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The Chemical Bulletin

A publication of the Chicago Section of the American Chemical Society

ACS Local Section Chicago

In This Issue

ADVERTISERS

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CHICAGO SECTION ACS MONTHLY VIRTUAL MEETING

FRIDAY, APRIL 23, 2021

7:00 – 8:30 PM

Register online at chicagoacs.org to receive meeting link

SPIRITED ARTISANS OF AN AGE-OLD CRAFT

Derek Kassebaum

Master Distiller, Co-Founder & Co-Owner
North Shore Distillery

ABSTRACT: North Shore Distillery is the original craft distillery in Illinois, established in 2004 by a creative husband and wife team with a deep passion for spirits and cocktails. As an award-winning artisanal establishment, the distillery makes spirits by hand – spirits that are not possible on a mass production scale – with fresh, original flavors. Every bottle is infused with a bit of chemistry and chemical engineering knowledge as well as artistry. This talk will give us a behind-the-scenes look at the materials and processes that go into the production of a range of distilled spirits, their flavorings, and what makes the end products appeal to discerning connoisseurs and laypersons alike.

Agenda for April Virtual Meeting
April 23, 2021 - Friday

7:00 - 7:05 pm	Announcements - Sherri Rukes
7:05 - 7:10 pm	Introduction
7:10 - 8:00 pm	Main Presentation by Derek Kassebaum
8:00 - 8:25 pm	Q & A Period
8:25 - 8:30 pm	Wrap-Up

PRESENTER BIOGRAPHY: Derek Kassebaum holds a BS in Chemical Engineering and an MBA. Over the years, he has read and experimented wildly and is one of the most knowledgeable people around about grains, herbs, spices, fruits and distilling them. He has led seminars with scientists of many disciplines, as well as herbalists and others who use these base materials in other ways. Derek designed every aspect of the distillery's manufacturing, and loves the process of layering and building flavors and smells through infusion, distillation and aging. He is the creative force behind all of the distillery's amazing spirits.

Ethel in her Starring Role

CO-CON-SPIRIT-TOR BIOGRAPHY: Ethel the Still (at right) was hand- and custom-made in southern Germany to our specifications. Derek worked with the still manufacturer in Ethel's design, and she has several custom elements that make her truly one of a kind. Her capacity is 250 liters, or the equivalent of about 60 gallons, and she has a role in every single product North Shore Distillery produces. She is one of the smaller stills in commercial production today – but she is versatile, skilled and loves making spirits: it is what she was born to do!

Special Programming for K – 12 Teachers during the ACS National Meeting

SPRING 2021 VIRTUAL CHEMISTRY TEACHER PROGRAM — THURSDAY, APRIL 15

Join us for a virtual chemistry teacher program! Typically held as part of the ACS National Meeting, we will be offering this special event virtually for the first time. You will hear from James Bryant Conant Award Winner Michael A. Morgan, who will reflect on his career as an educator and offer special insights and wisdom. We'll have a short Q&A session with AACT President Jesse Bernstein before spending some networking time in breakout groups. We'll close out the event with a raffle. Be sure to register for the ACS National Meeting.

Schedule

- 7:00–7:05 pm ET - Welcome (Sherri Rukes)
- 7:05–7:50 pm ET - Michael A. Morgan 2020 James Bryant Conant Award winner
- 7:50–7:55 pm ET - Q&A with Jesse Bernstein, 2021 AACT President and Governing Board Chair
- 7:55–8:25 pm ET - Breakout Groups
- 8:25–8:35 pm ET - Raffle and Closing Remarks

https://teachchemistry.org/professional-development/webinars/spring-2021-virtual-chemistry-teacher-program

Chicago ACS Section Officers for 2021

Chair	Sherri Rukes	chair@chicagoacs.org
Vice Chair	Michael Koehler	vice-chair@chicagoacs.org
Chair-Elect	Mark Cesa	chair-elect@chicagoacs.org
Secretary	Aleks Baranczak	secretary@chicagoacs.org
Past Chair	Paul Brandt	past-chair@chicagoacs.org
Treasurer	Jason Romero	treasurer@chicagoacs.org

For additional information see:

https://chicagoacs.org/board.php

https://chicagoacs.org/Committees

https://chicagoacs.org/Volunteer

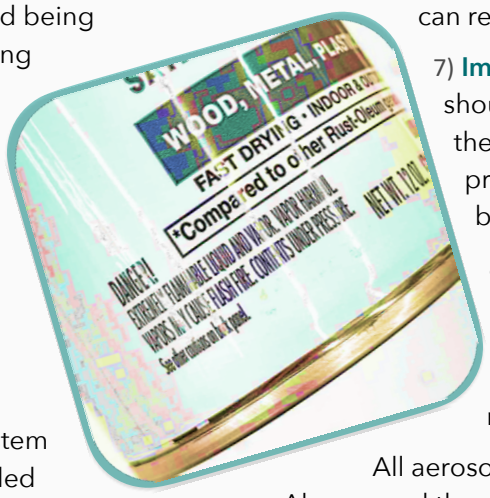
A "Safety First!" Minute

AEROSOL CAN HAZARDS

Following recommended safety precautions—at work and at home—is a hallmark of a Safety First! culture. Each year, misuse or abuse of aerosol products causes hundreds of accidents, most of which can be traced to failure to read and follow printed warning labels. Chemicals packaged in aerosol cans may be found throughout our homes, garages, and work environments, in products ranging from lubricants and cleaning solutions to foods, spray paints, pesticides, disinfectants, and personal care items.

Aerosol products are pressurized chemical systems containing a complex formulation of propellants and solvents in addition to their main or active ingredients. Common causes of aerosol can accidents include:

1) **Repeated dropping or banging of the can.** Aerosol cans are designed to withstand being dropped. However, repeatedly dropping or hitting a can on a hard surface may lead to metal fatigue, which can cause the bottom to break off, launching parts of the can with dangerous consequences. For flammable contents, a nearby ignition source can create a fireball and cause serious burns.



2) **Attempting to clean the nozzle.** Tampering with the nozzle or valve system can result in valve failure and unintended content release.

3) **Heating of the can.** Aerosol systems consist of both liquid and vapor phases and the internal pressure will increase with temperature. The US Department of Transportation requires that aerosol cans withstand a pressure not to exceed 180 psi at 130 °F. Any can stored or used in an environment exceeding this temperature is extremely dangerous. Such conditions may be found near or on hot plates, next to hot stoves or grill surfaces, near space heaters, and inside enclosed vehicles on a hot day.

4) **Corrosion.** Most aerosol cans are made from steel or aluminum with internal coatings to prevent the contents from corroding the inside of the can. External corrosion can occur from exposure to salts, acids, and other incompatible materials. Any sign of corrosion may compromise the integrity of the can.

5) **Punctures.** While most punctures result in a slow leak of the liquid product, a puncture can be dangerous if the aerosol contents are flammable and a spark is generated in the process.

6) **Fires.** Many aerosol products contain flammable ingredients. When aerosolized, these flammable substances can create a vapor plume that carries far from the spray source. If the vapors accumulate in an enclosed space with an ignition source, a fire can result.

7) **Impact or drive-over.** Aerosol cans should never be flattened by driving over them. Sudden impact may lead to over-pressurization and result in the can becoming a high-speed projectile.

8) **Freezing.** Freezing may result in expansion of the contents, especially for water-based products. This will increase the wall pressure and may result in seam failure in the can.

All aerosol products contain WARNING labels. Always read these WARNINGS carefully and follow them scrupulously to avoid accidents! Store aerosol cans appropriately to avoid corrosion, dropping, and heat. Never place an aerosol can, even momentarily, on a hot surface. DO NOT HEAT AN AEROSOL CAN, AND NEVER PUT A FLAME TO A CAN. Use aerosol products in well-ventilated areas free of flames and other ignition sources. Discard aerosol cans that appear visibly damaged—corroded, dented or punctured. Always depressurize (empty) the can before discarding.

Submitted by Michael Koehler

Letter from the Chair

Thanks to everyone who attended our March monthly meeting! It was a wonderful event and a great way to kick off Chemists Celebrate Earth Week!

We had many members and friends attend the meeting to hear a fascinating talk about how Loyola University Chicago is striving to reduce their carbon footprint and make the university more sustainable. They even offer many different paths for students to gain knowledge and earn degrees in environmental and sustainable focus areas. I want to thank Michael Koehler for getting Dr. Nancy Tuchman to speak at our meeting. I came away from the meeting wanting to learn more about the how Loyola was able to reduce their footprint in a short amount of time, the classes one can take, and how I might be able to get something like that started in the area where I live. If you missed our monthly meeting, please go to chicagoacs.org to view the video of the talk.

April will be filled with many opportunities for our members and the community to support Chemists Celebrate Earth Week, April 18th – 24th, 202. We are off to a great start! Some of the things our members and community members can do can be found at https://chicagoacs.org/CommunityActivities.

Any K – 12 student that participates in several of these activities will receive a token of appreciation. Please look at the website for more information about that. Activities for our members and community members include:

- The Carbon Free Day Pledge – If everyone in our community pledges to do something to reduce their carbon footprint for 1 day, we can help our planet. Don't ever think just one person doing something is insignificant. Every little bit does help.
- Produce a short video on a creative way to reuse an item that you might normally throw away. This is for all ages of our community. Look at our website and the bulletin for more information.
- The Poetry Contest – The section continues our sponsorship of the poetry contest for Earth Day. Please look at the information sheet in the bulletin or the section's website for more information.
- Take the carbon footprint quiz – Learn about your impact on the planet by taking either the Carbon Footprint Quiz for elementary / middle school student or the quiz for middle school and beyond.
- Earth Day Activities for the whole family – Try your hand at the various family activities to learn about the importance of taking care of our planet and make it more sustainable. Look in the bulletin and the website for details.

As the school year winds down, we would like to have a virtual celebration for all educators and students who pivoted and made the unprecedented school year a success. The plan is to have Raychelle Burks of Outrageous Acts of Science and ACS Reactions participate through video. Please join us as she speaks about the fascinating insights on chemistry and pop culture. This will be a great way to celebrate!

This is a time to celebrate our membership. In June, we will be honoring our members, as well as handing out the Distinguish Service Award and the Emerging Star Award. The two awards named above are given to two volunteers in our section who go beyond the call of duty. Several of our members do so much. But we like to recognize those who give 120% to the section. The Distinguish Service Award is given to a member that has demonstrated commitment to the Chicago Section of the ACS and its goals for more than 15 years. The Emerging Star Award is given to a newer volunteer with less service to the section, but who has demonstrated the same commitment to the Section and its goals. Both awards are given to members who have done a bunch of heavy-lifting for the organization to further the activities unique to the Chicago Section.

We still have many great other opportunities for our members and community alike planned for the rest of the year. Be sure to check chicagoacs.org for updates, information and opportunities to participate in all the fun and excitement we have in store! I really want to grow the number of members participating and volunteering in our great ventures. Please think about joining us. We welcome new ideas and volunteers all the time. My goal is to make us even better and more innovative than ever.

If you have any comments, questions or ideas, please reach out to me: chair@chicagoacs.org - Sherri Rukes

Teachers' Resource Spotlight: Headline Science from ACS (high school and beyond)

Most teachers would confess that at least once a year a student will want to know why they need to learn something. Because of this one question, teachers try to figure out ways to show students that what is done in class actually relates to things that they use every day or for new inventions. The American Chemical Society (ACS) has a playlist of short videos that helps answer this question. ACS put together an ongoing series called Headline Science. Right now there are about 105 short videos to use. Each video in the playlist (most run about two to three minutes long) highlight some research that could lead to possible discoveries which could help us move forward as a society. A couple of videos in particular connects very well to this year's theme for Chemists Celebrates Earth Week (CCEW). There is a short two minute and two second video talks about biodegradable edible plastic which could be made into wrappers. Scientists use casein from milk and a couple of other additives to create a bioplastic that could be turned into a film that could be used for wrappers. However, it does not stop there. This discovery can also be added to cereal to allow the cereal to remain crunchy in milk. Right now, sugar is used to coat the cereal to protect the cereal from getting soggy. This might be a way for cereal to be crunchy without the added sugar. A win, win for most people. There is even a shorter video (one minute and thirty nine seconds) about upcycling plastic bags into battery parts. That is a clever idea of something that most American just throw away. These videos can be used to introduce several topics that are taught in a first year general chemistry class, as well as starting point to jump start a discussion about other inventions that might be able to be done with a little help from chemistry.

VIDEO HELP FOR 6 – 12 EDUCATORS!

Several years ago, NOVA broadcast a special called *Hunting the Elements*. It was a remarkable resource for any person who is interested in chemistry. **David Pogue** gave wonderful insights on the elements and how they were discovered. Just recently, PBS aired a short series called ***Beyond The Elements***, once again hosted by David Pogue. This series aims to look at key molecules and chemical reactions that help foster an understanding of the way human civilization, life, and even the universe came about. Just as with the series *Hunting the Elements*, PBS has broken the new series into video clips that are less than 10 minutes long. There is also a set of photo media for use in the classroom. These resources examine the various chemical reactions that affect our daily lives, how chemistry has been used to solve problems, and what impacts some of these solutions have had on our environment. Teachers can invite students to interact with the materials using Google Classroom.

In addition, PBS offers many **resources** for the PreK – 12 educator. There are a wide variety of videos, interactives, media galleries and documents, as well as resources in Spanish, for educators to use in their classrooms. All school subjects are included, but one should take a look, in particular, at the science section to get some chemistry help!

TEACHER KITS ARE BACK!

The Chicago ACS Section has 50 K – 12 educator experiment kits to hand out. This is the 3rd big kit that the section has created this year. Every kit has supplies and instructions for teachers so they can do the activities in their classroom. Please fill out the **linked form** to sign up to receive a kit. Kits will be available in April at several locations. Videos about the activities will be linked on the website for teachers to learn about the how and why of an activity. There are more than 12 experiments, each of which can be done multiple times. ***Topics included with this kit are listed at right.***

There might be one more kit available this school year for teachers to do demonstrations and labs with their students. Please stay tuned.

- Intermolecular forces – looking at the polarity of various dyes
- Cartesian Diver
- Making a Spectroscope
- Rate of Dissolving
- Discrepant Event
- Acids and Bases
- Corrosion
- Paper making
- Earth Day activities
- Electrolysis
- Measuring a wavelength of light

EXCELLENCE IN HIGH SCHOOL TEACHING OF CHEMISTRY AWARD

Deadline: June 1, 2021 https://chicagoacs.org/Teacher_Excellence_Award *

Purpose: To recognize, encourage, and stimulate outstanding teachers of high school chemistry or a chemical science in the Chicago section.

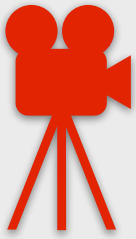
Amount of Award: $1000.00, a framed certificate, and membership for one year in the American Association of Chemistry Teachers.

Who May Nominate: Any individual, except a currently enrolled student of the nominee or a member of the award selection committee, may submit one nomination in any given year. The awardee should recently (within the last two years) have taught chemistry at an area high school.

Nomination Portfolio*: A nomination portfolio consists of a completed Nomination Information Form, a Nomination Letter, one or more Recommendation Letters (maximum of 750 words), and a two-page resume or CV.

Submission of Nomination: Nominations should be submitted to the Chair of the Awards Committee by e-mail (send to chicagoacs@ameritech.net with the subject line denoting "High School Excellence Award Nomination") by **June 1**. Please include your name, phone number, and email address. Alternatively, you may submit the nomination online using the link above. Please include your name, phone number, and email address. Alternatively, you may submit the nomination online using the link above.

* Please Refer to the Complete Set of Nomination Instructions at the Link Provided Above



Past Monthly Meeting Programs on Video

Videos of recent presentations can be accessed via the Chicago ACS Section website menus at chicagoacs.org / Events / Videos of Past Meetings or by going directly to:

https://www.chicagoacs.net/videos/index.html

The section's archive home page can also get you to the list:

https://www.chicagoacs.net/

Thanks go out to the following section members and others for their contributions to this issue, either for contributing content or using their talents behind the scenes: Josh Kurutz, Sherri Rukes, members of the program, education, and outreach teams, Mike Koehler, Russ Johnson, Jason Romero, W.S. Gilbert, Milt Levenberg, Tom Lehrer, Arthur Sullivan, Susan Shih, Irene Cesa, Ken Fivizzani, Helen Dickinson, and Mark Cesa. - Ed.

VIRTUAL ACS KIDS ZONE - EARTH DAY

THURSDAY, APRIL 22, 12–1 PM (CENTRAL)

Participate in Chemists Celebrate Earth Week and Earth Day 2021 by joining chemists across the world for a virtual #ACSKidsZone event (Kids Zone link). Conduct hands-on activities with popular STEM advocates around the educational theme, "Reducing Our Footprint with Macromolecular Chemistry."

Our environmental footprint is the impact we have on the Earth, and it includes the energy, food, water, and materials we use or leave behind. To help protect the Earth for future generations, we can all take steps to reduce our footprint—and chemistry is a part of the solution! Chemists use their learning of the properties of atoms and molecules, the building blocks of chemical compounds, to help understand, solve, and, prevent environmental problems. In this interactive **#ACSKidsZone** event taking place on Earth Day, explore environmental solutions with very big molecules!

Required registration is available here. Once you register, be sure to share the event with your communities on Twitter, Instagram, and Facebook along with the above image and the hashtag **#ACSKidsZone**!

Activities, a shopping list, and more information coming soon.

Bulletin Information

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From the Editor's Desk

Dear Readers,

For a number of years I have been a fan of Gilbert & Sullivan's (G&S) comic operettas, thanks to having played in the pit orchestra for several shows (including one with Glenn Close on the stage during college days). Many of you will be familiar with Tom Lehrer's hilarious ditty, "The Elements", which is sung to the tune of the G&S patter-song, "Modern Major-General". The Lehrer version starts with "There's antimony, arsenic, aluminum, selenium . . . " and ends with "And there may be others but they haven't been discovered." In 1959 when Lehrer penned these lyrics only 102 elements were known. Recently, while going through old files on chemistry songs and poems, I came across a verse that adds nine more elements (see page 8); it was written by Howard M. Shapiro and published in the Newscripts section of *Chemical & Engineering News* in 2008. Since then, others have crafted verses to bring the song up to date with the 118 known elements in celebration of the International Year of the Periodic Table in 2019. We will come back to the influence of Gilbert & Sullivan's musical whimsy on the chemical imagination in the near future.

I hope you enjoy this issue. ~~ M.E.S. editor@chicagoacs.org

Saturday Morning Breakfast Club Cartoon

29,003 SCIENTIFIC LAWS?

AACT LOWERING DUES FOR ONE YEAR

To provide support for teachers during this unprecedented time, the **American Association of Chemistry Teachers (AACT)** has decreased teacher member dues by 10% through April 30, 2021. Teachers who join or renew during this time will pay $45. Joining will allow you to gain access to over 900 classroom resources, a library of professional learning webinars, subscriptions to ChemMatters magazine and Chemistry Solutions, and more. Please refer to teachchemistry.org for additional information.

NEW SAFETY COURSE

ACS has created a free, online chemical safety course entitled ***"Foundations of Chemical Safety and Risk Management for Chemistry Students."*** The target audience for this intermediate-level course is students who have completed at least two semesters of college general chemistry and one semester of organic chemistry, with labs. Students do NOT need to be ACS members to take the course, which is freely available. All that's needed to access the material on the ACS learning center site is to create a log-in ID. The interactive, self-paced course is divided into 17 modules or units, and includes learning exercises as well as assessment sections for each topic. Topics are organized using the RAMP paradigm for hazard and risk management, and provide both very practical information as well as guidance concerning OSHA and EPA regulatory frameworks that govern laboratory safety. Check out this unique professional development offering on the ACS website!

"THE ELEMENTS" SONG: WITH NEW ELEMENTS THROUGH 2008

BY HOWARD M. SHAPIRO

With years gone by, Tom Lehrer's
list's in need of an extensium,
for dubnium and bohrium,
seaborgium, lawrencium,
and also rutherfordium, and
hassium, darmstadtium,
meitnerium, roentgenium,
and names straight out of Latium.
We're up to date at Hah-vard now,
but listing names that start with Un's
is something I'll avoid 'til I-U-
P-A-C picks better ones.

2021 Distinguished Service Award Goes to Paul Brandt

The Awards committee is happy to announce that the recipient of the 2021 Distinguished Service Award (DSA) is Paul Brandt. Some of his many contributions to ACS and the Chicago Section over the past 15 years include service as High School Education committee member, ACS Scholarship exam writer, Editor of *The Chemical Bulletin*, and Section Chair. Dr Brandt has also hosted numerous Section dinner meetings, Boy Scout and Girl Scout Chemistry Programs, and the Chemistry Olympiad Exam at North Central College. Please help us in congratulating Paul Brandt as the 2021 DSA winner. Thank you for all your contributions to the Section!

Leadership Meeting Update

Mark Cesa (chair-elect) and Jason Romero (treasurer and social media subcommittee chair) attended the ACS Leadership Institute virtual session on January 9 and 10. The meetings were held using Zoom and included more than 200 leaders from local sections. Sessions were offered to provide an overview of what local section leaders need to know, how to hold a harassment-free local section meeting or event, best practices on local section outreach to their communities, how to make best use of social media, and planning successful activities. There were also opportunities to "meet and greet" ACS leaders, and to attend a resource fair about ACS offerings.

New ACS Course: Leading Inclusively

As the American Chemical Society continues to emphasize its core values of Diversity, Equity, Inclusion & Respect (DEIR), it has launched an online 2-hour course called **Leading Inclusively: Beyond Lip Service.** The course, which is intended for ACS volunteer leaders, local section and technical division officers, among others, was developed by La'Wana Harris, a Certified Diversity Executive, an International Coach Federation credentialed coach, and a global leadership development professional.

After this course, participants will be equipped to:

1. *Establish a common understanding around diversity, equity, inclusion, and respect.*
2. *Challenge assumptions and invite new perspectives to welcome, embrace, and value the full spectrum of human diversity.*
3. *Identify key opportunities in your role for supporting the ACS commitment to create a more diverse and inclusive chemistry enterprise.*

The live course is being offered multiple times, with each session limited to 50 attendees. After completing the course and the course evaluation, participants will receive a certificate signed by the ACS Board Chair. Register at the **course website** for one of the upcoming dates:

Tuesday, May 4	7:30 AM – 9:30 AM & 4:30 PM – 6:30 PM	
Thursday, May 6	2:30 PM – 4:30 PM	[NOTE: ALL TIMES
Thursday, May 13	2:30 PM – 4:30 PM	ARE EASTERN]
Monday, May 24	7:30 AM – 9:30 AM & 2:30 PM – 4:30 PM	

and several other dates currently scheduled through November 2021.

"**LEADING INCLUSIVELY: BEYOND LIP SERVICE** identifies a memorable, actionable and scalable behavior framework to guide participants to use a common language for diversity, equity, inclusion and respect (DEIR) discussions with the goal of embedding inclusive behaviors in everyday culture."

Celebrating Earth Week 2021

Chemists Celebrate Earth Week (CCEW) is a community-based program of the American Chemical Society (ACS). This is an annual program which allows ACS local sections, student chapters, businesses, schools, and individuals to communicate and honor the positive role that chemistry plays in the world. CCEW occurs annually during the week of Earth Day. Earth Day, April 22nd, was first officially recognized in 1970 as a way to raise awareness about environmental issues and remind people that we all need to contribute to a sustainable planet.

This year CCEW may look a lot like last year – different. However, chemists all around the Chicagoland area are making sure to celebrate. This year's theme is "Reducing our Footprint with Chemistry". Some of the activities you can find on our website to help celebrate this event with our local section are:

- **Take the Carbon Free Day Pledge.** We are asking everyone in the Chicago area to think about joining us in pledging to reduce our carbon footprint for one day. You can pledge to reduce your carbon footprint in the areas of energy, transportation, food or you create your own. More information is found in the Bulletin and website, but the link to the pledge is: https://forms.gle/43Raonp7RF4AL69MA
- **Create a Short Video** (maximum length 2 minutes) on a creative way to reuse an item that you might normally throw away. The most creative videos from K – 2nd grade, 3rd – 5th grade, 6th – 8th grade, high school, and lifelong learners will win a prize. For children under 18, the parent / guardian will have to give permission to the section for the use of their image. Please send entries to community@chicagoacs.org
- **Poetry Contest** – Our local section is still sponsoring the poetry contest for Earth Day. Entries are due by 11:59 EST on April 25th. The winners will be determined in late April / early May. Please look at the information sheet in this issue or find it at https://chicagoacs.org/CommunityActivities
- **Take the Carbon Footprint Quiz** – Find out what your impact is on the planet by taking the Carbon Footprint Quiz for elementary / middle school age kids or for middle school and beyond quiz.
- **K – 12 Students and Families**: Try your hand at the various activities that you can do to help understand the importance of taking care of our planet and making it more sustainable. Several activities for science lovers of all ages can be found on our website at: https://chicagoacs.org/CommunityActivities

Any K – 12 age child who can show the section they participated in several of these activities, by submitting photos and/or videos to community@chicagoacs.org, will receive a small token to signify doing their part in learning about sustainability and working to save our planet which we all love. You are able to submit your photos and videos by May 1st to receive the free gift.

The outreach committee and the local section are working hard to try to help children of all ages with our passion of chemistry. In this trying time, we will continue to figure out ways to promote chemistry and help our sections area. Please do not hesitate to reach out to the section for more information. Please email: community@chicagoacs.org

2021 CCEW Illustrated Poem Contest
Reducing Our Footprint with Chemistry

The Chicago 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: May 2, 2021 at 11:59 PM Eastern
Local Prizes: gift cards
Local Contact: community@chicagoacs.org Sherri Rukes
Submission: Submit entries online at bit.ly/CCEWpoems

Winners of the Chicago 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, "Reducing Our Footprint with Chemistry." Your poem 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 - BLANK VERSE

Possible topics related to the CCEW 2021 theme include:

Life cycles	Clean air and water	Environmental footprints
Reduce	Reuse	Recycle

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, or Blank verse.
- Entries are judged based upon relevance to and incorporation of the yearly theme (Reducing Our Footprint with 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.

A Peek Into the Section's Strategic Planning Initiative

Who knew that strategic planning could be fun as well as productive?

The Chicago Section has undergone a substantial structural change, as described in the January 2021 issue of the Bulletin. New Divisions have been created to support committee activities, and new Division Coordinators have been appointed to ensure that work gets done and enjoys necessary resources. Committees have been modernized. How was this transformation accomplished, and why was it necessary?

The need, articulated

The "freedom to get stuff done" was something board members hungered for, according to 2019 Section Chair Tim Marin (Professor, Benedictine Univ.). As Chair-Elect in 2018, Marin surveyed the Section's Board of Directors for their thoughts on improving operations. Framing responses in a SWOT (Strengths Weaknesses Opportunities Threats) analysis, he found:

- Everyone wanted to increase our collective effectiveness.
- Newer leaders were highly motivated but frustrated by cumbersome internal processes.
- Experienced members were disappointed by decreasing participation and reduced impact.

Sherri Rukes (L) and Russ Johnson (C) in front of the working model for committee structure; July 6, 2019.

Marin spelled out the need for change in a set of detailed presentations at Board meetings in the Section's Park Ridge office. He convinced the Board to let him start a group dedicated to developing a reform plan. This "Strategic Planning" group met at the office on several Saturdays in early 2019.

The Strategic Planning Group

The resulting group self-assembled with individuals who answered what Marin describes as the "Call to Service". No one was specifically asked to join, but all simply stepped up. Marin remarked, "People who actually exhibit leadership skills are the people who volunteer for stuff. …. They feel compelled to serve the greater good. … It's a specific personality trait that just a small fraction of people have, and we're fortunate to have a good handful of those folks on our board." Amazingly, the group of volunteers included *five* ACS Fellows: Mark Cesa, Ken Fivizzani, Russ Johnson, Mike Koehler, and Sherri Rukes. Others included previous Chairs of the Section and candidates for Chair: Susan Shih, Josh Kurutz, and Bernard Santarsiero. The group's collective experience included many decades of high-level management and organizational expertise.

Action shot of most of the strategic planning group (July 6, 2019). Left-to-right: Tim Marin (2019 Section Chair), Russ Johnson*, Ken Fivizzani*, Paul Brandt, Sherri Rukes*, Bernie Santarsiero. Not shown: Josh Kurutz (photographer), Mark Cesa*, Susan Shih, and Mike Koehler*. *(* denotes ACS Fellow)*

Meetings were fun and productive

"Freewheeling and casual" is not exactly how one would expect strategic planning meetings fueled by industrial and academic professionals would be, but that's how they were. Loosely guided by Marin, the group shared their expertise and brainstormed solutions over coffee and donuts for hours at a time.

Rukes brought the fun. A celebrated high school teacher, she knew that team success would be assisted with brightly-colored post-it notes, giant flipchart paper pads, highlighter pens, and (personal favorite) scented markers. With these aids, we quickly transformed organizational ideas into physical objects, developed color-coding schemes, plastered the office walls with paper charts, and more.

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Creative solutions

Here's an example of how things worked: Committees were represented by individual post-it notes. The color of each post-its indicated whether it was a "standing committee" (meaning its existence was written in to either the Section bylaws, which are very difficult to change and require a long approval process from ACS National, or the Section policy declarations) or an "ad hoc committee" (meaning its existence was written into the policy declarations as a committee intended to have limited purpose and duration). Chairs of standing committees got one vote on the board, and chairs of ad hoc committees got one-half vote, making it complicated to tally votes. Physically pasting the existing structure on the office walls made it clear we should abandon the standing/ad hoc distinction and its complicated voting scheme.

Thinking back to the SWOT analysis of strengths, committees were grouped by themes, which developed into the current "Divisions". Big sheets of paper on the wall represented these groups, and committee post-its were moved around as needed, and the merits of their placements were discussed. Sometimes someone would hold a post-it and say, "You know, no one has done anything with this committee in many years. We need to either get rid of it or commit to making it good."

Seeing it all on the wall also made it obvious that the Section Chair's task of overseeing all the committees was too much for one volunteer. Some of the work had to be delegated. That led to the formalization of the Divisions (Administrative, Education and Outreach, Membership, Science, and Communication) and creation of the Division Coordinators. Russ Johnson introduced a management concept he referred to as "matrixing", in which Coordinators ensure the committees in their Divisions are getting their tasks done, but do not actually form a separate layer of management between the committee chairs and the Section Chair.

Sherri Rukes (L) lays out bright organizational materials with Russ Johnson (C) and Ken Fivizzani (R); May 25, 2019.

Formalizing

Marin presented the group's findings and recommendations to the Board at the August 1, 2019 Board meeting. The Board gave general approval to move forward and formalize the structure by rewriting the Section Bylaws and Policy Declarations. The Strategy Group drafted new documents that, critically, substantially limited the number of committees designated in the difficult-to-change Bylaws, thus giving the Section much more flexibility in the future. The Board approved the new scheme at the November 14 2019 Board meeting. The revised bylaws needed some additional adjustments at the behest of national ACS, and were given final certification by ACS Secretary Flint Lewis on December 17, 2020. The Chicago ACS formally began operating under the new structure on January 1, 2021.

Lessons and Opportunities – Get Involved!

The new structure has improved our organization's resilience in the COVID era, ensuring we continue to deliver for our members. This has been particularly true for our "Monthly"/Program meetings, which have seen increased attendance since going virtual, and our Younger Chemists and Women Chemists Committees, which have been pioneering online networking events and other activities.

This project also shows the benefits of getting involved in Section activities. The Strategic Planning Initiative brought together professionals with decades of high-level experience in an informal setting that would be difficult to achieve in any single company, university, high school, or other organization. If you think building such relationships to support chemistry-related projects would be worthwhile for you, please consider this a "call to service" and contact the Section to see how you can get involved yourself. Either contact the chair or leadership of specific committees you find interesting.

- Josh Kurutz, Section Historian

REGISTRATION for the Great Lakes Regional Meeting is now open at: glrm2021.org.

The ACS Great Lakes Regional Meeting (GLRM) is being hosted by the Minnesota Local ACS Section and will take place online (ACS Zoom platform) from SUNDAY, June 6 at 7 AM though WEDNESDAY, June 9 at 10 PM.

- **Early registration (before May 3rd)** will be $25 for all categories except 50-year members (free). After May 3rd registration is $30.
- The 2021 Great Lakes Regional meeting will also serve as the 2021 Central Regional meeting due to COVID complications and cancellations.
- A virtual career/graduate fair will be held at the meeting. Companies, colleges, and organizations will be represented at the fair.
- Symposia format: Flash talks will be offered in lieu of poster sessions. These live talks will be 7 minutes in length (3–4 slides) and grouped in pods. Once 4-6 flash talks are complete there will be a Q & A for all presenters in the pod.
- Talks by graduate students and postdocs will usually be 15 minutes in length while other presenters will have 25 minutes apiece.

2021 PROGRAM MEETINGS*

Friday, April 23
Friday, May 21
Friday, June 18

* Check chicagoacs.org for the most up to date information

2021 BOARD MEETINGS
Open to Section Members

Thursday, April 8 (new)
Thursday, May 6
Thursday, June 10
Thursday, August 5

UPCOMING EVENTS

Please refer also to the Section's website chicagoacs.org and Chicago ACS Section Social Media

April / May	ACS WEBINARS LINK
April 5–16	ACS Spring National Meeting: 2nd Century of Macromolecular Chemistry
April 18–23	AIChE 2021 Spring Meeting and 17th Global Conference on Process Safety
April 18–24	Chemists Celebrate Earth Week (CCEW) – Reducing Our Footprint with Chemistry
April 23	ACS Chicago Section Monthly Meeting – see pages 1 & 2
June 6–9	Great Lakes Regional Meeting (GLRM) - see above
June 14–18	25th Annual Green Chemistry & Engineering Conference (Virtual)

The theme of the conference, "Sustainable Production to Advance the Circular Economy" , directly links to U.N. Sustainable Development Goal 12, Responsible Consumption and Production, and reflects the role of chemistry and engineering in creating a closed-loop economy for a sustainable future. The conference will be fully virtual, with five days of live sessions, poster presentations and online networking opportunities.

August 22–26	ACS Fall National Meeting: Resilience of Chemistry
September 17	Gibbs Medal Award Dinner
October 22	Basolo Lecture and Dinner