

The Chemical Bulletin

A publication of the Chicago Section of the American Chemical Society



ACS Local Section
Chicago

CHICAGO ACS SECTION MEETING

Friday, March 20, 2020

5:30 - 9:00 PM

North Central College

Wentz Science Center, Naperville, IL

Annual Public Affairs Meeting

"An Evening with Sean Casten"

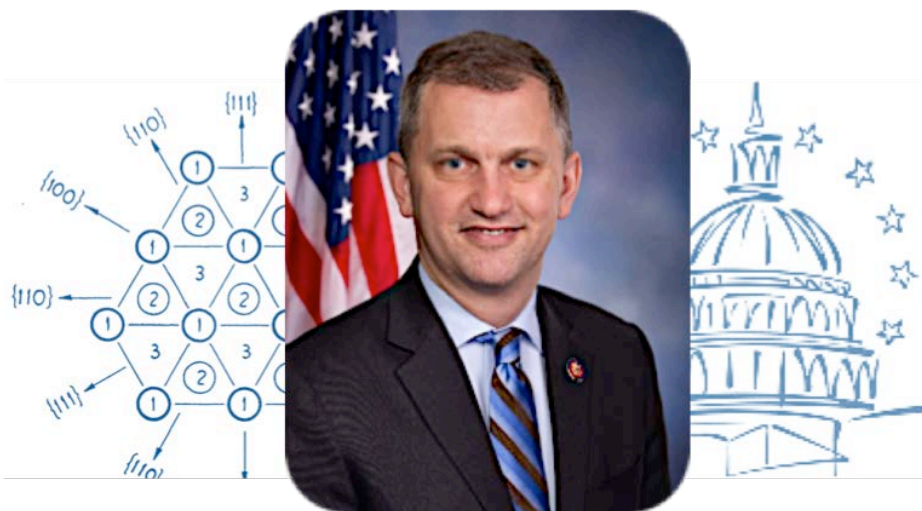
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U.S. Congressman Sean Casten

6th Congressional District of Illinois

Member of the House Committee on Science, Space & Technology

ABSTRACT: Congressman Sean Casten is a member of the U.S. House Financial Services Committee, the Science, Space and Technology Committee (logo on page 12), and the Select Committee on the Climate Crisis, and most importantly a scientist and engineer. His strong background and experience in science bring a fresh perspective to Congress on issues related to research funding and public policy related to energy and the environment. The Congressman will briefly present the status of public policy related to science, the environment, and research funding. Following his initial presentation, the Congressman will participate in a town hall style forum, allowing participants to ask questions related to public policy for science and the environment.

PROGRAM**Friday, March 20, 2020****Main Site: North Central College****Wentz Science Center****131 S. Loomis St. (2nd floor, Stevenson Hall)****Naperville, IL 60540****Parking is free at this location****Click for: [Directions to Meeting](#)**

- 5:30 - 6:30 Registration, Poster Session and Social Hour
- 6:00 - 6:15 Pre-dinner Presentation - Mike Koehler "Public Affairs and Advocacy"
- 6:15 - 7:00 Buffet Dinner (main site only)
- 7:00 - 7:15 Announcements and Safety Minute
- 7:15 - 8:00 Congressman Sean Casten

REGISTER for the meeting and dinner at:<https://chicagoacs.org/meet-reg1.php?id=152>**To register your poster (by 3/19) go to:**http://Chicagoacs.org/Form.php?Form_id=58&C=1**Buffet Dinner Registration Deadline****11:00 AM on Tuesday, February 18****Lecture-only Registration Deadline****11:00 AM on Wednesday, February 19****\$25 for ACS Members and Nonmembers****\$15 for students; \$0 for lecture only at both sites****\$15.00 T-shirt: CHICAgO Elements****\$10.00 Tote bag: CHICAgO elements - blue****Buffet Dinner Menu:**

Chermoula spiced chicken skewers with tzatziki sauce
 Kofta meatballs on tabbouleh with red chili tomato sauce
 Mini falafel with tahini sauce
 Lentil hummus with grilled pita chips
 Mezze grilled & marinated vegetables with hummus
 Marinated olives
 Baklava and Tiramisu

QUESTIONS OR NON-WEB RESERVATIONS?

Please contact the Section Office via phone
 (847-391-9091) or email (info@chicagoacs.org)

Parking, Maps, and Directions for**Streaming Location: [No charge to attend](#)**

Purdue University Northwest - Room 240 in the
 Gyte Building, 2200 169th St, Hammond, IN 46323

Map: http://chicagoacs.org/images/downloads/Maps_of_venues/purduenw_map.pdf

Visitors Guide: <https://www.pnw.edu/visitors-guide/maps/hammond-campus> **PARKING IS FREE / No dinner at this site.**

Presenter Biosketch: *U.S. Congressman Sean Casten* represents Illinois' 6th Congressional District, located in suburbs west of Chicago, and is serving as a freshman in the 116th Congress. As a scientist, clean energy entrepreneur, author, and now as a Member of Congress, Rep. Casten has dedicated his life to fighting climate change. In Congress, he currently serves on the House Financial Services Committee, the Science, Space, and Technology Committee, the Select Committee on the Climate Crisis, and is a Co-Chair on the New Dems Climate Change Task Force.

Rep. Casten earned a Bachelor of Arts in Molecular Biology and Biochemistry from Middlebury College in 1993, and then worked for two years as a scientist at the Tufts University School of Medicine in a laboratory investigating dietary impacts on colon and breast cancer. In 1998, he earned a Master of Engineering Management and a Master of Science in Biochemical Engineering from the Thayer School of Engineering at Dartmouth College. While at Dartmouth, he did fundamental research in thermophilic fermentation technology to produce cellulosic ethanol and engineering analyses of integrated ethanol, heat and power plants.

Rep. Casten worked as a clean energy consultant and manager at Arthur D. Little from 1997 to 2000. From 2000 to 2006, he served as the president and CEO of Turbosteam Corporation, which focused on utilizing energy recycling technologies to reduce greenhouse gas emissions by generating heat and power from previously wasted energy. In 2006, Rep. Casten co-founded Recycled Energy Development (RED), which focused on recycling wasted energy and converting energy facilities to cleaner, more economic uses. RED built, owned, and operated industrially-sited waste energy recovery plants throughout North America. RED was sold to Ironclad Energy Partners in 2016.

Rep. Casten was a founding chairman of the Northeast Clean Heat and Power Initiative, a nonprofit advocacy organization with a mission to advance policies that favor energy efficiency in the Northeast United States. He was a lead negotiator on the Massachusetts Interconnection Standard for the state's electric grid and participated in multiple utility rate cases. For his advocacy of clean energy policies and technology, Casten was named to the Chicago Council on Global Affairs' Emerging Leaders Class of 2011. Rep. Casten has authored a number of articles on clean energy technologies and the United States electricity grid, as well as energy policy and regulation. While working in Washington Rep. Casten is also committed to keeping in close contact with his constituents, believing in the benefit of hearing the views and ideas of all of the people he represents. Congressman Casten and his wife Kara live in Downers Grove with their two daughters.

Hydrogen Gas – Properties and Precautions

A "SAFETY FIRST!" MINUTE

This month's **Safety First!** discussion concerns hydrogen gas safety. It was prompted by a [preliminary report](#) released last month by the Chemical Safety and Hazard Investigation Board (CSB) describing the events leading up to a devastating May 2019 industrial accident in Waukegan, Illinois. Four workers were killed and another seriously injured in the fire and explosion at the AB Specialty Silicones company. The force of the explosion was felt more than 20 miles away and scattered debris over a wide area, causing at least \$1 million in property damage.

The CSB reports that explosive amounts of hydrogen (H_2) were likely generated as a result of a runaway reaction during the manufacture of a "[silicon hydride](#)" emulsion. (Silicon hydride refers here to a siloxane polymer containing Si-H bonds.

Silicon hydrides of this type react with acids and bases, as well as with metal catalysts, to generate hydrogen gas.) A cloud of flammable hydrogen gas mixed with air was dispersed throughout the facility when ignition occurred. The ignition source has not been identified.

Leaks, fires, and explosions involving hydrogen gas are all too common. Serious accidents resulting in severe injury and even death, as well as millions of dollars in damage, have occurred in industry and the transportation sector, as well as in chemistry, engineering, microbiology, and analytical research labs, and even popular chemical demonstrations. In one example of the latter, balloons filled with mixtures of hydrogen and oxygen were being transported by car for a demonstration when one of the balloons exploded. (Caution: This is NOT a recommended procedure!) The sound damaged the driver's hearing, causing permanent

hearing loss. Working with hydrogen under any conditions, even something as simple as using it as a detector gas for gas chromatography, requires comprehensive hazard and risk analysis and rigorous adherence to standard operating procedures. Risks may arise under unlikely circumstances, such as when removing the protective cap on a new gas cylinder.

The hazards of hydrogen gas are well known and contribute to its manifold risks. Hydrogen is extremely

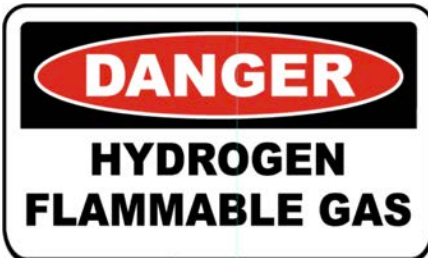
flammable and forms explosive mixtures with air over a wide range of concentrations, from 4–75%, and it has a low ignition energy, such that even invisible sparks and static charge can ignite it. Also, as the lightest gas (and element), hydrogen rises rapidly in air and dissipates readily. This latter property might

seem to mitigate the risk of fire or explosion when using hydrogen, unless the gas is released in an enclosed and unventilated area.

To illustrate the challenge of comprehensive risk analysis when working with hydrogen, consider the following statement that appeared on a popular website for chemical demonstrations: "The explosion of the mixture of hydrogen and oxygen is quite loud. Tests should be made prior to the demonstration to adjust the total volume in the balloons so that the sound of the explosion is tolerable in the room." How effective is this safety precaution likely to be?

Thank you for your ongoing support of our **Safety First!** initiative. Your feedback, comments, and suggestions are vital to its continued success.

Submitted by Irene Cesa



If you have an idea, an experience, or knowledge of a safety related matter that could be developed into a Safety First! Minute, please contact Irene at safety@chicagoacs.org

Letter from the Chair

At our most recent Board meeting we passed our revised Bylaws, which will now be sent on to the ACS Committee on Constitution and Bylaws (C&B) for approval. Once these are given the go-ahead, we can revise our Policy Declarations. Currently these documents are not particularly transparent to the members and so, upon approval, we will make sure that they are available to all members.

At the meeting we were also just informed that Dr. Michael Koehler is this year's recipient of the Distinguished Service Award for the Chicago Section. This award is

given to a member who deserves special recognition for a long period of distinguished service to the Chicago Section. Mike has been active in the section since 1988 and served as Chair in 2013. He has most recently been highly visible as the Chair of the Public Affairs Committee and has worked hard to give us our March speaker each year.

As you can see in this issue of the *Bulletin* we are fortunate to have Congressman Sean Casten, serving the 6th District, to be the speaker for the March Dinner Meeting on Friday, March 20 at North Central College. Please thank Mike for his

dedication and service to the Chicago Section the next time you see him.

The timing of the March Dinner Meeting is a bit inopportune since it occurs right before the National ACS Meeting in Philadelphia. I'm hoping that you'll be able to join Mike and me for the Dinner Meeting before heading off to the ACS Meeting. If not, maybe we'll see you in Philadelphia! Have a good month!

Sincerely,

Paul Brandt, Chair
pbrandt@noctrl.edu

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For additional information see:

<https://chicagoacs.org/board.php>
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<https://chicagoacs.org/Volunteer>



Bulletin Information

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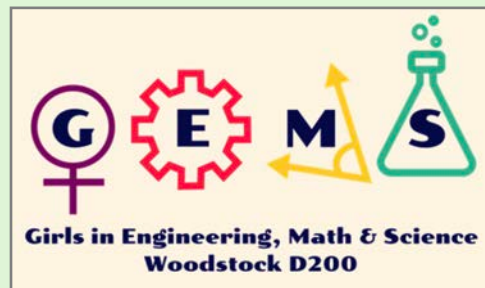
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Woodstock GEMS Career Expo Seeks Volunteers

GEMS stands for Girls in Engineering, Science, and Math. GEMS events have been held all across the state, and Woodstock District #200 High Schools are hosting their first one under the direction of 8th grade science teacher Deborah Dechant. Ms Dechant is seeking women in Math, Science, or Engineering careers that would be available and willing to share their insights at the morning Career Expo. She is expecting around 100 middle school girls who will soon be attending one of the Woodstock District #200 High Schools. Conference website: <https://www.woodstockschoools.org/domain/781>



When: Saturday, March 14, 2020 **Career Expo:** 8am - 9am

Where: Woodstock North High School, [3000 Raffel Rd, Woodstock, IL](#)

The Expo will be held in the gymnasium with an 8' table provided for each vendor. Setup can begin at 7:15 am.

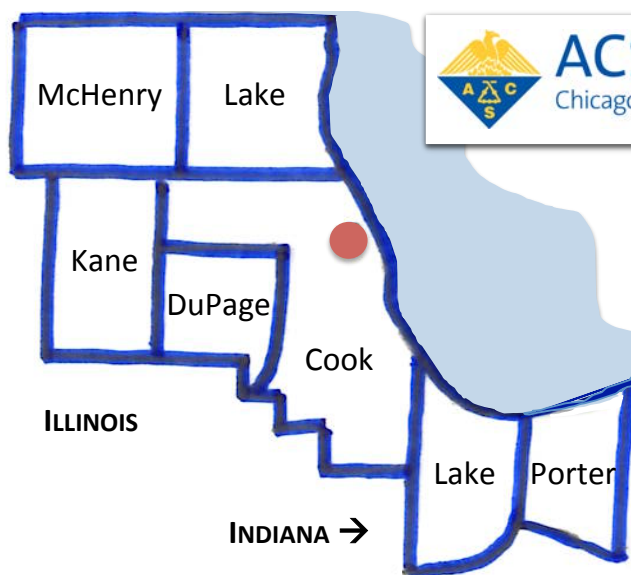
To volunteer to host a table at the Career Expo please contact Deborah Dechant at: ddechant@wcusd200.org

The Career Expo features booths where families can learn more about STEM-related careers, including the necessary skills girls need to be successful at the high school and college level. Girls will learn about careers by actively participating in hands-on sessions. These activities will be taught by women in fields such as structural design, polymers, technology, geology, and mathematics, and more. The girls really enjoy being able to visit a variety of booths and have fun when there are "hands-on" things for them to do or see. Each girl will be given a bag to collect "take-aways" after visiting exhibits. The Mission of GEMS is to ensure that a girl sees herself as a change agent or a problem-solver, a possible technology entrepreneur, engineer or a scientist, and as a person who makes a difference. GEMS encourages girls to pursue education and careers in all STEM fields, including technology, engineering, making and related high-paying, entrepreneurial enterprises.

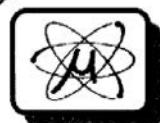
Early ACS Local Sections by Charter Year

1891	Rhode Island (#1)
1891	New York
1892	Cincinnati
1893	Lehigh Valley
1893	Chemical Society of Washington
1895	Chicago
1895	Nebraska
1895	North Carolina
1897	Columbus
1898	Northeastern
1899	Philadelphia
1899	Huron Valley

[Data from acs-local-section-map.pdf]



Counties of the Chicago Local Section



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ACS Electoral Districts I–VI





From the Editor's Desk

Dear Readers,

I've been thinking a lot about the history of the Chicago Section of ACS, thanks to the online availability of extensive bulletin archival material. See <https://chicagoacs.org> / NEWS / Bulletins. In fact, the origin and development of our section is quite fascinating. Take a moment to browse through some of the older issues and you will find, for example, records of program lectures, humorous letters, advertisements by the dozens, and accounts of wartime periods (and their aftermath).

In the early days of the Section, monthly meetings consisted of an informal dinner, the featured lecture of the evening, and finally, a selection of four or five "Group Meeting" talks for those interested in LABORATORY METHODS-INORGANIC, LABORATORY METHODS-ORGANIC, SYNTHESIS, or "BIOLOGIC", to name a few of the topics. Proceedings of the meetings were well documented in subsequent bulletin issues. From 1914 to 1917, meetings were held at the "College Inn" restaurant in the Hotel Sherman (at Clark and Randolph) near the loop. Subsequently, meetings took place at the City Club of Chicago (near State and Jackson), which today serves as the John Marshall Law School.

If you are planning to attend the ACS Meeting in Philadelphia, consider stopping by the Division of History (HIST) sessions. I'll be giving a talk on women chemists in the early days of the Chicago Section, as discovered through the lens of archival bulletin issues. I would also invite anyone who is interested to consider joining this division and contributing the fruits of your own research into the history of chemistry. How about looking into Chicago chemists in the armed forces during WWII, or the visit of Marie Curie to Chicago in 1921?

For their contributions to this issue I wish to thank Paul Brandt, Ilene Cesa, Josh Kurutz and Shanya Bjerke, Zafra Lerman, Rep. Sean Casten, Andrea Twiss-Brooks and the committees that worked on programming and arranging for the March meeting. Thanks also to everyone who contributed information on upcoming events relevant to our membership. Feel free to send along contributions for future issues, including "My Favorite Element," synopses of meeting programs, chemistry quips, archival pieces and so on. I hope you enjoy this issue. ~ M.E.S.

From the archives - January 1923

The chemical profession has long been handicapped by the lack of proper presentation of its activities to the public. The use of radio promises to be an important aid in overcoming this, and it is gratifying to note that chemistry is being given a place on radio programs.

Below are given the dates of talks to be delivered from the Daily News of Chicago Station by members of the Chemistry faculty of the University of Chicago.

Those chemists who have access to [radio] receiving sets will be glad not only to hear these talks themselves, but to call the attention of others to them.

February 20th—Professor Julius Steiglitz, "Chemistry and Medicine."

February 27th—Professor H. I. Schlesinger, "Radioactivity."

March 6th—Professor W. D. Harkins, "The Structure of Atoms."

February 1915

Receipt for Corrosion

During the past many years there has been considerable agitation along the lines of causes and means of prevention of corrosion in connection with the iron and steel implements of all kinds. The editor quotes the following receipt* to prevent rusting of iron given in the year 1790, from the proceedings of the American Society of Civil Engineers, August, 1914:

"Fry a middling eel in an iron pan, and when brown and thoroughly fried, express its oil and put it into a phial to settle and become clear in the sun. Iron annoited with this oil will never rust, although it lay in a damp place."

* A receipt is an older term that means the same as recipe. Both derive from the Latin word *recipere*, to receive or take. Receipt was first used in medieval English as a formula or prescription for a medicinal preparation.

(Reprinted from "Chicago Commerce," January 8, 1915):

"Americans look upon coal as a source of heat and light. But these are only parts of the uses the Creator designed. Brilliant colors for the dyers, and vast amounts of fertilizers for the soil are wasted in the smoke pouring out of the factory chimneys. The manufacture of coke alone involves the waste of as much nitrogen as agriculture now consumes."



Choreographing the Elements

Lawson Dance Theatre presents 'elemental'

Submitted by Shayna Bjerke and Josh Kurutz

Lawson Dance Theatre is thrilled to bring the Periodic Table of Elements to life in its latest production, *elemental*, an original ballet exploring the chemical elements in two acts: organic and inorganic. Founding Artistic Director Tiffany Lawson has teamed up with chemist Josh Kurutz, Past Chair of the Chicago Section of the American Chemical Society, to create something truly beautiful – a marriage of science and dance.

The performance will be held at **Stage 773 in Chicago** from

April 30 - May 3, and features a cast of six dancers, live music with original compositions, plus original costuming, props, lighting, and projection. See <https://www.stage773.com/show/elemental> for tickets and practical details.

Performance Highlights

Kurutz' interpretation of phosphorus as life's "energy starter" manifests itself in Lawson's choreography with a piece called "Energy," in which phosphorus (danced *en pointe*) exhibits quick, precise movements and initiates movement in the otherwise-still dancers. In "Arsenic," Lawson reveals the element's complexity by displaying both its hurtful and surprising healing qualities. She also explores the fun side of chemistry with lighthearted pieces like "Sugar," in which dancers *en pointe* portray bakers whipping up some cupcakes. In Kurutz' favorite piece, "Protein," the dancers link up, creating a chain that moves and breathes together – just as the elements form amino acid polymers with functionally important structure and dynamics. (The "Protein" piece was inspired in part by the work of [Dr. Zafra Lerman](#), Emeritus Distinguished Professor of Science and Public Policy at Columbia College, who used dancers to illustrate hydrogen bonding in the 1990's.)

Conversation between Josh Kurutz and Tiffany Lawson

K: How did you develop the idea for a dance about the chemical elements?

L: In an in-depth self-analysis, I realized the huge connection within my soul of the marriage of science and dance. And I remembered my days of AP Chemistry and how much I loved it. In college, I was one of the only weirdos in my arts program who chose to take a science-major class. I didn't have to, but I wanted to because I was fascinated by it.

Also, I feel it's very important to connect people to dance who wouldn't normally be connected, to show them the importance of dance, and the empowerment of dance. ... For me, by bringing in science – specifically chemistry – I felt very motivated that this was a huge untapped facet, and that surely I wasn't the only person interested in such a process.

K: Do you have a favorite element?

L: I thought I had one, but now I love them all. ... Aluminum surprised me. The fact that it used to be the most precious of the metals, and now you wouldn't think that. ... I'm fascinated by helium and the fact that there are elements that are becoming extinct. It goes back to deep in my roots of taking care of the earth, and your surroundings, and your environment, and making sure you preserve things that are precious, like helium.

(cont'd on next page)

Dancers and other artistic contributors

Aside from the new collaboration between choreographer and scientist, Lawson Dance Theatre has welcomed other artists to enhance the production. Dancers include Matthew Echevarra (H), Elizabeth Looby (C, Fe), Mary Waterman (N), Lola Schaefer (O, D), Cara Wedeking (P), and Una Tarpey (Al). True to its mission, the company is using live music and hired Nashville composer Brianna Bjerke to create the original composition. LDT is also joining forces with Maryland natives Paul Deziel for projection design and Christopher Brusberg for lighting design, DePaul University student Matthew Zalinski for prop design, and Michael Sherman for costume design.

Choreographing the Elements (cont'd from previous page)

Lawson attended last September's talk by IUPAC Former President Mark Cesa, "[How New Elements are Made and How They Get Their Names.](#)" She reflects on her experience below with Josh Kurutz.

L: I want to know more about the all the new elements – the "Uu's" that don't even have names yet. It was really interesting to hear Mark speak about the way that elements are created. That you can't create a new element just by a scientific protocol or a mathematical formula – you have to have that artistic, creative side, that I feel like I have as a choreographer, in order to make new elements.

K: Do you think dancers have an intuitive understanding of structure-function relationships?

L: Of course.

K: How does a dancer relate structure and function?

L: In dance, your structure, obviously, is your physical makeup. If your physical makeup isn't in a certain alignment to execute a certain dance phrase, or a dance element, or dance movement, then [it] won't come out correctly because the structure wasn't in place to begin with. ... As a dancer, sometimes you function first, then you figure out the structure that goes behind it. Especially when it comes to partnering, or multiple dancers. I think probably in chemistry sometimes you learn how things are working, then you go back to figure out why it worked that way.

K: How did you connect with a chemist?

L: I knew that to make [elemental] what I wanted, I needed the expertise of a chemist. [Our board of directors was] talking about which avenues to reach out to, including my high school chemistry teacher and local universities. One of our board members, Hillary Sandrock, was so graciously amazing, she reached out to the ACS and found you. She's a food scientist and a member of the ACS who reads your newsletters.

K: Yes, Sandrock sent an email to chair@chicagoacs.org, and Tim Marin, our Chair last year, alerted the Chicago ACS board of the opportunity. I got very excited, and of course responded YES, sign me up!!



From the Archives

January 1923

**"WHEN RUBBER WAS
YOUNG"**

It is interesting to recall occasionally the beginnings of some of the articles which we now class as necessities of life. The following letter relates to some of the early experiments on the vulcanization of rubber performed by the pioneer in this field. No doubt his alternate hopes and fears as to the success of his experiments have many a counterpart in the feelings of every chemist towards his work. The letter is from a collection by F. H. Sweet, Chemist, Armour Grain Co., and was forwarded by C. S. Miner. —ED.

Boston, 24th June, 1839.

Prof. Silliman.

Dear Sir:

In consequence of the rain I did not call on you again as I intended.

The facts I wish to explain in relation to the gum as lately improved are as follows, viz.:

That it does not stiffen by severe cold. That it does not melt like the native gum, but with extreme heat is only carbonized. I believe it cannot be melted with any heat unless brought in contact with fire.

That it is not destroyed by fire as easily as leather. If you can without too much difficulty ascertain at what temperature the native gum of the same thickness is melted and what degree of heat will destroy this article,

and also leather, it will place the subject as I think in a proper light.

Something of this sort with any remarks you are pleased to make as to the importance of these particular qualities I shall be happy to receive from you as early as convenient.

I hope you will take no offense at the small amount inclosed [sic] as it is not intended as any equivalent for valuable services. It is only to make a beginning and I am greatly mistaken if we differ in the end as to such matters.

I will ere long forward you the assortment for experiment to remove the smell.

I am, dear sir,

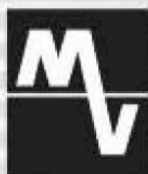
Yours truly,

(Signed) CHARLES GOODYEAR

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Project SEED

A Paid, Hands-on, Internship Program for High School Students

Project SEED (Summer Experiences for the Economically Disadvantaged) is an American Chemical Society (ACS) internship program for high school students. Each summer, 400+ students across the United States and U.S. Territories are matched with mentors/research advisors at university, industrial, and government labs for 8-10 weeks. Over 11,000 students have participated in the program since 1968.

Student Eligibility Requirements

- Interested in chemistry/science
- Qualify as low-income based on program criteria (refer to website for more information)
- Successfully completed at least one course of high school chemistry
- Note that some sites may require students aged 16 or older

Why You Should Apply

- Get meaningful, hands-on, lab experience in a university, government, or industry setting
- Learn about potential chemistry-related careers and see first-hand how scientists do their work
- Use the experience to build your college personal statement and recommendation letters
- Apply for college scholarships that can award up to \$20,000 for 8 college semesters
- Earn at least \$3,200 for 8-10 weeks of work, ~40 hours per week

What to Expect

- Work on a scientific research project under supervision of a mentor
- Mentors will help students meet research objectives, give feedback, and foster growth
- Students must be able to commute to the lab site daily (no overnight/sleep-away accommodations)
- Opportunities to present research poster at local and national ACS meetings
- Opportunity to return for a second summer of research and receive \$3,800 stipend

College Scholarships

- Students must complete at least one summer of Project SEED and submit an application
- Students must intend to pursue a chemistry-related major and career to be eligible
- One year and multi-year scholarships worth up to \$20,000 over 4 years

How to Apply

- Create an online profile at www.seed.acs.org
- Complete the online application and follow up with any site-specific requirements (such as interviews, essays, transcripts, etc.)
- If you have any questions reach out to our office at projectseed@acs.org

1155 16th Street NW, Washington, D.C. 20036
Phone: 1-800-227-5558 (ext. 4380)
Email: projectseed@acs.org
Website: www.acs.org/projectseed



**\$3,200
Stipend**



**Apply
Online
March 1
-April 30**

NANCY GOROFF - CHEMIST FOR CONGRESS

Zafra Lerman

In the American Chemical Society, we have been saying for many years that we need Ph.D. chemists in Congress, but until now, we did not even have a candidate. We are now lucky that Nancy Goroff, Chair of the Chemistry Department at the State University of New York, Stony Brook, has decided that it is her responsibility and obligation to be the voice of science in general, and chemistry in particular, in the US Congress. After being a research chemist for many years, a professor, and chair of her department, she felt a calling to public service to save our planet, which is in danger. She decided to leave her comfortable university position and run for the US Congress in order to educate the 434 members who don't have the knowledge to deal with climate change, nuclear waste, renewable energy, access to clean water for all, and medical research.

Nancy has particularly deep roots with the Chicago Section of the ACS. In 1984, as a student at Oak Park and River Forest High School, she won first place in the Chicago ACS annual competition for high school sophomores taking their first chemistry course. The competition came with a \$1,500 college scholarship, with the only requirement being that she take at least one chemistry course in college. Because of that requirement, Nancy said, "I knew early on I would be studying chemistry in college, and I think it had a significant effect on my decision to major in chemistry, and ultimately to become a chemist. I am very grateful to the Chicago ACS for starting me on my path and encouraging my love of chemistry."

Having set Nancy on the path of Chemistry, let's support Nancy in this next, bold venture to become the only Chemist in Congress. You can learn more about her campaign online at www.goroffforcongress.com. I hope that all of you will donate to Nancy's campaign so we can finally have a Ph.D. Chemist in Congress.



From right to left: Congressman Bill Foster (the only Ph.D. in science in Congress), Congresswoman Jan Schakowsky, Dr. Nancy Goroff (running for Congress), and Esther Saks, who hosted an event in Chicago on February 20, 2020.

Join the Chicago Women in STEM Initiative on Tuesday, March 10th for Their Symposium "Advancing Tomorrow's Women Leaders"

9 am – 6 pm at Northwestern Medicine Prentice Women's Hospital, 250 E Superior St, Chicago, IL 60611

Space is limited so register now at: <https://chicagowomenstem.org/2020-symposium/>

WHAT WILL YOU LEARN?

- Presentation and a workshop on **Leadership and Negotiation**, focusing on tools for negotiating difficult conversations in the workplace (salary and benefits negotiations, research project parameters, hiring and firing, interrupting gender bias).
- **Career and Professional Development Fair**, attendees will have the opportunity to interact with representatives from our partners in industry, academia, law, and local non-profits.
- Exceptional women leaders in STEM will share their experiences and motivations along their career path in short talks.
- **Keynote Presentation by Jhaymee Tynan**, Assistant Vice President, Integration, at Atrium Health, Charlotte, NC.
- Participants will interact directly with their peers, invited speakers, and facilitators, as well as **Local Women Leaders** in STEM at the closing networking reception. Women in STEM website: <https://chicagowomenstem.org>

CHICAGO ACS SECTION MONTHLY MEETING DATES (PROPOSED)

FRIDAY, MARCH 20

FRIDAY, APRIL 24

FRIDAY, MAY 15

FRIDAY, JUNE 26

TEACHERS!

**All K-12 Educators Can
Receive Continuing
Education (CE) Credits
For Attending Our
Monthly Meetings.
Obtain Your CE Form at
the Registration Desk.**



NEXT MONTH: April 24, 2020 Meeting Speaker Rao Kotmarthi, Chief Scientist / Departmental Head for Atmospheric Science and Climate Research, Argonne National Laboratory

At the University of Chicago, Dr. Kotmarthi is a senior fellow at the computational institute and also holds a position as an expert at the Energy Policy Research Institute (EPIC). He has PhD in Chemical and Biochemical Engineering from the University of Iowa and holds a certificate in strategic laboratory leadership from the Booth School of Business, University of Chicago. Dr. Kotmarthi has nearly 30 years of experience in regional- and global-scale modeling of Air Quality and Atmospheric Composition, Data Assimilation, Radiative Transfer and Climate. His work leverages high-performance computing and applied mathematics to develop models for environmental problems.

If you are a fan of both coloring and chemistry, grab those colored pencils (a product of chemistry!) and add your own artistic embellishments to items from the Science History Institute's collections of fine art, alchemical illustrations, periodic tables, and more.

From the archives: December 1914

Robert F. Carr, who advertised his candidacy in the October issue of the "Bulletin," was not only duly elected Trustee of the University of Illinois on November third, but ran thirty thousand ahead of his nearest competitor in Cook County. Moral: Advertise in the "Bulletin."

Logo for the House Committee on Science, Space & Technology on which Representative Sean Casten serves



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<https://twitter.com/chicagoacs>



OTHER EVENTS IN 2020

March 1-5 (Sunday - Thursday) – PITTCON at McCormick Place, Chicago. Register at: <https://pittcon.org/pittcon-2020/>

March 10 (Tuesday, 9:00 am – 6:00 pm) – Chicago Women in STEM Initiative: "Advancing Tomorrow's Women Leaders" Prentice Women's Hospital, 250 East Superior, Chicago. Register at: <https://chicagowomenstem.org/2020-symposium/>

March 14 (Saturday) – GEMS Conference in Woodstock, IL is looking for women in science careers for Expo (8 – 9 am). For more information see page 5 or go to: <https://www.woodstockschoools.org/domain/781>

March 22-26 (Sunday - Thursday) – ACS National Meeting in Philadelphia, "Macromolecular Chemistry"

April 19-25 – Chemists Celebrate Earth Week 2020, "Protecting Our Planet Through Chemistry"