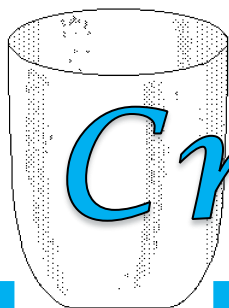


The Crucible



Volume CIV, No. 2

October 2018



Join the Pittsburgh Section of the American Chemical Society as we celebrate

National Chemistry Week / ChemFest 2018

Where: Carnegie Science Center

When: Friday, October 26th, 10 AM to 3 PM

Saturday, October 27th, 10 AM to 4 PM

Join in the activities as we celebrate this year's theme
"Chemistry Is Out Of This World!"

- ⇒ Visit over 30 exhibitors 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, Friday, October 26th only
- ⇒ Catch special NCW/ChemFest-related theater shows

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

Download the Section's phone app by searching **Pittsburgh ACS Section**

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 /

michael.mautino@covestro.com

The Pittsburgh Section ACS 2018 NCW activities are sponsored by the Society for Analytical Chemists of Pittsburgh, the Spectroscopy Society of Pittsburgh, the PPG Science Education Council, and the PPG Foundation.

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2018 NCW Illustrated Poem Contest Chemistry is Out of This World

The Pittsburgh Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten - 12th grade. This regional contest is open only to students who live in the following Ohio, Pennsylvania, and West Virginia 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: Friday, November 2, 2018

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 illustrated poem and entry form to Michael Mautino, 3485 Frye Ave, Finleyville, PA 15332. It is highly encouraged to e-mail entries to NCW@pittsburghacs.org

Winners of this regional contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win prizes!

Write and illustrate a poem using the NCW theme, "Chemistry is Out of This World." 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

Possible topics related to space chemistry include:

Light	Stars	Atmosphere	Spectrum
Planets	Gases	Supernova	Ultraviolet

Entries will be judged based upon

Artistic Merit - use of color, quality of drawing, design, and layout

Poem Message - fun, motivational, inspiring about yearly theme

Originality Creativity - unique, clever and/or creative design



Contest Rules:

All poems must be no more than 40 words, and in one of the following styles to be considered: Haiku, Limerick, Ode, ABC poem, Free verse, End rhyme, and Blank verse.

Entries are judged based upon relevance to and incorporation of the NCW theme, word choice and imagery, colorful artwork, adherence to poem style, originality and creativity, and overall presentation.

All entries must be original works without aid from others. Poems may be submitted by hand on an unlined sheet of paper not larger than 11" by 14" or scanned and sent via email. Illustrations may be created using crayons, watercolors, other types of paint, colored pencils, or markers. The illustration may also be electronically created by using a digital painting and drawing app on a computer, tablet, or mobile device.

The text of the poem should be easy to read and may be typed before the hand-drawn or digital 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.

No clipart or unoriginal images can be used.

Only one entry per student will be accepted; all entries must include an entry form. If the illustration is created using a digital painting or drawing app, the name of the program must be included on the 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.



2018 NCW Illustrated Poem Contest Chemistry is Out of This World ENTRY FORM

Please fill out this form and attach it after the poem. All fields are required. Incomplete forms will invalidate the entry.

The deadline for the Pittsburgh Section Contest is Friday, November 2, 2018.

Parent/Guardian information may be left blank if Teacher contact information is provided.

Student and Organization Information			
Student Name:			
Student Grade:			
Parent/Guardian Name:			
Parent/Guardian Email:			
Parent/Guardian Address:			
Parent/Guardian City:	State:	Zip:	
School or Sponsoring Group (e.g. Boys and Girls)			
Teacher Name:			
Teacher Email:			
School Address:			
School Address 2:			
School City:	State:	Zip:	
Please send any follow up for the student to the parent ____ or school ____ address. Check one.			
Illustration Type (Check one)			
Hand-drawn art ____	Digitally created art ____		
If the poem was digitally created, please name the software used in the box below:			
Judging Category by Grade (Check one)			
K-2 ____	3-5 ____	6-8 ____	9-12 ____
FOR LOCAL SECTION USE ONLY			
Local Section Name:	Pittsburgh		
NCW Coordinator Name:	Michael Mautino		
NCW Coordinator Email/ Phone:	NCW@pittsburghacs.org		



Society for Analytical Chemists of Pittsburgh Spectroscopy Society of Pittsburgh



October Joint Meeting with the AAAP

(Amateur Astronomers Association of Pittsburgh)

Wednesday, October 10, 2018



in Pittsburgh

5:30 PM Social Hour — Power Center Ballroom
5:30 PM SSP Technology Forum – Power Center Ballroom
6:30 PM Dinner – Power Center Ballroom
Student Affiliate Meeting – Shepperson Suite
7:45 PM Business Meeting – Power Center Ballroom
8:00 PM Technical Program – Power Center Ballroom

Deadline for Dinner Reservations: Monday, October 1, 2018



SSP TECHNOLOGY FORUM

Dr. Joshua E. Schlieder, NASA Goddard Space Flight Center

“Kepler, TESS, and the Exoplanet Revolution”

Over the last two decades, our knowledge of planetary systems has expanded beyond our solar system to thousands of planets orbiting thousands of stars. NASA's Kepler mission was the workhorse of this revolution and has led to breakthroughs in our understanding of the frequency and diversity of exoplanets. With the loss of critical hardware, the Kepler mission ended and was reborn as K2, an ecliptic plane survey that continues to operate today. Thanks to Kepler/K2, we now know that planets are common and nearly every star in the Galaxy hosts at least one. However, some of the most pressing questions remain: What are their physical properties?, Where are the closest planets?, and What is the potential for habitability beyond the Earth? NASA's latest exoplanet hunting mission, the Transiting Exoplanet Survey Satellite (TESS), is now in science operations and aims to tackle these difficult questions. TESS will observe 400x more sky than Kepler and provide high precision photometric measurements for millions of stars. I will describe how the unique capabilities of TESS will deliver the best targets for detailed follow-up with current and future facilities and provide a deep understanding of the exoplanet population in the local solar neighborhood.

BIOGRAPHY: Dr. Joshua Schlieder is a Research Astrophysicist at NASA's Goddard Space Flight Center in Greenbelt Maryland. His primary role at Goddard is as a support scientist in the TESS Guest Investigator Program Office. Josh is a Pennsylvania native and received a B.S. in Physics from Bloomsburg University in 2005. He then earned a PhD in Physics from Stony Brook University in 2011. Josh's previous professional appointments include fellowships at the Max-Planck-Institute for Astronomy in Heidelberg, Germany and the NASA Ames Research Center in Mountain View, California, and a staff scientist position at the NASA Exoplanet Science Institute in Pasadena, California. Josh's research focuses on low-mass stars near the Sun and the planets they host. These stars, the M dwarfs, comprise about 75% of the Galactic stellar content and provide unique opportunities for planet detection and characterization. Josh identifies M dwarf targets for planet searches, develops target lists, and pursues observations to identify, confirm, and characterize exoplanets. His most recent work involves transiting planets from NASA's K2 mission and he is now transitioning to work on data from TESS.

[Continued on Page 5](#)



Society for Analytical Chemists of Pittsburgh
Spectroscopy Society of Pittsburgh



October Joint Meeting with the AAAP

(Amateur Astronomers Association of Pittsburgh)

Wednesday, October 10, 2018

SACP TECHNICAL PROGRAM



Dana D. Dlott, School of Chemical Sciences & Frederick Seitz Materials Research Laboratory, University of Illinois

“Shock Compression Science and Spectroscopic Investigations of Highly Energetic Materials”

We have developed a microscope that looks into materials and liquids as they are subjected to controlled high velocity impacts. These impacts generate shock waves that propagate a few kilometers per second, creating intense mechanical and thermal effects that can trigger new kinds of chemistry. One of these impacts can create pressures of 200,000 atm and temperatures of 4000K while compressing matter to half its density. In this talk, I will describe the shock compression microscope and the peripheral high-speed optical diagnostics that measure pressure, temperature, density and composition in real time. I will briefly visit a couple of applications such as studying the chemistry of extreme water and shock compression of molecular architectures designed to dissipate shock energy, and then I will discuss shock initiation and detonation of high explosives, including liquid explosives and plastic-bonded explosives, where we fabricate arrays of tiny bombs and push them to detonation while we watch.

BIOGRAPHY: Dana Dlott is the William H. and Janet G. Lycan Professor of Chemistry and a Professor of Materials Research at the University of Illinois. He received a bachelor's degree from Columbia University and a Ph.D. from Stanford University under the supervision of Prof. Michael Fayer, using ultrafast laser spectroscopy to study electronic energy transfer in molecular materials. After he joined the Chemistry Department at the University of Illinois (in 1979) he began a research program to study vibrational relaxation in solids. About 30 years ago he began to study shock waves in solids. Dlott is a Fellow of the American Physical Society, the Optical Society of America and the American Association for the Advancement of Science. He has been recognized with the ACS award in Experimental Physical Chemistry and the Lippincott prize of the OSA for his work in ultrafast vibrational spectroscopy.

DINNER RESERVATIONS: Please complete the [Online Dinner Reservation Form](#) NO LATER THAN Monday, October 1, 2018. The form is also located under the Meeting Notice on websites www.sacp.org & www.ssp-pgh.org. Should you not be able to access the form, please call 412-825-3220, ext 212 the SACP & SSP Administrative Assistant to make your dinner reservation. The entrée choices for October are **Wiener Schnitzel** or **Grilled Vegetable Stack**. Please let us know if you have any dietary restrictions. Dinner will cost \$10 (\$5 for undergraduate students). Checks can be made payable to the SACP or the SSP, depending on membership.

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. Should any difficulties arise, please contact Duquesne University.

Announcing the Inaugural Meeting of the Newly Reconstituted

Chemical Education Group

Sponsored by the
American Chemical Society (ACS)
Pittsburgh Local Section

Thursday, November 8, 2018 from 6:00PM to 8:00PM
CARLOW UNIVERSITY, A.J. Palumbo Hall of Science and Technology, Room 302

Local chemical education professionals (College and High School Educators) are invited to attend this inaugural meeting to help reconstitute the Chemical Education Group of the ACS Pittsburgh Local Section.

- Discussions on the State of Chemical Education in the Pittsburgh Local Section Area
- Networking with Local Professional Chemical Educators
- Help Shape the Role of the Group in the Dynamic Landscape of Chemical Education in the Pittsburgh Region
- Help to Identify and Develop Strategic Partnerships

Refreshments will be provided. Parking is available in Carlow University Parking Lot "A" - see campus map at:
http://www.carlow.edu/Maps_Directions_Parking.aspx
(or on-street surrounding the Carlow Campus)

ATTENDANCE IS LIMITED, AND REGISTRATION IS REQUIRED

For questions, information, or to register to attend, please contact:

Dr. David Gallaher
Carlow University, Department of Chemistry
dlgallaher@carlow.edu

Dr. Evonne Baldauff
Waynesburg University, Department of Chemistry
ebaldauf@waynesburg.edu



ACS Local Section
Pittsburgh

31st ANNUAL

FARADAY LECTURE

Tuesday, November 13 at 7:00 PM
Soldiers and Sailors Memorial Hall

Free and open to the public!

“Science You Can See (and Hear)”

This year’s Faraday Lecture will be presented by the team of Colin Gould and Gregg Gould. The demonstrations performed will fall in two general areas; electromagnetic induction and sound. Many of the demonstrations will utilize particularly large-scale apparatus to help the audience see/hear the scientific principles involved. These lectures/demonstrations are entertaining as well as educational.

SPONSORED BY:
THE SOCIETY FOR ANALYTICAL CHEMISTS OF PITTSBURGH
THE SPECTROSCOPY SOCIETY OF PITTSBURGH



Society for Analytical Chemists of Pittsburgh Spectroscopy Society of Pittsburgh



November Meeting

Wednesday, November 14, 2018



in Pittsburgh



5:30 PM Social Hour — Power Center Ballroom
5:30 PM SSP Technology Forum – Power Center Ballroom
6:30 PM Dinner – Power Center Ballroom
Student Affiliate Meeting – Shepperson Suite
7:45 PM Business Meeting – Power Center Ballroom
8:00 PM Technical Program – Power Center Ballroom

Deadline for Dinner Reservations: Monday, November 5, 2018

SSP TECHNOLOGY FORUM



Dr. Neal Dando, The Spectroscopy Society of Pittsburgh “Starhopping – Finding Your Way in the Night Sky”

Starhopping is the practice of using readily locatable planets or constellations as reference points for finding other features of interest in the night sky. Our planetarium program allows participants to observe the sky, planets, various constellations and individual stars from any point on the surface of the earth, at any year or time of day and at any rate of elapsing time. We will use these capabilities to explore the night sky from different perspectives within the northern hemisphere and show how relatively obtuse astronomy concepts can be made tangible by the innovative use of the planetarium software. One 30-minute presentation will commence at 5:30. Several chairs will be available inside the planetarium for folks who cannot sit on the floor.

Our portable planetarium was purchased by the Pittsburgh Conference for the Spectroscopy Society of Pittsburgh and the Society of Analytical Chemists of Pittsburgh to use in our outreach programs.

BIOGRAPHY: Neal Dando is a member of the Spectroscopy Society of Pittsburgh (SSP), the Society of Analytical Chemistry of Pittsburgh and the Pittsburgh Conference (PITTCON) Organizing Committee. Neal is also the 2018-19 Chair of the SSP Pittcon Planetarium Committee, Chair-elect of the SSP and President-elect Designate of the Pittsburgh Conference Committee.

[Continued on Page 9](#)



Society for Analytical Chemists of Pittsburgh Spectroscopy Society of Pittsburgh



November Meeting

Wednesday, November 14, 2018

SACP TECHNICAL PROGRAM

Rick Yost, University of Florida

“The Triple Quadrupole: Innovation, Serendipity and Persistence”



In this presentation I will provide a personal perspective on the conceptualization, development and demonstration of the analytical capabilities of the triple quadrupole mass spectrometer. And in that perspective, I will try to illustrate the roles of innovation, serendipity and persistence that are fundamental to scientific research.

The triple quadrupole mass spectrometer has become the most common mass spectrometer in the world today, with sales of over \$1 billion per year. It is the gold standard for quantitative analysis in metabolomics, clinical analysis, drug discovery and development, and environmental analysis. But when I proposed that instrument as the “ultimate computerized analytical instrument” as a new PhD student in Chris Enke’s research group at Michigan State University as in 1975, the NSF reviews were uniformly negative, with experts in the field unanimous that the proposed instrument would never work. Fortunately, ONR funded the proposal, and the instrument did work!

In the 40 years since, mass spectrometry has evolved from a niche research area, largely for fundamental chemistry studies, into a practical, widely available analytical technique. Indeed, one can hardly name a significant advancement in science that was not made possible by the inventions and development of new tools to see something or measure something, and that includes everything from litmus paper to giant telescopes on mountain tops. And common to these inventions and developments have been innovation, serendipity and persistence.

BIOGRAPHY: Dr. Yost is the University Professor and Head of Analytical Chemistry at the University of Florida. He is recognized internationally as a leader in the field of analytical chemistry, particularly tandem mass spectrometry (MS/MS). Dr. Yost received his BS degree in Chemistry in 1974 from the University of Arizona, having performed undergraduate research in chromatography with Professor Mike Burke and his PhD degree in Analytical Chemistry in 1979 from Michigan State University, having performed graduate research with Professor Chris Enke. He then joined the faculty of the University of Florida.

[Bio Continued on Page 12](#)

DINNER RESERVATIONS: Please complete the [Online Dinner Reservation Form](#) NO LATER THAN Monday, November 5, 2018. The form is also located under the Meeting Notice on website www.sacp.org. & www.ssp-pgh.org. Should you not be able to access the form, please call 412-825-3220, ext. 212 the SACP & SSP Administrative Assistant to make your dinner reservation. The entrée choices for November are **Roasted Turkey** or **Butternut Squash Tart**. Please let us know if you have any dietary restrictions. Dinner will cost \$10 (\$5 for undergraduate students). Checks can be made payable to the SACP or the SSP, depending on membership. **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. Should any difficulties arise, please contact Duquesne University.

MADE IN PITTSBURGH

A SYMPOSIUM SPONSORED BY SACP/SSP CONTINUING EDUCATION

LOCATION: CHURCH OF THE BRETHREN, 481 CENTER RD, MONROEVILLE, PA 15146

**TIME: SATURDAY, NOVEMBER 17, 2018 8:30—9 REGISTRATION
9—12 SYMPOSIUM**

COST: \$10 (INCLUDES PARKING, REFRESHMENTS AND LUNCH)

**PLEASE SEND A CHECK OF \$10.00 PAYABLE TO SACP TO ATTN CONTINUING EDUCATION,
SACP, 300 PENN CENTER BLVD, SUITE 332, PITTSBURGH, PA 15231 & COMPLETE THE
INFO STATED BELOW.**

NAME: _____

AFFILIATION: _____

EMAIL: _____

PHONE: _____

Councilor Report on: ACS FALL 2018 NATIONAL MEETING – Boston, MA

Four ACS Pittsburgh Section Councilors were in attendance in Boston.

The meeting attracted approximately 14,235 attendees and an exposition of 441 booths.

The Committee on Nominations and Elections presented to the Council the two nominees as candidates for President-Elect, 2019. The Council selected Luis A. Echegoyen and Thomas R. Gilbert as Candidates for the 2019 President-Elect. These two candidates, along with any candidates selected via petitions, will stand for election in the Fall National Election.

The Committee on Nominations and Elections announced the selection of the following candidates for Director-at-Large for 2019-2021 terms: Frank D. Blum, Lee H. Lattimer, Ingrid Montes, and Angela W. Peters. The election of two Directors-at-Large from among these four candidates and any selected via petition will be conducted in the fall.

The Committee on Nominations and Elections announced that Council elected Ella L. Davis, Lissa A. Dulany, Lisa Houston, and Martin D. Rudd for three-year terms (2019-2021) and Will E. Lynch for a one-year term (2019) on the Council Policy Committee.

The Committee on Nominations and Elections announced that Council elected Allison Aldridge, Christopher J. Bannochie, Mary K. Engelman, Silvia Ronco, and Frankie K. Wood-Black for three-year terms (2019-2021) on the Committee on Nominations and Elections (N&E).

The Committee on Nominations and Elections announced that Council elected Rodney M. Bennett, Jacqueline A Erikson, Judith M. Iriarte-Gross, Donivan R. Porterfield, and Carolyn Ribes for three-year terms (2019-2021) on the Committee on Committees (ConC).

The Committee on Meetings & Expositions reported that the total meeting registration was 14,235. Of these, 8,294 were regular registrations, 1181 were exhibitors, 3,671 were students, 576 were exposition only, and 513 guests. The exposition had 441 booths with 301 companies. The meeting had over 10,000 papers presented.

The Council approved the Petition on International Chemical Sciences Chapters achieved the two-thirds majority required to amend Bylaw IX, Section 4 accordingly to read "An International Chemical Sciences Chapter may assess its members Chapter dues to be expended for its own purposes in harmony with the objects of the SOCIETY".

On the recommendation of the Committee on Committees, and the concurrence of the Council Policy Committee, Council approved the continuation of the Committee on Chemical Safety, subject to concurrence by the Board of Directors.

President Dorhout introduced and led a special discussion on what role(s) ACS should play in preventing sexual harassment in the sciences. He highlighted several recent articles, workshops, and studies that have called attention

to the issue, notably a symposium, "Science of Sexual Harassment" organized during the ACS National Meeting in New Orleans. by the Woman's Chemists Committee. He directed Council's attention to existing ACS codes and initiatives to address

sexual harassment, and offered items for discussion and possible action:

- More signs/information at National Meetings regarding our policies and supporting information.
- Trained volunteers at national meetings for reporting sexual harassment.
- A webinar on preventing sexual harassment for local sections or divisions.

The Society's 2018 Probable 1 Projection calls for a Net from Operations of \$31.8 million. This is \$1.3 million favorable to the Approved Budget. Total revenues are projected to be \$565.1 million, which is \$5.7 million or 1.0% favorable to the Budget. Total expenses are projected at \$553.3 million, which is \$4.4 million or 0.8% unfavorable to the Budget.

The Budget and Finance Committee considered one 2019 program funding reauthorization request, and on its recommendation, the Board subsequently approved funding the ACS Festival Series for inclusion in the 2019 Proposed Budget and the 2020-2021 Forecast Budgets.

[Continued on Page 12](#)

Councilor Report Continued from Page

The Society is expected to end the year in compliance with each of the five Board-established financial guidelines.

As of August 21, ACS had 149,584 members, which is a decline of only eight-tenths of one percent from the over 150,000 members in 2017. This year-to-date figure represents an increase of over 1,200 members when compared to the last two years. It was noted that five of last seven months have been respectively the best months for membership since at least 2014. The current membership count positions ACS for a strong close to the year, and there is cautious optimism that total membership will rise for the first time since 2011.

In light of the recent financial performance of the technical-meeting component of our national meetings, the Board voted to approve an advance member registration fee of only \$490 for national meetings held in 2019 (i.e., the current advance member registration fee escalated to account for inflation only); to reauthorize a program funding request for the Chemistry Festival program' and in accordance with past practice, to allocate on a pro-rated basis to qualified ACS Divisions any net revenues accrued to the Society from the 2020 and future international Chemical Congresses of the Pacific Basin Societies (Pacifichem).

The Board's Society Programs global liaison offered an update on efforts to strengthen the global presence of Society programs to better serve our international

members and the global chemistry enterprise. Efforts are underway to clarify and articulate the current state of international activities, products, and services; to clarify the challenges associated with globalization of existing domestic activities; and to offer recommendations for moving forward. Next steps include interviewing key stakeholders, reviewing past efforts, and exploiting existing market research with a view toward developing a strategic plan, activities, and timelines for Board consideration.

The ACS Pittsburgh Section was nominated for three ChemLuminary Awards including

1. Most Creative NCW Celebration Using the Yearly Theme
2. Outstanding Community Involvement in NCW and
3. Outstanding Performance by a Local Section –Large Size Category

The Pittsburgh Section won the ChemLuminary Award for Outstanding Community Involvement in NCW.

We should all be proud for the involvement, commitment and outstanding work that the members of the Pittsburgh Section exhibit !! Thanks to all for your great work.

Respectfully submitted Pittsburgh Section Councilors ,

Richard S. Danchik (Author)

Kim Woznack

Robert Mathers

Edward P. Zovinka

SACP Technical Meeting Yost Bio

Continued from Page 9

Dr. Yost's professional activities have focused on research and teaching in analytical mass spectrometry, particularly tandem mass spectrometry (MS/MS). His group's research has reflected a unique balance between instrumentation development, fundamental studies, and applications in analytical chemistry. His group has led in the application of novel mass spectrometric methods and techniques to areas such as metabolomics, clinical, biomedical, pharmaceutical, environmental, petrochemical, and forensic chemistry. Dr. Yost has supervised the research of well over 100 graduate students during the past 39 years, graduating almost 90 PhDs from his group. He has served as PI or Co-PI on grants and contracts totaling over \$60M of funding. Research in the group has led to over 200 publications and 16 patents. He still loves teaching undergraduates and graduates in the classroom each semester. Dr. Yost recently completed terms on the Florida Board of Governors (Regents) and the University Of Florida Board Of Trustees. He is director of the Southeast Center for Integrated Metabolomics (SECIM) and of NIH's Metabolomics Consortium Coordinating Center (M3C). He is also a Professor of Pathology at both the University of Florida and the University of Utah/ARUP. His research has been recognized with the 1993 ASMS Award for Distinguished Contribution in Mass Spectrometry and the 2018 MSACL Award for Distinguished Contribution to Clinical Mass Spectrometry. He currently serves as the President of the American Society for Mass Spectrometry (ASMS).

Carnegie Mellon University

Tatsuya Higaki

Ph.D. candidate (4th year, ABD)

Department of Chemistry

Carnegie Mellon University

August 28th, 2018

Heather Juzwa

Pittsburgh Section ACS Travel Grants

321 Winners Circle

Canonsburg, PA 15317



Dear Committee Chair Ms. Juzwa & Selection Committee:

It was my great pleasure to receive the *ACS Pittsburgh Section Student Travel Grants* as a graduate student in Carnegie Mellon University. I am writing this letter to express my gratitude for your generosity that makes this award possible. Thanks to this splendid award, I was able to present my research and network with scientists at the *American Chemical Society National Meeting & Exposition* in Boston, a prestigious international meeting in the field of chemistry. As a graduate student who has a keen interest in nanochemistry, I made a presentation titled "Tailoring the Structure of 58-Electron Gold Nanoclusters: $\text{Au}_{103}\text{S}_2(\text{SNAp})_{41}$ and Its Implications" in the symposium of "Toward Atomic Precision in Controlling the Low Dimensional Materials." The symposium included oral presentations by invited speakers who represent the field, so I met many researchers who are working on the state-of-the-art chemistry on nanoparticles. Therefore, it was a great opportunity for me to attend the ACS meeting in Boston where I extended my knowledge and experiences to achieve my future career goal toward a physical chemist with broad knowledge and deep thinking. After my presentation, I had a discussion on my work with theoretical chemists, who expressed interest in collaborating with us. This collaborative research is initiated owing to my attendance to this ACS meeting enabled by the support of the conference award. At the meeting, I also met two of my collaborators for research discussions. One collaborator is Prof. David J. Nesbitt from the University of Colorado Boulder, who specializes in microscopy technique for metal nanoparticles. The other collaborator is from Columbia University, and we plan to perform conductivity measurement together. The face-to-face discussion at the meeting has definitely facilitated the improvement of the collaborative work.

Without the conference award, I would not have had such a valuable experience at the ACS meeting in Boston. As my closing remarks, I would like to thank again the financial support by the *ACS Pittsburgh Section Student Travel Grants*.

Sincerely yours,

檜垣 達也

Tatsuya Higaki

ACS Trip Report from Pittsburgh ACS Travel Award

Recipient McKayla Miller

First and foremost, I would like to thank the members of the ACS Pittsburgh section for awarding me with a travel grant to attend the ACS National Meeting in Boston, Massachusetts this year. The grant money helped to make the trip possible and ultimately more enjoyable, as it was an experience I will not soon forget! The generosity of this group helped my department to better afford to send my research partner, Shannon Rose, and I to the conference to speak about a project we have been working hard on during the semester and a majority of the summer.

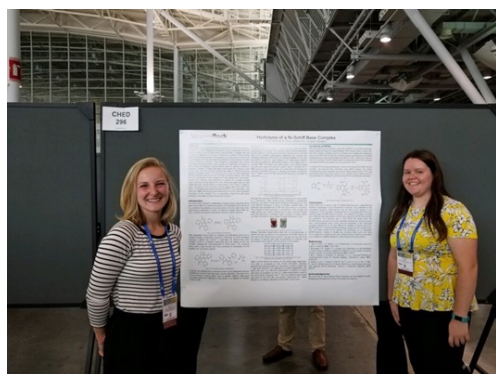
The conference poster session gave us the opportunity and experience of speaking to our peers and scholars about our project, hydrolysis of a nickel-Schiff base. Our group focuses on the dialkylation and hydrolysis of a nickel complex called Ni-PBP-Glycine. The process ultimately results in an isolated unnatural amino acid that can then be inserted into a polypeptide, whose subsequent folding behaviors can be examined. The application of the peptide research has roots in a potential therapeutic for Alzheimer's patients. We had gotten some encouraging results this summer, and I was excited to share our findings and to potentially net-

work with groups working on similar projects.



The ACS conference provided me many opportunities for personal and professional growth. I really enjoyed spending time at the graduate school fair where I was able to speak to recruiters from my top school choices. I enjoyed walking around the expo and learning about the improvements that are being made to instruments and of course visiting

the ACS store. I went to talks whose topics aligned with my own interests and was able to expand my knowledge on certain topics while developing an interest in others. I was also grateful to be able to explore a new city, and to make connections with people. I cannot thank the Pittsburgh chapter enough for their generous grant. The conference was amazing and I am forever grateful for the experience.



Distinguished Professor Sanford Asher, Recipient of the 2018 International Conference on Raman Spectroscopy "Raman Lifetime Award"

Professor Sanford Asher of the Department of Chemistry, University of Pittsburgh is recipient of the 2018 International Conference on Raman Spectroscopy (ICORS) Raman Lifetime Award, presented at their August 26-31, 2018 conference in Jeju Island, S. Korea.

This award has been given two previous times, once at the 2014 ICORS, in Jena, Germany where Prof. Wolfgang Kiefer, (University of Würzburg, Germany) was the recipient and again at the 2016 ICORS, in Fortaleza, Brazil where Prof. Shulin Zhang, (Peking University, China) was the recipient.

This very prestigious award is established to honor leading scientists for their lifetime achievement in Raman Spectroscopy and its applications. Professor Asher is this year's recipient because of his development of Raman Spectroscopy (RS) in areas of analytical, biophysical, physical chemistry and materials science and his significant contributions to developing the next generation of spectroscopists during his work with >100 PhD students, postdocs and scientists who worked in his lab.

Congratulations Sandy on this well-deserved recognition and award.



Dear Academic ACS Pittsburgh Section Members,

The Pittsburgh Section of the American Chemical Society has budgeted funds to help encourage undergraduate/graduate student participation in national and regional ACS meetings. The awards are intended to help defray meeting registration and travel-related expenses (lodging, transportation, per diem) for eligible students. Awards will be made based on the scientific merit of the paper/poster to

be presented, financial need, and preference will be given to ACS members.

To apply for the funds, applicants should complete the attached application and return it by the relevant deadline. The deadlines for receipt of applications are as follows:

- **06/01 (for travel to be completed by 12/31)**
- **12/01 (for travel to be completed by 06/30)**

As noted on the application, students should include an abstract and confirmation (if received) of the paper/poster being accepted for the Meeting. In addition to the application form, applicants should include a recommendation letter from the PI of the project being presented and/or a recommendation letter from another and a personal statement as to the anticipated benefits of meeting attendance.

Applications can be made electronically (*preferred*) by emailing the application to Heather Juzwa

(hjuzwa@shimadzu.com or heather_sapko@hotmail.com) or by mailing a hard-copy application (Pittsburgh Section ACS Travel Grants / Heather Juzwa / Center / 321 Winners Circle / Canonsburg, PA 15317).

Since 2013, the Pittsburgh Section of the ACS has awarded up to four \$500 grants each year to aid our undergraduate/graduate student members in presenting papers or posters at ACS Meetings.

This is an ongoing program in our Section, and details will be updated on our website, (www.pittsburghACS.org), as necessary.

Applicants will be notified via email that their application was received. All efforts will be made to announce awards within two weeks of the application deadline, and all applicants will be notified of the final committee decisions. Our Section is looking forward to helping increase the participation of local students in ACS conferences. If you have any questions, please do not hesitate to contact me.

Sincerely,

Heather Juzwa, ACS Pittsburgh Section Student Travel Grants, Chair
Senior Field Sales Engineer, Shimadzu Scientific Instruments, Inc.



<i>Application Deadline</i>	<i>Travel Completion Date</i>
December 1 st	June 30 th (subsequent year)
June 1 st	December 31 st (same year)

Name of Applicant: _____

Name of Institution: _____

_____ Undergraduate Student / Year

_____ Graduate Student / Year

Mailing Address to Receive Payment if Awarded _____

Email: _____ Phone: _____

PI: _____

ACS Membership No.*: _____

**If you do not know your ACS number, please email hljuzwa@shimadzu.com to receive it by email.*

Meeting Location: _____ Meeting Date: _____

Project Title: _____

_____ Paper Presentation _____ Poster Presentation

**Please attach a copy of your project abstract to the application.*

Has your project been accepted? Yes No

**Attach documentation regarding acceptance if received at point of application.*

Will this be your first presentation at an ACS national or regional meeting? Yes No

If no, please list conferences at which you have presented: _____

Purpose of grant: _____

Other funding sources (if any):

Personal Statement of anticipated benefits of meeting attendance

Has the applicant received a travel grant from the ACS Pittsburgh Section in the past? Yes No

If your application was selected, the Pittsburgh Section of the ACS would like you to write a short (one page) description of your activity upon completion of the conference for publication in our monthly newsletter, The Crucible, and on our website. The description is due within 30 days of the meeting attended.

I am willing to complete this report: Yes No

Signature: _____

Date: _____

Send completed hard-copy applications and supporting documentation to:

Pittsburgh Section ACS Travel Grants

Heather Juzwa

321 Winners Circle

Canonsburg, PA 15317

Business Directory

Services

Services

Services

Pittsburgh Section Officers

Chair

Brad Davis

724-852-3376

bdavis@waynesburg.edu

Secretary

Matt Baker

5626 Beacon Street

Pittsburgh, PA 15217

mbaker1@andrew.cmu.edu

Treasurer

Amy Rupert

350 Sunset Rd.

Pittsburgh, PA 15237

treasurer@pittsburghacs.org

Crucible Deadline

The deadline for items submitted to The Crucible is the 15th of the month prior to publication. For example, all items for the October 2018 issue must be to the editor by September 15, 2018.

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 hjuzwa@shimadzu.com!



Society for Analytical Chemists of Pittsburgh CALLING NEW MEMBERS

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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.

Design Editor: Traci Johnsen

124 Moffett Run Rd.

Aliquippa, PA 15001

Phone: 724-378-9334

tracijohnsen@comcast.net

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



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

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

Wednesday, October 10

SSP Technology Forum

“Kepler, TESS, and the Exoplanet Revolution”

Joshua E. Schlieder, NASA Goddard Space Flight Center

Duquesne University, Pittsburgh, PA

SACP Technical Meeting

“Shock Compression Science and Spectroscopic Investigations of Highly Energetic Materials”

Dana D. Dlott, School of Chemical Sciences & Frederick Seitz Materials Research Laboratory, University of Illinois

Duquesne University, Pittsburgh, PA

October 26-27

National Chemistry Week 2018

Carnegie Science Center, Pittsburgh, PA

Thursday, November 8

Pittsburgh ACS Energy Chemical Education Group

Carlow University, AJ Palumbo Hall of Science and Technology, Room 302

November 13

31st Annual Faraday Lecture

“Science You Can See (and Hear)”

Soldiers and Sailors Memorial Hall

Wednesday, November 14

SSP Technology Forum

“Starhopping - Finding Your Way in the Night Sky”

Dr. Neal Dando, The Spectroscopy Society of Pittsburgh

Duquesne University, Pittsburgh, PA

SACP Technical Meeting

“The Triple Quadrupole: Innovation, Serendipity and Persistence”

Rick Yost, University of Florida

Duquesne University, Pittsburgh, PA

Saturday, November 17

SACP/SSP Continuing Education Symposium

“Made in Pittsburgh”

Church of the Brethren, 481 Center Rd., Monroeville, PA