APRIL 11th MEETING AT DESALES UNIVERSITY
UNDERGRADUATE RESEARCH POSTER SESSION
UNDERGRADUATE SENIOR EXCELLENCE AWARDS

DeSales University, 2755 Station Ave, Center Valley, PA 18034
Trexler, Hurd, and Commonwealth Rooms
https://www.desales.edu/about/location-directions

Monday, April 11th 2022
Social Hour/Poster Session, 4:45pm-6:00pm
Dinner: 6:00-7:00pm
Talk/Awards/Meeting: 7:00pm
Dinner Menu: Italian themed with a vegetarian option
Cost: $25 for full members, $15 for students, retired, and unemployed
RSVP by April 4th 2022 for poster session, dinner, & meeting
REGISTER FOR POSTERS/DINNER/MEETING: https://forms.gle/fAZ5S6Ean4seMexu9
CONTACT: Sara Hayik, sara.hayik@desales.edu

Speaker: J. W. Bennett, Ph. D., University of Maryland Baltimore College, Department of Chemistry & Biochemistry
“Density Functional Theory (DFT) as a Non-Destructive Probe in the Field of Art Conservation Science”
Synopsis: Art conservation science requires a suite of spectroscopic methods, some of which are invasive and irreversible, to understand what happens to objects of significant cultural heritage. Therefore, we need new types of noninvasive probes to complement existing techniques that can be used to inform and guide conservation scientists in the care of artifacts that have been preserved, stored, or displayed under a wide range of conditions. We put forth density functional theory (DFT) for this purpose. DFT is a quantum mechanical tool used to map out interactions at the atomistic level, where the length scales are in the Angstrom to nanometer regime. The types of atomistic calculations that were developed concurrent with developments in DFT were for bulk materials, whether they be metals, semiconductors, or insulators. It has only been in the last 15 years that advances in computing, which include improved network connections, computing materials, and architectures, and algorithms, have made it possible to investigate complex surface phenomena. The types of surface interactions that we can easily investigate are at the interface of small molecule adsorbates and material surfaces. Using DFT we can do this for different terminations across a wide range of chemical environments for different sized surface cells. Here we focus on using DFT as a noninvasive probe to determine which small molecule interactions are weak and relatively innocuous and which are strong and result irreversible changes for mineral oxide and carbonate surfaces. Our modeling work looks at oxide and carbonate mineral surfaces common to artifacts, and through the lens of the Baltimore SCIART program, we describe our efforts to better understand the effects of small molecule adsorbates on aragonite surfaces.

CALL FOR POSTERS: STUDENTS SUBMIT YOUR ABSTRACTS
BY APRIL 4th AT: https://forms.gle/fAZ5S6Ean4seMexu9
LVACS Events Calendar

April 2022

**April Meeting (In-Person Format)**
- Undergraduate Poster Night
- Undergraduate Senior Excellence Awards
- Talk: “Density Functional Theory (DFT) as a Non-Destructive Probe in the Field of Art Conservation Science”
  Speaker: J. W. Bennett, Ph. D., University of Maryland Baltimore College
  DeSales University, 2755 Station Ave, Center Valley, PA 18034
  [https://www.desales.edu/about/location-directions](https://www.desales.edu/about/location-directions)

**Monday, April 11th**
Social Hour/Poster Session, 4:45pm-6:00pm
Dinner: 6:00-7:00pm; Talk/Meeting: 7:00pm
**RSVP by April 4th 2022 for poster session, dinner, & meeting**
**REGISTER:** [https://forms.gle/fAZ5S6Ean4seMexu9](https://forms.gle/fAZ5S6Ean4seMexu9)
**CALL FOR ABSTRACTS!!** SEE PAGE 5 FOR MEETING DETAILS
**CONTACT:** Sara Hayik, sara.hayik@desales.edu

**Chemists Celebrate Earth Week (April 17-23)**
Celebrate CCEW the week of April 17–23, 2022 with the Theme: “The Buzz About Bugs: Insect Chemistry.”
Explore the many ways insects in nature can help us (promote biodiversity, pollinate fruits and vegetables, produce honey and silk, etc.) or bug us (give us itchy bites, spread disease, etc.), and the exciting chemistry at play in the lives of insects.

**Outreach Event: Da Vinci Science Center**
*Saturday, April 23 from 10am – 2pm*
**POST the event flyer around your area!**
**Get out your magic chemistry wand and JOIN US!!**
Event Coordinator: Nigel Sanders [nigel53.sanders@gmail.com](mailto:nigel53.sanders@gmail.com)
Educational **Resources**
K-12 CCEW Poetry Contest [Flyer](#) - submit your rhymes today!!
CCEW Coordinator: Lindsey Welch [lawelch@cedarcrest.edu](mailto:lawelch@cedarcrest.edu)

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**Also In This Issue...**

3. CCEW Event at Da Vinci Science Center: Volunteers needed!
4. March 10th meeting report.
8. Project SEED program for LVACS approved! MARM, June 1-4, registration is open.
9. Strategic Planning Retreat is June 11-12 at Cedar Crest College. YOUR help is needed!
11. ACS Spring 2022 Hybrid Meeting: Council Agenda.
12. 2022 Executive Committee.
13ff. Applications for 2022 LVACS Awards (final notice).

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**THE BUZZ ABOUT BUGS:**
insect chemistry #ccew

SPRING IS DRAWING NEAR (NO THANKS TO CERTAIN UNNAMED RODENTS)!

CELEBRATE THE EARTH WITH SOME PUBLIC OUTREACH: NEIGHBORLY CHEMISTRY

CONTACT: Nigel Sanders, LVACS secretary and newsletter editor, [nigel53.sanders@gmail.com](mailto:nigel53.sanders@gmail.com)
Join the Lehigh Valley Section of the American Chemical Society and Da Vinci Science Center for a free community event for Chemists Celebrate Earth Week and celebrate the importance of chemistry in everyday life! Learn about this year’s theme, “THE BUZZ ABOUT BUGS: insect chemistry,” with exhibits and exciting hands-on activities including your own insect-dye painted work of Bug Art!

**When:** Saturday, April 23rd, 2022; 10:00 am until 2:00 pm  
**Where:** Da Vinci Science Center,  
3145 Hamilton Blvd Bypass,  
Allentown, PA 18103  
Questions about the event? please contact: Nigel Sanders, nigel53.sanders@gmail.com or Jennifer Pors, jen@davincisciencecenter.org.

We hope to see you there!

**SEEKING VOLUNTEERS OF ALL AGES!**  
Get out your magic chemistry wand and JOIN US!!  
CONTACT: nigel53.sanders@gmail.com

**SEE like a BEE:** What does the world look like under UV light?

**Extract carminic acid (carmine dye) from cochineal scale insects**

**EAT a BUG?** it’s a staple in many diets!

**KEEP PORTLAND WEIR**

**Founded:** 2014  
**Location:** Made in Portland, Oregon  
**Sourced:** Crickets raised and sourced only from North America  
**Next Steps:** Let’s eat bugs!
LVACS March 10th Meeting Report: Color from Colorless Materials

The Thursday, March 10th, section meeting was a hybrid event: in-person with a social hour in Muhlenberg’s Seeger Hall at 5:30 pm, followed by dinner. The program, held in Trumbower Science Hall, was introduced by our host, Justin Sparks of Muhlenberg College, and featured a lecture by Lauren Zarzar of Penn State University entitled “Color from Colorless Materials” which was also offered remotely via Zoom.

Lauren is an assistant professor of chemistry and an affiliate of the Materials Research Institute. The Zarzar Lab studies stimuli-responsive materials, the behavior of active matter, and laser fabrication methods to synthesize and pattern both inorganic and organic materials. [https://www.zarzarlab.com/](https://www.zarzarlab.com/). In this lecture, Lauren explained why interference (structural) color can arise from even microscale structures (~100 microns) by Total Internal Reflection, such as when water droplets of different sizes form by condensation on a clean, low energy surface. More controlled color effects can be obtained by extending this approach with Biphasic Droplets made by a microfluidic technique with two immiscible organic liquids such as heptane and perfluorohexane, suspended in water by use of a surfactant which gives a curved interface between the two organic phases. The resulting color from TIR of white light is dependent on particle size and illumination angle. The angular dependence is very neatly discerned by use of a ‘ping-pong ball’ technique to spread the colors around the surface of a hemisphere. The angular spread is seen to be far larger than that we experience with rainbows (~135° vs ~ 2°) and is predicted by theory quite well for a range of droplet sizes and illumination angles. The effects are most prominent for droplet sizes below about 200 microns as larger drops create color bands which are too narrow and overlapping. Varying droplet shape by changing surfactant changes the curvature of the interface and this alters the color spread with disappearance of the TIR effect at the extreme of a ‘double emulsion’ droplet. The other route to color from colorless materials discussed by Lauren was Greyscale Lithography, in which a silicone surface is templated with monodisperse spheres into a patterned structure. These surface give color when the wells are filled with a high index clear ‘ink’ – different index inks give different colors. These structures can also be built on silicon wafers to produce complex color patterns which change with angle of illumination. Commercial use is being explored with acrylic-based films for security/displays/sensors/packaging.

A brief business meeting followed the presentation by Dr. Zarzar. Lindsey reviewed the schedule for the remainder of the spring into early summer. The next section meeting is scheduled for Monday, April 11th beginning at 4:30 pm at DeSales University and will feature our annual Undergraduate Poster Night & Undergraduate Senior Excellence Awards along with a talk on “Density Functional Theory (DFT) as a Non-Destructive Probe in the Field of Art Conservation Science” by J. W. Bennett, Ph.D., University of Maryland Baltimore College. The format will be in-person and further details, including registration by April 4th have been posted on [www.lvacs.org](http://www.lvacs.org). April 17th - 23rd is the week designated for Chemists Celebrate Earth Week with the 2022 theme being “The Buzz about Bugs: Insect Chemistry.” Plans are still being made but will include outreach events at Da Vinci Science Center on Friday, April 22nd and Saturday, April 23rd as well as the annual CCEW Poetry Contest. Contact our NCW/CCEW Coordinator, Lindsey Welch, lawelch@cedarcrest.edu. Lindsey then mentioned two scholarship awards which have been recently announced: The Foundation in Chemistry Award for HS seniors and the Organic Chemistry Scholarship Competition. Details are posted on [www.lvacs.org/education-and-student-awards](http://www.lvacs.org/education-and-student-awards). A Call for Committee Chairs was issued in the March Octagon Newsletter for 10 Standing LVACS Committees. Finally, members were encouraged to register for the 2022 MARM which is being held at The College of New Jersey in Ewing Township, June 1-4; [www.marm2022.tcnj.edu](http://www.marm2022.tcnj.edu). The meeting adjourned at 8:17 pm.

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LEHIGH VALLEY ACS ANNUAL REPORT AND FINANCIAL SUMMARY

Over the year 2021, the Lehigh Valley local section was still facing challenges due to the COVID-19 pandemic. We did not have abundant opportunities to hold in-person activities, which drove down the attendance for our section's events. However, we were successful in planning and carrying out virtual meetings with speakers in January, February, March, May, September and November as well as a number of special events such as the following:
1. Hosting a virtual undergraduate research day, which was held in April and engaged undergraduate students from local colleges and universities as they delivered "flash talks."
2. A CCEW-themed Webinar in April with a panel discussing personal approaches to sustainability.
3. A DEIR-sponsored weekly web series for K-12 "After School Chemistry Partnership Program" featuring speakers, demos and Q&A sessions with scientists at all career levels between February 3 and April 28.
4. A televised "Chemistry Fun with Berks Chemical Society" with local cable channel BCTV ran by the Penn State Berks student chapter (3 episodes February, March and April).
5. Mole Day Celebration in-person at our local Da Vinci Science Center with 8 volunteers presenting hands-on demos to ~100 visitors aligned with the NCW theme 'Fast or SLOW, Chemistry makes it GO.'

The section also sponsored local Chemistry Olympiad, SEEED, Chemagination and CCEW/NCW poetry contest activities. Our awards program also continued with annual Foundation in Chemistry scholarship for a HS student, Organic Chemistry Awards for college sophomores, best undergraduate senior awards, HS Teacher of the year, small college teacher of the year. Unfortunately, because of the pandemic, social activities had to be curtailed (but we did do cheese chemistry in May with cheese kits and wine pairings!!). We also began planning for a 2022 SPR with help from Carole Duane and ACS staff. We have a firm date for June, ACS facilitators, target challenges and an attendee list so we hope to be on track to our third Strategic Plan by summer!

Keeping our activities inclusive was a special challenge last year. Our volunteers and executive committee answered with programs such as: 1. our unique weekly After School Chemistry Partnership Program which we offered online during the three months of February March and April 2021 with speakers, demonstrations (including hands-on kits distributed to the students) and chemistry study/career Q&A sessions with chemists at all career levels. This program, ACS DEIR-supported, regularly had 60 attendees and was widely advertised including to neighboring sections. 2. our Mole Day celebration at the Da Vinci Science Center which topped recent experiences in terms of public attendance (100+), tight coordination with the host facility staff and number of LVACS volunteers. We even pushed the boundaries with a dramatic (but SAFE!) demonstration of the power of air bags (sodium azide chemical kinetics). 3. our wide inclusion of ACS members in our monthly meetings such as senior chemists (January - Radiochemistry; February - Chemical history); special needs chemists (March - hearing impaired/chemistry signing); young chemists (April - undergraduate poster session online). Overall, LV section was able to offer a regular menu of meetings and events/activities in spite of pandemic restrictions and provide continuity in an otherwise unstable environment.

Because of the pandemic, expenses were much lower than normal in 2021 with a surplus of $21,453.23 for the year. We will be using the available funds to formulate and implement our third Strategic Plan in 2022 and the next four years as well as offering additional awards.

The full governance report as submitted to ACS may be downloaded here.
The full financial report as submitted to ACS may be downloaded here.
Capsaicin and dihydrocapsaicin are the most abundant (>90%) and pungent of the six naturally occurring capsaicinoids (Figure 1). Part of the molecule is structurally similar to vanillin (A), whereas the remainder of the molecule is an amide (B) and hydrocarbon chain (C) (an alkylamide). The amide creates low volatility rendering the molecule completely odorless. The long lipophilic hydrocarbon chain facilitates transmission through lipid-rich cell membranes.

Living organisms recognize molecules just as locks recognize keys - by shape. Capsaicin binds to sensory neurons (recognized by a specific protein receptor) located in the membranes of the mouth, lips, throat, and nasal cavity. The tongue contains millions of these microscopic receptors. One of these, Transient Receptor Potential Vanilloid 1 (TRPV1), is important in the detection of noxious stimuli including heat, acids, and vanilloids. It provides a channel for Ca2+ and Na+ ions to enter the sensory nerve cells triggering a release of neuropeptides such as substance P (an undecapeptide – a chain of 11 amino acid residues). This generates a signal to the pain-processing centers of the brain that triggers a release of endorphins. Endorphins have pain-relieving properties similar to opiates and are the closest structure to morphine produced by the human body. The precise mechanism for the interaction of capsaicinoids and TRPV1 is not well understood (Figure 2). However, the fact that capsaicinoids bind to the same receptor that responds to a thermal stimulus is why eating a chile is sensed as “hot”.

In 1912, W. Scoville (Parke Davis, now Pfizer) reported an organoleptic test to semi-quantify the “heat” content of chiles. The Scoville scale, reported in Scoville heat units (SHU is a function of capsaicinoid concentration but is dependent on the capsaicinoid sensitivity of taste testers. Thus, it is not a precise or accurate method and results vary widely between laboratories (± 50%) due to human subjectivity. By definition, pure capsaicin has a SHU index of 16 million.

A measured amount of dried chile is dissolved in alcohol to extract the capsaicinoids and further diluted in a 5% aqueous solution of sucrose. Dilution is so that 5 tasters in a panel cannot detect “heat”. Increasing concentrations are tasted until at least 3 of the 5 can detect the heat. The heat level is based on the extent of dilution. For example, a Scoville rating of 50,000 means capsaicinoid oil from that chile was diluted 50,000 times before the testers could just barely detect the “heat”. The higher the Scoville rating the hotter the chile.

In part 3, we shall focus on chile types, annual consumption, and applications.
LEHIGH VALLEY ACS CAREER PAGE

Check out the Career page on our website lvacs.org/careers for a wealth of information on the services provided by LVACS to chemists at all stages of their careers. Online courses, 1-on-1 consulting, professional development grants and the ACS Career Navigator™ package are some of the benefits offered to ACS members to assist in planning and executing your career. Greglyn Gibbs, our local section ACS Career Consultant, would be happy to assist any member seeking more information. greglgibbs@gmail.com

OLED Innovation Chemist, Universal Display Corp., Ewing, NJ
The OLED Innovation Chemist will work under the supervision of the Senior Director, Corporate IP Technology to support the company’s business and research activities. This role will partner with our R&D teams to assist in the development of patent applications to protect our Intellectual Property. This includes analyzing competitors’ patent landscape; identifying/inventing patentable inventions; securing high quality patents; developing patent strategies and working with the R&D organization to understand priorities and challenges. More information and Apply

Senior Scientist - Dispersion, Axalta Coating Systems, Philadelphia, PA
Axalta is seeking an experienced Dispersion Scientist with a strong background in milled pigments, colloidal science, and color technology tools to join our global Research and Development organization. The Senior Scientist works with the wide range of milled pigments used in these various products in support of Axalta’s coatings businesses. The Chemist will work very closely with the R&D teams as well as resources in product management and manufacturing to identify dispersion needs and develop technical solutions. The Chemist will be visible to a wide range of global stakeholders and experts; ability to communicate effectively across multiple functions and organization levels is required. More info and Apply

Senior Scientist, Axalta Coating Systems, Philadelphia, PA
Axalta Coating Systems is seeking a Polymer/Organic Chemist with experience in the synthesis and characterization of polymers. In addition to a synthetic background, the candidate should have a basic understanding of structure-property relationships and polymer physics. Knowledge of statistical methods, such as Six Sigma, is preferred. The ideal candidate would have an interest in raw materials initiatives, such as cost reduction and sustainability, and should be a multi-tasker with a dynamic personality who will interact successfully with multiple key functions within the organization. Apply

Senior Scientist, Best Engineered Surface Technologies, LLC, Allentown, PA
We are in need of a Senior Scientist at our Diamonex facility in Allentown, PA. This new member of our team and family will be part of a team that develops new products, processes and configurations specific to our complex technology. Apply

Senior Research Scientist, GAF, Parsippany, NJ
Reporting to GAF’s VP of External Innovation, the Senior Research Scientist is responsible for managing innovation efforts for GAF core R&D units, and working with a broad range of technology providers to provide solutions to customers while driving profitable growth. Is seen as a key technical resource across a broad range of scientific disciplines. Works with internal and external partners to build the innovation pipeline and develop next generation products and low-cost manufacturing process improvements. More information and Apply

Principal Scientist, GAF, Parsippany, NJ
The R&D technology plan for PolyIso development focuses on chemistry and additive technology, structure-property relationships, and assessing improvements/changes to the ISO panel construction that benefits roofing system performance. This position will focus on leading product and technology development in these and future areas, lead transition of products/technology to manufacturing, provide technical direction and strategies for advancing ISO product, process, and technology. More information and Apply

Principal Scientist, R&D, Johnson & Johnson, Skillman, NJ
Johnson & Johnson Consumer Products Company, Division of Johnson & Johnson Consumer Companies, Inc. is searching for a Senior Scientist, Raw Material Center for our Skillman, NJ location. This position reports to the R&D Associate Director, NA Raw Material Center. More information and Apply

Senior Scientist, Protected Skin Platform, Translational Science, Skin Health, Johnson & Johnson, Skillman, NJ
Johnson & Johnson Consumer Inc. is recruiting for a Senior Scientist in the Protected Skin / Suncare Platform within the Translational Science, Skin Health Organization. The role will lead a range of global projects for the Suncare platform within the Skin Health Translational Science team and will be directly responsible for new concept and technology development, including analyzing new science and consumer insights to help build a strategic Suncare innovation pipeline that is aligned with global brand needs. More information and Apply

Polymer Chemists, Mussel Polymers, Inc.
Mussel Polymers, Inc. located at 116 Research Dr, Bethlehem, PA 18015 in Bethlehem PA is a biomimetic specialty adhesive and formulations company. We are seeking Polymer Chemists and Adhesion Scientists to join our team while we expand our scientific development and pilot manufacturing. This is an opportunity to join an innovative startup looking to rapidly grow and develop new solutions to previously unsolvable problems. Interested? CONTACT: letsbond@musselpolymers.com

Interested? CONTACT: letsbond@musselpolymers.com
A Special Note from Jeremy Heyman, SEED Coordinator to our LVACS Project SEED mentors:

Thank you again for your interest in being an ACS Project SEED mentor, taking on 1-2 high school students in your lab for 8 weeks this summer. I’m excited to share that ACS has approved all our proposed projects, funding the remaining portion of students’ $3200 stipends. I am looking forward to working with you in the coming months to match students with your labs and to be in touch throughout their summer research experience. We’ve been working on recruiting students, with their application window closing on March 21. By early April, ACS will send me the eligible students, and I’ll be following up with them, and then with you. My plan is to match students with you and then have them find a time to meet with you in late spring, before the start in the summer, but if you’d like to be more involved in the matching/selection process, let me know. This will be a great summer for these bright, driven students from low-income backgrounds to get into the lab. Thank you in advance for your time, dedication, and mentorship!

In the meantime, I’d like to finalize the 8 weeks that students would be in your lab 30-35 hours/week. (They’ll also have 1-2 ACS Project SEED nationwide workshops or webinars each week, supplementing this lab time.). I’m thinking **June 20 - August 12** would be a good window. Please let me know if that window doesn’t work for you, as we want to share start and end-dates with students up-front. June 27 - Aug. 19 can work as well. Or if you need to shorten to 7.5ish weeks, that’s fine too! Please reach out to me with any questions, and we’ll be in touch as the spring progresses.

Best wishes, Jeremy [jbheyman@gmail.com]

REGISTRATION IS NOW OPEN!!

**Keynote Speakers:**
Devin Swiner, Senior Scientist, Merck and Co, Co-founder of #blackinchem
Kei Koizumi, Chief of Staff, White House Office of Science and Technology Policy
Lisa Jones, Associate Professor of Pharmaceutical Sciences, University of Maryland, Baltimore
Lingyun Chen, Professor of Agricultural, Life, and Environmental Science, University of Alberta

We will be fully in person! We can’t wait to see you and your science at MARM June 1-4 at TCNJ!

**Undergraduates!** Consult with your research mentor to submit a poster or an oral presentation.

https://marm2022.tcnj.edu/
LVACS STRATEGIC PLANNING RETREAT SCHEDULED FOR JUNE 11-12, 2022

Lehigh Valley ACS members:

I am contacting you to invite you to participate in our third iteration of Strategic Planning. The current plan may be viewed [here](https://www.lvacs.org/strategic-plan). On Saturday and Sunday, June 11th and 12th, a Strategic Planning Retreat will be held on the campus of Cedar Crest College and will be facilitated by Amber Hinkle and Carol Duane of ACS. The retreat will run from 8 am to 5 pm on Saturday and from 8 am to 12 noon on Sunday. Some of you may recall that the Lehigh Valley section was the first local section to be introduced to the current SPR format by Amber and Carol in February 2012 (see more pics on our website page ([www.lvacs.org/strategic-plan](https://www.lvacs.org/strategic-plan))).

The attached survey on Google Forms asks whether you are willing and able to participate in the SPR in June and/or assist in reaching one of the goals of the Plan as part of a small team. There is also a list of activity areas that will help us assess your interests. Please add any areas I have missed or insert any comments you have regarding current section strategy or operation under 'other'.

SURVEY LINK: [https://forms.gle/TssUu4zk33n5NRd36](https://forms.gle/TssUu4zk33n5NRd36)

Thank you for your help!

Nigel Sanders
LVACS Secretary
nigel53.sanders@gmail.com
610-597-5645
2022 CCEW Illustrated Poem Contest
The Buzz About Bugs: Insect Chemistry

The Lehigh Valley Local Section of the American Chemical Society (ACS) is hosting an illustrated poem contest for students in kindergarten through 12th grade. Entries must be sponsored by a local school or community group for verification purposes.

Contest Deadline: Sunday, April 24, 2022 at 11:59 PM Eastern
Local Prizes: ACS Gear from the ACS Shop
Local Contact: Dr. Lindsey A. Welch, lawelch@cedarcrest.edu
Submission: Submit entries online at bit.ly/CCEWpoems

Winners of the Lehigh Valley Local Section’s Illustrated Poem 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 CCEW theme, “The Buzz About Bugs: Insect 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

Possible topics related to the CCEW 2022 theme include:
- Entomology
- Eating Insects
- Insect Molecules
- Insect Bites
- Pollination
- Pollinators

Entries will be judged based upon:
- Artistic Merit - use of color, quality of drawing, design & layout
- Poem Message - fun, motivational, inspiring about yearly theme
- Originality/Creativity - unique, clever and/or creative design
- Neatness - free of spelling and grammatical errors

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 yearly theme (The Buzz about Bugs: Insect Chemistry), 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. Physical drawings may be scanned or captured via camera and submitted to the online form. 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. If the illustration is created using a digital painting or drawing app, the name of the program must be included on the entry form.
- 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.
- Students must be sponsored by a school or another sponsoring group (e.g., homeschool Association, Boys and Girls Club, Scout Troop, 4-H, etc.).
- 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.
Spring 2022 ACS Meeting – Council Agenda: Minutes will be posted on lvacs.org shortly

Full agenda may be downloaded here.

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| C.   | Committee on Nominations and Elections (attached) |
|      | Oral report on current activities |
| VII. | REPORTS OF SOCIETY COMMITTEES |
| A.   | Budget and Finance (joint with Board) (attached and oral) |
|      | Amendments to Standing Rules (attached) |
|      | A Petition to Amend the Use of Dues Standing Rule II, Sec. 7, e, f |
| B.   | Divisional Activities (attached and oral) |
|      | Approval of a Division Name Change (attached) |
| C.   | International Activities (joint with Board) (attached and oral) |
|      | Petition to charter a new International Chemical Sciences Chapter (attached) |
| D.   | Membership Affairs (attached and oral) |
|      | Approval to extend the International Dues Discount Program Based on World Bank Country Income Levels test (attached) |
|      | Approval of the 2023 Schedule of Membership (attached) |
| E.   | Community Activities (joint with Board) |
| F.   | Constitution and Bylaws (attached) |
| G.   | Economic and Professional Affairs (attached) |
| H.   | Education (joint with Board) (attached) |
| I.   | Local Section Activities (attached) |
| J.   | Meetings and Expositions (attached) |
| K.   | Minority Affairs (joint with Board) (attached) |
| L.   | Nomenclature, Terminology, and Symbols (attached) |
| M.   | Professional Training (joint with Board) (attached) |
| N.   | Public Relations and Communications (joint with Board) (attached) |
| O.   | Senior Chemists (joint with Board) (attached) |
| P.   | Women Chemists (joint with Board) (attached) |
| Q.   | Younger Chemists (joint with Board) (attached) |

VIII. OLD BUSINESS

IX. NEW BUSINESS

A. Resolution
OFFICERS

Chair:
Lindsey Welch
lawelch@cedarcrest.edu

Chair Elect:
Steve Boyer
lawelch@cedarcrest.edu

Immediate Past Chair:
Roger Egolf
rae4@psu.edu

Secretary:
Nigel Sanders
nigel53.sanders@gmail.com

Treasurer:
Lorena Tribe
lut1@psu.edu

COUNCILORS

Jeanne Berk (term ends 12/31/24)
  jrberk@cedarcrest.edu

Kelley Caflin (term ends 12/31/23)
  caflinacs@yahoo.com

ALTERNATE COUNCILORS

Mike Bertucci (term ends 12/31/23)
  bertuccm@lafayette.edu

Ned Corcoran (term ends 12/31/24)
  ewc777@gmail.com

The Octagon Newsletter is published by the Lehigh Valley Section of the American Chemical Society to provide information to section members and the public about activities and programs which support the section mission “To promote the chemical sciences in the Lehigh Valley section for the benefit of our members and our community.” Send all queries to the editor at: nigel53.sanders@gmail.com
APPENDIX: 2022 LVACS Competitions Announced

Information, eligibility and nomination/application forms

Chemagination
Foundation in Chemistry Scholarship
Organic Chemistry Award
High School Teacher of the Year
Small College Teacher of the Year
Dear High School Teachers,

The Lehigh Valley American Chemical Society (LVACS) will be holding a Chemagination Competition. Chemagination is a great learning experience for students. In addition to increasing their knowledge of science and chemistry, they can improve their creative, teamwork and public speaking skills. Such skills will serve them well in their future careers.

High school students are asked to imagine that they are living 25 years in the future, 2047 and are writing for ChemMatters, a magazine for high school students that focuses on the role of chemistry in everyday life. The editor chooses them to write the cover article for the next issue of the magazine describing a recent breakthrough or innovation in chemistry and its applications that improve the lives of those living in 2047. Along with the article they have the honor of designing the magazine’s cover. The subject of the article is: “Describe a recent breakthrough or innovation in chemistry (and/or its applications) that has improved the quality of people’s lives today.” The article must be written to fit in one of four categories: Alternative Energy, Environment, Medicine/Health, or New Materials.

The local section competition will be completely electronic. Teams should submit their articles and cover design to by April 18, 2022. The articles will be judged based on the MARM 2022 rules. Please refer to the attached document titled 2022 MARM CHEMAGINATION DESCRIPTION AND RULES for the official rules.

The winners of the LVACS local section competition will advance to the regional meeting, MARM 2022 sponsored by the Trenton of the ACS. This will be held on Saturday, June 4. First place category winners from Local ACS Section’s Chemagination contests are eligible to participate in MARM 2022. If a first place winning team chooses not to participate, a second place team can serve as an alternate.

At this time the plan is for an in-person event. At that event masks covering the nose and mouth will be required. Students and faculty will be required to comply with any existing NJ Covid regulations for large gatherings. If an in person event is not possible the regional competition will move to virtual event.

**DEADLINES**

- March 15: Teams should submit their intent to participate (this allows for appropriate judge recruitment but is not a firm deadline.)

- April 18: Teams submit their articles online for the LVACS competition to lvacschemagin@gmail.com, (this is a firm deadline)

- May 9: Teams notified of award status (this is a firm deadline)

- May 2022 or September 2022: Teams honored at Lehigh Valley ACS awards meeting

- Late May (TBD): Local section winning teams submit their articles for pre-judging to MARM 2022

- June 4: The 2022 MARM Chemagination Competition takes place either virtually or in person at The College of New Jersey, 2000 Pennington Rd, Ewing, NJ 08628-0718 https://tcnj.edu/

Regards,
John Freeman, Chemagination 2022 coordinator
lvacschemagin@gmail.com
CONTEST OVERVIEW

For this event, high school students are asked to imagine that they are living 25 years in the future and have been invited to write an article for ChemMatters, a magazine for high school students that focuses on the role of chemistry in everyday life. The subject of the article is: “Describe a recent breakthrough or innovation in chemistry (and/or its applications) that has improved the quality of people’s lives today.” To view a sample ChemMatters magazine visit acs.org, and look under Education: http://www.acs.org/content/acs/en/education/resources/highschool/chemmatters.html.

In addition to the article, students are asked to design a cover for the magazine. The article must be written as if the student is living in the year 2047, looking back at innovations that have occurred since 2022. The innovation must fall into one of the following categories:

* Alternative Energy
* Environment
* Medicine/Health
* New Materials

A few examples of areas where development is expected are: nanotechnology, energy efficiency, pollution prevention, green chemistry, sustainability, intelligent devices for sensing, proteomics, climate models, biopharmaceutical therapies, medical devices and/or implants and new energy sources.

Evaluation of the entry is based upon:
(1) the written article which is submitted in advance,
(2) the presentation of the innovation on a self-standing display and
(3) knowledge of and soundness of the science as demonstrated in interviews with judges (much like science fair judging).

RULES

ARTICLES must:
• be written by a team of two or three students; each student may be on only one team.
• be about 1000 words (figure captions are not included in the limit).
• present the chemistry/scientific concepts/ideas/principles behind the innovation.
• describe the innovation and indicate how it has improved people’s lives.
• present a “history” of the changes that had to occur over the prior 25 years to develop this innovation.
• include drawings, diagrams, illustrations and descriptions of the chemistry and any technology involved in all key aspects of the innovation.
• cite a minimum of three technical references.
• include a cover design for the magazine. The cover design can be an original computer graphic or a free-hand drawing.

DISPLAYS must:
• be 24” deep, 40” wide and 48” tall or less, and be able to sit on a table, much like at a science fair display.
• include the cover of the magazine.
• be a visual representation of the article’s content with a minimum of text.
• include a list of references cited.
ATTENDANCE:
• At least one member of the team must attend the competition to present the display and be interviewed by the judges to be eligible for prizes.

SCORING:
• Winners are selected by the judges based on the quality of the article and display, and the quality and understanding of the science of the innovation.
• Criteria for scoring include scientific thought, creativity, clarity, thoroughness and teamwork.

ELIGIBILITY/REQUIREMENTS:
• Each local section can submit up to four entries (1 per category).
• All students must be currently enrolled in an accredited high school or home school and be taking or have recently completed a grades 9-12 science class.
• Students and their parents are responsible for transportation to and from the meeting site.
• All entries become the property of the ACS and will not be acknowledged or returned.
• The ACS, its agents and contractors, are not responsible for lost, late, misdirected, or postage-due entries.
• Acceptance of the prize constitutes consent to use the winners’ names, likeness and entries for editorial, advertising, and publicity purposes.
• Prizes are not transferable.
• Taxes, if any, are the sole responsibility of the winner.
• Participants will be asked to provide a Photo Release Form signed by a parent or guardian prior to attending the contest.

KEY DEADLINES
February 28  Local sections notify 2022 MARM Chemagination competition co-chairs of their preliminary intent to participate in 2022 MARM Chemagination.
March 30    Local sections confirm their intent to participate in 2022 MARM Chemagination
May 1      Local Sections submit their estimate of the number of teams they will be sending to the 2022 MARM Chemagination.
May 15     Local sections confirm the number of participating teams and submit article titles and contact information on each student. (Submission process will be announced at a later date.)
Late May TBD  Teams submit their articles to the 2022 MARM competition for pre-judging.
June 4     The 2022 MARM Chemagination competition takes place on the campus of The College of New Jersey, 2000 Pennington Rd, Ewing, NJ 08628-0718  https://tcnj.edu/
2022 Foundation in Chemistry Award

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2022 Foundation in Chemistry Award. The award, designed to promote the chemical sciences at the college level, will be given to a high school senior who will be majoring in chemistry, biochemistry, or chemical engineering and attending a college or university in the Lehigh Valley Section. This scholarship award consists of $1000 and a certificate, which will be presented to the winner at the May meeting of the Lehigh Valley Section of the American Chemical Society. We have enclosed the guidelines for the award and the application materials. Please post the flyer and feel free to make additional copies as needed.

As an ACS member, please share this information with parents, students and guidance counselors. The four-part application should be completed and submitted by April 18, 2022. We appreciate your help and thank you for publicizing the 2022 Foundation in Chemistry Award. We look forward to many worthy applications.

Instructions: The Foundation in Chemistry Award is sponsored by the Lehigh Valley Section of the American Chemical Society (LVACS) to promote the chemical sciences at the college level. This award, consisting of $1000 and a plaque, will be awarded annually to a high school senior within the membership boundaries of the LVACS (Lehigh, Northampton, Berks, Monroe, Schuylkill, and Carbon Counties in PA, and Warren County in NJ) to attend a college in the Lehigh Valley area (eligible colleges are listed below) and intending to major in chemistry, biochemistry, or chemical engineering. The $1000 check will be given to the student for defraying college expenses.

The applicant for this award should have completed one year of college preparatory chemistry, four years of mathematics, and one semester of college preparatory physics by high school graduation. The application, which is attached to these instructions, will be evaluated on merit by the LVACS HS Scholarship Committee. The completed four-part application (nomination letter from your chemistry teacher, the application form, transcript, and your essay) must be submitted by April 18, 2022 and emailed to: lvacsfoundations@gmail.com. Please direct any questions about this award to: John Freeman at lvacsfoundations@gmail.com.

Sincerely,
John Freeman
Chair of the LVACS HS Scholarship Committee
220 W Pierce
Easton, PA 18042

Eligible Colleges for Awardees:

- Albright College
- Cedar Crest College
- Kutztown University
- Lehigh University
- Northampton County CC
- Penn State-Berks
- Penn State-Schuylkill Valley
- Warren County CC
- Alvernia College
- DeSales University
- Lafayette College
- Moravian University
- Penn State-Lehigh Valley
- Reading Area CC
- East Stroudsburg University
- Lehigh Carbon CC
- Muhlenberg College
2022 Foundation in Chemistry Award
Nomination Form

(To be filled out by the student)
Student’s Name: __________________________________________
Chemistry Teacher’s Name: __________________________________
e-mail address: ____________________________________________
School Address: ____________________________________________

I hereby _____ waive my right of access to this recommendation
_____ do not waive my right of access to this recommendation

(To be filled out by the teacher)
Please submit a letter of recommendation (as an attached letter) addressing such issues as the above student’s
knowledge of chemistry and the sciences, initiative, leadership potential, and potential as a student in the chemical
sciences at college. Any additional information about the student’s financial need would be appreciated; we will
consider financial need in the event we judge more than one student to be equivalent on the basis of merit.

Deadline: April 18, 2022
Foundation in Chemistry Award
Application Form

(To be filled out by the student)
Full Name: ______________________________________
Home Address: ____________________________________
_________________________________________________
_________________________________________________

Home Phone #: ______________________
e-mail address: ______________________
High School: ____________________________
Names and addresses of your legal guardians:
_________________________________________________
_________________________________________________
_________________________________________________

College you will attend: ________________________________
Proposed major degree program: __________________________
Please attach an official transcript with your most recent grades.

Please write and attach an one page essay (250 words maximum) on why you have chosen to study the chemical sciences in college.

Deadline: April 18, 2022

Application Check list
☐ Application form/this page
☐ Letter of recomendation
☐ Student Essay
☐ Student Transcript
LEHIGH VALLEY ACS ANNOUNCES 2022 ORGANIC CHEMISTRY SCHOLARSHIP COMPETITION

The Lehigh Valley Section of the American Chemical Society will award its annual Scholarship for Organic Chemistry this spring! To be eligible, students should be below the junior level, currently enrolled in organic chemistry at an institution in the section, and a chemistry, biochemistry, or chemical engineering major. The competition entails taking the ACS Organic Chemistry Examination (45%), a brief, one-page letter of recommendation from the student’s organic chemistry professor (10%), and an essay on a topic in organic chemistry (45%). The value of the scholarship is $1000. Additionally, the top essay will receive $100. Details about the exam, letter, and essay follow below. Students should indicate their interest in the scholarship by April 28th, 2022 to Dr. Michael Bertucci (bertuccm@lafayette.edu)

ACS Organic Chemistry Examination: The exam will be administered on Saturday, April 30th, 2022 at Lafayette College, Easton, PA from 9:00-11:00 AM. Students should report to the entry foyer of the Hugel Science Center. Parking is available behind the Hugel/Kunkle Hall in the lot indicated by the red asterisk on the campus map (see next page). Juice and bagels will be available inside the foyer starting at 8:30 AM.

Essay: The student should address the impact of an organic molecule or process in organic chemistry on society and his or her personal interest in it. The essay should be written at a level to interest and educate a general chemist who has completed sophomore-level organic chemistry. If a molecule is chosen, the synthesis, including key mechanistic features and structural analysis, should be covered. If a process is chosen, the physical and chemical basis for its success should be explained. Appropriate use of structures to facilitate understanding of the chemistry is expected. An additional page with references must be included. References should follow the guidelines as delineated in the ACS Style Guide. The essay should run from 1000 to no more than 1200 words in Times New Roman 12-point font with one-inch margins on all sides. The references and figures are not considered in the overall word count. Each page should have a header with the student’s last name, brief essay title and page number. The winning essay after editing may be published in a future issue of the Octagon.

The essay will be rated on:
• Appropriate depth of coverage of the molecule or process
• Appropriate depth of coverage on the impact on society and student’s interest
• Ease of reading, including grammar, spelling, and logical flow of the material
• Appropriate use of scholarly references & formatting

The essay should be submitted electronically to bertuccm@lafayette.edu by the student before the exam begins on April 30th. The essay can be submitted at any time before the day of the exam; so, you are encouraged to get started early!

Letter of Recommendation: Professors writing a letter of recommendation on behalf of a student who is applying for the Lehigh Valley ACS Scholarship should speak to the student’s skills in lecture and laboratory in Organic Chemistry I and Organic Chemistry II. Please provide the course grade for Organic Chemistry I and comment on performance on written exams, proficiency in organic lab, and participation in course-related activities. If possible, address the student’s quantitative skills by commenting on her or his performance in quantitative analysis or its local equivalent. The letter of recommendation must be signed on institution letterhead and submitted electronically to bertuccm@lafayette.edu by the student’s professor before the exam begins on April 30th.
The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2022 award for excellence in teaching. The award is designed to promote excellence in Chemistry instruction at the high school level within the membership boundaries of the LVACS (Lehigh, Northampton, Berks, Monroe, Schuylkill, and Carbon Counties in PA, and Warren County in NJ). The award consists of a $500 award and a certificate of recognition. We hope that you will identify an outstanding teacher at your school and support them for the award. Additionally, we hope you will share this with your faculty so that they might identify colleagues deserving of the award. The application should be completed and submitted by April 1, 2022 to LVACSTOTY@gmail.com as an attachment.

We appreciate your help and thank you for publicizing the 2022 Excellence in Teaching award. We look forward to many worthy applications. Please contact me by phone or e-mail if you have any questions.

Sincerely,

John Freeman
Chair, LVACS Excellence in teaching award Committee
LVACSTOTY@gmail.com
610 923-3587
THE LEHIGH VALLEY SECTION AWARD FOR EXCELLENCE IN HIGH SCHOOL TEACHING
AWARD PROGRAM FOR 2022

**Purpose:** To recognize, encourage, and stimulate outstanding teachers of high school chemistry in the Lehigh Valley Section of the American Chemical Society

**Nature:** The Section Award consists of a cash award and a certificate. A meal at the meeting of the Lehigh Valley section of the ACS at which the award will be presented will be paid. A certificate will also be provided to the recipient’s institution for display. The Winner's Application will be forwarded to the Mid Atlantic Regional ACS Division of Chemical Education Award for Excellence in High School Teaching for the following year.

**Who May Nominate?** Any individual, except a member of the award selection committee or currently enrolled student of the nominee, may submit one nomination or support form in any given year. Prior winners are members of the award selection committee for 10 years post their award.

**Who is Eligible?** The nominee must be actively engaged in the teaching of chemistry or a chemical science in a high school (grades 9-12) on at least a half-time basis in Berks, Schuylkill, Carbon, Lehigh, Northampton or Monroe counties in PA or in Warren County, NJ. The nomination should clearly demonstrate as many of the following attributes as possible:

- The quality of the nominee’s teaching; unusually effective methods of presentation should be emphasized;
- The nominee’s ability to challenge and inspire students;
- Extracurricular work in chemistry or a chemical science by the nominee, including science fairs, science clubs, and activities that stimulate the interest of young people in chemistry and related sciences;
- A willingness to keep up-to-date in the field, as evidenced by the pursuit of a higher degree in chemistry or a chemical science, enrollment in refresher courses and summer institutes, regular attendance at scientific meetings, membership in professional organizations, and other means of self-improvement;
- Evidence of leadership and/or active involvement within the profession.
Required components of Nomination Portfolio:

- The Awards Committee will consider only complete nomination portfolios.
- A complete portfolio shall consist of
  - A Nomination Portfolio Check List (see Page 3), which shall serve as the Portfolio Cover Sheet;
  - Nominator Information Form (see page 5);
  - Nominee Information Form (see page 6);
  - Nominator Recommendation of not more than 750 words submitted by the nominator according to the guidelines outlined on the Recommendation Form (see page 7);
  - A current 2 page curriculum vitae or resume that includes a list of the nominee’s honors, professional activities, and additional evidence of service to the profession; NOTE: Limited to no more than two pages and the activities listed must have occurred within the past five years.
  - A statement by the nominee of not more than 500 words that describes the nominee’s teaching philosophy or commitment to the profession;
  - At least one, but not more than three, letters of support. One letter, of no more than 400 words, must be from the teacher’s current principal or supervisor. Additional letters of support, of no more than 400 words, may be sent by colleagues, members of the American Chemical Society, who are familiar with the nominee’s achievements, or former students and parents of former students.
    - NOTE: Some commentary on student reaction to the work of the nominee in either the nominating letter or that of the current principal or supervisor is essential for a well-rounded portfolio.

Submit nominations to John Freeman by e-mail attachment to LVACSTOTY@gmail.com by April 1st 2020

***Please state award title in subject line, and the candidates name ***
The following items are required components for a Nomination Portfolio. Please check each item contained in the portfolio. This list, submitted by the nominator, will serve as the cover to every submitted portfolio.

☐ Nominator Information Form;

☐ Nominee Information Form;

☐ Nominator Recommendation Letter of no more than 750 words send as email by Nominator with nominee’s name in subject line.

☐ Nominee’s Statement on Teaching Philosophy of no more than 500 words;

☐ Nominee’s Current CV:

A curriculum vitae or resume that includes a list of the nominee’s honors, professional activities, and additional evidence of service to the profession. This must be limited to no more than two pages and the activities listed must have occurred within the past five years.

☐ Letters of Support (no more than 400 words) sent separately as email by principal with nominee’s name in subject line:

One must be from the teacher’s current principal or supervisor.

Up to two additional letters of support may be sent by colleagues, members of the American Chemical Society who are familiar with the nominee’s achievements, or former students and parents of former students.

Nominator’s

Name:_________________________________________ Date:_______________
NOMINATION FORM
THE ACS LEHIGH VALLEY LOCAL SECTION AWARD
FOR EXCELLENCE IN HIGH SCHOOL TEACHING

Deadline: APRIL 1, 2022
Any individual, except a member of the award selection committee or current students of the nominee, may nominate or support only one nominee during any given award year. Submit to JOHN FREEMAN via e-mail at LVACSTOTY@gmail.com by April 1, 2022. Please state award title in the subject line.

The award will be announced at the May Meeting of the Lehigh Valley Section of the American Chemical Society. Dinner will be arranged.

NOMINATOR INFORMATION

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<thead>
<tr>
<th>Name:</th>
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<tr>
<td>Company or Institutional Affiliation:</td>
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<td>Present Position (Exact Title):</td>
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<td>Relationship to Nominee</td>
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NOMINATION FORM

THE ACS LEHIGH VALLEY SECTION AWARD
FOR EXCELLENCE IN HIGH SCHOOL TEACHING

Deadline: April 1, 2022

NOMINEE INFORMATION

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<td>Present Position (Exact Title):</td>
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<td>School:</td>
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<td>Fax:</td>
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<tr>
<td>e-mail:</td>
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Website: if appropriate

Give your current teaching assignment including course titles and grade levels. What is your involvement in extracurricular activities

- On a separate sheet, provide a statement of not more than 500 words in which you present your teaching philosophy or otherwise describe your commitment to the profession.
NOMINATION FORM

THE ACS LEHIGH VALLEY SECTION AWARD
FOR EXCELLENCE IN HIGH SCHOOL TEACHING

Deadline: APRIL 1, 2022

RECOMMENDATION STATEMENT OF NOMINATOR
Submit a narrative statement of no more than 750 words that describes and comments upon the following:

• The quality of the nominee’s teaching. Unusually effective methods of presentation should be emphasized;
  o NOTE: Some commentary on student reaction to the work of the nominee in either the nominating letter or that of the current principal or supervisor is essential for a well-rounded portfolio.
• The nominee’s ability to challenge and inspire students;
• Extracurricular work in chemistry or a chemical science by the nominee, including science fairs, science clubs, and activities that stimulate the interest of young people in chemistry and related sciences;
• A willingness to keep up-to-date in the field, as evidenced by the pursuit of a higher degree in chemistry or a chemical science, enrollment in refresher courses and summer institutes, regular attendance at scientific meetings, membership in professional organizations, and other means of self-improvement;
• Evidence of leadership and/or active involvement within the profession.
You are cordially invited to nominate a colleague to be recognized at the annual awards program of the Lehigh Valley Section of the American Chemical Society (LVACS) to be held in mid-April 2022. The event will feature dinner followed by a keynote speaker and the award recognition program. We are seeking to recognize, encourage, and stimulate high quality teaching and research at small colleges. Please send the nominee's short curriculum vitae, list of publications, and evaluation of the nominee's achievements as a teacher in a small college. This document should clearly demonstrate the candidate's attributes: the quality of the candidate's teaching; organization and efficiency of lab work; research and/or development work; ability to challenge and inspire students; extra-curricular work in chemistry; courses, meetings, presentations, awards, etc. Seconding letters are not essential but as many as three may be included with each nomination. Letters may include careful evaluations of the teacher's abilities by their superiors, associates, or by local section members. Please contact Lorena Tribe at lut1@psu.edu for any questions pertaining to the nomination for this award.

The deadline for reception of your emailed application is April 1, 2022.