



American Chemical Society - Pittsburgh Section  
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**Congratulations to our Newly Elected Officers of the  
2022 Executive Board!**

**Chair-Elect:** Ed Zovinka  
**Secretary-Elect:** Jiahan Xie  
**Director:** Evonne Baldauff  
**Director:** Logan Miller  
**Councilor:** Kristin Nuzzio

Thank you for participating in our important election process!



## Congratulations to the 2021 ACS Pittsburgh Section Award Recipients!

### **Pittsburgh Award**

#### **Mr. W. Richard Howe**

W. Richard Howe left the faculty at his alma mater, St. Vincent College, in 1970 to join the Chemistry Department at the University of Pittsburgh. He rose through administrative ranks to the position of Assistant Chair in the Department before being selected to serve as an Associate Dean in Pitt's School of Arts and Sciences. He held that position for 30 years before his retirement in 2016.

Over his term as Associate Dean, he coordinated an aggressive capital projects program in excess of \$300,000,000 that modernized most of the instructional and research laboratories within the Arts and Sciences. This effort increased the amount of research space available for the school's expanding research programs and improved work/study facilities for the school's faculty, staff, and students. Before retiring, he served as principal author and project coordinator for a \$15 million construction award from the National Institute of Standards and Technology. This award enabled the University to expand its excellence in nanoscience and experimental physics.



Associate Dean Howe demonstrated dedication to his profession through his service as the Chairman of the Society for Analytical Chemists of Pittsburgh (1986-87), Local Chair for the 1989 International Science and Engineering Fair (held in Pittsburgh), and the Local Chair for the 1992 International Chemistry Olympics which was also held in Pittsburgh. He belongs to the Spectroscopy Society of Pittsburgh, the Pittsburgh Chapter of the American Chemical Society (ACS), the Pittsburgh High School Chemistry Sub-Group of the local ACS, and the organizing committee for the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON). In 1994 he served as the president of PITTCON and hosted over 32,000 attendees at their annual meeting in Chicago.

He served as the Executive Director of the Pennsylvania Association of College Chemistry Teachers (1981-1984). He also organized the 1978 annual meeting for the Middle Atlantic Association of Forensic Scientists and the 1977 Northeast Regional meeting of the Society for Research Administrators. He was a key organizer of the Chemical Heritage Foundation's (now Science History Institute) permanent museum of historical chemical instruments, served as the inaugural Chair of the CHF Committee on Instrumentation and Artifacts, and served as an inaugural member of their Heritage Council.

In recognition of his contributions to science education and science outreach, Howe was awarded the 2008 Distinguished Service Award by the Pittsburgh Section of the American Chemical Society.

In his spare time, Howe has been active in a variety of arts and science outreach programs in the Pittsburgh area. He served as Vice President of the North Allegheny Fine Arts Coalition and along with his wife served as President of the North Allegheny District Band Patrons. During their two years as Co-Presidents of the Band Patrons, they coordinated a successful fundraising effort to support the band's participation in the 1997 Tournament of Roses Parade and the 1998 Orange Bowl Parade. Among other activities, Howe served on the Western Pennsylvania Writing Project (2000-2006), the Pittsburgh Public School's Science Institute's Advisory Board (1986-1993) and Mayor Murphy's Pittsburgh Regional Alliance (1999-2002).

Since his retirement, Mr. Howe has become a member of the Foundation Board for the Beaver County Community College. Since July 2020, he has served as their Board Chair.

Mr. Howe and his wife of 43 years, Betsy, now live in Beaver County's Economy Borough which places them within driving distance of their three daughters and seven grandchildren.

## **Distinguished Service Award**

### **Dr. Evonne Baldauff**

Evonne Baldauff has been active in the ACS Pittsburgh Local Section since 2013, serving on the executive committee as secretary, treasurer (current), and chair (2016). Coordinating the undergraduate program for the Central Regional Meeting (CERM) held in Pittsburgh in 2014 was an honor; she has since gone on to fulfill this role at the national level during the ACS Spring 2021 virtual meeting. In 2019 Baldauff assumed the role of National Chemistry Week (NCW) coordinator, earning recognition for the Section with the "Outstanding Ongoing NCW Event" ChemLuminary award that same year. Baldauff has advised the Waynesburg University ACS student chapter since 2007, during which time the group was recognized twelve times as an "Outstanding Student Chapter." She looks forward to continuing her service to the Pittsburgh Local Section as it works to fulfill its mission to "advance the broader chemical enterprise and its practitioners" in the Pittsburgh region.

Baldauff received her B.S. in chemistry from Grove City College followed by a Ph.D. in inorganic chemistry from Purdue University. She currently serves as Assistant Provost for Online Learning and Curriculum Development as well as Chair of the Department of Chemistry & Forensic Science at Waynesburg University where she is a Professor of Chemistry. Outside of working and volunteering, she is an avid cook and baker.





# AMERICAN CHEMICAL SOCIETY PITTSBURGH SECTION AWARD BANQUET

*Honoring*

2020 PITTSBURGH AWARD RECIPIENT

**Ms. Leigh-Ann Humbert**

2021 PITTSBURGH AWARD RECIPIENT

**Mr. W. Richard Howe**

2021 DISTINGUISHED SERVICE AWARD WINNER

**Dr. Evonne Baldauff**

SATURDAY, JANUARY 22, 2022

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Grand Concourse  
100 West Station Square Dr.  
Pittsburgh, PA 15219

Social Hour: 6:00 Cash Bar  
Dinner: 6:45  
Award Presentation: 7:45

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#### DINNER REGISTRATION

Registration must be submitted by Monday, January 10, 2022: \$45.00; Student or Post-Doc \$25.00  
Parking is not included in the cost but is available in lots adjacent to Station Square or through valet at the Grand Concourse.

*To officially register for the event, payment must be received. Please register electronically at [this link](#).*

In lieu of electronic payment, checks payable to **ACS Pittsburgh Section** are accepted; mail to Dr. Kimberly Woznack, 250 University Ave. Box 56., California, PA 15419. Include the following information along with your check:

**NAME** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_ **STATE** \_\_\_\_\_ **ZIP** \_\_\_\_\_

**EMAIL** \_\_\_\_\_

**AFFILIATION** \_\_\_\_\_

#### **MEAL CHOICE (Please choose one per guest):**

Petite Filet Mignon

Lobster & Shrimp Stuffed Salmon

Vegetable Ravioli

If you have any special dietary concerns please let us know.



## National Chemistry Week 2021: Illustrated Poem Contest Winners!

This year the Pittsburgh Local Section received a number of entries for the annual NCW Illustrated Poem Contest. We thank all of the teachers and parents who encouraged their students to enter the competition. Entries were judged based upon artistic merit, poem message, originality and creativity, and neatness. Winners receive a cash prize and recognition locally. First place recipients are sent for judging at the national level.

### Category Grade 9-12<sup>th</sup>

1<sup>st</sup> Place: Alyssandra P., "Fascinating Fruits"

2<sup>nd</sup> Place: David K., "The Fastest Action: Water's Reaction"

3<sup>rd</sup> Place: Ciarra R., "Catalyst"

### Category Grade 3-5<sup>th</sup>

1<sup>st</sup> Place: Mira M., "Elephant's Toothpaste"

Mira's poem was also selected as the second-place winner at the national competition level! Mira's work can be found on the ACS website at <http://www.acs.org/ncw>, which receives over 25,000 unique visitors annually.

**Check out the winning poems below!**

Elephant's toothpaste

is a fun reaction

Potassium iodide speeds

up the action

Add 3%  $H_2O_2$  food color,

and dishwashing soap

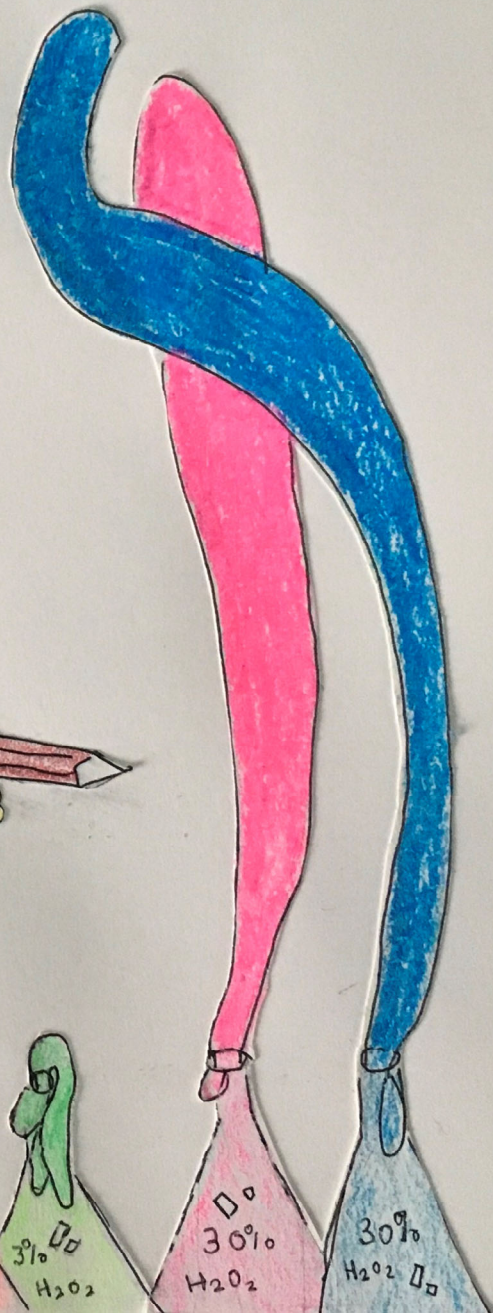
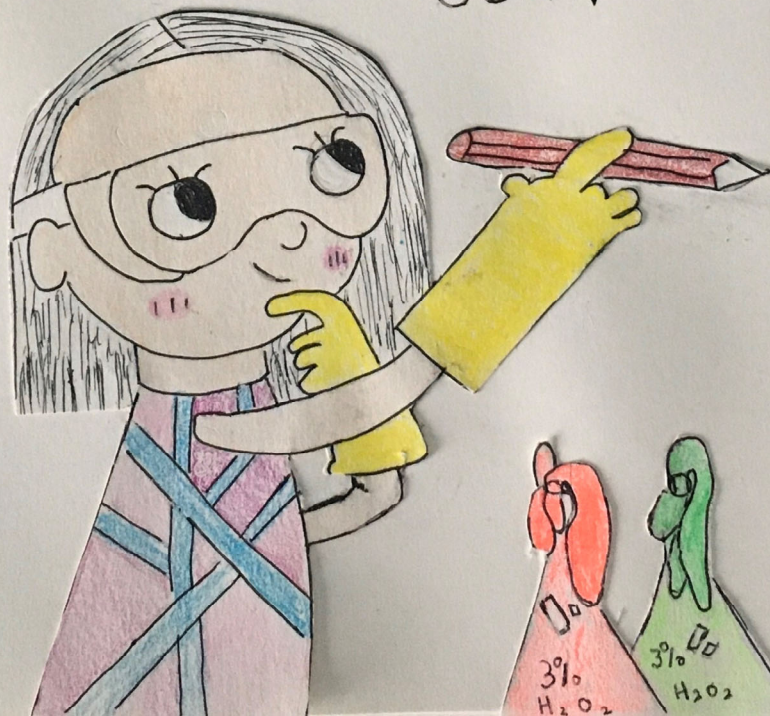
The foam is slow,

not as you hoped,

Add 30%  $H_2O_2$  and watch

the foam rise fast and...

SOAR





*Fascinating Fruits*

My fruit!

What happened to its colored suit?

Instead, its brown,

What went down?

Ethylene decided to take charge,

The rotted part is large.

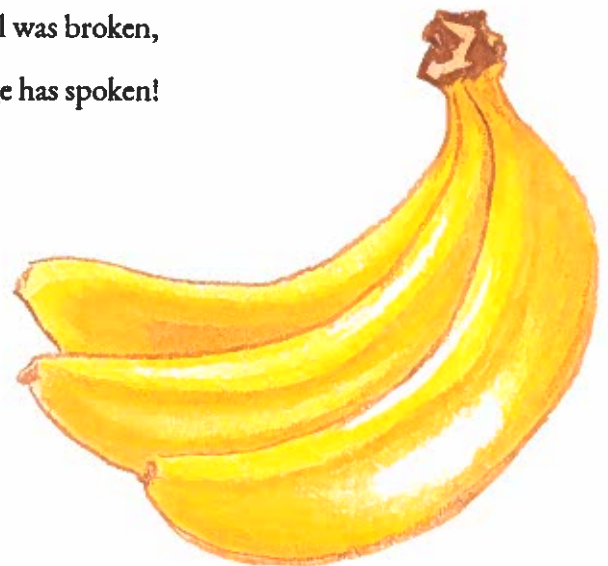
Ripe now,

But how?



Oxidation, since the peel was broken,

The new chemical change has spoken!

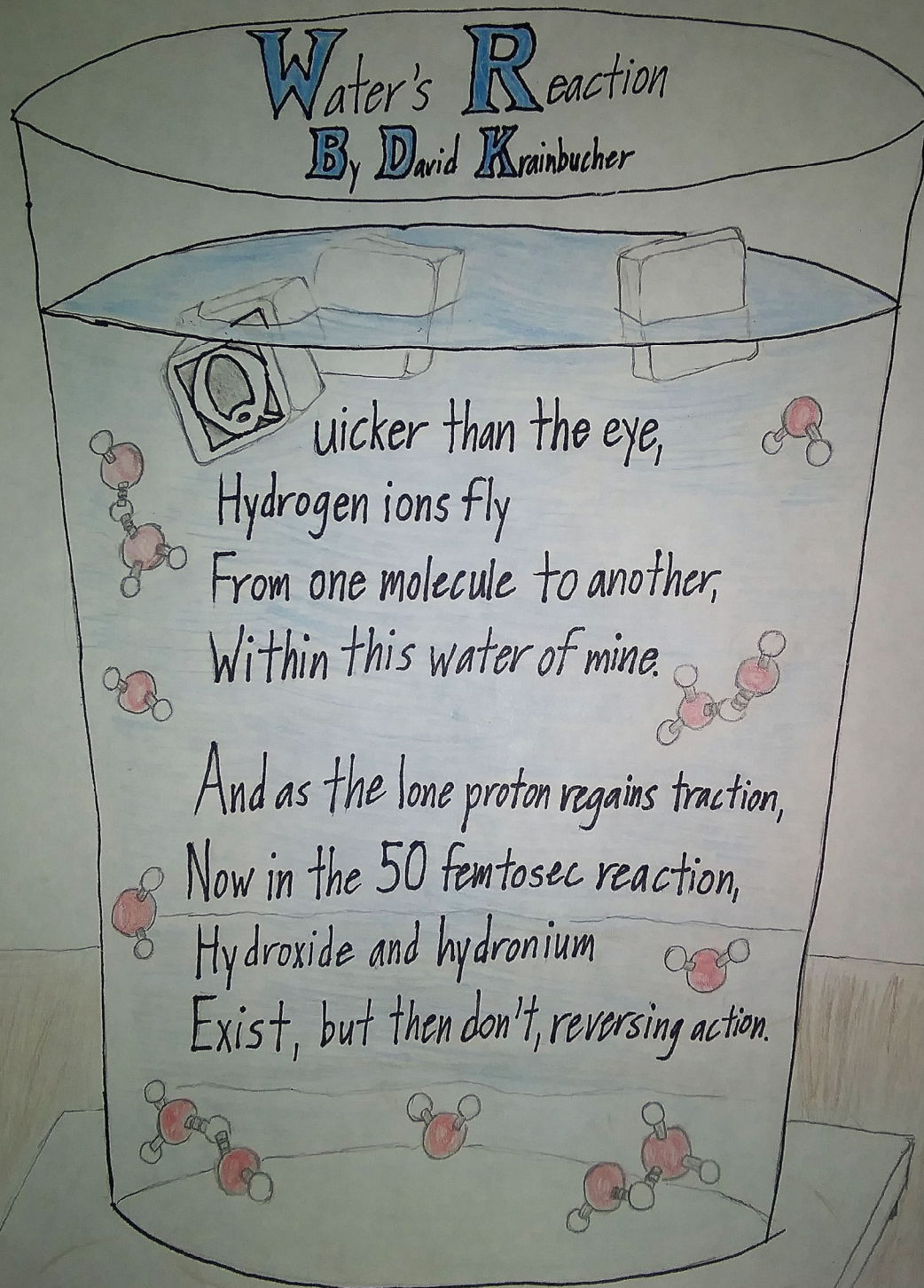




# The Fastest Action:

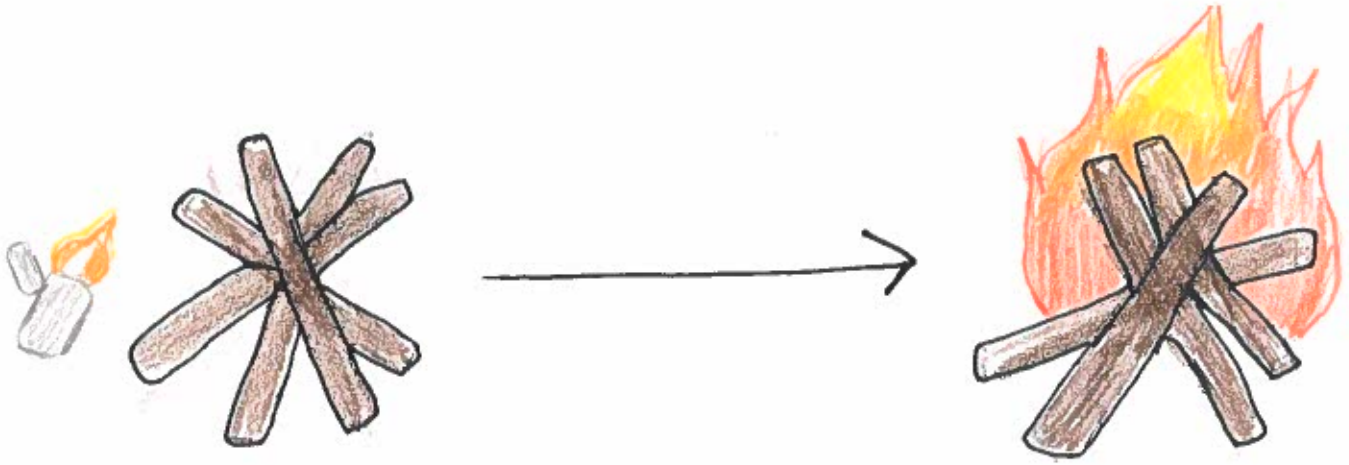
## Water's Reaction

By David Krainbucher



Quicker than the eye,  
Hydrogen ions fly  
From one molecule to another,  
Within this water of mine.

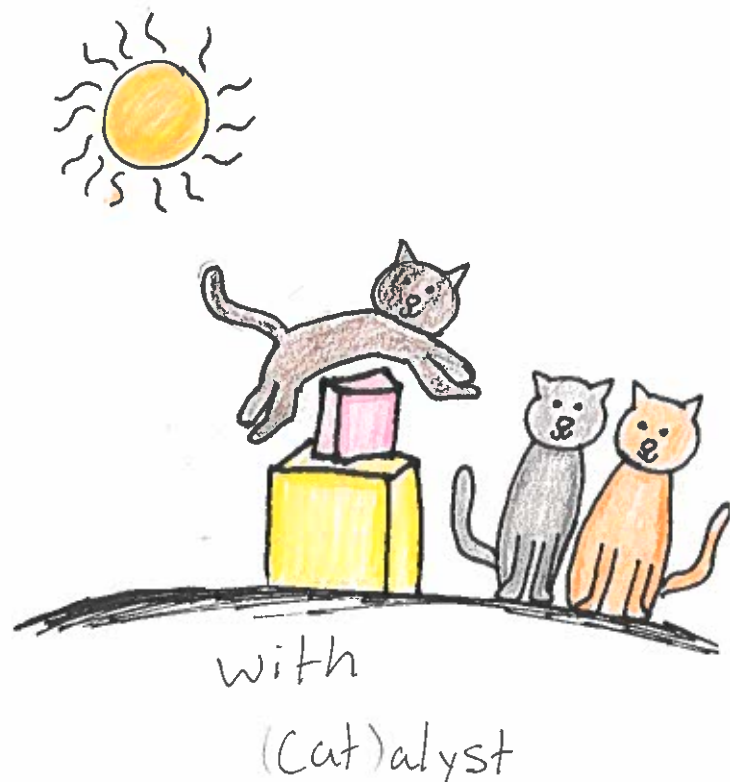
And as the lone proton regains traction,  
Now in the 50 femtosec reaction,  
Hydroxide and hydronium  
Exist, but then don't, reversing action.



I wonder how this reaction will go  
The speed, we will soon know.

The activation energy may be slow  
But the catalysts will make it grow

It may react fast or slow  
But chemistry always makes it go!





**Congratulations to the  
Pittsburgh Local Section of the  
ACS for winning a 2021  
ChemLuminary Award!**

The Pittsburgh Local Section won the ChemLuminary award given the by Local Section Activities Committee (LSAC). LSAC gives awards to Local Sections in a variety of categories. Pittsburgh won the Outstanding Performance by a Local Section Award for Local Section in the Medium-Large Category. The other two nominees in this size group were the Detroit and St. Louis Local Sections. The Pittsburgh section conducted a wide range of activities in 2020 including delivering its signature events during National Chemistry Week and an awards program that recognized its 50, 60, and 70-year members and the winner of the Pittsburgh award. The section also focused on improving communication via an update of its monthly newsletter and a redesigned website.

For more information about the ChemLuminary Awards, please see the following video:

<http://websrvr80il.audiovideoweb.com/il80web20030/Chemluminary/2013/what-are-the-chemluminary-awards.mp4>

A full video of the 2021 ChemLuminary Award Ceremony can be found on Vimeo:

<https://vimeo.com/637260354/6457b738d4>

Tune in to 1hr10min to see the announcement of this specific award.



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



**November MEETING (In-Person or Virtual)**

**Wednesday, January 26, 2022**



PLEASE NOTE THAT  
DUQUESNE HAS AN IN-PERSON  
MASK MANDATE IN PLACE

*5 p.m. - Social Hour in the Shepperson Suite  
5:30 p.m. - Technology Forum in the Union Ballroom  
6:30 p.m. - Dinner in the Union Ballroom  
7:15 p.m. - Business Meeting in the Union Ballroom  
8 p.m. - Technical Program in the Union Ballroom*

**SSP TECHNOLOGY FORUM**



**Kerri Cornell Duerr, Ph.D.  
Associate Professor of Biology, Westminster College**

**"Birds as a tool for environmental  
monitoring and life-long learning"**

**Biography**

Dr. Kerri Cornell Duerr is an associate professor of biology at Westminster College specializing in ornithology. Her research focuses on habitat use and population dynamics. In Dr. Duerr's work with undergraduate students, she has studied American kestrels, small mammals, and amphibians. She has studied ecology and ornithology throughout the U.S., Caribbean, and Central America. Enjoying all things outdoors, Dr. Duerr loves to travel, explore new ecosystems, and spend time with her family.

**Abstract**

Birds are charismatic and conspicuous animals that provide a connection between humans and the natural world. Roughly 10,000 species of birds occur on all seven continents making them an important taxon for monitoring global environmental change. Birds are relatively easy to detect and identify, attracting interest by people from diverse backgrounds. By observing birds, citizens become scientists who contribute knowledge about health of global ecosystems, and activists who influence cultural perceptions about conservation. Come on a journey to explore how human fascination with birds can lead global change.



## **SACP TECHNICAL PROGRAM**

**Paul Ohodnicki**  
**Associate Professor in Mechanical Engineering and Materials and**  
**Program Director of Engineering Science,**  
**University of Pittsburgh**

**"Application of Fiber Optic Sensing for Infrastructure Monitoring"**

### **Biography**

Paul R. Ohodnicki Jr. is currently an associate professor in Mechanical Engineering and Materials Science department at the University of Pittsburgh and the Engineering Science program director. He is currently the chair of the TMS Functional Materials Division and a member of the Board of Directors. Prior to his current role, he was a materials scientist and technical portfolio lead in the Functional Materials Team of the Materials Engineering & Manufacturing Directorate of the National Energy Technology Laboratory. He graduated from the University of Pittsburgh in 2005 with a B.Phil. in engineering physics and a B.A. in economics and subsequently earned his M.S. (2006) and Ph.D. (2008) in materials science and engineering from Carnegie Mellon University. Ohodnicki has published more than 150 technical publications and holds more than 20 patents. He also is the recipient of a number of awards and recognitions, including the Federal Employee Rookie of the Year Award (2012), Presidential Early Career Award in Science and Engineering (2016), and the Advanced Manufacturing and Materials Innovation Category Award for the Carnegie Science Center (2012, 2017, 2019). In 2017, he was a nominee for the Samuel J. Heyman service to America Medal.

### **Abstract**

An overview will be presented of some emerging applications of fiber optic sensing relevant for infrastructure sensing applications. Example motivating applications will be presented including grid modernization, energy resource recovery and transport, and power generation, along with an overview of a few selected existing and future sensing technologies under investigation. Emphasis will be placed on new research in the areas of low-cost fiber optic sensing technologies for embedded sensing within electrical power system assets such as transformers as well as the fusion between acoustic sensing and artificial intelligence / machine learning techniques for embedded intelligence within infrastructure such as pipelines and electrical power distribution lines as well as nuclear waste storage monitoring and management.

**MEETING RESERVATIONS:** For both in-person and virtual reservations, please [CLICK HERE](#) by **BY NO LATER THAN Monday, January 10, 2022**. In-person entree choices include Meat or Vegetable Lasagna. Please let us know if you have any dietary restrictions. Dinner will cost \$10 (\$5 for undergraduate students). Checks can be made payable to either SACP or SSP, depending on your membership. Please note the dinner policy included in your document links regarding cancellations.

**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. The Power Center can be accessed from the 8th Floor of the Forbes Garage. Bring your parking ticket to the dinner or meeting for a valedation sticker. Please contact Duquesne University, if any difficulties should arise. If there is a special event, please note that you are there for an SSP or SACP meeting to get a parking ticket.

For any questions or problems, please contact Colleen, the Society Coordinator, at 412-825-3220 (Ext. 215).



**ACS** Local Section  
Pittsburgh

### **Pittsburgh Local Section Receives Grant!**

The Pittsburgh Local Section of the ACS has just received word that we'll be recipients of a grant from the Local Section Activities Committee (LSAC)! This 2022 ACS Strategic Planning Retreat (SPR) grant consists of \$2,000 from the LSAC and an additional \$5,000 in credit/waiver from the ACS Board of Directors, for the purpose of conducting a Local Section Strategic Planning Retreat during 2022. Funding for this initiative is limited to only six local sections per cycle and this offer was extended to selected sections in the Medium-Large sized Category of Local Sections. The Executive Committee will be working during the next couple of months to finalize the plan for the start of this Strategic Planning process. Additional information about the ACS Strategic Planning Retreat can be found here:

<https://www.acs.org/content/acs/en/careers/leadership/strategic-planning-retreats-for-acg-governance-groups.html>



**ACS** Local Section  
Pittsburgh

To advance the broader chemistry enterprise  
and its practitioners for the benefit of Pittsburgh  
region and its people.

## 2021 Virtual Meeting Registration Grant Program Application

### ***Conference Funding to attend virtual ACS meetings (local and national)***

Undergraduates, graduates, and post-doctoral researchers are invited to apply for conference funding to attend upcoming virtual ACS meetings for the 2021 year. We anticipate up to 30 grants can be awarded and we are looking to support our local members. The goal of the funding is to defray the cost of registration for regional and national ACS meetings to enable more students to make presentations and learn about the broader field of study to which they belong. Please complete an application and submit to Kevin Noonan ([noonan@andrew.cmu.edu](mailto:noonan@andrew.cmu.edu)) and Heather Juzwa ([hjuzwa@shimadzu.com](mailto:hjuzwa@shimadzu.com)) via email. Applications will be accepted on a rolling cycle and considered throughout the entire 2021 year until all the funds have been disbursed.

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 [hjuzwa@shimadzu.com](mailto:hjuzwa@shimadzu.com) to receive it by email.*

**American Chemical Society**

1155 Sixteenth Street, N.W. Washington, D.C. 20036  
T [123] 123 4567 F [123] 123 4567 [www.acs.org](http://www.acs.org)



ACS Meeting: \_\_\_\_\_ 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 meeting? Yes No

Other funding sources (if any): \_\_\_\_\_

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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 at least one photo of your meeting experience.

I am willing to submit at least one photo of my meeting experience: Yes No

In under 1000 words, please write a personal paragraph or justification for why the Travel Grant Committee should fund your registration?





Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## 2021 Pittsburgh Section Officers

### Chair

Kevin Noonan  
[noonan@andrew.cmu.edu](mailto:noonan@andrew.cmu.edu)

### Secretary

Alysia Mandato  
440-749-2860  
[atm75@pitt.edu](mailto:atm75@pitt.edu)

### Treasurer

Evonne Baldauff  
51 W. College St.  
Waynesburg, PA 15370  
724-852-7617  
[ebaldauff@waynesburg.edu](mailto:ebaldauff@waynesburg.edu)

## Volunteers Needed!

We recently updated our website and are looking for someone to help with maintenance! If you are interested in volunteering, please contact Heather Juzwa at [hjuzwa@shimadzu.com](mailto:hjuzwa@shimadzu.com)!

## The Crucible Deadline

The deadline for items submitted to The Crucible is the 25<sup>th</sup> of the month prior to publication. For example, all items for the January 2022 issue must be to the editor by December 25<sup>th</sup>, 2021.

## The Crucible

The Crucible is published monthly, August through May. 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: Alysia Mandato, [crucible@pittsburghacs.org](mailto:crucible@pittsburghacs.org)

### Spectroscopy Society of Pittsburgh



[chemistryoutreach.org](http://chemistryoutreach.org)

Science Outreach  
through  
Philanthropy,  
Networking and  
Study

JOIN TODAY

Network with local professionals  
at our monthly meetings.

Society for Analytical Chemists  
of Pittsburgh  
[chemistryoutreach.org](http://chemistryoutreach.org)



Advancing  
Analytical  
Chemistry  
through  
Science  
Education

JOIN TODAY

Network with local professionals  
at our monthly meetings.

## Advertise in The Crucible

	1X	3X	6X	10X
Full Page	\$120	\$115	\$100	\$75
Half Page	\$75	\$70	\$60	\$45
3.5" x 2"	\$50	\$45	\$25	\$20

## ACS Member-Get-a-Member

Recruit a new member to the American Chemical Society and receive a free 2021 Periodic Table of the Elements blanket!

See [here](#) for more information

## ACS Regional Awards – Apply Today!

More information can be found [here](#)