

# THE OCTAGON

Лехигх Жаллеъ АЦС Фебруаръ Вебинар анд Жиртуал Сецтион Меетинг  
 (Lehigh Valley ACS February Webinar and Virtual Section Meeting)

**"A hatred that still haunts undergraduate organic chemistry 150 years later."**



David Lewis, Univ. of Wisconsin/Eau Claire  
 Thursday, February 18th / 7:00 pm  
 Zoom Link: <http://bit.ly/2XZS9H0>  
 CONTACT: Roger Egolf [[rae4@psu.edu](mailto:rae4@psu.edu)]

Every student of organic chemistry for the last four decades, at least, has learned two empirical rules: Markovnikov's Rule for electrophilic addition to alkenes, and Zaitsev's Rule for base elimination of alkyl halides. Although few remember the rules themselves, Markovnikov's name appears to be one that is not forgotten easily. What fewer people know is that both these chemists were contemporaries (Markovnikov was 3 years older) at Kazan Imperial University. By the 1860s, when both were undergraduate students, Kazan had become the pre-eminent chemistry school in Russia thanks to discoveries by Zinin (reduction of nitrobenzene) and Klaus (ruthenium; pure osmium tetroxide). Both studied under Aleksandr Mikhailovich Butlerov, the successor of both these chemists, who had inherited the mantle of Archibald Scott Couper and developed Couper's original version of the Structural Theory of Organic Chemistry into a version so useful and workable that it quickly became part of the conventional wisdom—nobody bothered to refer to Butlerov's original work. The other thing about Markovnikov and Zaitsev is that they hated each other, carrying on a life-long feud that I contend led, in part, to Zaitsev's Rule. The careers of these two fascinating individuals will be highlighted in this talk, along with my perspective on the origins of their eponymous rules and of the feud.

*David E. Lewis is a native of Australia who became a naturalized U.S. citizen on his mother-in-law's birthday, 2004. He was born in South Australia in a railway town on Australia's Murray River, and began his schooling in 1957 in the mid-north town of Snowtown. After his family had moved to Salisbury, a northern suburb of Adelaide, he completed his primary and secondary education there. He entered the University of Adelaide in 1969, and graduated with his B.Sc. in chemistry (1972) and his Ph.D. in organic chemistry (1980). He moved to the U.S. in December 1976, and spent the next three and a half years at the University of Arkansas, where he also began his teaching career. Following a temporary position at Illinois, he joined the faculty of Baylor University (May 1981), South Dakota State University (January 1989) and then the University of Wisconsin-Eau Claire (June 1997), where he has been ever since as Professor of Chemistry. Lewis' research interests are in synthetic and physical organic chemistry, and in the history of organic chemistry in Russia. He has published over 100 refereed journal articles and book chapters and six books, and he writes a regular column on organic name reactions for Synform. He holds 18 U.S. patents. His work in the history of chemistry has been recognized by the 2018 HIST Award (ACS HIST Division) and a 2019 Markovnikov Medal (Lomonosov Moscow State University).*

## LVACS Events Calendar

### February 2021

Section Meeting (Virtual Format)

"A hatred that still haunts undergraduate organic chemistry  
150 years later"

Speaker: David Lewis, Univ. of Wisconsin/Eau Claire

Thursday, February 18<sup>th</sup> / 7:00 pm

Online link <http://bit.ly/2XZS9H0>

CONTACT: Roger Egolf [[rae4@psu.edu](mailto:rae4@psu.edu)]

### March 2021

Section Meeting (Virtual Format)

"Signing for Safety"

Cedar Crest College *CCC Signs* ASL Club

Thursday, March 18<sup>th</sup> / 7:00 pm

Online Link TBA

CONTACT: Jeanne Berk [[jrberk@cedarcrest.edu](mailto:jrberk@cedarcrest.edu)]



### April 2021

Section Meeting (Virtual Format)

"Annual Undergraduate Poster Session"

Thursday, April 15<sup>th</sup> / Time TBA

Abstract submission link TBA

CONTACT: Lindsey Welch [[lawelch@cedarcrest.edu](mailto:lawelch@cedarcrest.edu)]



### May 2021

Section Social (Virtual Format)

Cheese Chemistry!

(with suggested wine pairings)

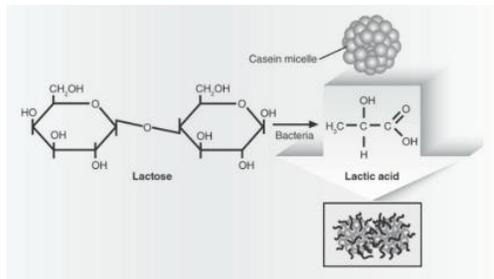
Tasting Kits available for pick up

Tuesday, May 18<sup>th</sup> / Time TBA

Online Link TBA

CONTACT: Jeanne Berk

[\[mailto:jrberk@cedarcrest.edu\]](mailto:jrberk@cedarcrest.edu)



### DID YOU KNOW...??

LVACS now has a YouTube channel: <https://www.youtube.com/channel/UCHO2QIcPLDnKITOeXNRRZQ>

AND we just launched a new Diversity, Inclusion and Respect page for our website

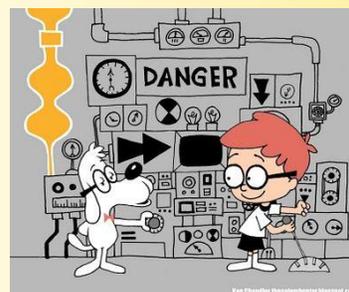
<https://www.lvacs.org/diversity>, initially featuring the latest on our online After School Chemistry Partnership Program and ACS Project SEED News!

CONTACT: Nigel Sanders, LVACS secretary and newsletter editor, [nigel53.sanders@gmail.com](mailto:nigel53.sanders@gmail.com)

## Also In This Issue...

3-4. **After-School Chemistry Partnership Program** Kicked Off February 3<sup>rd</sup>!

5-7. **The WABAC Machine returns!!**  
Learn how Lehigh's Chandler Lab won an international prize for innovative lab design in 1889!



8. **January 14 meeting** report

9. **CCEW 2021** is Virtual with the Theme: "Reducing Our Footprint with Chemistry"

10. **ACS Spring 2021** April 5-16 registration open; **MARM** has switched to virtual format for 2021

11. **Chemistry Olympiad** Virtual for 2021; **Project SEED** updates

**\*Call for 2021 Awards Nominations**

12. **MARM Regional Awards**

13. **LVACS Section Awards**

14. 2021 Executive Committee

# CHEMISTRY AFTER SCHOOL?? WHAT'S UP WITH THAT?



**WHEN?** Every Wednesday, 4:00-5:00pm,  
from February 3 – April 28  
**WHO?** Middle & High School Students!

**REGISTER!**

<https://sites.psu.edu/berkschemsoc/registration-after-school-chemistry/>



The Lehigh Valley Section of the American Chemical Society is partnering with community organizations to provide an interactive, *virtual* after-school chemistry enrichment program via **Zoom!**

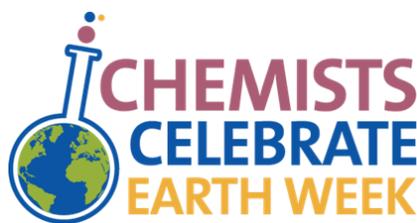
Weekly activities include fun experiments & demos, panels, guest speakers, a movie, & more ... as we celebrate Chemistry through:

Earth Week, National Battery Day, Black History Month, College & Career Panels, ACS Project SEED hands-on research panel, National Peanut Butter Lovers Day, Bioplastics, DIY No-Pop Bubbles, Science Book Club, Nanotechnology Day, and National Science Day!

Nanotechnology



**BLACK HISTORY MONTH:  
S.T.E.M.  
PIONEERS**



**Questions?**

Contact Greglynn Gibbs ([gdw104@psu.edu](mailto:gdw104@psu.edu)),  
Jeremy Heyman ([jheyman@northampton.edu](mailto:jheyman@northampton.edu)), or  
Nigel Sanders ([nigel53.sanders@gmail.com](mailto:nigel53.sanders@gmail.com)).



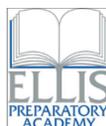
## Lehigh Valley ACS After-School Chemistry Partnership Program Calendar

DATE	ACTIVITY
Feb 3	Introduction to the Program, Q&A from student participants
Feb 10	What it's Like to Do Research: Princeton Chem-STEM Guest Speakers!
Feb 17	Celebration of National Battery Day: Guest Speaker & DIY Activity
Feb 24	Project SEED Intro/Panel & Black History Month in STEM speaker
March 3	Celebration of National Peanut Butter Lover's Day: "Uncommon Life of G.W. Carver" movie watch party!
Mar 10	National Bubble Week: No-Pop Bubble kit experiment!
Mar 17	Nanotechnology Day
Mar 24	What's it like going to COLLEGE & studying science? College Student Panel!
Mar 31	Chemistry Career Panel
April 7	Bioplastics & Casein (milk-based) adhesives Activity
Apr 14	Build Up to Earth Week: Guest Speaker on Renewable Energy & Water Decontamination
Apr 21	National Science Day BOOK CLUB Discussion
Apr 28	Program Final Week / Recap

REGISTER TODAY:

<https://sites.psu.edu/berkschemsoc/registration-after-school-chemistry/>

Brought to you by the Lehigh Valley ACS, Penn State Berks ACS Student Chapter, LV ACS Project SEED and NCC Science Club and funded by an American Chemical Society Diversity, Inclusion and Respect grant. Participating community partners include: Reading Science Center (representing Reading schools), Boys and Girls Club of Bethlehem, The Fe Foundation, ELLIS Academy, & more.

BOYS & GIRLS CLUB  
OF BETHLEHEMNorthampton  
Community CollegePRINCETON  
UNIVERSITYPennState  
Berks

ACS

Chemistry for Life®

AMERICAN CHEMICAL SOCIETY

Questions?

Contact Greglynn Gibbs ([gdw104@psu.edu](mailto:gdw104@psu.edu)),  
Jeremy Heyman ([jheyman@northampton.edu](mailto:jheyman@northampton.edu)), or  
Nigel Sanders ([nigel53.sanders@gmail.com](mailto:nigel53.sanders@gmail.com)).

More about the ACS Diversity, Inclusion and Respect Core Value:

<https://www.acs.org/content/acs/en/membership-and-networks/acs/welcoming/diversity.html>

## The LVACS WABAC Machine: Vignettes of Chemical History III

Chandler Laboratory circa 1884



by Roger A. Egolf

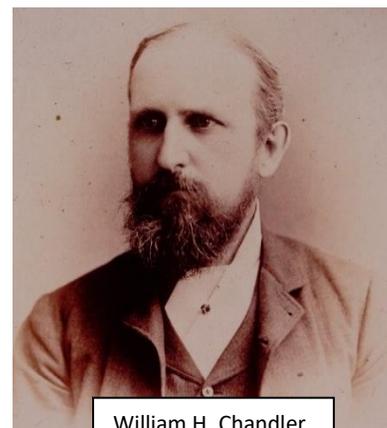
### “Lehigh University’s Chandler Chemical Laboratory: A Milestone in Late 19<sup>th</sup> Century Laboratory Design”



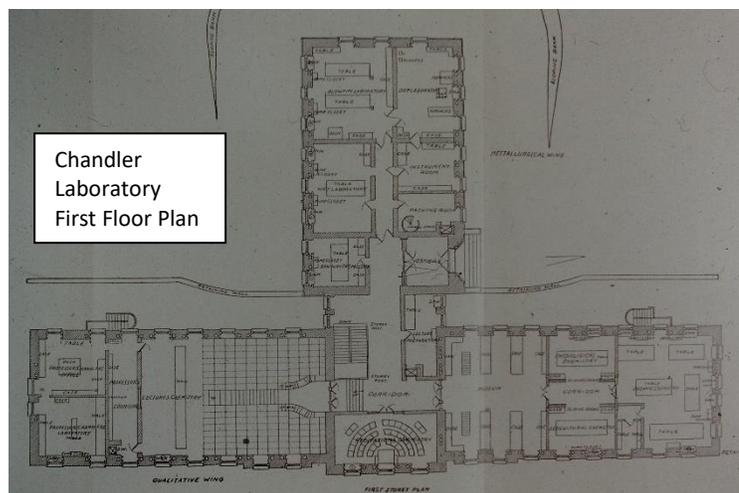
Photo Developed by a Chemistry Student

The 1880’s were a time of growth for chemical education, both in the United States and in Europe. Many universities were constructing new laboratories to satisfy the demand for technical education. The Paris Universal Exposition of 1889 held a design competition for recently constructed chemical laboratories. Two laboratories were awarded medals at the competition, the Paris Laboratoire de Chimie Inorganique of the Museum d’Histoire Naturelle, 1880, designed by the holder of its chair in chemistry, Prof. Edmond Fremy and architect Jules Andre, and Lehigh University’s Chemical Laboratory, 1884, designed by its chemistry chair, William H. “Billy” Chandler and architect Addison Hutton. As was noted by Randy Swanson of the Architectural History Department of the University of North Carolina at Charlotte, “these designs stand in marked opposition”. The Paris laboratory was a Beaux-Arts design with a very classical design. It contained innovations that improved ventilation while allowing laboratories to be laid out in the traditional way, with the lab benches placed around the perimeter of the room to take advantage of the best light and slightest air movement. The Lehigh lab was totally different. In Randy Swanson’s words, “the design represents a uniquely pragmatic response to providing teaching space for large numbers of students as well as new developments in providing services”.

In 1893, Chandler, who had been appointed Assistant to the Commissioner General for the Exposition by President Benjamin Harrison, prepared and published a book with the help of Professors Frank Gooch of Yale (now best known for the Gooch crucible), Thomas Messinger Drown of MIT (previously at Lafayette College, and later, the President of Lehigh), and Spencer Newbury of Cornell containing descriptions, photographs, and plans of five of the laboratories which had entered the competition. Interestingly, the Paris laboratory that shared the prize with Lehigh was not included in the book. Chandler chose the designs that he thought best represented innovation in laboratory design. Much of my information about the Chandler Laboratory comes from that book\*.



William H. Chandler

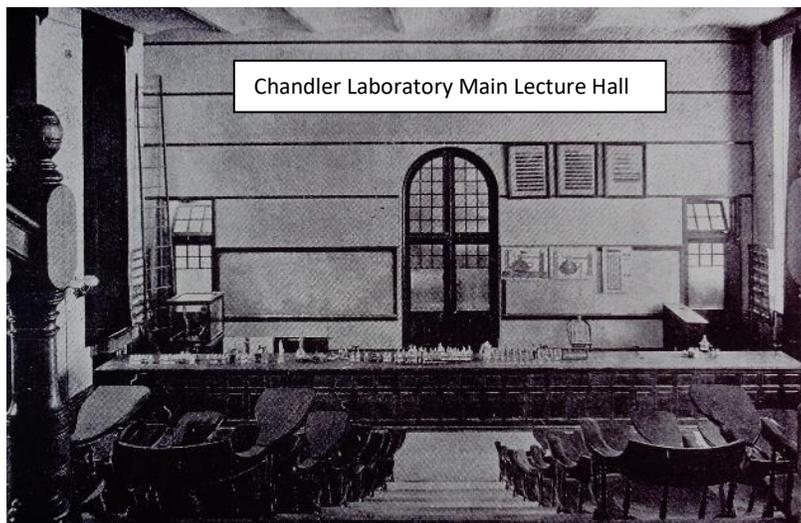

 Chandler  
 Laboratory  
 First Floor Plan

William H. Chandler was the younger brother of Charles F. Chandler, Dean of the Columbia School of Mines, a founder of the Chemists Club in New York, and a two-term president of the ACS (1881 and 1889). At the time of the construction of the Chemical Laboratory at Lehigh, the University was a small school with only about 200 students, but Chandler foresaw great growth in the future, and he wanted chemistry to be at the center of that growth. He wanted a state-of-the-art laboratory building, and as the husband of the former Mary Sayre, eldest daughter of Robert H. Sayre, the principal assistant to Asa Packer, founder of Lehigh and a trustee of the University, he had the influence to get it built.

\*Reports of the United States Commissioners to the Universal Exposition of 1889 at Paris, U.S. Government Printing Office 1891

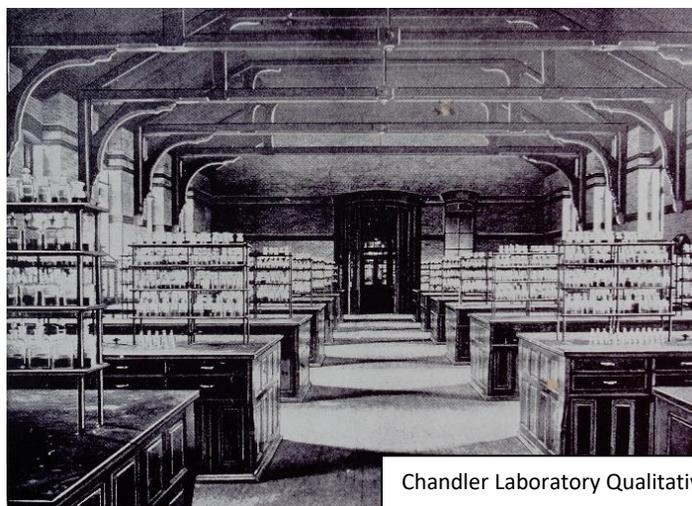
## “Lehigh University’s Chandler Chemical Laboratory: A Milestone in Late 19th Century Laboratory Design” (continued)

The laboratory was originally, before a 1938 addition known as the Ullmann Wing in honor of chemistry professor Harry Ullmann, a 34,000 square foot stone building, of which 24,000 square feet were devoted to chemistry, 5,000 square feet for mineralogy and metallurgy, and 5,000 square feet of corridors. It cost slightly over \$200,000 to build and furnish and could accommodate 318 chemistry students. The main lecture hall had a stepped floor with 158 chairs with writing arms based on those designed by Dr. Agnew for Columbia College where Chandler’s brother taught. It had a lecture table over 33 feet long which had a pneumatic trough, closets, drawers, gas, air blast, vacuum, water, steam, and waste attachments. The room had a huge blackboard and a screen for lantern pictures. Curtains could be drawn which would darken the room.



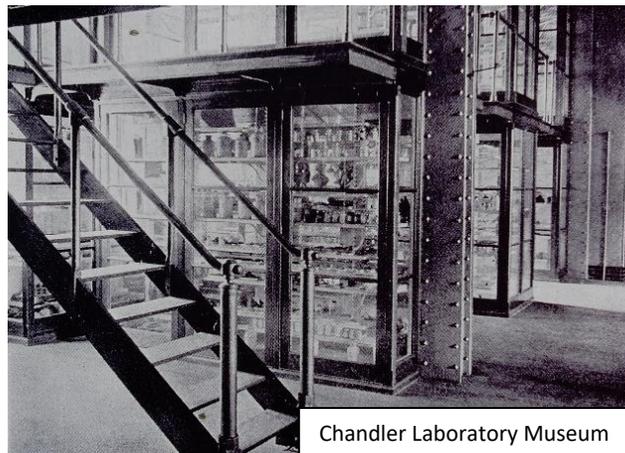
Several technical innovations enabled the teaching of large sections of undergraduate chemistry laboratory for the first time. The main laboratories were the quantitative analysis lab holding 48 students, the qualitative analysis lab holding 84 students, and the assay lab, holding 36 students. Each laboratory was approximately 70 feet long by 38 feet wide, double the conventional width of previous laboratories. The lab benches were turned perpendicular to the exterior walls and their width was increased, allowing students to work on both sides of the benches. The organic lab was much smaller, 38 feet by 32 feet, and held 22 students at a time. Once again, this shows how American chemists at this time felt that training in analysis and assaying was much more important to the students than organic chemistry. There were also smaller labs devoted to sanitary chemistry, industrial chemistry, physiological chemistry, agricultural chemistry.

Photography was considered to be an important subject of study for chemistry majors, therefore there was a photography room and two darkrooms. All chemistry majors were required to submit a portfolio of photographs taken around the campus which they developed themselves. Another important innovation unknown before the construction of the Chandler Laboratory was the delivery of services piped to each bench station, including gas, steam, vacuum, compressed air, and water. Steam pipes supplying the radiators were placed within each chimney flue to heat the air, ensuring a positive up-draft of exhaust gases.



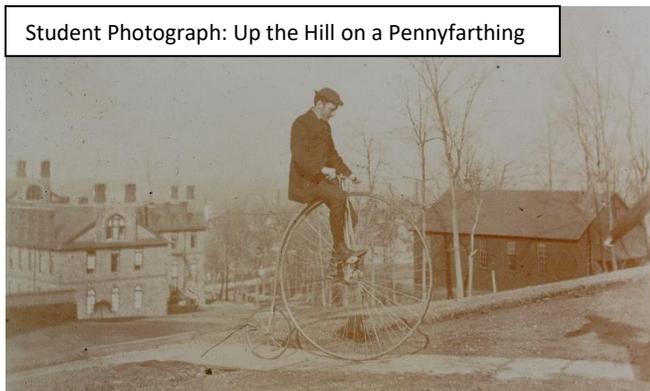
**“Lehigh University’s Chandler Chemical Laboratory:  
A Milestone in Late 19th Century Laboratory Design” (continued)**

There were two separate museum areas in the building, one for mineralogy and one for chemistry. Chandler hoped to eventually have a sample of every know compound in his museum! The building also had other facilities which are extremely uncommon today, including 2 gas analysis rooms, a photometer room, and silver and gold bullion rooms. Water was piped in from the Bethlehem municipal system to a large still on the third floor which distilled the water and held it in a large tank from which pipes ran to all the laboratories, supplying them with pure water. A second still was used to prepare alcohol for the laboratories.



Chandler Laboratory Museum

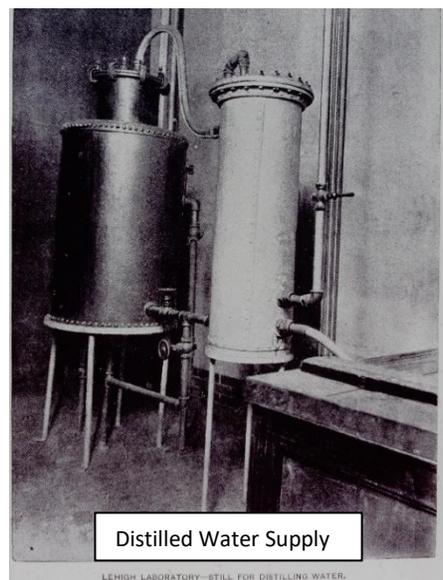
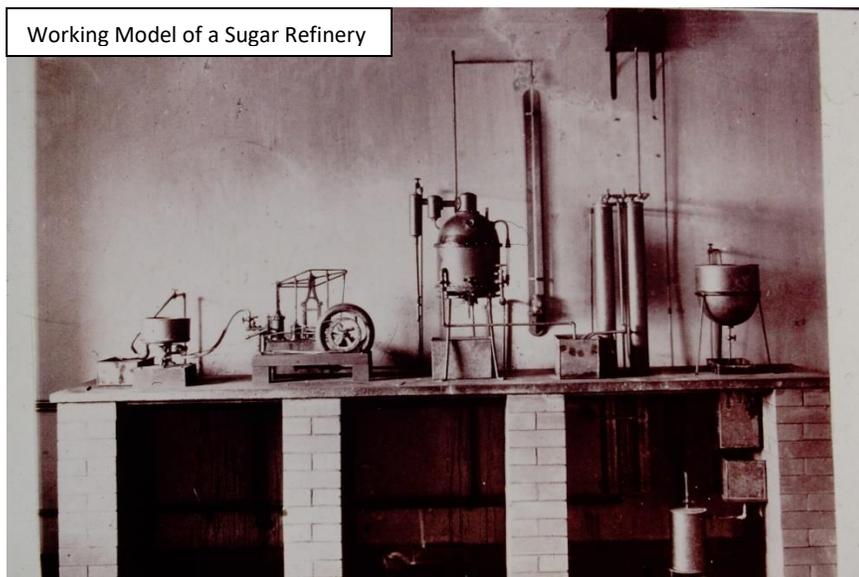
Student Photograph: Up the Hill on a Pennyfarthing



All the labs had multiple fume hoods which were supplied with fresh air via valved openings to the outside. Each hood had a steam bath with steam supplied by the University’s central heating plant. The hoods were also equipped gas, compressed air, and vacuum lines. The department also housed working models of a sugar refinery and a coal gas generating plant. These models helped the students gain practical knowledge about these two major employers of chemists during this time period.

The building remained the home of the chemistry department (and for quite a while, also the chemical engineering department) until 1975 when it was replaced by the Seeley G. Mudd Chemistry Building, which is still home to the majority of the chemistry department. After the Chemistry Department moved out, the Chandler building became soley the home of the Center for Health Sciences. Now known as Chandler-Ullmann Hall, it is now home to the Department of Art and Architecture and the Department of Psychology. In 1994 the ACS designated it a National Chemical Historic Landmark. It was only the second such landmark ever designated as such, after the Bakelizer, the reactor used by Leo Baekeland to create the world’s first fully synthetic plastic.

Working Model of a Sugar Refinery



Distilled Water Supply

LEHIGH LABORATORY—STILL FOR DISTILLING WATER.

## LVACS January Webinar and Virtual Section Meeting

Date / Time: January 14, 2021 / 7:00-8:30 pm

Location: Online [recorded version: [https://youtu.be/i\\_CXrMiPGCc](https://youtu.be/i_CXrMiPGCc) ]

### AGENDA

7:00-8:00 pm: Webinar, Bob Artz, ACS Emeritus Member,

### “Radiochemistry 101: Basic Concepts and Terminology, Historical Perspective and Dispelling a Few Myths”

Bob Artz, a graduate of Kutztown University and a former instructor at LCCC, used his extensive background in the nuclear energy field (Oyster Creek Power Station in South Jersey) to take us on a fascinating journey through the development of the fundamental science behind radioactivity, nuclear reactions and nuclear energy production. We learned about the early contributions of Marie Skłodowska Curie and many others in the early 20th century to the new sciences of radiochemistry, nuclear particles and nuclear stability then saw how those basic concepts were applied to controlling nuclear fission reactions and to the construction of nuclear reactors by Enrico Fermi and colleagues. Along the way, we uncovered the roots of some common terminology (and a few misconceptions) about nuclear energy and, finally, looked at gamma spectroscopy and how it is used to safeguard operation of today’s nuclear power plants. Bob also quizzed the group on our basic understanding of radiochemistry – he found some scintillated more than others!

8:00-8:30 pm: Section Meeting [George Ruger (past-chair), Roger Egolf (chair), Nigel Sanders (secretary), Lorena Tribe (treasurer), Mike Bertucci (alternate councilor), Greglynn Gibbs (membership chair), Jeremy Heyman (SEED coordinator)].

Upcoming Events: Roger Egolf, 2021 Section Chair, opened the business meeting with a review of the current schedule of events for spring 2021. The February 18th virtual meeting will feature speaker David Lewis of University of Wisconsin/Eau Claire talking on "A hatred that still haunts undergraduate organic chemistry 150 years later" {Markovnikov and Zaitsev}. March 18th we will have a special online presentation “Signing for Safety” by the Cedar Crest College CCC Signs ASL Club. The April event is tentatively a virtual student poster session but no details have been confirmed as yet. Roger also mentioned that several ACS local sections in the Philadelphia area are jointly sponsoring a 1-day leadership course at St. Joseph’s University in Philadelphia on September 11th. The EC members present expressed support for LVACS participation in the event.

New ACS Diversity, Inclusion and Respect Grant Updates: Greglynn Gibbs, Jeremy Heyman and Nigel Sanders have been working toward the February 3rd launch of the ACS DI&R grant-funded “LVACS After School Chemistry Partnership” project. The full program of weekly online activities is nearly complete with commitments from several speakers/panelists and selection of kit-based hands-on experiments. Co-sponsoring the program are the Berks Chemical Society and the NCC Science Club. Participating Community Partners include Reading Science Center (representing Reading schools), Yocum Institute for the Arts, Boys and Girls Club of Bethlehem, The Fe Foundation and ELLIS Academy. LVACS Section members are welcome to attend any or all of the sessions, Wednesdays from 4:00-5:00pm on Zoom. A flyer and details of the program will be issued in the coming week. The program was previewed in the January 2021 Octagon.

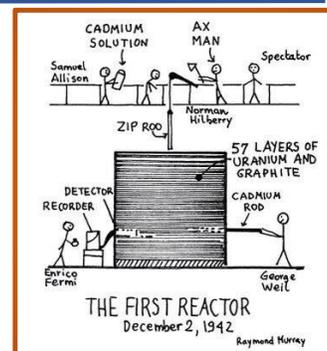
2021 ACS SEED Program: Jeremy Heyman announced considerable progress with SEED participation for 2021. 8-10 HS student slots working with 6-7 college mentors from 5 LV schools have been developed. The approach for the SEED projects has not been completely defined yet with the potential for in-person to virtual and hybrid being discussed. Matching monetary support from the mentors’ schools is a challenge and Jeremy is asking whether the LV Section would be willing to contribute from several hundred to a couple of thousand dollars to help. The EC members agreed to put this item on the agenda for the next EC/Chairs call in late January.

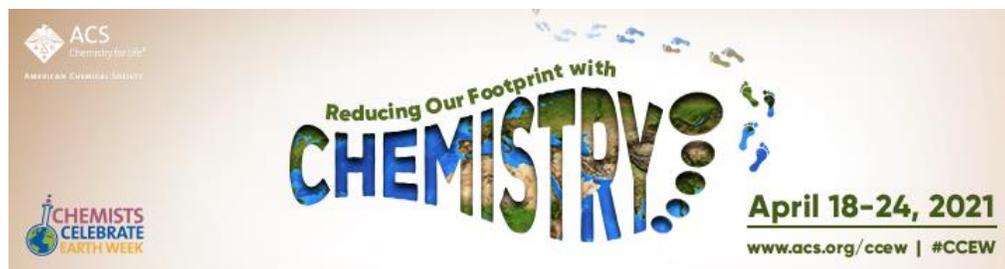
METT award update: The \$1400 award received over the summer is not spent yet. George Ruger and the team have been surveying the leadership group and are requesting help to define a purchase by the end of January if possible. A key decision is whether the system will be used for recording / live-streaming meetings or for making ‘canned’ presentation / webinar quality projects.

FORMS annual reports: Nigel Sanders and George Ruger confirmed that the new ‘Community Connections’-based reporting system is in place. Even though we reported our election results late, officers should have access at this point. There are weekly open-forum help sessions every Friday from 9-10am as well as online help. A few events have been entered. Nigel will send George a listing of 2020 LVACS events.

The meeting was adjourned at 8:30pm.

Respectfully submitted, Nigel Sanders, secretary





**April 18–24, 2021**  
**CCEW Theme:**  
**“Reducing Our**  
**Footprint with**  
**Chemistry”**

For years, chemists have been promoting a better world through recyclable plastics, cleaner-burning fuels, phosphate-free detergents, environmental monitoring, and green chemistry initiatives. To promote the positive role that chemistry plays in the world, ACS established the **Chemists Celebrate Earth Week (CCEW)** public awareness campaign. During CCEW, ACS members and chemistry enthusiasts celebrate by coordinating events and communicating the importance of chemistry.

Read more about CCEW 2021: <https://www.acs.org/content/acs/en/education/outreach/ccew.html>



Last year, Lehigh Valley Section celebrated an ‘at home’ CCEW and Earth Day 50 with webinars reliving the first Earth Day in 1970 and discussing what “Pogo and friends” would think of our progress on those challenges and the new ones to be faced in the next 50 years; a fun and informative look at why “Plants are Perfect Planet Protectors” with ‘virtual hands-on’ exploration of wood, wood fiber and home papermaking; easy demonstrations of some important concepts for now and the future, “(Re)Cycling Water” and “Earth-Friendly Plastics”; and, finally, an environmental story of great local significance, “Applying CCEW thinking to our local area: The Environmental chemistry of Palmerton PA’s New Jersey Zinc smelter site and beyond...”

These webinars are available for viewing on the LVACS YouTube channel: <https://www.youtube.com/channel/UCHO2QIcPLDnKITOeXNRRZ0>

***Our 2021 CCEW plan is being formulated. Have some ideas for virtual programs that can help us focus on the theme of using chemistry to reduce our carbon footprint? Let us know! Our CCEW Coordinator, Lindsey Welch, will be glad to assist in identifying supporting resources from ACS.***

Useful resources on planning a virtual event:

<https://www.acs.org/content/acs/en/education/outreach/ccew/plan-an-event.html>

### **\*The 2021 Edition of the Illustrated Poetry Contest\***

...asks students to write and illustrate a poem using the CCEW theme, “Reducing Our Footprint with Chemistry.” Your poem must be no more than 40 words and in any of the following styles to be considered:  
 HAIKU/LIMERICK/ODE/ABC POEM/FREE VERSE/END RHYME/BLANK VERSE

Possible topics related to the CCEW 2021 theme include:

Life cycles      Clean air and water      Environmental footprints

More information about the contest may be found at:

<https://www.acs.org/content/acs/en/education/outreach/ccew/plan-an-event/illustrated-poem-contest.html>

Electronic submission of poems may be made to: [bit.ly/CCEWpoems](http://bit.ly/CCEWpoems)



CONTACT: CCEW Coordinator, Lindsey Welch, Cedar Crest College, [lawelch@cedarcrest.edu](mailto:lawelch@cedarcrest.edu)



**ACS SPRING 2021**  
MACROMOLECULAR CHEMISTRY: THE SECOND CENTURY

REGISTER NOW

VIRTUAL • LIVE EVENTS | APRIL 5-16 • #ACSSpring2021

NETWORKING EVENTS AND ON-DEMAND PRESENTATIONS | APRIL 17-30

## Registration is Open

ACS Spring 2021 will be held online from April 5 - 30. Live oral technical presentations will be hosted from April 5 - 16, followed by two weeks of on-demand and networking content.

### ACS Spring 2021 Registration Rates

- \$149 for non-members
- \$99 for ACS members
- \$29 for students and teachers
- No cost for unemployed, retired, and 50-year emeritus members

### REGISTER:

[https://www.acs.org/content/acs/en/meetings/acs-meetings.html?sc=201228\\_mtg\\_em\\_SPR21\\_members\\_od](https://www.acs.org/content/acs/en/meetings/acs-meetings.html?sc=201228_mtg_em_SPR21_members_od)

\*\*\*\*\*



MARM 2021 is going virtual! Co-hosted by the University of Delaware and the Delaware ACS, MARM 2021 will showcase the richness of chemistry in the Middle Atlantic and beyond. Bringing together scientists in a virtual format, MARM will be a premier event for scientific discussions and networking. The conference is June 9-11, 2021. Chemagination will be on June 12, 2021. MARM is dedicated to equity, justice, diversity, and inclusion.  
<https://sites.udel.edu/marm2021/>

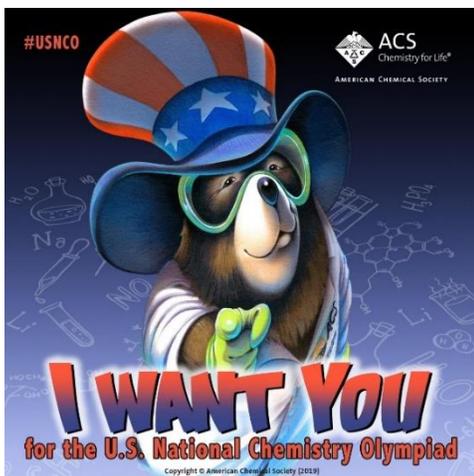
### Abstract Submission is open!

It's time to submit your abstract! ACS's Meeting Abstracts Programming System (MAPS) is open from Jan 25 - March 8, 2021 for abstracts! We can't wait to see your science at MARM!

Submit your abstract here: <https://marm2021.abstractcentral.com/>

*Undergraduates: Submit your abstract for one of our Undergrad-Only Poster Sessions!  
If you're in the first 100 undergrads to submit an abstract, UD will sponsor your registration.  
You'll receive a code for free registration!*

MARM Awards nominations are due in early March! See page 11 for more details.



## 2021 CHEMISTRY OLYMPIAD ANNOUNCES VIRTUAL LEHIGH VALLEY COMPETITION

Gail Marsella, LVACS Chemistry Olympiad coordinator, reports that there are about 30 entrants from the Lehigh valley section area from a half-dozen high schools in this year's competition, to be held March 27<sup>th</sup>. As was the case last year, the competition is entirely virtual with no lab component. Top scorers in the LVACS competition are nominated to take the National Chemistry Olympiad Exam, held in two parts April 17<sup>th</sup> & 24<sup>th</sup>. The U.S. National Chemistry Olympiad (USNCO) program's purpose is to stimulate young people to achieve excellence in chemistry.

The American Chemical Society has sponsored the program since 1984. Topics covered on the test include stoichiometry/solutions, descriptive/laboratory, states of matter, thermodynamics, kinetics, equilibrium, oxidation-reduction, atomic structure/periodicity, bonding/molecular structure, and organic/biochemistry. Wish our local Chemistry Olympians good fortune!

<https://www.acs.org/content/acs/en/education/students/highschool/olympiad.html>

LVACS CONTACT: Gail Marsella, Muhlenberg College, [gaimarsella@muhlenberg.edu](mailto:gaimarsella@muhlenberg.edu)



## PROJECT SEED off to a great 2021 start in the Lehigh Valley!

Last year was a challenging one for ACS Project SEED! The program was virtual using an online 'camp' structure (LV had three participants). This year, the pandemic continues to make placing high school students from low-income households in local laboratories for summer research experience difficult. Jeremy Heyman, LVACS SEED Coordinator, is developing opportunities for up to 10-11 students (in 6-7 university labs across the area). ACS SEED has just decided to make the experience virtual as it was last year. The approval process is ongoing with approvals expected later this spring.

The LVACS Executive Committee strongly supports Project SEED and encourages members to contribute to this important ACS strategic program.

<https://www.acs.org/content/acs/en/education/students/highschool/seed.html>

LVACS CONTACT: Jeremy Heyman, Northampton CC, [jheyman@northampton.edu](mailto:jheyman@northampton.edu)



**Middle Atlantic Regional Meeting of the  
American Chemical Society  
June 9–12, 2021  
VIRTUAL FORMAT**

## 2021 MARM Regional Awards: Request for Nominations

Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences recognizes individuals and/or institutions who have advanced diversity in the chemical sciences and significantly stimulated or fostered activities that promote inclusiveness within the region. This award is sponsored by the ACS Committee on Minority Affairs. Nominations are submitted via the link on the award website.

**Deadline: March 1**

<https://www.acs.org/content/acs/en/funding-and-awards/awards/other/diversity/stan-israel-award.html>

ACS Division of Chemical Education Middle Atlantic Region Award for Excellence in High School Teaching recognizes, encourages, and stimulates outstanding high school chemistry teacher in the Middle Atlantic Region. Please use this nomination form:

[https://sites.udel.edu/marm2021/files/2021/01/CHED\\_EXCELLENCE\\_IN\\_HIGH\\_SCHOOL\\_TEACHING\\_MARM-1.docx](https://sites.udel.edu/marm2021/files/2021/01/CHED_EXCELLENCE_IN_HIGH_SCHOOL_TEACHING_MARM-1.docx).

Nominations are submitted via email to [awards-marm2021@udel.edu](mailto:awards-marm2021@udel.edu). Please state "Award for Excellence in High School Teaching" in the subject line.

**Deadline: March 9**

ACS E. Ann Nalley Middle Atlantic Regional Award for Volunteer Service to the American Chemical Society recognizes the volunteer efforts of individuals who have served the American Chemical Society, contributing significantly to the goals and objectives of the Society through their regional activities. Please use this nomination form:

[https://sites.udel.edu/marm2021/files/2021/01/E\\_Ann\\_Nalley\\_Award.docx](https://sites.udel.edu/marm2021/files/2021/01/E_Ann_Nalley_Award.docx). Nominations are submitted via email to [awards-marm2021@udel.edu](mailto:awards-marm2021@udel.edu). Please state "Ann Nalley Award" in the subject line.

**Deadline: March 9**

Partners for Progress and Prosperity Regional Award encourages and recognizes successful and exemplary partnerships within the Region.

**Deadline: March 9**

The E. Emmet Reid Award in Chemistry Teaching at Small Colleges in the ACS Middle Atlantic Region celebrates outstanding achievements in teaching chemical sciences at small colleges within the Middle Atlantic Region. Information on this award and nomination procedures are in this document: [https://sites.udel.edu/marm2021/files/2021/01/E\\_Emmet\\_Reid\\_Award.docx](https://sites.udel.edu/marm2021/files/2021/01/E_Emmet_Reid_Award.docx). Nominations are submitted via email to [awards-marm2021@udel.edu](mailto:awards-marm2021@udel.edu). Please state "Emmet Reid Award" in the subject line.

**Deadline: March 9.**

More information: [https://sites.udel.edu/marm2021/?page\\_id=995](https://sites.udel.edu/marm2021/?page_id=995)

---

**\*\*NOMINATE YOUR COLLEAGUES (OR YOURSELF!) FOR AN AWARD TODAY\*\***

## Lehigh Valley Section Awards Nominations are Open, too!

### LVACS SECTION HIGH SCHOOL TEACHER OF THE YEAR

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2021 award for excellence in High School 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 prize 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 at your high school so that they might identify colleagues deserving of the award. The application should be completed and submitted by **APRIL 1, 2021** to [LVACSTOTY@gmail.com](mailto:LVACSTOTY@gmail.com) as an attachment. Submission materials may be found on our LVACS [website](#). We appreciate your help and thank you for publicizing the 2021 Excellence in HS Teaching award. We look forward to many worthy applications. Please contact us by phone or e-mail if you have any questions. John Freeman, Chair, LVACS Excellence in HS Teaching award Committee, [LVACSTOTY@gmail.com](mailto:LVACSTOTY@gmail.com); 610 923-3587.

### LVACS SECTION AWARD FOR EXCELLENCE IN TEACHING AT SMALL COLLEGES

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) for excellence in small college teaching in chemistry. 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](mailto:lut1@psu.edu) for any questions pertaining to the nomination for this award and how to apply. Award deadline **APRIL 1, 2021**.

### LVACS FOUNDATION IN CHEMISTRY AWARD

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2021 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 plaque, which will be presented to the winner at the September meeting of the Lehigh Valley Section of the American Chemical Society. The guidelines for the award and the application material may be found on the LVACS [website](#). Please share this information with students and guidance counselors. The four-part application should be completed and submitted by **APRIL 10, 2021**. We appreciate your help and thank you for publicizing the 2021 Foundation in Chemistry Award. We look forward to many worthy applications. Please contact John Freeman by phone or e-mail if you have any questions. John Freeman, Chair, LVACS HS Scholarship Committee; [lvacsfoundations@gmail.com](mailto:lvacsfoundations@gmail.com) ; 610 923-3587

### CHEMAGINATION PROGRAM

The Lehigh Valley Section of the American Chemical Society (LVACS) is delighted to announce the 2021 Chemagination program. The program is designed to encourage high school students to think about the future impact of chemistry on their lives and society. There are both local awards and an opportunity to participate in the ACS Mid Atlantic Regional program in June. Entries are accepted independently by students, as part of a chemistry club program or incorporated as a capstone activity in the chemistry classroom. We hope you will share the information with chemistry/science students and teachers. A full description of the program may be downloaded [here](#). Entries are due on **APRIL 16, 2021** as an email attachment to [lvacschemagin@gmail.com](mailto:lvacschemagin@gmail.com). We look forward to many worthy applications. Please contact John Freeman by phone or e-mail if you have any questions. John Freeman, LVACS HS Chemagination Coordinator, [lvacschemagin@gmail.com](mailto:lvacschemagin@gmail.com) 610 923-3587

Detailed descriptions of **Lehigh Valley Section awards**, eligibility and nomination/application materials may be accessed at the links above or through our LVACS website, <https://www.lvacs.org/education-and-student-awards> or by contacting the LVACS awards committee chair, John Freeman, [jcf2@rcn.com](mailto:jcf2@rcn.com).

**\*\*NOMINATE YOUR COLLEAGUES (OR YOURSELF!) FOR AN AWARD TODAY\*\***

LEHIGH VALLEY SECTION OF THE AMERICAN CHEMICAL SOCIETY  
2021 EXECUTIVE COMMITTEEOFFICERS

Chair:  
Roger Egolf  
[rae4@psu.edu](mailto:rae4@psu.edu)



Chair Elect:  
Lindsey Welch  
[lawelch@cedarcrest.edu](mailto:lawelch@cedarcrest.edu)



Immediate Past Chair:  
George Ruger  
[gruger04@yahoo.com](mailto:gruger04@yahoo.com)



Secretary:  
Nigel Sanders  
[nigel53.sanders@gmail.com](mailto:nigel53.sanders@gmail.com)



Treasurer:  
Lorena Tribe  
[lut1@psu.edu](mailto:lut1@psu.edu)

COUNCILORS

Jeanne Berk (term ends 12/31/21)  
[jrberk@cedarcrest.edu](mailto:jrberk@cedarcrest.edu)



Kelley Caflin (term ends 12/31/23)  
[caflinacs@yahoo.com](mailto:caflinacs@yahoo.com)

ALTERNATE COUNCILORS

Mike Bertucci (term ends 12/31/23)  
[bertuccim@moravian.edu](mailto:bertuccim@moravian.edu)



Celia Williams (term ends 12/31/21)  
[lvacscma@gmail.com](mailto:lvacscma@gmail.com)

