faculty, he has received numerous awards for teaching excellence, he has mentored more than 100 undergraduate research students and he has supervised more than 50 doctoral students. He has lectured in the Chemistry Olympics and developed a training grant for K-12 science teachers in the Pitt School of Education. He is currently engaged in the development of a two-term interdisciplinary science course for students in the humanities and social sciences in collaboration with colleagues in physics, astronomy, geology, and biology.

Professor Pratt's research contributions run wide and deep; he has conducted pioneering research in high resolution gas phase electronic spectroscopy, enabling highly accurate determinations of the structures and dynamical properties of large molecules in the gas phase. These experiments allow his group to probe the weak binding associated with, for instance, peptides and enzyme analogues, and to discover how this binding changes with the conformation - the folded structure - of these large molecules. The significance of this research is

that it answers the fundamental question of how the strength of nonbonded interactions within molecules influences their structure and chemical reactivity; it thus illuminates the basic interactions responsible for biological function. The instrumentation for this work, developed in Professor Pratt's laboratory, has now been copied by several labs around the world.

During his career, Professor Pratt has published more than 150 articles in the peer-reviewed literature. He has served on the editorial boards of the Journal of Chemical Physics, Molecular Physics, the Journal of Molecular Spectroscopy, and the Journal of Molecular Structure. His research has led to numerous awards prior to the Pittsburgh Award, including the E. K. Plyler Award for Molecular Spectroscopy from the American Physical Society.

Submitted by Neil Donahue



**2005 Pittsburgh Award
Recipient, David Pratt**

Contents . . .

David Pratt Selected as 2005 Pittsburgh Award Recipient	1
SSP September Meeting	3
Real-Time Studies of Reversible and Irreversible Processes using a Planar Array Infrared (PA-IR) Spectrograph	
SACP September Meeting	4
"Synthesis, Characterization, and Electrocatalysis Using Dendrimer-Encapsulated Catalysts"	
Creating and Updating Your Chemistry.org Account	4
ACS Pittsburgh Chemists Club	5
"Cellular and Molecular Magnetic Resonance Imaging"	
HIST Plans Certificate of Appreciation Award Presentation	5
SSP Technology Forum	5
"See How the Challenger Learning Center Inspires Students to Excel in Math and Science"	
National Chemistry Week 2005	6
Call for Nominations - Citation for Chemical Breakthrough Awards	6
SACP October Meeting	7
ACS Directory of Graduate Research	7
ACS Releases 2004 Annual Report	8
Plan Now to Attend the ACS Leaders Conference	9
Advertiser's Index	10
Calendar	12



EASTERN ANALYTICAL SYMPOSIUM

November 14-17, 2005 Somerset, New Jersey

Highlights of the 44th EAS include:

**Twenty-four one- and two-day short courses • Sixteen half-day exhibitor workshops
Four student seminars • Sixty-five oral and poster sessions on topics including:**

- Pharmaceutical Excipients - Analytical and Regulatory Development
- Emerging Applications in Solid-State NMR Spectroscopy
- PAT in the Pharmaceutical Industry
- High Speed and High Resolution Separations
- Advances in Mass Spectrometry for Disease Biomarkers
- Recent Advances in Spectroscopic Imaging
- Nanotechnology and Emerging Analytical/Bioanalytical Applications
- Homeland Security
- Industrial Microscopy
- High Temperature HPLC: Principles and Applications

Exhibitors displaying the latest in instrumentation, products, and services catering to those in analytical chemistry and the allied sciences

For more information on the 2005 Eastern Analytical Symposium please visit our web site at

www.eas.org

Or contact us by telephone at **610-485-4633**

by fax at **610-485-9467**

by email at **easinfo@aol.com**

Eastern Analytical Symposium

P.O. Box 633

Montchanin, DE 19710-0633





SPECTROSCOPY SOCIETY OF PITTSBURGH



September Meeting, Wednesday, September 21, 2005

Duquesne University

Mellon Hall of Science, Laura Falk Auditorium

6:00 PM - Social Hour, 6:30 PM - Dinner (City View Cafe - 6th Floor)

8:00 PM - Business Meeting, 8:15 PM - Speaker's Presentation

“Real-Time Studies of Reversible and Irreversible Processes Using a Planar Array Infrared (PA-IR) Spectrograph”

JOHN F. RABOLT

Department of Materials Science and Engineering

Delaware Biotechnology Institute University of Delaware

Abstract

The invention of Fourier Transform IR (FT-IR) spectroscopy has proven to be one of the most important advances in modern instrumentation development. Optical spectroscopy utilizing the interference of light waves has made fast, sensitive detection of molecular vibration/rotation possible due to the large throughput and multiplex advantages provided by FT instrumentation. Interestingly enough, the same technological innovations, which have made FT-IR the instrument of choice for over thirty years, have also made FT-IR instruments extremely sensitive to their operating environment. As a result, the need for thermal stability, mechanical vibration isolation and stringent optical alignment has put severe limitations on where and how an FT-IR instrument can be used, confining it, for the most part, to the laboratory environment.

We have recently developed a new kind of IR instrument, which uses a focal plane array (FPA) detector onto which a beam of light dispersed by a prism or grating is focused. In this planar array IR (PA-IR) spectrograph, the broad range of frequencies displayed on the pixel array simultaneously make this a multi-frequency technique without using the complex scanning mechanism or computational requirements (for Fourier transformation of the data) used in FT-IR instruments. Thus the no-moving parts configuration of the PA-IR instrument provide the ruggedness required to make the instrument the size of a “shoe-box” and hence portable. In addition the increased sensitivity (100-1000X over single element FT-IR detectors) of the FPA allows an IR spectrum to be accumulated in as little as 10 μ sec. This speed in acquisition allows irreversible processes (e.g., film fracture, spontaneous chemisorption, Langmuir film compression, etc.) to be studied “real-time” and several examples of ultra fast IR studies of molecular orientation and organization in bulk materials and thin films will be given.

Biography

John F. Rabolt is currently the Karl W. and Renate Boer Professor of Materials Science and Engineering at the University of Delaware where he also holds a position as an Associated Faculty in the Delaware Biotechnology Institute. Before joining the University of Delaware in 1996 as Chair of the Department of Materials Science and Engineering, Professor Rabolt was a Research Staff Member (1977-96) at the IBM Almaden Research Center where he served as a Co-Director of the NSF Center on Polymer Interfaces and Macromolecular Assemblies (CPIMA), a Stanford/IBM/UC-Davis Materials Research Science and Engineering Center. His research interests are in the area of polymer deformation and orientation, electrospun polymer nanofibers, organic thin films, IR/Raman spectroscopy and biomolecular materials. He received the Pittsburgh Spectroscopy Award in 2005, and previously received the Bomem-Michelson Award in Molecular Spectroscopy in 2000, the 1993 Ellis R. Lippincott Award in Vibrational Spectroscopy, the 1992 Louis A. Strait Award in Applied Spectroscopy, the 1990 Williams-Wright Award in Molecular Spectroscopy and the 1985 Coblentz Award. In addition to serving as Chair of 3 Gordon Conferences (Organic Thin Films-1996, Polymers (West)-1990 and Vibrational Spectroscopy-1990), J. Rabolt is an APS Fellow and also served as an Associate Editor of the ACS Journal, MACROMOLECULES from 1991-2001. He is a past member of the Gordon Research Conference's Scheduling and Selection Committee and is currently a member of NASA's Microgravity Materials Science Advisory Committee. Professor Rabolt has co-authored more than 180 peer-reviewed publications, 1 book and 8 patents.

Dinner Reservations: Please call Carolyn Benga at 412-487-0915 or e-mail cbenga@aol.com to make dinner reservations NO LATER THAN FRIDAY, September 16, 2005. 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: 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. Contact Dr. Mitch Johnson at Duquesne University if any difficulties arise.



Society for Analytical Chemists of Pittsburgh

September Meeting

Monday, September 12, 2005

Duquesne University, Maurice Falk Hall

“Synthesis, Characterization, and Electrocatalysis Using Dendrimer-Encapsulated Catalysts”

Richard M. Crooks, PhD

Professor of Chemistry

University of Texas (Austin)

Social Hour 5:30 P.M.

Student Affiliates Meeting, Duquesne Room (Student Union) 5:45 P.M.

Dinner - Student Union, City View Café (6th Floor) 6:30 P.M.

Business Meeting - 7:40 P.M.

Technical Presentation 8:00 P.M. Maurice Falk Hall

In this talk we show that dendrimers can be used as both templates and stabilizers for preparing nearly monodisperse transition-metal nanoclusters suitable for fundamental studies and for use in catalysis. These interesting new materials are prepared by sorbing metal ions (Cu, Pt, Pd, Au, Ru, etc.) into poly(amidoamine) (PAMAM) dendrimers where they complex with interior tertiary amine groups. Subsequent chemical reduction of the metal ions yields dendrimer-encapsulated metal nanoparticles, ranging in size from 1 - 3 nm, that contain the same number of atoms as were initially preloaded into the dendrimer. By preloading the dendrimer templates with two different types of metal ions it is possible to prepare nanoparticle alloys. Likewise, core/shell nanoparticles can be synthesized by loading the dendrimer with metal ions, reducing them to yield a metal nanoparticle seed, reloading the dendrimer with a different type of metal ion, and reducing a second time. Using these approaches, we have prepared PdPt, PdAu, and AuAg alloys, as well as Au/Ag and Pd/Au core/shell nanoparticles. UV-vis spectroscopy, TEM, EDS, SAXS, and selective extraction experiments confirm the properties of these materials. The electrocatalytic properties of these materials depend on their size, composition, and structure.

Bio: Richard M. Crooks received a B.S. degree in chemistry from the University of Illinois and a Ph. D. in electrochemistry from the University of Texas (Austin) in 1987. Following a two-year postdoctoral appointment at MIT, he moved to the University of New Mexico in 1989 and then to Texas A&M University in 1993. In 2005 he returned to the University of Texas (Austin), where he is presently professor of chemistry. His interests include bioanalytical chemistry, nanomaterials, catalysis, and electrochemistry. He is presently a senior editor for the journal *Langmuir*. He has published more than 200 research papers.

Dinner Reservations: Please call William Straub at 412-372-8312 or e-mail straub@pittcon.org, by September 8, 2005 to make dinner reservations. If you want to be placed on the permanent dinner list, let William know when you RSVP. Dinner will cost \$8 (\$4 for students) and checks can be made out to the SACP. If you have any dietary restrictions, let William know when you leave message.

Parking: Duquesne University Parking Garage entrance is on Forbes Avenue. Upon entering the garage receive parking ticket and drive to upper floors. Pick up a parking sticker at the dinner or meeting. Contact Dr. Mitch Johnson at Duquesne University if any difficulties arise.

Creating and Updating Your Chemistry.org Account

Create a chemistry.org account today and you can renew your membership, journal subscriptions, and update your contact information all online! Change of e-mail? It's easily updated with a few clicks of the mouse. To create your chemistry.org account, follow the instructions given when clicking on the new member link at chemistry.org. You'll need your membership number in order to create a personalized account.

How do I find my membership number? Your membership number is located on your membership card or on the mailing label of your Chemical & Engineering News. Your membership number will be either the first seven or eight numbers on your mailing label.

Also, did you know that you can personalize your chemistry.org homepage? After registering with chemistry.org, you can access the mychemistry.org area, where Division memberships, national meetings, OASYS and community activities can all be added to your mychemistry.org webpage. In addition, ACS members enjoy access to special content such as access to ACS benefits, career tools, and AAAS's Science Next Wave.

Create a new chemistry.org account today!

Note: ACS is committed to e-commerce in its Units. With the new database system, all separate (Membership, Meetings, Pubs, NCW, etc) databases will be combined making it easier to provide services to ACS members.

Dr. Vicki Finkenstadt
Research Chemist
National Center for Agricultural Utilization Research
United States Department of Agriculture
1815 N. University St. Peoria, IL 61604
(tel) 309-681-6469 (fax) 309-681-6691

ACS Cut and Paste July/August 2005

*ACS Pittsburgh
Chemists Club*

Pittsburgh Section, American Chemical Society

Tuesday, October 25, 2005

*“Cellular and Molecular
Magnetic Resonance Imaging”*

by

Professor Eric T. Ahrens
Department of Biological Sciences
Carnegie Mellon University

Duranti's Restaurant

128 N. Craig St., Pittsburgh, PA
6:00 PM Cocktail Time - Cash Bar
6:30 PM Dinner, 7:45 PM Program

For reservations, please call Ed Martin by noon, Friday, October 21, 2005 at (724) 335-0904 or e-mail at esm@icubed.com.

Abstract

“In recent times there has been an explosive expansion of new imaging methodologies that are capable of visualizing specific populations of cells and molecular events in vivo. Vital imaging enhances our ability to study animal models of human development and disease, such as cancers, cardiovascular disease, diabetes, and Alzheimer's. Furthermore, noninvasive imaging may ultimately be useful for monitoring new generations of clinical molecular and cellular therapeutics, such as those utilizing viral vectors and stem cells. These new capabilities have been facilitated by the development of new imaging probes or reagents that target specific cell types, are chemically responsive to physiology, or are responsive to the presence of specific molecules, such as nucleic acids or enzymes. This talk will highlight recent technological developments using magnetic resonance imaging (MRI) to visualize cells and molecules in the body.”

Biography

Dr. Ahrens earned his B.S., M.S. and Ph.D. in physics at the University of California, L. A. His Ph.D. dates from 1994. He did post doctoral work at the California Institute of Technology. He's been a professor at CMU since 2000, and is also a faculty member at the University of Pittsburgh in the Department of Neurobiology, Center for the Neural Basis of Cognition, and the Cancer Institute. He has 35 publications in physics and biology. His current exciting research, some patented, is in the area of NMR exploration of cells and molecular events in vivo.

*HIST Plans
Certificate of
Appreciation Award
Presentation*

The Division of the History of Chemistry (HIST) of the American Chemical Society will present its Certificate of Appreciation award to Chemical & Engineering News at the ACS National Meeting in Washington, D.C. on August 29, 2005. Chemical & Engineering News, the flagship newsmagazine of the ACS, was honored for continuously placing current events within their historical contexts; for feature articles that discuss the history of science; and for special “dedicated issues” honoring the history of chemistry. Rudy Baum, Editor-in-Chief, will lecture on “Finding the Historical Perspective in New of the Chemical Enterprise”. In congratulating C&EN, Jeffrey Seeman, Chair of HIST, said, “The entire chemical profession has benefited tremendously from the educational, informative and entertaining qualities of C&EN. HIST is very proud to join publicly in this recognition.”

ACS Cut and Paste July/August 2005



**Wednesday
September 21, 2005**

*“See How the Challenger
Learning Center
Inspires Students to Excel
in Math and Science”*

**Jackie Shi
Marketing Director
Challenger Learning Center**

National Chemistry Week 2005

"The Joy of Toys!"

MARK YOUR CALENDAR!

National Chemistry Week (NCW) 2005 is scheduled for October 16-22, 2005. The 2005 NCW theme is "The Joy of Toys!" Each year NCW reaches over 30 million people with positive messages about the contributions of chemistry.

The Pittsburgh Section will be holding a two-day event at the Carnegie Science Center on Friday and Saturday, October 21 and 22, from 9:00 a.m. to 5:00 p.m. each day. There will be over 25 tables throughout the Carnegie Science Center, staffed with volunteers from area businesses, professional societies, high schools, colleges and universities, performing hands-on activities, demonstrations, and special theater-style shows.

The Pittsburgh Section is looking for individuals and groups to assist in coordinating these events and activities. If you have not volunteered or attended a Local Section activity in the recent past, here is a great opportunity to get involved. This could be your opportunity to help educate the public of the importance that chemistry plays in the quality of our daily lives. Your participation will ensure that the Pittsburgh Section brings about a positive change in the public's impression of science and will help to promote a positive message about chemistry, particularly to elementary and secondary school children.

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 on the ACS's NCW website at <http://www.chemistry.org/new>

To volunteer yourself or your organization to participate in this year's NCW celebration, contact the Pittsburgh Section's NCW Coordinator:

V. Michael Mautino
Bayer MaterialScience LLC
100 Bayer Rd. Bldg. 2
Pittsburgh, PA 15205
Phone: 412-777-4792
Fax: 412-777-7864
E-mail:
michael.mautino@bayermaterialscience.com



Call for Nominations Citation for Chemical Breakthroughs Award

The Division of History of Chemistry (HIST) of the American Chemical Society solicits nominations for its new award program, Citation for Chemical Breakthroughs. This award recognizes breakthrough publications and patents worldwide in the field of chemistry. The term "breakthrough" refers to advances in chemistry that have been revolutionary in concept, broad in scope, and long-term in impact. Plaques, to be placed near the office or laboratory where the breakthroughs were achieved, will be presented annually to the departments and institutions at which these breakthroughs occurred. All nominations must be received by October 1, 2005. Information can be found on the HIST website, under the heading "Divisional Awards": <http://www.scs.uiuc.edu/~mainzv/HIST/> or write to: hist_ccb@yahoo.com.

ACS Cut and Paste July/August 2005

Your Partner For Analytical Support Services

Rapid Results • Quality • Accuracy • Competitive Pricing



Robertson Microlit Laboratories

- Elemental CHN S, X Analysis - same day service
- Atomic Emission Spectroscopy
- Atomic Absorption Spectroscopy
- FTIR Spectroscopy
- UV / VIS Spectrophotometry
- Mass Spectrometry
- Chromatography
- Bioavailability
- Polarimetry
- Calorimetry
- Titrimetry
- Wet Chemistry
- KF Aquametry

P. O. Box 927 • 29 Samson Avenue • Madison, NJ 07940
Tel: (973) 966-6668 Fax: (973) 966-0136
www.robertson-microlit.com
email: results@robertson-microlit.com



Society for Analytical Chemists of Pittsburgh

October Meeting

Monday, October 3, 2005
Duquesne University, Maurice Falk Hall

Speaker and Topic TBA

Social Hour 5:30 P.M.

Student Affiliates Meeting, Duquesne Room (Student Union) 5:45 P.M.

Dinner - Student Union, City View Café (6th Floor) 6:30 P.M.

Business Meeting - 7:40 P.M.

Technical Presentation 8:00 P.M. Maurice Falk Hall

Dinner Reservations: Please call William Straub at 412-372-8312 or e-mail straub@pittcon.org, by September 29, 2005 to make dinner reservations. Dinner will cost \$8 (\$4 for students) and checks can be made out to the SACP. If you have any dietary restrictions, let Bill know when you leave message.

Parking: Duquesne University Parking Garage entrance is on Forbes Avenue. Upon entering the garage receive parking ticket and drive to upper floors. Pick up a parking sticker at the dinner or meeting. Contact Dr. Mitch Johnson at Duquesne University if any difficulties arise.

ACS Directory of Graduate Research

The American Chemical Society ACS Directory of Graduate Research 2005 is the premier source of information on faculty and their research at programs in chemistry, chemical engineering, biochemistry, polymers and materials science, marine science, toxicology, medicinal/pharmaceutical chemistry, and environmental science in the U.S. and Canada. It lists faculty member biographical information, area of specialization, titles of all papers published within the last two years, individual telephone numbers, and FAX numbers. It also contains listings for over 600 academic programs, 10,000 faculty members, and 100,000 publication citations. Published in odd-numbered years by the ACS Committee on Professional Training, the 2005 edition of the Directory contains current faculty information for the 2005-2006 academic year.

DGRweb 2005, the online version of the DGR, is a fast, efficient search engine that contains all of the information in the print version of the Directory. With DGRweb 2005 you can search for faculty by virtually any field in the DGR, including specific research area, academic rank, gender, and state. Search results include complete contact information for faculty including direct links to faculty e-mail addresses and web pages. Institutional searches provide all departmental contact information along with statistical data for the department and a complete list of faculty active in graduate research. Take DGRweb 2005 for a spin when it is released in late October 2005 at <http://chemistry.org/education/DGRweb>. DGRweb 2005 includes access to the complete 1997, 1999, 2001, and 2003 databases.

ACS Cut and Paste July/August 2005

STOP WASTING \$\$\$ on vacuum pumps!!

Rebuilding is smart.

A new pump costs **four times** what rebuilding costs.

Rebuilding is easy.

Just call 978 667 2393 for service second-to-none.

Mass-Vac does the job right.

- Factory trained technicians.
- Rebuilt and new pumps in stock.
- No-hassle parts and labor guarantee.
- Complete line of filtration and trap systems.

Because a really old, really healthy vacuum pump is a beautiful thing!



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

ACS Releases 2004 Annual Report

The ACS Office of Communications is pleased to announce the release of the 2004 ACS Annual Report. Members are invited to view the enhanced web edition of the report online at <http://chemistry.org/acsannualreport>.

The enhanced web version of the report includes embedded links to the websites of various Society programs, along with additional highlights of the Society's operational divisions.

In their combined officers' message for the report, ACS Board Chair Jim Burke, 2004 President Chuck Casey, and Executive Director & CEO Madeleine Jacobs write: "By their very nature, annual reports are a chance for reflection; an opportunity to look in the rearview mirror and assess how well we navigated the twists and turns and unexpected bumps in the highway over the past 12 months. But they also offer an opportunity to look ahead. Our 2004 annual report does both – it's a review, but with an eye toward the future."

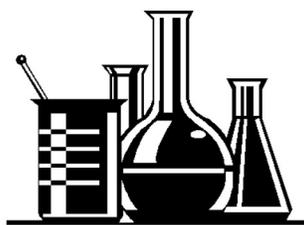
This year's report, "Crossing Boundaries, Crossing Disciplines," focuses attention on the truly multidisciplinary nature of the chemical sciences. The report also spotlights four specific ACS programs that directly affect the lives of many individuals – ACS Scholars, Project SEED, Teacher Training, and the ACS Green Chemistry Institute.

Please take this opportunity to browse through the report and perhaps even share it with colleagues,

relatives, friends and neighbors. It's a great way to provide them with some insight into what it means to belong to the world's largest scientific society.

The Office of Communications welcomes your questions, comments and feedback at annualreport@acs.org. Members may also request a printed copy of the 2004 ACS Annual Report by sending an e-mail to annualreport@acs.org.

ACS Cut and Paste July/August 2005



Plan Now to Attend the ACS Leader's Conference January 2006 in Baltimore, MD

If you are a new ACS leader—whether leading a local section, a division, or a national committee; running a regional meeting; serving as a career consultant; or emerging as a leader as a younger chemist—plan to attend the ACS Leaders Conference scheduled for January 28 – 30, 2006, at the Baltimore Marriott Waterfront. Learn how to plan, organize, and inspire your constituency and how to make a difference for the Society and the profession of chemistry! Get further information by calling ACS at (800) 227-5558 and requesting to speak with the office working with the group with which you are affiliated: Local Sections, ext. 6096; Technical Division Advancement, ext. 4064; national committees, ext. 6070; regional meetings, ext. 6264; career consultants, ext. 6076; and younger chemists, ext. 6262.

ACS Cut and Paste July/August 2005

We Focus on Doing Chemistry!

- FDA Inspected
- cGMP Synthesis
- Controlled Substances
- Custom Synthesis
- Small Lots Manufacturing
- Polymer Chemistry
- Process Development

Chemo Dynamics, LP

3 Crossman Road South
Sayreville, New Jersey 08872
Phone: 732-721-4700 • Fax: 732-721-6835
www.chemodynamics.com
E-mail: info@chemodynamics.com
John Arnett, Ph.D., Director of Operations

Fahrenheitz Receives Regional Award for Advancing Diversity

On behalf of the ACS Board of Directors and Committee on Minority Affairs, ACS President-Elect E. Ann Nalley presented the Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences to Susan R. Fahrenheitz during the 27th Middle Atlantic Regional Meeting Awards Banquet held in New Brunswick, NJ on May 24, 2005. Fahrenheitz was honored with a plaque and monetary award for her commitment and support of Project SEED and the ACS Scholars Program within the North Jersey Local Section.

The Stanley C. Israel Award for Advancing Diversity in the Chemical Sciences recognizes individuals and/or institutions that have

advanced diversity in the chemical sciences and significantly stimulated or fostered activities that promote inclusiveness within the region. For nomination of individuals, the packet should include a letter of no more than three pages, a seconding letter, and a CV or résumé. For the nomination of institutions, the packet should include the first two items and a brief description of the institution. Nomination documents should be mailed to Committee on Minority Affairs, American Chemical Society, 1155 16th Street N.W., Washington, D.C. 20036. For additional information on this award, please send an E-mail to diversity@acs.org.

ACS Cut and Paste July/August 2005

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)

SURPRISE

our editor by calling and saying you appreciate the quality and content of our newsletter. Our editor works hard to maintain a publication of interest to our membership. Oh, and by the way you could also give credit to our advertisers who financially support us.



A Successful Formula...

Matching the right person to the right position is our strength.

ATTENTION SCIENTISTS!

Looking to excel in the scientific industry? Lab Support provides outstanding temporary positions in the fields of Biotech, Pharmaceutical, Food and Beverage, Materials Science, and Environmental Laboratories. Assignment openings include:

- Chemists
- Biologists
- Biochemists
- Microbiologists
- Laboratory Technicians and Assistants
- Health and Safety
- Research Associates

Competitive pay and great benefits incl. Medical/dental.
Call NOW! EOE.

(800) 998-3332



On Assignment
LAB SUPPORT®

www.labsupport.com

Business Directory

Services

Chemical Analysis Services

- Materials Identification/Deformulation
- Competitive Product Analysis
- Defects / Failure Analysis
- Polymer Analysis and Testing



Custom Synthesis of Chemicals
FTE & Bulk Production in Shanghai, China
On-time Delivery, Quality & competitive Price

TYGER Scientific Inc.

324 Stokes Ave, Ewing, NJ 08638
Phone: 888-329-8990; Email: sales@tygersci.com

Micron Analytical Services

COMPLETE MATERIALS CHARACTERIZATION
MORPHOLOGY CHEMISTRY STRUCTURE

3815 Lancaster Pike Wilmington DE. 19805

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

E-Mail micronanalytical@compuserve.com

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.

Services

Polymer Problems?

Complete Polymer Deformulation
Good vs. Bad Comparison
Expert Witness

Testing Services
DSC, TGA, IR, UV-Vis, GC, HPLC, NMR,
Light Scattering, GPC/SEC, MW, MWD, Viscometry,
Mass Spec.

RUSH SERVICE!
(508) 966-1301
jordiflp@aol.com



PROTECT

Your Expensive Lab Work With Research and
Development Record Books

STOCK RECORD BOOKS

B50D ---- Fifty pages and fifty duplicates
1/4 inch sqs. on right pages

B100P --- 100 - 1/4 inch sqs. on right pages
100 - 10 sqs. per inch on left pages.

B200P --- 208 1/4 inch sqs. on right and left pages
B200PH - 208 horizontally lined right and left pages.

Books have instruction and TOC's. Page size 11 x 8 1/2.
Hard extension brown cloth covers. Pages open flat.

\$14.50 EACH, FOB Chicago

CUSTOM MADE BOOKS TO ORDER

Scientific Bindery Productions, Inc.
2612-18 W. Nelson, Chicago, IL 60618
Phone: 773-267-1129 Fax: 773-267-1218

www.scientificbindery88yrs.com

Services

SPECTROSCOPY SOCIETY OF PITTSBURGH



We're beating the drum for new members

Dues Only \$5.00/year
Call Gerry Churley Right Now!

412-825-3220 Ext. 204



SOCIETY FOR ANALYTICAL CHEMISTS OF PITTSBURGH

Calling New Members

Dues Only \$5.00/year, Call Gerry Churley
Right Now!

412-825-3220 Ext. 204

Specialized Analytical Testing

INDSPEC Chemical Corporation

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

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

DESERT ANALYTICS

LABORATORY

- CHNOSP Halogens
- Metals by AA / ICP
- Ion Chromatography
- Trace Analysis
- Coal/Petroleum

≡ Fast, Reliable Service ≡

No Charge for Phone/Fax Results

P.O. Box 41838 245 S. Plumer, #24
Tucson, AZ 85717 Tucson, AZ 85719
Fax 520-623-9218 Phone 520-623-3381

Web: desertanalytics.com

E-mail: thelab@desertanalytics.com

We Accept:

ANALYSIS FOR THE CHEMICAL ELEMENTS

ADVERTISERS INDEX

Chemir Analytical Services	10
Chemo Dynamics LP	8
Desert Analytics	10
Eastern Analytical Symposium	2
INDSPEC Chemical Corporation	10
Jordi FLP	10
Lab Support	9
MASS VAC, Inc.	7
Micron inc.	10
PPG	10
Robertson Microlit Laboratories	6
Scientific Bindery Productions	10
Society for Analytical Chemists of Pittsburgh	10
Spectroscopy Society of Pittsburgh	10
Schwarzkopf Microanalytical	11
Tyger Scientific Inc.	10

Analytical Services

Surface Analysis (AFM, ESCA, Auger, SIMS)

AA/ICP/DCP

Classical Analysis

IR/Near IR/UV/Vis/Raman

NMR (Liquids, Solids, LC)

MS (Probe, GC, LC, MS/MS, High Res)

Chromatography (GC, HPLC, GPC, IC)



TEM/SEM/EMP

Optical Microscopy

Thermal Analysis

X-Ray (XRF, XRD)

Contact Timothy Flood

(724) 325-5163 or ppglabs@ppg.com

Directory

Services

SCHWARZKOPF

Microanalytical Laboratory

Elemental & Trace Analysis
Organics, Inorganics
Organometallics
Metals by AA & Graphic Furnace
Functional Grps. - Mol. Wt.
Calorimetry
Total S. F. Halogens TOX
Coneg Testing Custom Analysis

56-19 37th Ave. Woodside, N.Y. 11377
(718) 429-6248

schwarzkopfmicro@aol.com

Career Opportunities

EMPLOYMENT

*The Crucible will accept at no charge,
POSITION WANTED ADS
from unemployed ACS members*

Contact:

Traci Johnsen
124 Moffett Run Rd.
Aliquippa, PA 15001
724-378-9334

e-mail: tracijohnsen@comcast.net

PITTSBURGH SECTION OFFICERS

Chair:

Neil M. Donahue
Carnegie Mellon University
Department of Chemistry
4400 5th Ave.
Pittsburgh, PA 15236
412-268-4415
nmd@andrew.cmu.edu

Chair-Elect

James Manner
125 Oak Pointe Dr.
Monroeville, PA 15146
412-372-6390
manner@peoplepc.com

Secretary

Bernard Durkin
399 Elm Rd.
Ambridge, PA 15003
Westminster College
Box 41
New Wilmington, PA 16172
724-266-0129 (home)
724-946-6296 (work)
724-946-6296 (fax)
durkinbm@westminster.edu

Treasurer

Christine DeNardo
412-777-4820
Bayer MaterialScience LLC
100 Bayer Rd.
Pittsburgh, PA 15205
christine.denardo@bayermaterialscience.com

Career Opportunities

RECRUITING ?

The Crucible readership is greater Pittsburgh's largest source for chemical and biochemical personnel.

The Crucible reaches more than 5,000 readers each month. These professionals perform in the following areas:

INDUSTRY	Management & R&D	67%
ACADEME	Faculty & Admin	14%
STUDENTS	Grad & Post-docs	10%
CONSULTING & CLINICAL LABS		5%
GOVERNMENT		4%

Our ACS publications are said to provide more **qualified resumes** than newspaper ads because of the highly targeted technical audience.

For further information contact
MBO Advertising Services
P-781-837-0424
E-vincegale@adelphia.net

The Crucible

Material must be received by the 1st of the month prior to publication for inclusion in *The Crucible*. This rule will be enforced in order to distribute *The Crucible* to readers in a timely manner (before the 1st day of every publication month).

The Crucible is published monthly, August through May. Circulation, 3,000 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
Fax: 781-837-8792
vincegale@adelphia.net

Pittsburgh Area Calendar

September

- Mon. 12 **Society for Analytical Chemists of Pittsburgh (SACP)**
Duquesne University, Maurice Falk Hall
"Synthesis, Characterization, and Electrocatalysis Using Dendrimer-Encapsulated Catalysts"
Richard M. Crooks, PhD, Professor of Chemistry, University of Texas (Austin)
- Wed. 21 **Spectroscopy Society of Pittsburgh (SSP)**
Duquesne University, Mellon Hall of Science, Laura Falk Auditorium
"Real-Time Studies of Reversible and Irreversible Processes Using a Planar Array Infrared (PA-IR) Spectrograph"
John F. Rabolt, Department of Materials Science and Engineering, Delaware Biotechnology Institute, University of Delaware
- Wed. 21 **Spectroscopy Society of Pittsburgh (SSP) Technology Forum**
Duquesne University, Mellon Science Hall
"See How the Challenger Learning Center Inspires Students to Excel in Math and Science"
Jackie Shi, Marketing Director, Challenger Learning Center
- Tues. 27 **ACS Pittsburgh Chemists Club**
Duranti's Restaurant
"Forensic Science"
Dr. Charles L. Winek, Director of Pittsburgh Criminalistics Laboratory

October

- Mon. 3 **Society for Analytical Chemists of Pittsburgh (SACP)**
Duquesne University, Maurice Falk Hall
TBA
- Tues. 25 **ACS Pittsburgh Chemists Club**
Duranti's Restaurant
"Cellular and Molecular Magnetic Resonance Imaging"
Professor Eric T. Ahrens, Department of Biological Sciences, Carnegie Mellon University
- 21-22 **National Chemistry Event**
Carnegie Science Center

*The
Crucible*

124 Moffett Run Rd.
Aliquippa, PA 15001

A newsletter of the Pittsburgh Section of the American Chemical Society

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.