American Chemical Society Newsletter

Pittsburgh Section

The Crucible

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

Volume: LXXXVII No. 2 October 2001

Pittsburgh Section Wins Second Phoenix Award

During the 222nd ACS National Meeting held in Chicago IL this past August, the Pittsburgh Section of the ACS was the recipient of a national ACS award for its NCW 2000 program. As part of the ACS's 3rd annual ChemLuminary Awards ceremony, the Pittsburgh Section received an ACS "Phoenix Award," given for volunteer efforts associated with the NCW community outreach program in the category of "Greatest Community Involvement."

Participation in the Pittsburgh Section's 2000 NCW program was seen from many sectors including city, county and state government officials, local companies and corporations, several prominent Pittsburgh based professional societies, elementary and secondary schools, colleges and universities, technical schools; and non-profit organizations.

V. Michael Mautino, Pittsburgh Section Alternate Councilor and NCW Coordinator, organized the Section's 2000 NCW celebration held at the Carnegie Science Center on Friday and Saturday, November 10-11, 2000. Over 240 volunteers from all across southwestern Pennsylvania staffed 22 tables with various hands-on science experiments, activities and demonstrations, which focused on the national ACS unifying theme "Kitchen Chemistry." Attendance for this two-day event was over 5700 (a 50% increase over 1999 attendance for the same two-day event). Indirectly, 2.64 million people were reached through advertising and television and newsprint coverage of the event. "Chemistry Week" proclamations were received from the Mayor of Pittsburgh, the Allegheny County Chief Executive, and the Governor of Pennsylvania. Sponsors for the 2000 NCW program included The Spectroscopy Society of Pittsburgh (SSP), The Society for Analytical Chemists of Pittsburgh (SACP) and Bayer Corporation.

This was the Pittsburgh Section's second "Phoenix Award" in two years. In August 2000 the Section received an award in the category of "Greatest Increase in Membership Involvement," for volunteer efforts associated with the 1999 NCW program. The Section saw a 1500% increase in member involvement in 1999, over the 1998 NCW program.

The Pittsburgh Section would like to thank the NCW sponsors and everyone that participated in the 2000 NCW event. Without the support and commitment by the SSP and SACP, local section ACS members, students from local colleges and secondary schools, and area corporations the 2000 NCW would not have been a success.

In 2001 the Pittsburgh Section will once again hold NCW activities at the Carnegie Science Center, on Friday and Saturday, November 9-10, 2001. Join in the event as we "Celebrate Chemistry and Art" with special shows and exhibits from the Culinary Institute, Frick Art and Historical Center, the Pittsburgh Ballet Theater, and the Point Park College Dance program.

Contents . . .

SPECTROSCOPY SOCIETY OF PITTSBURGH

October Meeting

Wednesday, October 17, 2001

Duquesne University

Dinner - City View Cafe (6th Floor).....6:00 p.m.
Business Meeting.....8:00 p.m.
Speaker's Presentation.....8:15 p.m.

"Insights into the Asteroid Belt"

Professor William A. Cassidy
Department of Earth and Planetary Sciences
University of Pittsburgh

It is generally assumed that most meteorites come from the asteroid belt, and they are currently the only concrete samples we have of that part of the solar system. Our meteorite collections have recently been greatly augmented by approximately 28,000 specimens from Antarctica. The Antarctic collection has provided some new insights and supplemented some of the old ones, so now seems an appropriate time to review our ideas about meteorites and about the history of the asteroid belt. Below is a semi-detailed outline of the classification of meteorites:

Irons	Stones		Stony Irons
	Chondrites	Achondrites	
IAB	H	Acapulcoites/Lodranite	Mesosiderite
IC	L	Angrites	Pallasites
IIAB	LL	Aubrites	
IIC	CC	Brachinites	
IID	EH	HED	
IIE	K	Ureilites	
IIF	R	Winonaites	
IIIAB		Lunar	
IIICD		Martian	
IIIE			
IIIF			
IVA			
IVB			

Starting with the Primordial Cloud, we can infer the formation of a Solar Nebula, the formation of the sun and planets, and failed processes of planet formation in the Asteroid Belt, which produced the range of meteorite groups

Dr. William A. Cassidy received his Ph.D. in 1961 from Pennsylvania State University. He is currently Professor Emeritus at the University of Pittsburgh. Dr. Cassidy is interested in the origin and evolution of planetary and subplanetray bodies in the solar system and the origin of cosmic dust. His research activities include experimental studies of nonequilibrium crystallization in a plasma (i.e., dust condensation in stellar atmospheres), field recovery of meteorites, field studies of recent, small craters, and cosmic dust collection and analysis. Dr. William A. Cassidy proposed, devised, and led the U.S. Antarctic Search for Meteorites (ANSMET) from 1973 until 1993, after having observed that nine different specimens collected on a field of ice by Japanese glaciologists in 1973 belonged to at least four completely different classes of stony meteorites. He reasoned that meteorites from different falls may be concentrated by flow patterns within the slowly moving ice sheet. To date, the ANSMET teams have recovered more than 10,000 meteorite fragments, including the now famous Martian meteorite ALH84001, purported to have evidence for past life on Mars.

Dinner Reservation: Please call **Denise Wilkins** at 412/825-3220 Ext. 290 or 412/476-6615 (leave message) by Noon on October 12, 2001 (Friday). Dinner will cost $8 and checks can be made out to the SSP. If you have any dietary restrictions, please make them known when you call Denise. ABSOLUTELY NO RESERVATIONS WILL BE TAKEN AFTER THAT TIME.

Parking Instructions: Duquesne University parking garage entrance is on Forbes Avenue. Upon entering the garage, receive ticket and drive to upper floors. Pay parking fee upon exiting with SSP parking chit. Pick up parking chit at the dinner or the meeting. Call **Dr. Mitchell Johnson** at Duquesne University if any difficulties arise.

Society for Analytical Chemists of Pittsburgh

October Meeting

Monday, October 1, 2001

Duquesne University
Maurice Falk Hall

Social Hour 5:30 p.m. / Student Affiliates Meeting - Duquesne Room (Student Union) 5:45 p.m.
Dinner - Student Union, City View Cafe (6th Floor) 6:30 p.m.
Business Meeting 7:40 p.m. / Technical Presentation 8:00 p.m.

"Nanosphere Lithography: A Versatile Nanofabrication Tool for Studies of Size-Dependent Properties of Materials"

Professor Richard Van Duyne
Northwestern University

Nanosphere lithography (NSL) is an inexpensive, simple to implement, inherently parallel, high throughput, materials general nanofabrication technique capable of producing an unexpectedly large variety of nanoparticle structures and well-ordered, 2D nanoparticle arrays. This presentation will describe our recent efforts to broaden the scope of nanosphere lithography to include strategies for the fabrication of several new nanoparticle structural motifs and their characterization by atomic force microscopy (AFM) and transmission electron microscopy (TEM). Nanosphere lithography has also been demonstrated to be well-suited to the synthesis of size-tunable noble metal nanoparticles in the 20 - 1000 nm range. This characteristic of NSL has been especially valuable for investigating the fascinating richness of behavior manifested in size-dependent nanoparticle optics. The use of localized surface plasmon resonance (LSPR) spectroscopy to probe the size-tunable optical properties of Ag nanoparticles and their sensitivity to the local, external dielectric environment (viz., the nanoenvironment) is discussed in detail. More specifically, the effects of nanoparticle size, shape, interparticle spacing, nanoparticle-substrate interaction, solvent, dielectric overlayers, and molecular adsorbates on the LSPR spectrum of Ag nanoparticles are presented. This systematic study of the fundamentals of nanoparticle optics promises to find application in the fields of: 1) surface-enhanced spectroscopy; 2) nanophotonic devices for optical communications, information processing, and perhaps computation; and 3) chemical and biological nanosensors. Some selected examples of these applications will be presented.

Richard P. Van Duyne is Charles E. and Emma H. Morrison Professor of Chemistry at Northwestern University. He is the discoverer of surface-enhanced Raman spectroscopy (SERS). His research interests include surface-enhanced spectroscopy, nanosphere lithography, nanoparticle optics, combined scanning probe microscopy/Raman microscopy, Raman spectroscopy of mass-selected clusters, ultrahigh vacuum surface science, structure and function of biomolecules on surfaces, chemical and biological sensing. Professor Van Duyne is the recipient of numerous awards including: Surfaces in Biomaterials Foundation Excellence in Surface Science Award (1996); Pittsburgh Spectroscopy Award (1991); Fellow of the American Physical Society (1985); Fellow of the American Association for the Advancement of Science (1983); PLU Fresenius Award (1981); Coblentz Memorial Prize in Molecular Spectroscopy (1980); and Alfred P. Sloan Foundation Award (1974-1978).

Dinner Reservation: Please call **Ed and Ginny Naylor** at 412/831-9068 or by email to: naylor@pittcon.org by Thursday, September 27, 2001 to make your dinner reservations. **Do not Call the SACP office to Make Dinner Reservations.** Dinner will cost $8.00 ($4.00 for Student Affiliates). If you have dietary restrictions, please let Ed or Ginny know. Also, should you wish to be placed on a permanent dinner attendance list, leave a message for Ed or Ginny at the above number.

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

Disney, Wozniak Among Seven to be Inducted into National Inventors Hall of Fame

AKRON, Ohio, June 15, 2000 - Entertainment industry innovator Walt Disney and personal computer pioneer Steve Wozniak are among seven inventors who will be inducted later this year into the National Inventors Hall of Fame (NIHF). The honorees' inventions brought about advances in a broad range of technologies, including computers, medicine, manufacturing and communications.

Joining Disney and Wozniak in the NIHF Class of 2000 will be Reginald Fessenden, Alfred Free, Helen Murray Free, J. Franklin Hyde and William Kroll. Induction ceremonies will be held in September at Inventure Place, Home of the National Inventors Hall of Fame in Akron.

"While we are certainly celebrating the outstanding individuals who are being inducted, we also wanted to focus on the inventor in everyone," said Thomas E. Smith, president of the National Inventors Hall of Fame Foundation. "Few people will attain the level of fame of this year's inductees. What's important is not the final outcome, but rather, the route to invention - the process of open-minded investigation."

The inductees' accomplishments and contributions to society were celebrated today in a satellite-linked news conference. Portions took place at the Ronald Reagan Building International Trade Center in Washington, D.C.; and at Inventure Place, home of the National Inventors Hall of Fame in Akron. Inventure Place houses the permanent exhibit honoring all 151 inventors inducted since the National Inventors Hall of Fame was established in 1973.

The inventions that earned places in the Hall of Fame for this year's inductees were:

Disney's multiplane camera, which yielded better looking, richer animation and was first used for a full-length feature with Snow White and the Seven Dwarfs.

Wozniak's Apple II personal computer, which brought together the central processing unit (CPU), keyboard and disk drive in an affordable unit complete with color and graphics capabilities.

Fessenden's wireless radio communication, which utilized heterodyne principles in combining radio waves to transmit voice and music and led eventually to the radio broadcasting industry of today.

The Frees' dip-and-read tests for urinalysis, which allowed for easy self-testing of glucose levels by diabetic patients and paved the way for further dip-and-read testing.

Hyde's fused silica and silicones. Fused silica is ultra-pure high-quality glass, used in fiber optics, spacecraft windows, telescope mirrors and precision lenses for manufacturing. Silicones are polymers derived from silicon and other elements, which are used in high-temperature electrical insulation, gaskets, caulks, seals, lubricants and hydraulic fluids.

Kroll's titanium and zirconium processing, which enabled these elements to be produced in a metallic state. Titanium's wide-ranging applications include artificial joints, aerospace technology, denture bases, golf clubs, wheelchairs and watches. Zirconium applications include surgical instruments, fiber optics, jet engines, radar equipment and nuclear reactors.

The National Inventors Hall of Fame Foundation Selection Committee, composed of representatives from national scientific and technical organizations, votes each year to select the most qualified inventors from those proposed in open nominations. In voting, the committee considers whether the nominee's invention is covered by a U.S. patent, the invention's contribution to the nation's welfare and the extent to which it promotes the progress of science and useful arts.

Inventure Place, which houses The National Inventors Hall of Fame, is dedicated to inspiring creativity and invention throughout the nation. Invention takes many forms, from research and development and artistic expression to entrepreneurship, and it is the mission of Inventure Place to promote these and other activities to keep the nation at the forefront of technological leadership.

Inventure Place has welcomed more than 700,000 guests - primarily families and more than 215,000 children on field trips - since opening to the public in July 1995.

The National Inventors Hall of Fame was founded to celebrate the creative and entrepreneurial spirit of great inventors. The hall is dedicated to the individuals who have brought about technological advances, fostered by the U.S. Patent system, that have greatly increased the general welfare of society.

Cut and Paste July 01

CAS Covers Preprints on the Web

CAS is now abstracting and indexing preprints, a new class of research report distributed on the Web ahead of or in place of formal publication. CA and the associated CAS databases have begun to include records for preprints beginning with those posted in the year 2000. As they do for journals, CAS document analysts now summarize the content of preprints and provide detailed indexing to lead researchers to relevant studies. Several thousand preprints in the chemical, biological/medical, materials science and environmental sciences are expected to be added to CAS databases during 2000. For more information about CAS products and services, visit the CAS Web site at http://www.cas.org .

Cut and Paste July 01

Local Section Awards

New Local Section Awards Sponsored by National ACS

- Award for Most Innovative New Activity or Program
- Award for Best Activity or Program Stimulating Membership Involvement
- Award for Activity or Program that Best Addressed the ACS Strategic Thrust

Cut and Paste July 01

2001 Pittsburgh Award

Krzysztof Matyjaszewski

Department of Chemistry
Carnegie Mellon University

Award Dinner

Wednesday, October 10th, 2001

Fountain Room

Sheraton Station Square Hotel
Seven Station Square Drive
Pittsburgh, PA 15219
412-803-3870

Social ..... 6:00 PM
Dinner..... 6:30 PM
Award Presentation..... 7:30 PM

Members & Guests $25.00
Students/Student Affiliates $10.00
Pay at the door (No shows will be charged)

Choice of

Filet Mignon
Grilled Swordfish
Vegetable Wellinton

*** RSVP*** by noon on October 3rd, 2001

Mark E. Bier 4400 Fifth Ave, Pittsburgh, PA 15213
TEL: (412) 268-3540 - FAX: (412) 268-6897

Krzysztof (Kris) Matyjaszewski is the J. C. Warner Professor of Natural Sciences in the Department of Chemistry of Carnegie Mellon University. He obtained his Ph. D. degree in 1976 at Polish Academy of Sciences in Lodz, Poland, and has been with Carnegie Mellon University since 1985, serving as Chemistry Department Head (1994-8).

Kris is an adjunct professor at Department of Petroleum and Chemical Engineering at University of Pittsburgh, and has been a visiting professor at universities in Paris, Strasbourg, Bordeaux, Bayreuth, Freiburg, Ulm and Pisa. He is an editor of "Progress in Polymer Science" and serves on seven editorial boards of polymer journals. His main research interests include controlled/living polymerization with the most recent emphasis on free radical systems. In 1995 he has developed atom transfer radical polymerization (ATRP), one of the most successful methods for controlled/living radical polymerization (CRP) systems. Over the last 5 years his group (25 postdoctoral fellows, 23 graduate and 26 undergraduate students) has published over 200 papers on ATRP and CRP. He holds over twenty US and international patents. Close industrial interactions have been maintained by the ATRP Consortium (13 companies in 1996-2000) and newly established CRP Consortium (19 companies in 2001-2005). The research of the Matyjaszewski group has received wide recognition, as evidenced by ACS Carl S. Marvel Award for Creative Polymer Chemistry (1995), Elf Chair of French Academy of Sciences (1998), Humboldt Award for Senior US Scientists (1999), National Professorship of Poland (2000), and Fellowship of ACS Division of Polymeric Materials and Engineering (2001).

14TH ANNUAL FARADAY LECTURES

sponsored by

Spectroscopy Society for Analytical Chemists of Pittsburgh
Society for Analytical Chemists of Pittsburgh

The expanded Faraday Lectures begun last year, will be continued this year. We will have both middle school and high school lectures, plus an evening presentation for society members and their guests. The lectures will be delivered by:

Professors Clyde Clendaniel and Gregg Gould
Physical Science Department
California University of Pennsylvania

"Science You Can See!"

Soldiers and Sailors Memorial Hall
Pittsburgh, Pa

Middle School Program
Tuesday, November 13, 2001
11:00 am
(tickets required - 35 maximum per request)

Evening Program
Tuesday, November 13, 2001
7:30 pm
(Society Members, their guests and the general public are welcome)

High School Program
Wednesday, November 14, 2001
10:15 am
(Tickets required - 30 maximum)

Tickets are required for the Middle School and High School lectures. Invitation letters were mailed to area Middle Schools and High Schools in the first week in September. If you are a middle school or high school science teacher and did not receive one, contact:

High School
Doris Zimmerman
email: zimdoris@aol.com or phone 1-330-847-2284

Middle School
John Varine
email: varine@pittcon.org or phone 1-800-825-3221 Ext. 285

The evening program on Tuesday, November 13, 2001, is open to the general public and no tickets are required. However, if you expect to bring a group to this presentation please contact John Varine so we may have an idea of how many people to expect. Doors will open at 7:00 pm.

Society for Analytical Chemists of Pittsburgh

November Meeting

Monday, November 5, 2001

Duquesne University
Maurice Falk Hall

Social Hour 5:30 p.m. / Student Affiliates Meeting - Duquesne Room (Student Union) 5:45 p.m.
Dinner - Student Union, City View Cafe (6th Floor) 6:30 p.m.
Business Meeting 7:40 p.m. / Technical Presentation 8:00 p.m.

"Bioanalytical Nano LC"

Dr. Robert Kennedy
University of Florida

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National Chemistry Week 2001

***MARK YOUR CALENDAR* - NCW 2001 is scheduled for November 4-10, 2001. The NCW theme for this year is**

"CHEMISTRY AND ART"

For the third year in a row, the Pittsburgh Section will be holding a two-day event at the Carnegie Science Center on Friday and Saturday, November 9-10, 2001, from 10:00 AM to 5:00 PM each day. There will be 20+ tables throughout the Carnegie Science Center staffed with volunteers from area businesses, professional societies, high schools and colleges performing hands-on activities, demonstrations, and shows. This could be your opportunity to help educate Pittsburgh and surrounding communities about what chemistry is and how it relates to everything around us. By participating in this exciting event you will be helping to communicate to the whole community the important role that chemistry plays in the quality of our daily lives.

The Pittsburgh Section is looking for individuals and groups to assist in coordinating this event.

If you haven't done something with the Local Section in the past, here is a great opportunity to get involved. Your participation will ensure that the Pittsburgh Section brings about a positive change in the public's impression of chemistry, and will help to promote a positive message about chemistry, particularly to elementary and secondary school children.

Be Part of an Award Winning Event!

For more information or to volunteer, contact the Pittsburgh Section's NCW Coordinator:
V. Michael Mautino, Bayer Corporation, 100 Bayer Rd. Bldg. 2, Pittsburgh, PA 15205, Phone: 412-777-4792, E-mail: vincent-m.mautino. b@bayer.com

Spectroscopy Society of Pittsburgh

Technology forum

Duquesne University

Mellon Science Hall
5:30 p.m.

Wednesday, October 17, 2001

Professor Bruce Hapke

Professor Emeritus of Geology and Planetary Science
University of Pittsburgh

"Why is the Moon So Dark?"

Lunar soil consists essentially of ground-up basaltic rocks. However, if a lunar rock is pulverized, the resulting powder is much brighter than the soil. It is important to understand this space-darkening process because it obscures the characteristic absorption bands that allow planetary scientists to remotely infer the compositions of the moon, Mercury and the asteroids using spectroscopic methods. The resolution of this puzzle took 30 years of research and contentious debate and is a scientific detective story of false leads and conflicting personalities. The answer turns out to be that each grain of lunar soil is covered with a coating of condensed rock vapor that is full of light-absorbing, nanometer-sized particles of metallic iron. The rocks are vaporized by two processes: sputtering by high energy ions from the sun and evaporation by hypervelocity impacts of small meteorites.

Bruce Hapke is Professor Emeritus of Geology and Planetary Science in the University of Pittsburgh. Prior to coming to Pitt in 1967 he was a Senior Research Associate in the Center for Radiophysics and Space Research of Cornell University. He received a B.S. from the University of Wisconsin at Madison and a Ph.D. from Cornell University.

He is the author of over 100 papers in the field of planetary science and of a textbook Theory of Reflectance and Emittance Spectroscopy published by Cambridge University Press. He has been associated with a number of NASA planetary missions, including the Apollo manned missions to the moon, the Mariner 10 mission to Venus and Mercury, the Viking Lander mission to Mars and the Voyager missions to the outer planets. He is the past chairman of the Division for Planetary Sciences of the American Astronomical Society.

He is the 2001 recipient of the Kuiper Prize of the Division for Planetary Sciences of the American Astronomical Society awarded for "outstanding contributions to planetary science". He is a fellow of the American Geophysical Union, and an asteroid "3549 Hapke" has been named for him.

New Chemistry, Chemical Engineering Graduates Find Strong Job Market

Wages rose for new chemistry and chemical engineering graduates for the fourth consecutive year, according to a report published in the September 3 edition of Chemical & Engineering News, the weekly newsmagazine of the American Chemical Society, the world's largest scientific society.

Data for the starting salary report is drawn from a survey sent to about 13,000 chemists and chemical engineers who earned their degrees between July 1999 and June 2000 requesting information about their salaries as of October 9, 2000. About 2,400 chemists and 1,100 chemical engineers responded.

Highlights of the report:

The median base salary is $34,000 for chemists with bachelor's degrees, $45,000 for master's graduates, and $65,000 for new octorates.

For chemical engineers, the median base salary is $50,000 for bachelor's graduates, $56,700 for those with master's degrees, and $72,000 for new doctorates.

The proportion of women chemists continues to rise. At 52 percent, women comprise more than half of the bachelor's degree graduates in chemistry, up from 49 percent in 1998-99. At the master's level, 48 percent of the graduates are women, rising from 44 percent the preceding year, and of new doctorates, 35 percent are women, up from 33 percent the year before.

Minorities are approaching a quarter of all chemistry graduates, with Asians topping the list at 12 percent, Hispanics at 6 percent, blacks at 4 percent, and American Indians under 0.5 percent of all respondents. Although the proportion of black and Hispanic chemistry graduates is low relative to their overall numbers — each group makes up about 13 percent of the American population — these graduation numbers still indicate progress toward equal representation. Currently, only about 2.6 percent of all chemists are Hispanic, and 1.9 percent are black.

ACS News Release

Pittsburgh Chemists Club/ Retired Chemists Group

Pittsburgh Section
American Chemical Society

Tuesday, October 30, 2001

"The Pittsburgh Ballet Theatre"

Terrance S. Orr
Artistic Director
Pittsburgh Ballet Theater

Duranti's Restaurant
128 North Craig Street, Oakland PA

Cocktail Time (*cash bar*).....6:00 p.m.
Dinner.....6:30 p.m.
Program.....7:45 p.m.

For reservations, please call Ed Martin by noon, Friday, October 26, 2001 at (724) 335-0904 or email at esm@icubed.com

FOR YOUR FUNNY BONE

A few things to remember while playing with unknown chemicals

1. Hydrochloric and sulfuric acid may look like water but they sure don't taste like it.
2. Tasting is not a scientifically correct practice of determining unknowns.
3. Red hot metals really are HOT!
4. Putting all the "left overs" in a tub is not a healthy practice.
5. Yes, some things do explode when put in an open flame.
6. Aquanet (the hairspray) IS the most flammable product known to man.

Cut and Paste May 01

Polymer Group

Pittsburgh Section
American Chemical Society

Wednesday, October 10, 2001

"Combinatorial Methods for Polymer Science"

Dr. Alamgir Karim

Group leader, Multivariant Measurement Methods Group
Polymers Division, NIST

Duranti's Restaurant

128 North Craig Street, Oakland PA

Social Hour (*cash bar*) .....5:30 p.m.
Dinner .....6:30 p.m.
Technical Presentation.....7:30 p.m.

For dinner reservations please contact Kurt Wolske, 724/228-1260, or e-mail: wolske@washpenn.com by Monday, October 8, 2001. The cost of the dinner is $16.00 per person, or $11.00 for retirees and no charge for students. There is a $5.00 restaurant/parking charge for seminar only attendees.

Coal Technology Group

Pittsburgh Section
American Chemical Society

October, 2001

The speaker, title of the presentation and the date of the meeting were not finalized prior to the publication date of the Crucible. Please call Robert Gross or check the Pittsburgh ACS web site for updated information on the October meeting.

More Restaurant

214 North Craig Street, Oakland PA

Networking.....11:30 a.m.
Lunch .....12:00 noon
Speaker.....1:00 p.m.

For reservations/menu selection or more information contact Robert Gross at 1-304-285-4374, or email robert.gross@netl.doe.gov Cost for dinner will be $11.00 for Coal tech group members and $12 for non-members. Seating may be limited.

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

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Subscriptions rates are:

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30% Discount for Monthly Ads

Contact: **Robert W. Baudoux, Sr.** at Phone or FAX nos. below

The Crucible is published monthly, August through May. Circulation, 3000 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.

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Pittsburgh Area Calendar

November / October

Mon	**1**	**Society for Analytical Chemists of Pittsburgh (SACP)** Duquesne University, Student Union Ballroom Professor Richard Van Duyne, Northwestern University *"Nanosphere Lithography: A Versatile Tool for Studies of Size-Dependent Properties of Materials"*
Wed	**10**	**2001 Pittsburgh Award** Sheraton Station Square Hotel, Fountain Room Honoring Krzysztof Matyjaszewski
Wed	**10**	**Polymer Group** Duranti's Restaurant, 128 North Craig Street, Oakland PA Dr. Alamgir Karim, Group Leader Multivariant Measurement Methods Group *"Combinatorial Methods for Polymer Science"*
Wed	**17**	**Spectroscopy Society of Pittsburgh (SSP) with the Amateur Astronomers Association** Duquesne University, Student Union Ballroom Professor William A. Cassidy, University of Pittsburgh, Department of Earth & Planetary Sciences *"Insights into the Asteroid Belt"*
Wed	**17**	**Technology Forum of the SSP** Duquesne University, Mellon Hall of Science Professor Bruce Hapke, Professor Emeritus, Geology & Planetary Science, University of Pittsburgh *"Why is the Moon So Dark?"*
Tue	**30**	**Pittsburgh Chemists Club/Retired Chemists Group** Duranti's Restaurant, 128 North Craig Street, Oakland PA Terrence S. Orr, Artistic Director, Pittsburgh Ballet Theater *"The Pittsburgh Ballet Theatre"*
Undecided		**Coal Technology Group** More Restaurant, 214 North Craig Street, Oakland PA *Check Coal Technology Group at http://membership.acs.org/P/Pitt for speaker, title of talk & time.*
Mon	**5**	**Society for Analytical Chemists of Pittsburgh (SACP)** Duquesne University, Student Union Ballroom Dr. Robert Kennedy, University of Florida *"Bioanalytical Nano LC"*
Sun/Sat	**4/10**	**National Chemistry Week**
Tue/Wed	**13/14**	**Fourteenth Annual Faraday Lectures** Soldiers and Sailors Memorial Hall Professors Clyde Clendaniel and Gregg Gould, California University of Pennsylvania *"Science You Can See!"*

The Crucible

A newsletter of the Pittsburgh Section of the American Chemical Society

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Gibsonia PA 15044

Change of Address

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