



The Crucible

American Chemical Society - Pittsburgh Section

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November 2022

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The 2022 Nominating Committee of the Pittsburgh Section of the American Chemical Society submits the following slate of candidates for the Section office for 2023. All persons nominated are members of the society and have agreed to serve if elected. Only members of the Pittsburgh Section of the American Chemical Society are eligible to vote. The polls will open November 18, 2022. Please note that all ballots must be received by November 25, 2022 when polls close.

Chair-Elect (Vote for 1)

Alysia Mandato

Secretary-Elect (Vote for 1)

Samuel Leung

Treasurer-Elect (Vote for 1)

Niharika Botcha

Directors (Vote for up to 2)

Toby Chapman

Ronghong Lin

Councilors (Vote up to 2)

Rich Danchik

Kim Woznack

Kevin Noonan

Assuming you are a member in good standing, you will receive your ballot electronically. The polls will open on at 8:00 AM on November 18 and close November 25 at 11:59 PM.

For ballot questions, please contact:

Alysia Mandato

Secretary – ACS Pittsburgh Section

ATM75@pitt.edu

Candidate Biographies

Chair-Elect

Alysia Mandato

Alysia Mandato earned her BS in chemistry and biochemistry from John Carroll University in 2019. During her undergraduate studies, Alysia was the President of the ACS Student Affiliates Chapter for two years and presented research at the ACS National Meeting in Spring 2018. At JCU, she won academic scholarships and awards for chemistry students through the University.

Alysia is currently a PhD candidate in chemistry at the University of Pittsburgh advised by Professor Sunil Saxena. Her research focuses on the use of electron paramagnetic resonance spectroscopy to understand biophysical processes. She is in her fourth year of her PhD. Outside of research, she is involved in tutoring undergraduate students at Pitt and volunteers at the Carnegie Science Center. She also loves to play with her dog, Lucy.

Alysia is involved in the Pittsburgh Section of the ACS as the 2022 Secretary. She has been *The Crucible* newsletter editor since January 2020, and she coordinates the Chemists Celebrate Earth Week poetry contest. She is looking forward to the opportunity to continue to serve the local section and the Pittsburgh chemistry community.

Secretary-Elect

Samuel Leung

Samuel Leung is a catalyst researcher from Braskem America. He received his BS in chemical engineering from the University of Notre Dame (class of 2015) and his PhD from UC Berkeley under the supervision of Enrique Iglesia. During his time there, he studied the diffusion of light alkanes in zeolites and their reactions on encapsulated metal clusters. He has also studied mechanisms of carbon growth during methane reforming. In his current position, he works on projects related to the chemical recycling of waste plastics and the conversion of biowaste.

Treasurer-Elect

Niharika Krishna Botcha

Niharika Krishna Botcha started out with a bachelor's degree in Chemical Engineering from BITS-Pilani Goa Campus in India. After a short stint in Germany, she followed it up with a master's degree in Chemistry and a PhD in Materials Science from The University of Alabama in Huntsville (UAH) in 2021. Her research work was focused in the area of Inorganic Chemistry, so she continued with a postdoc in her field at Carnegie Mellon University (CMU). Realizing her passion for teaching she is now a Special Lecturer in the Department of Chemistry at CMU. As a graduate student at UAH, Niharika served as the President and Co-President of the Chemistry Student Committee and the Society of Women Chemists, respectively. She was also a mentor for the Army Educational Outreach Program and Research and Engineering Apprenticeship Program for two consecutive years at UAH. As a postdoc, Niharika was the NPA Meetings committee member serving as the vice-chair for both the Plenary/Keynote subcommittee as well as the Workshops/Poster subcommittee. Niharika has been an ACS member since 2017 and has been an active volunteer in her local section activities. Through ACS, Niharika had the opportunity to participate as well as serve in various outreach activities. She is an ACS Science Coach working with a high school chemistry

teacher and students for the academic year 2022-2023. Currently as a part of the Pittsburgh local section of ACS, she is excited to contribute her time and efforts to better serve her section.

Directors

Toby Chapman

Toby Chapman earned his B.S. from the University of Illinois in 1960 and his Ph.D. in Polymer Chemistry from the Polytechnic Institute of Brooklyn under the supervision of C. G. Overberger in 1965. He was a Postdoctoral Research Fellow at the Harvard Medical School Dept. Of Biological Chemistry working with E. R. Blount from 1965 to 1967. Dr. Chapman became an Assistant Professor of Chemistry at the University of Pittsburgh in 1967 and was promoted to Associate Professor in 1974. He had a sabbatical year at Mobay, now Covestro, from 1985 to 1986. Toby served as interim assistant department chair at the University of Pittsburgh from 2009 to 2010 and became a Professor Emeritus in 2015.

Activities in the section include serving a number of years on the Pittsburgh Award Committee, serving as co-program chair of the 2003 Central Regional Meeting, working on the Job Search for Chemical Professions program for several years, and serving on the section Library Committee. Toby is currently a section director.

Ronghong Lin

Ronghong Lin received his B. Eng degree in chemical engineering from Beijing University of Chemical Technology, Beijing, China in 2004 and M.Sc and Ph.D degrees in chemical engineering from Syracuse University in 2008 and 2011, respectively. He was a postdoctoral research associate at Syracuse University from 2011 to 2014 and an ORISE postdoctoral fellow at DOE's National Energy Technology Laboratory (NETL) from 2015 to 2018. He later worked as a staff scientist and thermal area lead at Arconic (2018-2019) and as R&D director at Anactisis, LLC (2019-2021). He is currently a senior R&D chemist at Calgon Carbon Corporation. His current and previous research work includes activated carbon production and properties, adsorption and gas separation, modeling and simulation, rare earth element separation and recovery, and energy and fuels. He has published one book chapter and more than twenty peer-reviewed journal articles. He is a peer reviewer for many journals. He has been an ACS member since 2012 and presented at ACS national meetings multiple times. He is also a senior member of AIChE. He is currently leading the environmental group of the ACS Pittsburgh local section.

Councilors

Rich Danchik

Dr. Danchik received his B.S. in Chemistry from Duquesne University and earned his Ph.D. in Analytical Chemistry from Wayne State University. He joined ALCOA in the Analytical Chemistry Division of Alcoa Laboratories where his research interests included atomic absorption spectrophotometry, electroanalytical techniques, selective ion electrodes and the development of automated process control systems.

Rich became Manager of ALCOA's Environmental Health Laboratory and had the responsibility for the development of new methodology and instrumentation in the field of industrial hygiene chemistry. He also managed the development and operation of the Laboratory. He is now consulting in the areas of analytical chemistry and environmental and industrial hygiene chemistry.

Societies: American Chemical Society (Councilor from 1991 to present;), American Industrial Hygiene Association, American Institute of Chemists (Fellow), American Society for Testing Materials (Fellow)-D-19, Committee on Water Analysis and D-22, Committee on Air Quality (Chairman from 2000-2005) (Vice-Technical Chair from 2005-2012) (Vice-Chairman Membership from 2012-2014), Sigma Xi, Society for Analytical Chemists of Pittsburgh (SACP), Spectroscopy Society of Pittsburgh (SSP), and Phi Lambda Upsilon.

Rich was the 1991 Chairman of the Pittsburgh Section of the ACS. He has been actively involved with Pittcon and was the 1986 Conference President. He has chaired numerous committees for the SSP. He was the 1979-1980 Chairman of the SACP. He is also active in the National ACS, serving as a member of the International Activities Committee (1991-2000; 2005-2017) and as the Subcommittee Chairman of the Meetings and Exposition Committee (2000-2006). He is presently on the Budget and Finance Committee for National ACS. He was a Pittsburgh Section Director for the ACS (1992-2004). He represents the United States on the International Standards Organization (ISO) for Workplace Atmospheres. He received the Moyer Thomas Award from ASTM in 2008. He received several awards from ACS for service as a Councilor (2015) and for the ACS/Pittcon International Travel Program. He has been a member of the Advisory Board of Analytical Chemistry and has authored or co-authored a number of technical articles and has previously authored the Nonferrous Metallurgy Review for Analytical Chemistry. He was also a member of the Editorial Board of the Applied Occupational and Environmental Hygiene Journal.

Kimberly Woznack

Dr. Kimberly Woznack is a Professor at Pennsylvania Western University (PennWest)-California (formerly known as Cal U). Kim Woznack is now in her second term as Councilor for the Pittsburgh ACS local section. Kim served on the national ACS Women Chemists Committee (WCC) from 2011-2020, serving as the Chair from 2018-2020. As Chair, Kim oversaw the committee of 29 members appointed by the ACS President, who executed the programs and events of the committee. The WCC products and services include several highly competitive awards programs, programming at the national meeting, regional meetings, and webinars, national networking events, social media, and online presence. Kim also served as Chair of the Pittsburgh Local section during 2022.

Kim Woznack has been an enthusiastic and active member of the ACS since she was an undergraduate student affiliate at Hartwick College. She earned her B.S. in chemistry in 1997. She went on to earn her Ph.D. in Inorganic Chemistry at the University of Wisconsin-Madison before she was a postdoctoral research associate at the University of New Hampshire. She joined the faculty at California University of Pennsylvania in 2004. Kim served as the Chair of the Chemistry & Physics Department from 2011-2014. Kim is an advisor to the PennWest-California ACS-student affiliates group, who participates in National Chemistry Week (NCW), as well as other outreach events such as Chemists Celebrate Earth Week (CCEW) and the annual 'Take our Daughters and Sons to Work Day' on our campus.

Kim has been a member of the Society of Analytical Chemists of Pittsburgh (SACP) since 2009, and at least once per semester she drives a university van filled with students (both ACS and SACP-student affiliates) to the monthly SACP/SSP meetings at Duquesne University. Kim also had the pleasure of serving as a Pittcon 2016 Conference Week Staff member in Atlanta.

Off-campus and away from the discipline of chemistry, Kim also volunteers for Scouts BSA. Kim is the Assistant Scoutmaster for Boy Scouts of America (BSA) Troop 1423, as well as a Merit Badge Counselor for Chemistry and several other badges.

Kevin Noonan

Dr. Kevin Noonan is an Associate Professor at Carnegie Mellon University (CMU). Kevin has been active in the ACS since starting in his position in 2011 at CMU. Kevin served as Chair of the Pittsburgh local section in 2021 and has been involved in local activities for the National Chemistry Olympiad as well as outreach activities with Pittsburgh Public Schools. He earned his B.S. in chemistry from Dalhousie University in 2003 and his PhD from the University of British Columbia in 2008. He was a post-doc at Cornell before joining CMU in 2011.

ACS Pittsburgh Environmental Group is Recruiting Members!



The Environmental Group of the Pittsburgh Section of the American Chemical Society was formed with the aim to educate and promote awareness about our environment. Our major intent is to protect the environment from the misuse of chemicals. We invite individuals from all professions and studies to join us in promoting environmental sustainability. We support technical seminars with an emphasis on environmental monitoring, remediation and restoration technologies, risk assessment, and public policies as it relates to chemicals in our environment. We also sponsor site visits, social gatherings, and networking.

Membership in the Environmental Group is open to all.

If you are interested in volunteering with us or want more information, please contact Dr. Ronghong Lin at dr.ronghong.lin@gmail.com.



ACS Publications
Most Trusted. Most Cited. Most Read.

All ACS Journals are available for access at any of the Carnegie Libraries of Pittsburgh. The Pittsburgh ACS is wondering how much this resource is being utilized by our community.

Please fill out [this short survey](#)! We thank you for your responses!



**SSP/SACP Joint Meeting
Wednesday, November 9, 2022
Duquesne University**



5:00 PM – Social Hour
5:30 PM – Technology Forum
6:30 PM – Dinner
7:15 PM – Business Meeting
8:00 PM – Technical Program

SSP Technology Forum

“From Pittsburgh to the Moon: Building a New Model for Career Readiness and STEAM Engagement at Moonshot Museum”

Sam Moore, Executive Director of the Moonshot Museum



Biography:

Sam Moore is the founding executive director of the Moonshot Museum, a new museum opening in Pittsburgh in 2022 with a mission centered on inspiring young people to find their place in the future of space exploration. Sam oversees operations, exhibition development, fundraising, programming, and outreach for this brand new museum. Moore has spent more than a decade in museums and cultural nonprofits, including leadership positions with the Senator John Heinz History Center, the National Aviary, the Missouri Historical Society, and St. Louis’s Campbell House Museum. Moore serves on the leadership team for the Public Relations & Marketing Professional Network of the American

Alliance of Museums (AAM) and is a past member of the Creativity & Experimentation Task Force for the American Association for State and Local History (AASLH) and AAM's National Program Committee. A lifelong space and sci-fi fan, he holds an M.A. in history and museum studies from the University of Missouri.

Abstract:

Moonshot Museum will be a groundbreaking “living lab” focused on space career readiness, built on a unique partnership with space robotics company Astrobotic, where visitors will have unprecedented access to real spacecraft and space industry professionals. Launching a new model for collaboration between education-focused nonprofits and innovative industry, Moonshot Museum will send visitors on simulated lunar missions designed to foster space career + community readiness and propel young people of all backgrounds to pursue space-related careers across the spectrum of science, technology, engineering, the arts, and mathematics (STEAM), including space careers in medicine, business, law, policy, and the humanities. Moonshot Museum opens to the public on Saturday, October 15, 2022, debuting Pennsylvania’s first space museum and the first museum in the world to focus on career readiness for the contemporary space industry.

SACP Technical Program

“Astrobotic Technology: Pittsburgh Aerospace Company”

Jodi Coletti, Senior Systems Engineer, Astrobotic
Alivia Chapla, Director of Marketing and Communications, Astrobotic



Biography:

Alivia Chapla went to university to pursue her passion for fine arts, teaching, and marketing. Her artwork currently hangs in numerous houses, pubs, and even in the home of a band member from Nine Inch Nails. Prior to Astrobotic, Chapla worked at advertising agencies with a wide variety of clients spanning from national brands including Dunkin', Marriott Hotels, and the Pittsburgh Penguins to local nonprofits such as Travelers Aid Pittsburgh and Union Project. A member of the Planetary Society and avid space fan, she has found her way back to the Steel City from years in South Carolina to help achieve Astrobotic's

mission to make space accessible to the world.

Biography:

Ms. Coletti is the technical point at Astrobotic for payload systems engineering and integration for both Peregrine and Griffin missions. Her responsibilities include ICD (Integration Control Document) and PAR (Payload Acceptance Review) for each payload, as well as acceptance, integration and functional testing of each payload to ensure flight readiness for mission success. Prior to her time at Astrobotic, Ms. Coletti was involved in systems engineering work for a leading aircraft engine manufacturer working on engine test and analysis for commercial and military aircraft engines. She has extensive experience in requirements creation and management, integration, test and analysis.

Education: B.S. Aerospace Engineering Virginia Tech, M.S. Embry Riddle Aeronautical University

25 years experience in systems engineering

Abstract:

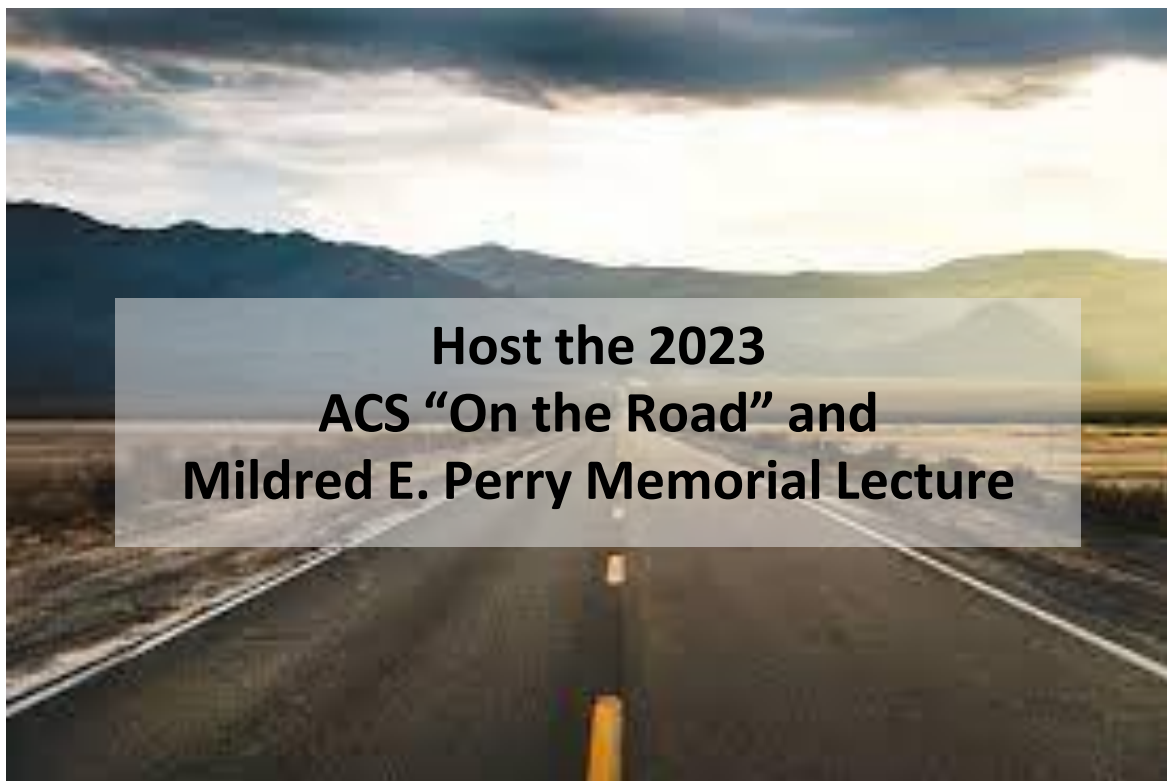
Dive into the 21st century space industry! Join us to learn about Pennsylvania's first spacecraft, Astrobotic's Peregrine lunar lander, and its scientific instruments traveling to the Moon in early 2023. Engineer Jodi Coletti will discuss the technical marvels and challenges faced while building spacecraft. She will also provide insight into the NASA payloads (cargo) aboard Peregrine that feature spectrometers conducting lunar science. Marketing Director Alivia Chapla will discuss the history of space robotics company Astrobotic and expound on the rovers, landers, power solutions, and landing technologies that space robotics company Astrobotic is working on today.

For complete details and to make a dinner reservation, please visit our society's website. Deadline for dinner reservations is Tuesday, November 1, 2022 by noon.

<https://chemistryoutreach.org/meeting/>



ACS Local Section
Pittsburgh



**Host the 2023
ACS “On the Road” and
Mildred E. Perry Memorial Lecture**

Each year, the Pittsburgh local section features an “On the Road” event, which has the Mildred E. Perry Memorial Lecture. This is a great opportunity for local section chemists to visit your site or campus. The organizers choose the speaker and program details. Past organizers would be happy to share our experiences and websites if the host location is interested. In 2021, this event was hosted by Saint Francis University and featured Dr. Lan Deng from PPG. We encourage hybrid events if necessary! If your institution is located in the Pittsburgh Local Section and you would like to host the 2023 ACS “On the Road” event, please contact ACS Chair, Kim Woznack (woznack@calu.edu).

American Chemical Society Pittsburgh Local Section

Engage and inspire members to unite the diverse chemistry community and share knowledge to benefit our region and its people.
www.pittsburghacs.org



American Chemical Society Pittsburgh Section

www.pittsburghacs.org

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 (hljuzwa@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



American Chemical Society
Pittsburgh Section

www.pittsburghacs.org

Application Deadline	Travel Completion Date
December 1	June 30 (subsequent year)
June 1	December 31 (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. Photos are welcomed and encouraged.

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

Electronic copies of completed applications should be sent to hljuzwa@shimadzu.com and heather_sapko@hotmail.com. Be sure to place "Pittsburgh Section ACS Travel Grants" in the subject line.



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

2022 Pittsburgh Section Officers

Chair

Kim Woznack
woznack@pennwest.edu

Secretary

Alysia Mandato
atm75@pitt.edu

Treasurer

Matthew Price
price@pennwest.edu

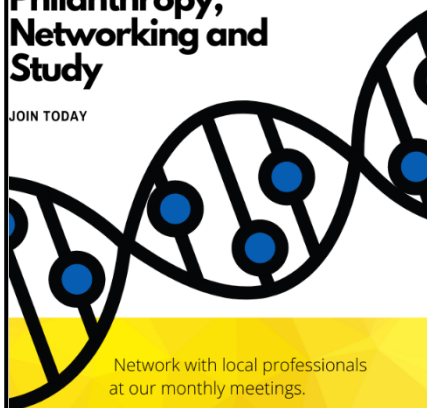
Spectroscopy Society of Pittsburgh



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



Advancing Analytical Chemistry through Science Education

JOIN TODAY



Network with local professionals at our monthly meetings.

Volunteers Needed!

We are always looking for people to join us. If you are interested in volunteering, please contact Heather Juzwa at hjuzwa@shimadzu.com!

The Crucible Deadline

The deadline for items submitted to The Crucible is the 25th of the month prior to publication. For example, all items for the December 2022 issue must be to the editor by November 25th, 2022.

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

New Ways to Join ACS in 2022

Renew your membership or upgrade to a Premium membership.

See [here](#) for more information

ACS Regional Awards – Apply Today!

More information can be found [here](#)