



Pittsburgh Section

# The Crucible

www.pittsburghacs.org

Volume: CII No. 2

October 2016



**YOU ARE INVITED!!!**

Join the Pittsburgh Section ACS  
as we celebrate

**National Chemistry Week**  
**"Great Chemistry is Everywhere!"**

**Where:** Carnegie Science Center  
**When:** October 21-22

The 2016 National Chemistry Week (NCW) celebrations in Pittsburgh will be held on Friday, October 21 (10 AM to 3 PM) and Saturday, October 22 (10 AM to 4 PM), at the Carnegie Science Center.

Join in the NCW activities as we celebrate this year's NCW theme  
**"Solving Mysteries Through Chemistry"**

## Hands-on Activities - Theater Shows – Prizes

- Visit over 20 tables with hands-on experiments, activities, and demonstrations
- Visit the Drake Oil Well Museum's Mobile Energy Education Training Unit, located in the Carnegie Science Center's parking lot, on Friday, October 21
- Catch special NCW-related theater shows

For more information about the NCW celebration in Pittsburgh, visit the Pittsburgh Section ACS's website at <http://www.pittsburghacs.org/outreach/national-chemistry-week/>

Find us on Facebook at: **Pittsburgh ACS NCW**

You can also contact the Carnegie Science Center at (412) 237-1640 or the Pittsburgh Section ACS's NCW Coordinator Michael Mautino at (412) 413-4792 or [michael.mautino@covestro.com](mailto:michael.mautino@covestro.com)

The Pittsburgh Section ACS 2016 NCW activities are sponsored by the Society for Analytical Chemists of Pittsburgh, the Spectroscopy Society of Pittsburgh, the PPG Industries Foundation, the PPG Science Education Council, the Carnegie Science Center, and Covestro.

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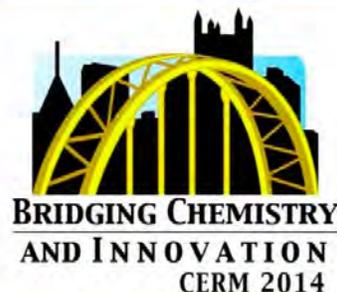
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# 2014 ACS Central Regional Meeting



WWW.ACSCERM2014.ORG



THE 45<sup>TH</sup> CENTRAL REGIONAL MEETING

OCT. 29 – NOV. 1, 2014

DOUBLETREE BY HILTON  
PITTSBURGH - GREEN TREE

## CERM 2014 Wins ChemLuminary for the Outstanding Regional Meeting

Congratulations to the CERM 2014 Organizing Committee! At the ACS National Meeting in Philadelphia on August 23, 2016, the Pittsburgh Section was awarded this prestigious ChemLuminary.

Here is the Executive Summary from the 31-page final report:

*CERM 2014 was designed to “Bridge Chemistry and Innovation.” The Technical Program represented the many disciplines practiced in the Central Region. Likewise, the symposia exemplified the multidisciplinary nature and illustrated the collaboration between health, energy, and materials fields. There were 247 oral presentations in 39 technical sessions that successfully enabled the exchange of state-of-the-art information on a wide range of subject areas. Our three plenary speakers were true leaders in their respective fields.*

*Our special Diversity in the Chemical Sciences symposium celebrated the inclusiveness of the society. Special events hosted by the Younger Chemists Committee and Women Chemists Committee featured encouraging speakers. Special programming for teachers boasted 10 inspirational speakers and*

*former award winners spanning 17 years. A Celebration of Project SEED gave 14 current and former SEED students the opportunity to present their research in a friendly environment and was a perfect complement to the teacher programming. The third day*



The Pittsburgh Section ACS wins 2016 ChemLuminary Award for Outstanding Regional Meeting for the 2014 Central Regional Meeting (CERM).

*of the meeting was heavily focused on undergraduates, and it was wildly popular with 129 poster presenters, and a networking and resume review*

*luncheon. The students also got to mingle with 16 recruiting companies and graduate schools.*

*The meeting provided attendees with many opportunities for personal and professional development - from the Finding your Pathways Career Workshop one-on-one resume review to the Fostering Innovation and Leading Change Leadership Development Courses.*

*CERM 2014 enhanced our attendees' experience with many chances for informal networking and social gatherings. The Wine, Wii, and 'Wishes Welcome Reception, held with our vendors, was a great way to spend the first night of the meeting. Offsite Rum Science tours and a special Friday night Incline ride gave attendees a superb view of the “Most Livable City.”*

CERM 2014 boasted 862 total attendance, the highest in 21 years.

Pittsburgh will again host CERM in 2023, a celebration of the Pittsburgh Section's 120<sup>th</sup> anniversary. We hope this meeting is even better than CERM 2014!



# Society for Analytical Chemists of Pittsburgh



**October Meeting  
Monday, October 3, 2016  
Duquesne University**

**8:00 PM - Duquesne University**

## *“Combining Mass Spectrometry and Self-Assembled Monolayers for High Throughput Experiments”*

**Milan Mrksich, Ph.D.  
Northwestern University**

**Abstract:** This talk will describe an approach for using mass spectrometry to analyze molecular arrays. The arrays are prepared by immobilizing small molecules, proteins, peptides and carbohydrates to self-assembled monolayers of alkanethiolates on gold. These arrays are then treated with reactants—either chemical reagents or enzymes—and then analyzed using the SAMDI technique to identify the masses of substituted alkanethiolates in the monolayer and therefore a broad range of reactivities and post-translational modifications—including kinase, protease, methyltransferase and carbohydrate-directed modifications—and for discovering chemical reactions. This talk will describe applications to high throughput experiments, including the discovery of reactions, the use of carbohydrate arrays to discover novel enzymes, the preparation of peptide arrays to profile the enzyme activities in cell lysates and high-throughput screening to discover novel reactions and small molecular modulators. These examples illustrate the broad capability of the SAMDI method to profile and discover molecular activities in the molecular sciences.

**Biography:** Milan Mrksich is the Henry Wade Rogers Professor at Northwestern University, with appointments in the Departments of Biomedical Engineering, Chemistry, and Cell and Molecular Biology. He attended the University of Illinois, earning a BS degree in Chemistry in 1989. He received his PhD in Chemistry from Caltech in 1994 and was an American Cancer Society Postdoctoral Fellow at Harvard University before joining the faculty at the University of Chicago as an Assistant Professor in 1996. He was promoted to Associate Professor in 2000 and Professor in 2003 and moved to Northwestern in 2011. His many honors include the Camille Dreyfus Teacher-Scholar Award, the TR100 Innovator Award, ACS Arthur C. Cope Scholar Award, the iCON Innovator Award and election to the American Institute for Medical and Biological Engineering.

Professor Mrksich is a leader in the science and engineering of materials that contact biological environments. His laboratory has pioneered several technologies, including strategies to integrate living cells with microelectronic devices, methods to enable high throughput assays for drug discovery, and approaches to making synthetic proteins for applications as therapeutics. Most notably, he developed the SAMDI biochip technology that has enabled the preparation of plates having thousands of regions that each present a unique peptide. These arrays are used to profile enzyme activities in cells and tissues and in identifying enzyme activities that are misregulated in disease. His work has been described in approximately 175 papers and 250 invited talks.

*Continued on Page 5*

**Dinner Reservations:** Please email the SACP Administrative Assistant, Valarie Daugherty at [daugherty@pittcon.org](mailto:daugherty@pittcon.org) by Monday, September 26, 2016 to make dinner reservations. Should you not have email, please call 412-825-3220, ext 204. Dinner will cost \$10 (\$5 for students) and checks are to be made out to the SACP. If you have any dietary restrictions, please let Valarie 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. Please contact Duquesne University, if any difficulties should arise.



# The Chemists Code for Success: 3 Essential Skill Sets for Your Career

**Tuesday, October 11<sup>th</sup>  
7:00 pm  
Mellon Institute Social  
Room**



*Discover a Simpler Way to Host Your Chemistry Event!*

**ACS PROGRAM  BOX**

[www.acs.org/PIB](http://www.acs.org/PIB)

ACS Program-in-a-Box greatly acknowledges support from Dr. Diane Grob Schmidt,  
ACS immediate Past President, and financial sponsorship from P&G.



**P&G**

## Pittsburgh Section ACS Energy Technology Group

Tuesday, October 18, 2016

### *“The Large Hadron Collider (LHC) - Exploring a New Energy Frontier”*

**Dr. Thomas Ferguson**  
**Professor Emeritus, Department of Physics**  
**Carnegie Mellon University**

**Social Hour 6:00 PM, Dinner 6:30 PM, Talk 7:30 PM**

**Location TBA**

The Large Hadron Collider (LHC) is a proton-proton colliding-beam accelerator, situated at the European accelerator center, CERN, outside Geneva, Switzerland. After the discovery of the long-sought Higgs boson in 2012, the center-of-mass energy of the LHC was increased from 8 to 13 TeV (trillion electron-volts) in 2016, thus opening up an entirely new energy regime for study. This talk will give a short introduction on the history of colliding-beam accelerators in general and the Standard Model of particle physics. After this introduction, the focus of his presentation will shift to the LHC itself, the Compact Muon Solenoid (CMS) experiment, in which Mr. Ferguson is involved, recent results, and possible discoveries on the horizon that could arise from the LHC.

Thomas Ferguson recently retired after 31 years as a professor of physics at Carnegie Mellon University. He received his Ph.D. in physics from UCLA in 1978, and was then a research scientist at Cornell University for 7 years, before joining the CMU faculty in 1985. He has worked on the electron-positron colliding beam accelerator SPEAR at the Stanford Accelerator Center (SLAC), CESR at Cornell University, and LEP at the European accelerator center (CERN). Since 1994, he has been a member of the CMS Collaboration, working at the Large Hadron Collider (LHC), a 13 TeV proton-proton colliding-beam accelerator situated at CERN. The CMS experiment started recording data in 2010. Mr. Ferguson was a co-discoverer of the Higgs boson in 2012 and continues today to search for new phenomena beyond the Standard Model of particle physics.

***For reservations, please contact Elliott Bergman at [elliott.acstechnology@gmail.com](mailto:elliott.acstechnology@gmail.com) by 5:00 P.M. on Oct. 14, 2016. Attendees will preferably R.S.V.P. in advance of the meeting. Our meetings are open to all.***

***Menu items and cost are not yet confirmed. You will receive a confirmation email once your RSVP is accepted.***

## Congratulations to ACS Pittsburgh Section Member Rena Robinson – Featured in *C and E News Talented 12 Cover Story*

ACS Pittsburgh Section Member and University of Pittsburgh Professor Rena Robinson was featured in the August 22, 2016 Chemical and Engineering News Cover Story, Talented 12. Read [Rena's story](#) and the entire [Talented 12 Cover Story](#). Congratulations, Rena!



## SACP October Meeting Milan Mrksich Bio Continued from Page 3

Professor Mrksich is an active advisor in government and industry. His present and past appointments include the Chair of the Defense Sciences Research Council—an advisory group for the Defense Department—a member of the Board of Governors for Argonne National Laboratory, and Chair of the Searle Scholars Advisory Board. He has also been active as an entrepreneur. He is a Founder of 480 Biomedical, a company that has developed stents for the treatment of vessels in the leg and that are now in clinical trials. He is also Founder of SAMDI Tech, a company that has commercialized his high throughput assays for discovering drug leads. He has also served on a dozen Scientific Advisory Boards of other life sciences startup companies.



## National Chemistry Week 2016 Illustrated Poem Contest: “Solving Mysteries Through Chemistry”

The Pittsburgh Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten - 12th grade. Contest is open only to students who live in the following Pennsylvania, West Virginia, and Ohio counties:

Ohio: Jefferson    Pennsylvania: Allegheny, Armstrong, Beaver, Butler, Cambria, Clarion, Fayette, Greene, Indiana, Jefferson, Somerset, Venango, Washington, and Westmorland    West Virginia: Brooke, Hancock, and Ohio  
Contest Deadline: **Entries must be received at the address below by Monday, October 31, 2016.**

Prizes: \$50 1st Place and \$25 2nd Place in each of 4 grade categories: K-2nd, 3rd-5th, 6th-8th and 9th-12th grades.

Contact: Mail entries to: Michael Mautino, 3485 Frye Ave, Finleyville, PA 15332. For entry form include the following on the back of entry: student name, grade, school name, teacher name, teacher phone number and teacher e-mail address. For home school students please use parent/guardian information in place of teacher.

Winners of the **Pittsburgh Section ACS** illustrated poem contest will advance to the ACS National Illustrated Poem Contest!

Write and illustrate a poem using the NCW theme, **“Solving Mysteries Through Chemistry”**. Your poem must be **no more** than 40 words, and in the following styles to be considered:

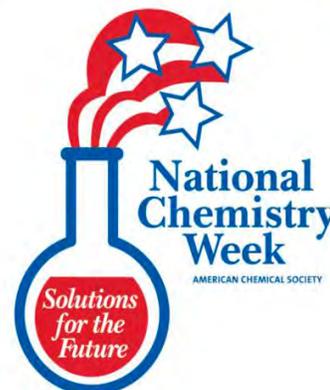
HAIKU • LIMERICK • ODE • ABC POEM • FREE VERSE • END RHYME • BLANK VERSE

### Participants are encouraged to explore topics related to:

- DNA
- Fingerprints
- Art Forgeries
- Pigments
- Invisible Ink

### Entries will be judged based upon:

- Relevance to and incorporation of the theme
- Word choice and imagery
- Colorful artwork
- Adherence to poem style
- Originality and creativity
- Overall presentation



### Contest Rules:

- Poems must conform to a particular style. No poem may be longer than 40 words.
- The topic of the poem and the illustration must be related to the NCW 2016 theme, **“Solving Mysteries Through Chemistry”**.
- All entries must be original works without aid from others.
- Each poem must be submitted and illustrated on an unlined sheet of paper (of any type) not larger than 11” x 14”. The illustration must be created by hand using crayons, watercolors, other types of paint, colored pencils or markers. The text of the poem should be easy to read and may be printed with a computer, before the hand-drawn illustration is added, or the poem may be written on lined paper which is cut out and pasted onto the unlined paper with the illustration.
- Only one entry per student will be accepted.
- All entries must include an entry form.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners' names, likenesses and entries for editorial, advertising and publicity purposes.

American Chemical Society



# The Spectroscopy Society of Pittsburgh



## October Meeting Wednesday, October 19, 2016 Duquesne University

**5:30 PM** Technology Forum Speaker's Presentation, Power Center Ballroom Section C

**5:30 PM** Social Hour – Power Center Fides Shepperson Suite

**6:45 PM** Dinner – Power Center Ballroom Section C

**8:00 PM** Business Meeting – Power Center Ballroom Section C

**8:15 PM** Technical Program Speaker's Presentation – Power Center Ballroom Section C

### TECHNOLOGY FORUM

### PITTCON PLANETARIUM PRESENTATION

The current planetarium was purchased in 2010 by Pittcon as part of Science Week in Atlanta. The societies started offering the planetarium program in 2011 to local school districts in Western Pennsylvania on a first come, first serve basis depending on the schedules of the volunteer society members.

### TECHNICAL PROGRAM - 8:15 PM

***“Now You See Them, Now You Don’t: Exploding Stars and the James Webb Space Telescope”***

**Dr. Ori Fox**

**Research Scientist Space Telescope Science Institute**

Supernovae are the explosions of stars that reach the ends of their lifetime. These awesome events are nearly as bright as the entire galaxy which hosts them. Yet the astronomical community has surprisingly few constraints on the supernova progenitor systems because it is quite difficult to identify the stars before they explode. In this talk I will provide an overview of supernova explosions, with plenty of fantastic images both before and after the stellar deaths, highlighting both the current state of the field and the remaining mysteries. I will incorporate raw data from telescopes I use, including Keck and Hubble. Finally, I will discuss the future of astronomical observations with NASA's next flagship mission, the James Webb Space Telescope. Bio: Ori Fox received his PhD in Astrophysics from the University of Virginia in 2010. He worked as a postdoc at NASA Goddard Space Flight Center from 2010-2012, and then at University of California Berkeley from 2012-2015. Dr. Fox is now a research scientist at the Space Telescope Science Institute in Baltimore, MD. The Institute is responsible for operating the Hubble Space Telescope and, upon launch in 2018, the James Webb Space Telescope. Ori is a member of the JWST Mid-Infrared Instrument team.

**Dinner Reservations:** Please register on-line at <http://www.ssp-pgh.org>, **Monthly Meetings, to make dinner reservations NO LATER THAN Wednesday, October 12, 2016 @ noon. Dinner will cost \$10** (\$5 for students) and checks must be made payable to the SSP. If you have any dietary restrictions, please indicate them 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 registration desk upon entering the Power Center.

# Councilors' Report: ACS FALL 2016 NATIONAL MEETING

## Philadelphia, PA

Four ACS Pittsburgh Section Councilors were in attendance in Philadelphia.

The meeting attracted approximately 12,800 attendees and an exposition of 432 booths.

The Candidates for President- Elect, 2017 are:

- Peter K. Dorhout
- Thomas R. Gilbert

By Internet Ballot, the Councilors from District II selected George M. Bodner and Christina C. Bodurow as Director District II candidates for the Term of 2017-2019. Ballots will be distributed on September 29, 2016 to all ACS members in the District II for election of a Director.

The Council elected Harmon B Abrahamson, Lissa A. Dulany, Andrea B. Twiss-Brooks and Sally B. Peters for a 2017-2019 term, Martin D. Rudd for a 2017-2018 term, and Karl S. Booksh and Ella L. Davis for a one-year term, 2017 on the Council Policy Committee.

The Council elected Lisa M. Balbes, Thomas H. Lane, Amber S. Hinkle, Alan M. Ehrlich and Alan A. Hazari for a 2017-2019 term and Neil D. Jespersen for a one-year term, 2017, on the Committee on Nominations and Elections.

The Council elected Wayne E. Jones, Jr., D. Richard Cobb, Stephanie J. Watson, Dee Ann Casteel, and Emilio X. Esposito for three year terms, 2017-2019, on the Committee on Committees.

The Committee on Meetings & Expositions reported that the total meeting registration was 12,800. Of these, 7,437 were regular registrations, 1,181 were exhibitors, 3,249 were students, 613 were exposition only, and 320 guests. The exposition had 432 booths with 300 companies. The meeting had over 9,000 papers presented.

On the recommendation of the Committee on Committees, the Council voted to approve the continuation of the Committee on Analytical Reagents, and the Committee on Chemical Abstracts Service, subject to confirmation by the Board of Directors.

The Council voted to approved a petition from the Permian Basin Local Section to annex the Texas counties of Pecos and Brewster, and the petition from the Upper Peninsula Local Section to annex unassigned and adjacent territory, and one Michigan county (Menominee) now currently assigned to the Northwest Wisconsin Local Section.

The Council approved a petition to amend the ACS Bylaws to extend the Unemployment Members' Dues Waiver, which will extend waivers for unemployment members' dues from the current two years to three years, subject to the confirmation by the Board of Directors.

The Council approved the "Chemical Professional's Code of Conduct", subject to confirmation by the Board of Directors.

The Council approved the "Bylaws for Divisions in Probationary Status" and the "Charter Bylaws for New Local Sections".

Council approved the establishment of ACS International Chemical Sciences Chapters in Greater Beijing, Southwestern China, and Iraq, subject to confirmation by the Board of Directors.

The Council conducted a special discussion to gather input on proposed recommendations from the ACS Presidential Task Force on the U.S. Employment of Chemists. Councilors

were invited to share their thoughts, comments, and suggestions on the proposed suggestions to date, in preparation for the report's expected release later this year.

The Society's 2016 Probable 1 Budget calls for a Net from Operations of \$17.3 million. This is \$3.9 million higher than the Approved Budget but only \$723,000 higher than 2015. Total revenues are projected to be \$528.8 million, essentially on budget, and 3.3% higher than the prior year. Total expenses are projected at \$511.5 million, which is 0.6% favorable to budget, and 3.3% higher than 2015.

The Board approved funding requests for 2017 for the Atlantic Basin Conference on Chemistry, the ChemIDP Program, and the International Student Chapter Program.

The Board voted to approve the advance member registration fee of \$445 for national meetings held in 2017.

The Pittsburgh Section was nominated for four awards at the 18<sup>th</sup> Annual ChemLuminary Awards Ceremony. The Pittsburgh Section won the Outstanding Regional Meeting for the 2014 Central Regional Meeting (CERM). The Pittsburgh Section also won for the Outstanding NCW Event for a Specific Audience. Congratulations to the Section and the committed volunteers who work so hard to implement new ideas and provide outstanding programs for the Pittsburgh Area.

Respectfully submitted,

Richard S. Danchik (Author)  
Mike Mautino  
Michelle Coffman  
Robert Mathers  
Pittsburgh Section Councilors



# Society for Analytical Chemists of Pittsburgh



**November Meeting**  
**Monday, November 7, 2016**  
**Duquesne University**

**8:00 PM - Duquesne University**

*“Chemical Monitoring of Neurotransmission with Microelectrodes”*

**R. Mark Wightman, Ph.D.**  
**University of North Carolina at Chapel Hill**

**Abstract:** Neurons within the intact brain secrete chemical substances to communicate with neighboring cells. These substances, termed neurotransmitters, comprise an important way in which information is relayed and processed during behaviour. However, until recently, this chemical communication had not been characterized because chemical sensors suitable to monitor subsecond chemical events in micron dimensions were unavailable. We have employed cyclic voltammetry at carbon-fiber microelectrodes to examine the dynamics of neurotransmitter concentrations within the brain of rats. Measurements with subsecond time resolution within the intact brain give a real time view of neurotransmitters during goal-directed behaviours. These findings reveal an unanticipated spatial and temporal heterogeneity of dopamine transmission within the brain that encodes specific responses.

**Biography:** R. Mark Wightman joined the Department of Chemistry in 1989. He is also a faculty member in the Neurobiology Curriculum and the Neuroscience Center. He was an undergraduate at Erskine College, graduating in 1968. In graduate school at the University of North Carolina at Chapel Hill he studied under Royce Murray, receiving a Ph.D. degree in 1974 in analytical chemistry. From 1974 to 1976 he was a postdoctoral associate in the Department of Chemistry, University of Kansas with R. N. Adams. Prior to 1989, he was a Professor of Chemistry at Indiana University.

Professor Wightman has used the analytical chemistry approach to probe new areas in electrochemistry and neurochemistry, research that is described in more than 400 publications. In electrochemistry he explored new time domains and unusual solution conditions with ultramicroelectrodes. In neurochemistry, again using microelectrodes, he and his group have provided the first real-time view of neurotransmitter dynamics in various preparations ranging from single cultured cells to the brains of animals during behavior. At single cells and neurons, microelectrodes were used to measure and characterize single exocytotic events. He also has unraveled the complex electrochemical signals obtained from within the brain of awake, behaving rats to give an unprecedented view of dynamic chemical communication in the brain reward system. These studies have uncovered the previously unrecognized, subsecond signaling by dopamine, norepinephrine, and serotonin that accompanies seeking of both natural- and drug-based rewards. Awards recognizing these accomplishments include the Pittsburgh Analytical Chemistry Award (1997), the Faraday Medal, Electrochemistry Group, Royal Society of Chemistry (2005), R. N. Adams Award in Bioanalytical Chemistry, Pittsburgh Conference (2006), the ACS Analytical Chemistry Award (2008), and the Sir Bernard Katz Award for Excellence in Research on Exocytosis and Endocytosis, Biophysical Society (2010).

**Dinner Reservations:** Please email the SACP Administrative Assistant, Valarie Daugherty at [daugherty@pittcon.org](mailto:daugherty@pittcon.org) by Monday, November 1, 2016 to make dinner reservations. Should you not have email, please call 412-825-3220, ext 204. Dinner will cost \$10 (\$5 for students) and checks are to be made out to the SACP. If you have any dietary restrictions, please let Valarie know when you leave message.

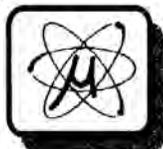
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OF PITTSBURGH

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### Spectroscopy Society of Pittsburgh

- Professional Networking within the Spectroscopy Community
- Monthly Symposia by Prominent Researchers
- Promoting Science Education



To Join Call Amy: 412-825-3220 ext 212

## Get Connected!

Stay up-to-date on all the happenings of the Pittsburgh Section ACS

**Section's Website:** [www.pittsburghacs.org](http://www.pittsburghacs.org)

**Facebook Page:** Pittsburgh Section of the American Chemical Society

**Linked In:** Pittsburgh Section of the American Chemical Society

# Business Directory

## Services

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## Services

### Volunteers Needed!

There are a number of volunteer opportunities in the Pittsburgh ACS section! If you are interested in volunteering, please contact Heather Juzwa at [hljuzwa@shimadzu.com](mailto:hljuzwa@shimadzu.com)!

### Crucible Deadline

The deadline for items submitted to The Crucible is the 15<sup>th</sup> of the month prior to publication.

For example, all items for the November 2016 issue must be to the editor by October 15, 2016.

### 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.

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## 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/recr\\_disp.php](http://www.mboservices.net/recr_disp.php)
- <http://pubs.acs.org/chemjobs/>

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# The Crucible

A newsletter of the Pittsburgh Section of the American Chemical Society

124 Moffett Run Rd.  
Aliquippa, PA 15001

## 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, October 3

Society for Analytical Chemists of Pittsburgh  
***“Combining Mass Spectrometry and Self-Assembled Monolayers for High Throughput Experiments”***  
Milan Mrksich, Ph.D., Northwestern University  
Duquesne University, Pittsburgh, PA

### Tuesday, October 11

***The Chemists Code for Success: 3 Essential Skill Sets for Your Career***  
Mellon Institute Social Room  
Pittsburgh, PA

### Tuesday, October 18

Pittsburgh Section ACS Energy Technology Group  
***“The Large Hadron Collider (LHC) - Exploring a New Energy Frontier”***  
Dr. Thomas Ferguson, Professor Emeritus,  
Department of Physics, Carnegie Mellon University  
Location TBD

### Wednesday, October 19

Spectroscopy Society of Pittsburgh

### Technology Forum

***Pittcon Planetarium Presentation***

### Technical Program

***“Now You See Them, Now You Don’t: Exploding Stars and the James Webb Space Telescope”***  
Dr. Ori Fox, Research Scientist Space Telescope  
Science Institute  
Duquesne University, Pittsburgh, PA

### October 21 & 22

National Chemistry Week  
***“Solving Mysteries Through Chemistry”***  
Carnegie Science Center, Pittsburgh, PA

### Monday, November 7

Society for Analytical Chemists of Pittsburgh  
***“Chemical Monitoring of Neurotransmission with Microelectrodes”***  
R. Mark Wightman, Ph.D., University of North Carolina at Chapel Hill  
Duquesne University, Pittsburgh, PA