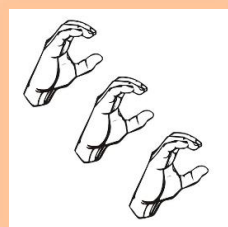


THE OCTAGON

“Sign Language in STEM”



March Section Meeting (Virtual Format)

Speakers: Cedar Crest College
CCC Signs ASL Club

Thursday, March 18th / 7:00 pm

Zoom Online Meeting: [Link](#)

CONTACT: Jeanne Berk, jrberk@cedarcrest.edu



Join Cedar Crest College’s Signs Club to get an overview of American Sign Language (ASL) alphabet and numbers, as well as explore general words related to STEM.

ASL is a visual language. With signing, the brain processes linguistic information through the eyes, and facial expressions and body movements play an important part in conveying information. We hope you will bring words or phrases you would like to learn and use.

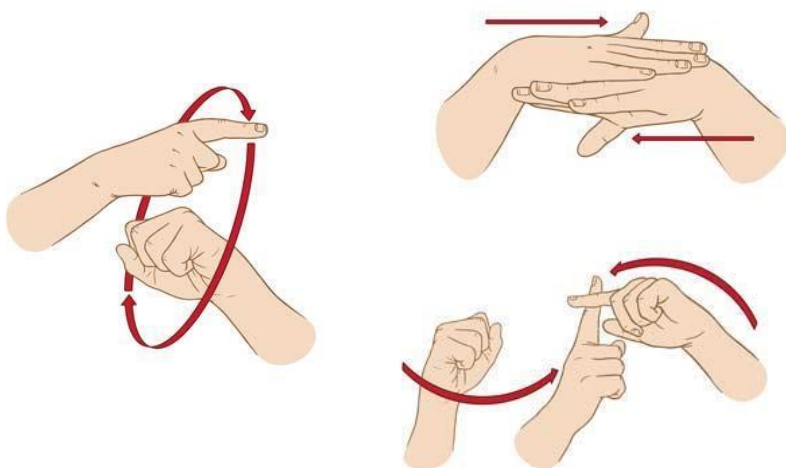
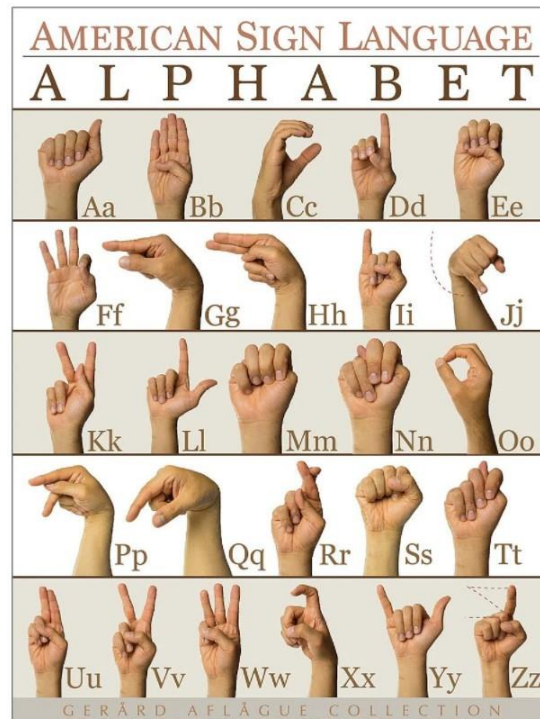
Schedule:

7:00-7:10 - Introductions & discussion on the culture of the deaf and hard of hearing/recent impacts on the community due to COVID 19

7:10-7:45 - ASL alphabet/numbers/phrases

7:45-8:00 - wrap up & questions

8:00-8:30 Section Business Meeting



LVACS Events Calendar

March 2021

Section Meeting (Virtual Format)
“Sign Language in STEM”
Cedar Crest College *CCC Signs* ASL Club
Thursday, March 18th / 7:00 pm
Zoom Online Meeting: [Link](#)
CONTACT: Jeanne Berk [jrberk@cedarcrest.edu]



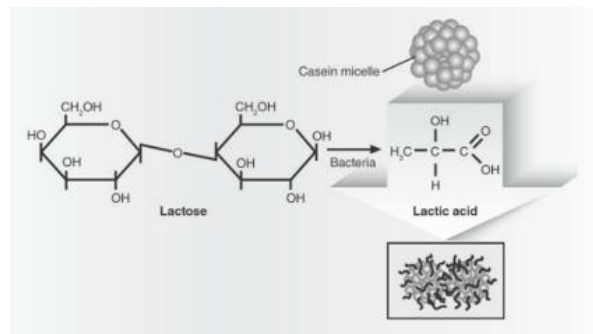
April 2021

Section Meeting (Virtual Format)
“Annual Undergraduate Poster Session”
Thursday, April 15th / Time TBA
Abstract submission link TBA
CONTACT: Lindsey Welch [lawelch@cedarcrest.edu]



May 2021

Section Social (Virtual Format)
Cheese Chemistry!
(with suggested wine pairings)
Tasting Kits available for pick up
Tuesday, May 18th / 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/UCHO2OIchPLDnKITOeXNRRZQ>

where you can catch up on virtual meetings you've missed...

See our Diversity, Inclusion and Respect website page <https://www.lvacs.org/diversity>, for the latest on our online After School Chemistry Partnership Program!

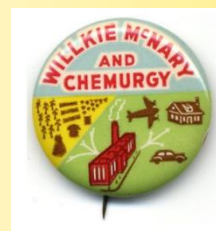
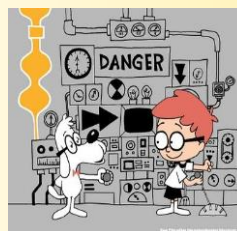
CONTACT: Nigel Sanders, LVACS secretary and newsletter editor, nigel53.sanders@gmail.com

Also In This Issue...

3-4. Remembering George Ruger

5-7. **The Green WABAC Machine!!**

Ever heard of “Chemurgy?” Better find out how ‘footprint reduction’ ideas started in the 1920s!



8. After School Chemistry keeps rocking on Wednesdays!

9. February 18 meeting report

10. Greglynn Gibbs joins March 8th International Women’s Day Panel and is 2021 VOTY Awardee

11. CCEW 2021 “Reducing Our Footprint with Chemistry” ramps up

12. ACS Undergraduate Career Day March 27th and ACS Fellows Nominations Call

13. 2020 LVACS Annual Reports

14. LVACS Annual Awards: Second Call for Nominations

15. 2021 Executive Committee

REMEMBERING GEORGE W. RUGER, 1974-2021

A Message from the Lehigh Valley Section Executive Committee

It is unfortunate that we have sad news to share with our members and friends. Our dear colleague and LVACS Past Chair George Ruger passed away at home on February 16th after a short illness[†]. George will be forever missed; he was truly a champion for the ACS. His enthusiasm for science and community outreach were contagious. As LVACS Chair-elect and Chair in 2019 and 2020 as the pandemic permitted, George traveled far from his home near Poughkeepsie to be with us in our activities. He always brought his unique perspective on projecting chemistry to the public as both a fun and useful subject. To those who worked with him in the many technical communities within ACS, George was an untiring supporter and seemed to be everywhere: ACS committees, technical divisions, ChemLuminary celebrations, the ACS Leadership Institute... it is hard to envision a National Meeting without him. His contributions to ACS and Chemistry have been far-reaching. He had just co-edited a newly published volume of the Green Chemical Processing series with colleague Mark Benvenuto of the ENVR division. The heartache of losing him is hard. He was an amazing man and friend. In letting you, the LVACS Community, know of this tragic loss, we ask for your remembrances of George. We are sure that the outpouring of respect and affection will be a comfort to his family and a way for us to continue the many good works that he has so vigorously begun.



George's family has asked that any photos or memories of George be sent to his e-mail address, gruger04@yahoo.com. Please copy us (nigel53.sanders@gmail.com) on these emails if you would like to share this with the section at a memorial to be held in the future. Donations to benefit chemistry education in memory of George can be made to the Lehigh Valley Section c/o LVACS Treasurer, Dr. Lorena Tribe, Penn State Berks Luerssen, /201 D Tulpehocken Road, PO Box 7009, Reading, PA 19610.



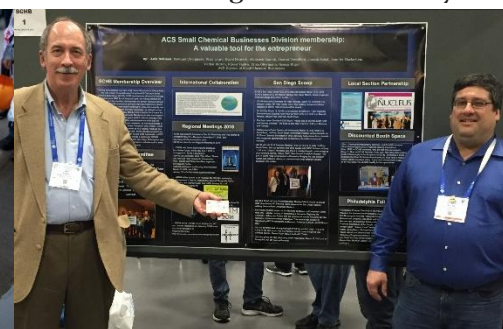
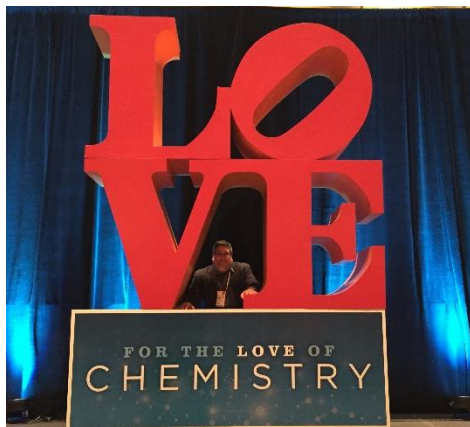
[†]<https://www.legacy.com/obituaries/poughkeepsiejournal/obituary.aspx?n=george-william-ruger&pid=197811608&fhid=27377>



REMEMBERING GEORGE W. RUGER, 1974-2021

By Kelley C. Caflin, LVACS Councilor

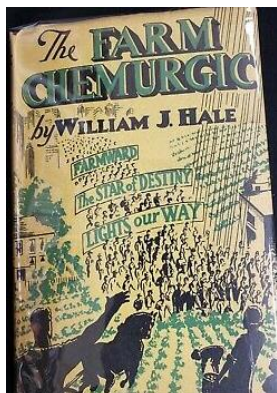
George was truly a chemistry ambassador in every sense of the words. So I found it fitting that he was wearing his ACS sash at the viewing. I spoke briefly to Annette, George's Mother. I introduced myself as Kelley from ACS as she knew me from texts and emails from the previous week. She seemed happy that someone from ACS was there, she mentioned how it was such a huge part of his life. The flowers ordered sent from us at LVACS were beautiful: exactly what the LVACS EC talked about. Yellow Flower Spray arrangement with a royal blue bow, a nod to the ACS colors. Annette pointed out they made a flower arrangement with one of George's beakers as the vase (it was actually a graduated cylinder but I wasn't going to correct her). She said only a chemist would understand. She thanked "us" for pictures we sent, many of which were playing in a slide show in the next room. I just let her know that we would help in any way we could and that we would make sure he would be honored and remembered. I moved into another room, with other family members, I really didn't know what to say, they did have a poster board with ACS name tags and other chemistry stuff on it. I just said that is how I knew George. I shared a quick story about going to a hockey game with George at the Orlando ACS meeting when we needed to push him in a wheelchair due to him having gout. Nothing came between George and Chemistry!



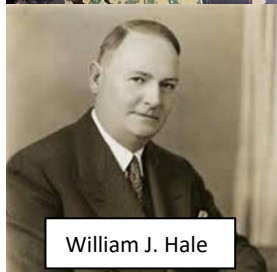
The LVACS WABAC Machine: Vignettes of Chemical History III

by Roger A. Egolf

"EARLY 20th CENTURY CHEMICAL SUSTAINABILITY THROUGH THE CHEMURGY MOVEMENT"



Today sustainability is an important goal of many chemists, but many do not realize that early in the 20th century, chemists were working at many of the same goals under a program called "Chemurgy." The word was coined by William J. Hale, son-in-law of Herbert Dow and Director of Organic Chemistry Research at Dow Chemical, who advocated the use of farm crops as starting materials for chemical processes in his 1934 book "The Farm Chemurgic." The meaning of his phrase was "Chemical work from the Farm."



William J. Hale

The seed of the Chemurgy movement was the collapse of crop prices after World War I. During the war, American farm productivity had zoomed upward as we supplied food to our allies. Farm production had become mechanized due to the availability of gasoline-powered tractors, especially the Fordson, which had been introduced by Henry Ford in 1917. After the war, farm productivity continued to increase but demand slumped since the European nations could once again feed themselves. In 1921 the Federal Reserve Board ordered banks not to renew their notes to farmers, causing farm prices to tumble and many farms to fail. Fortunately for many, the non-farm economy was quickly rebounding at this time, the beginning of the "roaring twenties." Wheeler McMillen, a failed hog farmer, found new work as Associate Editor of a popular agricultural monthly, "Farm and Fireside." He was acutely aware that those who had remained on the farms were not benefiting from the economic recovery in the same way as those in manufacturing.

A solution to this situation seemed illusory, but one night in 1924 he attended a speech at the American Farm Bureau Federation Convention in Chicago by Julius Barnes, a wheat exporter and President of the United States Chamber of Commerce. Barnes could not see how the world wheat outlook could improve and made the statement "Unfortunately the human stomach is not elastic." Shortly thereafter, McMillen outlined an idea for an article in "Farm and Fireside" in a memorandum that said in part: "...the human stomach is inelastic. Domestic food consumption increases in quantity only about as the population increases. Can more of our farm production be diverted from food products to industrial materials? Cotton, wool, and flax are for industrial use. Jardine pointed out the flax situation in his article. We usually have enough wool and cotton. But soybeans, for instance, now grown primarily for animal food, are useful for industrial purposes and I believe research would develop a much larger market for the oil. I don't know whether any governmental research is being made on this point. There may be other crops. If an inquiry shows that there is enough good material to justify, how about it?"



Wheeler McMillen

McMillen was busy with other projects during this time period, but he kept pushing his idea. He met with Secretary of Agriculture William M. Jardine, the man he mentioned in his memorandum. Jardine appreciated his ideas, but felt that the time wasn't right for major federal appropriations for government research and suggested that he meet with Secretary of Commerce Herbert Hoover. Hoover thought his ideas were sound and placed a request to the next Congress for \$50,000 to be used by the Bureau of Standards for the investigation of industrial uses for agricultural raw materials. McMillen wrote a short editorial for the September, 1926 issue of Farm and Fireside entitled "Do we need this Foundation?" proposing a foundation to fund research into industrial uses of agricultural products and followed it up with a longer article in the January, 1927 issue titled "Wanted: Machines to Eat Up Our Crop Surplus." Later that year he became aware of an article published in Henry Ford's newspaper "The Dearborn Independent," written by William Hale which predicted that manufacturing industries would eventually turn to annual crops as major sources of raw materials such as cellulose, starch, proteins, sugar, and oils, and that organic chemists would find ways of converting these raw materials into countless useful items.

“EARLY 20th CENTURY CHEMICAL SUSTAINABILITY THROUGH THE CHEMURGY MOVEMENT”



In February, 1928, McMillen, who by then through his association with Hale been started reaching a wider, non-farmer, audience, was invited to visit with and interview Thomas Edison in Ft. Myers, Florida, where Edison was attempting to develop a farm crop that could be grown in the United States to produce rubber. Henry Ford was in Ft. Myers at the time visiting with his friend Edison. McMillen used this opportunity to explain his ideas to Ford, already a long-time supporter of the use of agricultural products in manufacturing. Buoyed by the discovery that Hoover, Edison, and Ford, in McMillen's opinion, the three greatest living Americans, agreed with his basic ideas, he decided to write a book to spread those ideas. Unfortunately "To Many Farmers," was published in October 1929, the same month as the stock market crash that triggered the beginning of the Great Depression. The businessmen he was hoping to reach and convince to fund a foundation were more concerned at that time with the stock market and mostly ignored the book.

In January 1935 Hale and McMillen encountered one another at the Cosmos Club in Washington D.C. and decided that an organization devoted to Chemurgy needed to be formed in order to push their ideas forward and decided to hold a conference to kick things off. For funding, they approached Francis Garvan, an attorney who had served as the Alien Property Custodian during WWI and whom President Wilson had appointed President of the Chemical Foundation, an organization formed to administer the Chemical patents confiscated from German companies after the war. He agreed to fund a conference, so Hale asked Carl Fritsche, a Detroit Industrial Engineer who was out of work at the time to organize it. Fritsche and Hale approached Henry Ford for additional funding, and Ford agreed to help if the conference was held in Dearborn. Other sponsors, including the National Grange, the American Farm Bureau Federation, and the Council of Agricultural Organizations chipped in, and the conference was held on May 7th and 8th 1935.



Francis P. Garvan

Over 300 attended, including presidents of leading railroad and automobile companies, chemical executives, college presidents, heads of research institutions, and influential farmers. Henry and Edsel Ford were the official hosts, and Ford's company supplied cars for the transportation of all attendees. The first morning session ended with the signing of a "Declaration of Dependence upon the Soil and of the Right of Self-Maintenance" held in a replica of Independence Hall that Ford had erected at his museum, Greenfield Village. The signing was done at a desk that had belonged to Thomas Jefferson and a table and chairs that had belonged to Abraham Lincoln. At the end of the conference a resolution was passed to form a committee, to be appointed by Garvan that would continue the movement. The committee met a few weeks later and included Hale, McMillen, Univ. of Illinois chemist and current ACS President Roger Adams, W. B. Bell, President of American Cyanamid, Louis Taber, President of the National Grange, and nine others, including Col. Frank Knox, publisher of the Chicago Daily News, soon to be the Illinois favorite son candidate from Illinois for President. Knox went on to be the vice-presidential candidate on the 1936 republican ticket with Alf Landon and later in life, FDR's Secretary of the Navy during WWII. It was decided at the committee meeting to form a permanent organization named the Farm Chemurgic Council, later modified to the National Farm Chemurgic Council. The original committee continued on as the Governing Board of the Council.

A concerned Congressman, Jennings Randolph of West Virginia, wrote to the White House in June 1936 "lest the Republicans seize upon this theme and since it is potentially a powerful weapon in our own hands may I urge that the Democratic Platform contain a provision favoring the promotion of scientific research." By that time the Department of Agriculture had already started giving the matter consideration. In fact as early as 1927, when the Fixed Nitrogen Laboratory had been integrated with the old Bureaus of Chemistry and Soils to form a new combined Bureau of Chemistry and Soils, a separate Industrial Farm Products Division had been established. In 1936, the Department of Agriculture spent \$1,300,000 to test cotton fabric as a reinforcing agent in highway construction. The regional USDA laboratories that exist to this day were founded in 1938 as a result of the Agricultural Adjustment Act.

“EARLY 20th CENTURY CHEMICAL SUSTAINABILITY THROUGH THE CHEMURGY MOVEMENT”

With the beginning of WWII, the problems of farm surpluses and industrial unemployment went away entirely, and while products developed from Chemurgical research were important in the war effort, it was difficult for agricultural products to compete with petroleum economically. Huge amounts of oil were discovered in Saudi Arabia in 1938 and the post WWII chemical industry was no longer as interested in agricultural starting materials as they had been earlier. Chemurgical research continued to have some success up through the early 1950's, and Chemurgical Conferences continued to be held, but interest rapidly fell off and in 1977 the National Farm Chemurgical Council disbanded.

The man considered to be the first and probably the most prominent chemurgist in history, even before the word was created, was George Washington Carver, shown here with Henry Ford. As you probably all know, Carver was a faculty member at the Tuskegee Institute and is best known for stressing the importance of crop rotation and for finding uses of alternative crops to replace cotton in the South. Among his chemurgical research was the discovery of processes to prepare cosmetics, dyes, paints, plastics, gasoline, and nitroglycerin from peanuts. Some of you might also be familiar with Charles H. Herty, ACS President in 1915 and 1916. Herty, who was a student of Ira Remsen at Johns Hopkins, served as an advisor to Garvan at the Chemical Foundation from 1919 until Garvan's death in 1937. His most important chemurgical work was done at the Savannah Pulp and Paper Laboratory, now known as the Herty Advanced Materials Development Center, where he discovered a process to use southern pine to produce newsprint.



Henry Ford and G. W. Carver, 1934



I've already mentioned that Henry Ford was very active in the Chemurgy movement in many ways. He assigned many researchers to work on finding ways to incorporate agricultural starting materials into the products of his industrial empire. In 1941 Ford built a car with a body made from plastic from renewal sources. While the exact formula he used was never revealed, it was probably made from soybean and hemp fiber and plant-based resin. The car, which weighed only 2000 lb., one third less than the steel-bodied Ford of the same period, was powered by a standard Ford V8 converted to run on ethanol. It was never commercialized because of cost issues and the demands of WWII research and production.

Today, almost all gasoline sold in the United States contains ethanol because of federal mandates. This is by no means a new idea. When the prohibition law was passed in 1919, some distilleries were allowed to stay open and switch their production to fuel. During the 1920's, ethanol-gasoline mixes became very popular in Europe, with many companies mandating the blending. The idea was slow to catch on in the United States, which had better supplies of petroleum than Europe. Ford and Garvan were strong believers in the use of ethanol as a fuel in the 1930's. Ford once said "There's enough alcohol in one year's yield of potatoes to drive the machinery necessary to cultivate the fields for one hundred years." In 1936, The Chemical Foundation, along with additional funding by Ford, set up an organization in Atchison Kansas, The Atchison Agrol Company, headed by Dr. Leo Christensen to research and produce gasoline - ethanol blends of 5, 10, and 15 percent ethanol. Several Midwestern states passed laws in the 1930's requiring 10% ethanol in gasoline, but the ethanol was never produced cheaply enough to be economically to be competitive with petroleum, and Agrol always sold for slightly more than straight gasoline, and the Agrol plant in Atchison closed in 1939.

As we can see from this history, "green chemistry" and the principles of sustainability are not new ideas and chemists have been using these principles for at least a century. That said there is still plenty for our generation of chemists to do, and we shouldn't forget the contributions of past generations to this work.

AFTER SCHOOL CHEMISTRY PARTNERSHIP PROGRAM ROCKS ON !!

The LVACS After School Chemistry Virtual Outreach Program entered its fifth week in March with a consistent viewing audience of around 50 students and teachers. We've had panels discussing chemistry careers, what it's really like to be a chemist, demonstrations of battery science and practical ways kids can get involved with hands-on chemistry experiences such as through Project SEED.

The feedback from our audience has been great! Teachers are so thankful to have an informal STEM resource like this to direct their science students toward for a broader view of chemistry and the role it plays in our lives; the kids love it! Annd...the word keeps spreading: students from Philadelphia and even NYC are tuning in.

In coming weeks we'll be having a watch party Celebrating George Washington Carver and the National Peanut Butter Lovers Day; Explore the Chemistry of "No-pop" bubbles during National Bubble Week; Shrink ourselves to honor Nanotechnology Day and Quantum Dots; Ask 'What's it like to Study Science in College?' and 'What's it Like to Work in Science?' Then we'll have two weeks devoted to CCEW: Casein/Bioplastics Chemistry Experiments and Renewable Energy & Water Decontamination.

We've had terrific support from our co-sponsors ACS Diversity, Inclusion & Respect Grant, NE ACS Section, ACS Chem Clubs and Brenntag.

Greglynn Gibbs, Project Coordinator
Jeremy Heyman, NCC
Nigel Sanders, LVACS Secretary

AFTER SCHOOL CHEMISTRY NEWSLETTER



WEEK 3 RECAP

National Battery Week with Robert Collier, Enersys



Thank you, for attending last week's After School Chemistry session featuring Robert Collier of Enersys, Reading, PA celebrating National Battery Week!

We had a great time learning how to making batteries from lemons and coins. We also learned that there are other fruits and vegetables, such as potatoes or oranges, or even solutions like vinegar or fruit juice, that can be used to make batteries strong enough to power an LED light or remote control. Wow!

You can find more [Battery Experiments on Science Buddies](#)

WEEK 4 - Wednesday, Feb. 24th

Program Registration [here](#)

Part I

Introduction to ACS Project Seed: Become the Next Science Pioneer



Jeremy Heyman, Local Coordinator of Project SEED, a program through the American Chemical Society that helps High School students get paid summer research positions. Yes, you can do research before you even get to college! Jeremy and former students from the Project SEED Program will be here to tell you how you can get to do research as a high school student, as well as describe their experiences in the program.

Part II

Representation Matters: STEM Pioneers & Black History Month



Sonia Massey, Professor of Biology at Northampton Community College, Monroe Campus. Professor Massey will be introducing us to the STEM Pioneers we may not have learned about, who have made amazing contributions in the STEM fields.

LOOKING AHEAD



WEEK 5—March 3

Movie Watch Party celebrating National Peanut Butter Lovers Day!

WEEK 6—March 10

No Pop Bubbles Home Experiment Celebrating National Bubble Week!

Keep up with us at: <http://lvacs.org/after-school-chemistry-partnership-program-news>



BRENNTAG



LVACS February Webinar and Virtual Section Meeting

Date / Time: February 18, 2021 / 7:00-9:00 pm

Location: Online [recorded version: https://youtu.be/IgP_EKGaDJE]

Officers, Councilors and Committee Chairs Attending: Roger Egolf (chair/host), Nigel Sanders (secretary), Lorena Tribe (treasurer), Mike Bertucci (alternate councilor), Kelley Caflin (councilor), Jeanne Berk (councilor), Lindsey Welch (Chair elect), John Freeman (Awards Chair).

Total number of attendees: 31

AGENDA

7:00-8:00 pm: Webinar, Dave Lewis, University of Wisconsin/Eau Claire, "A hatred that still haunts undergraduate organic chemistry 150 years later."

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).

8:00-8:15 pm: LVACS Business Meeting

Passing of George Ruger: Roger Egolf, Section Chair, informed the members present of the untimely death of our colleague and immediate Past Chair, George W. Ruger. While arrangements are still being finalized by George's family, the LVACS Executive Committee is in touch with them and will report to members as soon as it is appropriate. George was truly a champion for the ACS; his enthusiasm for science and outreach were contagious. LVACS was fortunate to share this spark.

Upcoming Events: Roger reviewed plans for upcoming meetings. March 18th we will have a special online presentation "Signing for Safety" by the Cedar Crest College CCC Signs ASL Club (Contact: Jeanne Berk). The April 15th event will be a virtual student poster session with a 'flash talk' format (Contact: Lindsey Welch). The May 18th (Tuesday) event will be a wine and cheese chemistry virtual celebration to end a difficult 2020-2021 year (Contact: Jeanne Berk).

Treasurer's Report: Lorena Tribe has been in contact with Tesia Chciuk to make the checking account transfer. The 2020 Annual Report for the section including the financial status was submitted to ACS this week. A summary will appear in a future issue of the Octagon newsletter and on the lvacs.org website.

The meeting was adjourned at 8:30pm.

Respectfully submitted, Nigel Sanders, secretary

Lehigh Valley Local Section Outreach Volunteer of the Year



Greglynn Gibbs

ACS announced the 2021 Outreach Volunteer of the Year Awards March 1st. The Lehigh Valley Section winner is Greglynn Gibbs of Penn State/Berks. The citation reads: “Greglynn successfully hosted and facilitated online and outdoor (socially distanced) outreach events celebrating National Chemistry Week, including Undergraduate Resume Workshops and community-wide Halloween Chemistry and Online Slime workshops through partnerships with the Penn State Alumni Association, Spring Township Parks and Recreation, and the Reading Science Center. In addition to her service as Membership Chair of the Lehigh Valley Local Section, she serves as Student Chapter Advisor at Penn State Berks, an ACS Career Consultant, a member of the Reading Science Center Programming Committee, and is on the Committee on Community Activities.” Congratulations, Greglynn, for a great year!

Conversations with Chemists: A Celebration of International Women's Day

WEBINAR (1 hour) on March 8, 2021 for Middle School Students

Now, more than ever, careers in science, technology, engineering and mathematics (STEM) are helping solve the world’s challenges. At the American Chemical Society, we recognize and value the countless individuals who have devoted their life’s work to use the transforming power of chemistry to improve all people’s lives. But how did these chemists get their start? And what does their daily work look like?

On International Women’s Day - March 8, 2021 from 1 - 2 pm ET - join us for an hour-long panel discussion with four dynamic chemists presenting their stories - past, present, and future. With a special focus on students in grades 4 - 8, we’ll explore what sparked these scientists interest in chemistry, their education and career journeys, and the work they do today.

This will be a great event to enjoy as a class or to encourage students to watch individually. Participation is free and open to all. Visit the [website](#) to register (optional), receive updates about this event, and submit questions for the panelists.



ACS
 Chemistry for Life®

Conversations with Chemists
 A Celebration of International Women's Day
 Monday, March 8, 2021, 1:00 pm ET

			
Natalie LaFranzo, Ph.D. Cofactor Genomics	Ingrid Montes, Ph.D. University of Puerto Rico, Río Piedras	Teri Odom, Ph.D. Northwestern University	Greglynn Gibbs Penn State Berks

Date: Monday, March 8, 2021 from 1:00 - 2:00 pm ET

Panelists: Natalie LaFranzo, Cofactor Genomics, Ingrid Montes, University of Puerto Rico, Río Piedras, Teri Odom, Northwestern University, Greglynn Walton-Gibbs, Penn State Berks

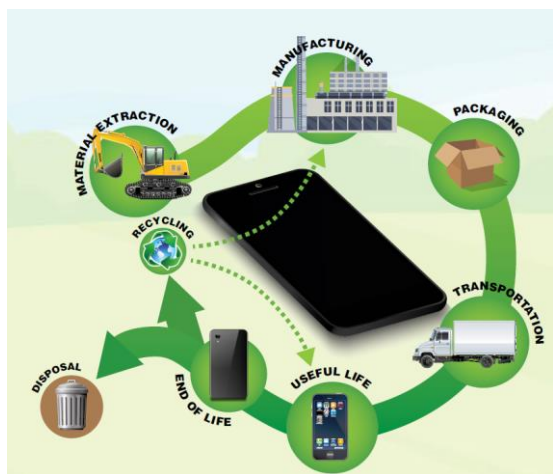
Moderator: Sue Morrissey, Director of Communications, American Chemical Society



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>
[Download](#) the CCEW 2021 issue of Celebrating Chemistry to share with your community!



WHAT'S YOUR 'SHOE' SIZE??

“A carbon footprint is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions. The average carbon footprint for a person in the United States is 16 tons, one of the highest rates in the world. Globally, the average is closer to 4 tons. To have the best chance of avoiding a 2°C rise in global temperatures, the average global carbon footprint per year needs to drop under 2 tons by 2050. Lowering individual carbon footprints from 16 tons to 2 tons doesn't happen overnight! By making small changes to our actions, like eating less meat, taking less connecting flights and line drying our clothes, we can start making a big difference.”

The Nature Conservancy

Use an interactive calculator to estimate your personal carbon footprint [here](#).

Our 2021 Virtual CCEW celebration is coming together with themed events in our After School Chemistry Partnership Program and a panel discussion during Earth Week. Have some ideas that can help us focus on the theme of using chemistry to reduce our carbon footprint? Our CCEW Coordinator, Lindsey Welch, will be glad to assist in identifying supporting resources from ACS.
<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 and Environmental Footprints.

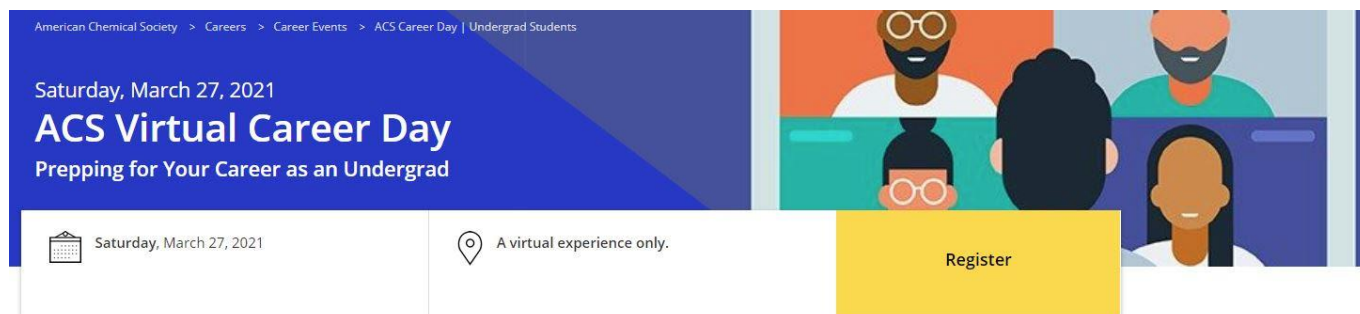
More information about the contest may be found at:

<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

CONTACT: CCEW Coordinator, Lindsey Welch, Cedar Crest College, lawelch@cedarcrest.edu





Join experts from the ACS Career Navigator for this free career development event designed especially for undergrad students on **Saturday, March 27, 2021 at 11 am ET.** Register today to participate in three thought-provoking program segments with practical advice to help you prepare for job searching and learn what to expect as a new hire in the chemical sciences.

This Career Day includes:

Resume Workshop - Learn how to build an effective resume to land the job you desire with expert advice from Steven Emory.

Mapping Your Next Steps as a Chemistry Graduate - Discover what to expect in your next step after undergrad. A panel of recent grads will share their experiences entering grad school and going into in the working world.

Small Group Networking - Connect with ACS Career Consultants and fellow attendees, and learn best practices to present yourself in a casual networking environment.

→ **Questions about this Career Day?**

Email us at: careers@acs.org

Agenda, Saturday, March 27 (Eastern Time)

11:00 AM	Welcome
11:05 AM	Session One: How to Build an Effective Resume for a Career in the Chemical Sciences <i>Facilitated by Steven Emory</i>
11:55 AM	Break
12:00 PM	Session Two: Career Panel Discussion with Recent Graduates
12:55 PM	Break
1:00 PM	Networking <i>*Facilitated by ACS Career Consultants.</i>
1:55 PM	Closing Remarks

ACS Fellows Nominations Open Through April 1



Recognize an ACS Member's outstanding contributions to science and the profession, as well as their exemplary service to the Society, by nominating them to be an ACS Fellow! The ACS Fellows Program recognizes members of the ACS for excellence and leadership in both of two areas: (1) science, the profession, education, and/or management, and (2) volunteer service in the ACS community. National Committees, Local Sections, Technical Divisions, International Chemical Science Chapters, and individual members may all submit nominations for ACS Fellows online. Visit the [ACS Fellows home page](#) for complete nomination details. Please e-mail any questions to fellows@acs.org. Nominations close on April 1 - submit yours today!



Lehigh Valley ACS Section 2020 Governance and Financial Reports

In spite of the pandemic, the section presented a wide range of programs including the 14 events presented herein. These ranged from unique in-person workshops (when it was possible) to video-recorded CCEW programs to live streamed events on social media. In addition, ACS-sponsored programs such as SEED, Chemistry Olympiad and Chemagination were supported by LVACS coordinators as they went virtual. The Section was also awarded the Grand Maestro award by the local Da Vinci Science Center to honor us as 'a Da Vinci Science Center partner in recognition of its substantial contributions to the scientific community and the Center.' LVACS also continued to make its awards to worthy volunteers and HS and college teachers and scholars. During the year, our monthly newsletter, The Octagon, was re-launched after a short hiatus with a new, higher-impact format and our new website, lvacs.org, went live in August with more timely coverage of section activities and clearer connection to our history and strategic plan moving forward. All through the year we went through a learning curve to embrace new communications technology and have actually extended our reach during these difficult times. The LVACS of 2021 is now benefitting from that experience with a much more integrated approach to section governance.

The full 2020 governance report: [here](#)

The full 2020 financial report: [here](#)

Listing of events in 2020:

Date	Meeting/Speaker/Topic	Total Attendees
23-Jan	LVACS Section Webinar Megan Latshaw, JHU Chemicals and Health George Ruger, host	8
20-Feb	LVACS Section Meeting (Moravian College) Jeff Bush, Moravian College 3D Printing Workshop, Moravian College Mike Bertucci, Moravian College, host	26
25-Feb	ACS Program-In-a-Box, Food Science Jeanne Berk, Cedar Crest College, host	7
29-Feb	Phantoms Hockey Kelley Caflin, host	15
4-Mar	Made-in-America Career Fair (3 days)	
5-Mar	Da Vinci Science Center	
6-Mar	Nigel Sanders, John Freeman, Carl Salter, hosts	400
24-Mar	LVACS Section Webinar (PSU/Berks) "Teaching and learning chemistry online" Ike Shibley, PSU/Berks, speaker David Aurentz, PSU/Berks, speaker Kevin Range, Lock Haven U, speaker Anne & John Gorden, Auburn U, speakers Lorena Tribe, host	17
9-Apr	CCEW Webinar 1 Nigel Sanders, host	10
15-Apr	LVACS Section Webinar (Moravian College) Student Poster Session Mike Bertucci, host	9

16-Apr	CCEW Webinar 2 Jeanne Berk, Cedar Crest College, host	12
18-Apr	CCEW Webinar 3 & 4	5
25-Apr	Greglynn Gibbs, PSU/Berks, host	5
19-Apr	Chem Olympiad testing 1 & 2	23
26-Apr	Gail Marsella, Muhlenberg Coll, coordinator	12
21-May	CCEW Webinar 5 John Freeman/Lindsey Welch, hosts	8
May	Chemagination online LVACS & MARM	50
June	John Freeman, host & judging team leader	10
July	ACS Project SEED Summer Virtual Camps Jeremy Heyman, coordinator	4
17-Sep	LVACS Section Meeting (Da Vinci Science Ctr) Lin Erickson, DSC CEO and Director, host BRICK Ocean Live & Awards Night LVACS receives DSC's Grand Maestro Award	36
12-Oct	Halloween Chemistry Webinar Greglynn Gibbs, PSU/Berks, host	25
15-Oct	LVACS Section Webinar (Albright) Lorena Tribe, PSU/Berks, speaker Chris Hamann, host	27
17-Oct	NCW kick-off Da Vinci Science Center Nigel Sanders, Jeanne Berk, hosts	15
21-Oct	Science Resume Online Workshop (2 days) Berks Chemical Society, host	20
19-Nov	LVACS Section FaceBook Live Event (Lehigh) Nigel Sanders, Ned Heindel, Roger Egolf, hosts Our Pioneers in Chemistry Teaching...	31

CONTACT: Nigel Sanders, LVACS Secretary, nigel53.sanders@gmail.com

Lehigh Valley Section Awards: Second Call for Nominations

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 7, 2021** to 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; 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 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 15, 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 ; 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. 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 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.

****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



Chair Elect:
Lindsey Welch
lawelch@cedarcrest.edu



Immediate Past Chair:
Vacant

Secretary:
Nigel Sanders
nigel53.sanders@gmail.com



Treasurer:
Lorena Tribe
lut1@psu.edu

COUNCILORS

Jeanne Berk (term ends 12/31/21)
jrberk@cedarcrest.edu



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

ALTERNATE COUNCILORS

Mike Bertucci (term ends 12/31/23)
bertuccim@moravian.edu



Celia Williams (term ends 12/31/21)
lvacscma@gmail.com

