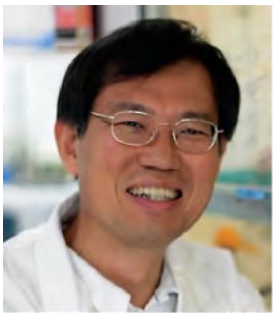
Volume 113, No. 9 November 2026

# THE CHEMICAL BULLETIN

Chicago Section of the American Chemical Society Newsletter

## Program Meetings for November 2026



### Basolo Medal Lecture
### Friday, November 6, 2026

4:30–5:30 PM
Northwestern University
Tech Lecture Room 3 (LR3)
2145 Sheridan Road
Evanston IL 60208 Directions

**Professor Kimoon Kim**
Pohang University of Science & Technology, South Korea

**"From Supramolecular Materials to Sound-Controlled Chemistry: A Journey in Chemical Innovation"**




***2026 Fred Basolo Medal for Outstanding Research in Inorganic Chemistry***

**Program Agenda**

4:15 PM Refreshments
4:30 - 5:30 PM Lecture
6:30 PM Reception & Dinner
Hilton Orrington, Evanston

The lecture is free and open to the public
Free parking in the lot across the street after 4 PM.
Dinner reservations have closed.



### Monthly Meeting (Hybrid)
### Friday, November 20, 2026

5:30–8:30 PM
Roosevelt University
1400 North Roosevelt Road
Schaumburg IL 60173
Directions

**Professor Angela K. Wilson, Past ACS President**
Vice President for Research and Professor of Chemistry
Texas A&M University

**"Chemistry, Discovery, and the Future of American Science"**

**Program Agenda**

5:30 PM Check In / Social Time
6:00 PM Buffet Dinner
7:00 PM Announcements
7:15 PM Presentation and Q&A
8:15 PM Closing Remarks / Raffle

**REGISTER HERE for dinner**
**by Noon on Wednesday, NOV 18**
Chicago ACS members $25
Guests / Non-Chicago ACS members $30
All Students / Postdocs $15
The lecture is free and open to the public.
Register online to receive Zoom link.

**Menu —** House Salad, Garlic Breadsticks, Create Your Own Pasta Station: 2 pastas (Spaghetti and Fettuccine), 3 sauces (Alfredo, Meat Sauce, Marinara), 3 toppings (Grilled Chicken, Meatballs, Italian Sausage), Assorted Cookies, Coffee/Tea/Lemonade/Water.

**QUESTIONS?** Please contact the Section Office by phone (847-391-9091) or email (info-at-chicagoacs.org).

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For more on the chemistry of Thanksgiving dinner, be sure to watch Prof. Diane Bunce's classic YouTube video.




CHAIR'S COLUMN

# With Gratitude to ACS Members



As one of the largest scientific associations in the world, ACS celebrated 150 years with the theme "Chemistry is Everything." The next to the last monthly theme of ACS, gratitude reminds and honors members of the past who provided current, energetic and enthusiastic members with a strong scaffold for members-to-come to build Chemistry in the Future. Serving as Chair of the ACS Chicago Section, I would like to express my gratitude to who tirelessly devote their time and efforts to ACS: those who actively research in the lab, who educate young chemists, who prepare programs for local and national meetings, who organize our awards ceremonies and social gatherings, who highlight Chicago chemistry particularly at the recent conference, who serve on the Board, and who work in the office. I appreciate everyone for everything you invest in chemistry. I am grateful for the opportunity to serve as Chair, to meet you all in action, and to share the common mission: Chemistry is Everything.

Happy Thanksgiving. Thank you for your trust, loyalty and support. ACS is successful because of you.

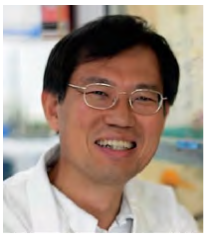
—AMY BALIJA

*Image: Amy Balija at the American Chemical Society Council Meeting (August 2026) proclaiming a resolution thanking 2026 ACS President Rigoberto Hernandez.*

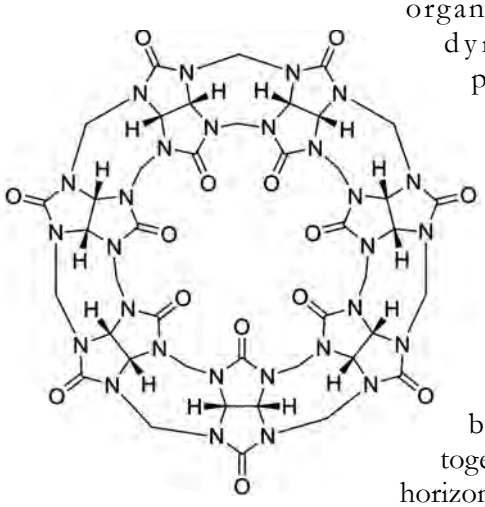
UPCOMING PROGRAM

# November 6, 2026 – Basolo Lecture

MEET THE SPEAKER: **Kimoon Kim** is an internationally recognized authority in the field of supramolecular chemistry who has authored or co-authored over 335 papers. In particular, he has been working on a variety of functional materials based on cucurbiturils (pumpkin-shaped macrocyclic molecules) and metal-organic porous materials useful for catalysis, separation and gas storage. His 2000 *Nature* paper, which reported the synthesis of homochiral nanoporous crystalline materials using self-assembly and an application for a chiral catalyst, was selected as one of the 35 most notable papers in the field of chemistry published in *Nature* between 1950 to 2000—a list that included Watson and Crick's DNA structure and Nicolaou's total synthesis of Taxol. Kim was elected a member of the Korean Academy of Science and Technology (2000), and he has numerous honors including the Korea Science Prize (2001), the Hoam Foundation Prize (2006, Samsung), and the Izatt-Christensen Award (2012). He was selected by UNESCO as one of the world's top 100 chemists during the International Year of Chemistry (2011). He has served as an advisory editorial board member of several journals, as chairman of the ACS Inorganic Chemistry Division (2009), and as vice-president (2010) of the Korean Chemical Society. Since 1997, he has headed the Center for Smart Supramolecules supported by Creative Research Initiatives and later by the Acceleration Research program sponsored by the Korean Ministry of Education, Science and Technology (MEST). Until recently he was in charge of the Division of Advanced Materials Science, launched in 2008 with support from the World Class University project of MEST. Kim was named director of the Center for Self-assembly and Complexity, Institute for Basic Science in 2012 by the Korean government.



ABSTRACT: Chemistry, at its heart, is a creative endeavor—the pursuit of new ways to control matter and energy. My journey began at Northwestern University, where discussions with Prof. Fred Basolo and mentors at the BIP (Basolo-Ibers-Pearson) Saturday morning meetings shaped my outlook on chemistry. At the Pohang University of Science & Technology (POSTECH), my group has advanced supramolecular chemistry through cucurbiturils (see structure below), porous frameworks, and self-assembled nanostructured polymers—each representing new strategies to build and organize matter. Most recently, we discovered that audible sound can be harnessed to orchestrate chemical reactions in space and time. Sound-induced liquid vibrations modulate gas dissolution and molecular organization, enabling dynamic chemical patterns and the regulation of complex processes in surprising ways. In this lecture, I will reflect on these experiences and share how supramolecular design and sound-based strategies together may open new horizons for chemistry and materials science.





Happy Thanksgiving to All



"Cucurbituril pie, anyone?"



*Image credits: (left) pexels-jill-wellington-1638660-5358864, (right) Margaret Schott*

UPCOMING PROGRAM

# November 20, 2026 – Program Meeting (Hybrid)

MEET THE SPEAKER: **Angela K. Wilson** is an internationally recognized leader in theoretical and computational chemistry whose research program advances quantum chemical methods toward an understanding of molecular structure, spectroscopy, thermochemistry, and chemical reactivity. Her group develops quantum mechanical methods with an emphasis on transition metals and heavy elements, and quantum dynamics including a focus upon polaritons (hybrid light-matter particles). Wilson's research spans environmental science and drug discovery, with substantial work on polyfluoroalkyl substances (PFAS). While at Michigan State University, she founded and served as inaugural director of the Center for Quantum Computing, Science, and Engineering, founded the Midwest Quantum Collaboratory. She is a leader of QuSTEAM, an NSF-supported national initiative that is now an independent nonprofit organization providing training materials and support for faculty. She serves on the QuSTEAM Board of Directors and on the Board of Advisors of the quantum computing company EeroQ.

As Vice President for Research and VPR Research Chair at Texas A&M University, Wilson leads a $1.4 billion annual research enterprise. Previously, she served as Director of the Division of Chemistry at NSF, where she oversaw the agency's chemistry research portfolio.

Wilson is a Fellow of the American Chemical Society (ACS), the American Physical Society (APS), and the American Association for the Advancement of Science (AAAS). She serves on the Board of Directors of APS and is a National Associate of the U.S. National Academies. Among other honors, she received the ACS Garvan–Olin Medal in 2015. She served as President of the American Chemical Society in 2022.



ABSTRACT: Chemistry is central to scientific discovery, technological innovation, and our ability to address society's most pressing challenges. Yet the scientific enterprise is evolving rapidly, shaped by advances in artificial intelligence, changing research priorities, and shifts in federal science policy. As the United States pursues a new era of science, important questions arise about how fundamental research is supported, how discoveries are translated into practical applications, and how the next generation of scientists can be prepared to meet emerging challenges.

Shifts in federal priorities are reshaping the research enterprise and are raising important questions about the future of American science. What is the enduring value of fundamental research? How should growing expectations for practical outcomes be balanced with the need to sustain scientific creativity and long-term discovery? And how can the scientific community respond to national priorities while preserving the curiosity that drives new knowledge? These questions invite us to consider how we, as chemical scientists, can help shape research priorities, communicate the value of fundamental science, mentor future generations, and influence the direction of American science in this rapidly changing environment.

Drawing on her own scientific journey, Angela Wilson will connect these broader questions to the experience of pursuing discovery across different areas of chemistry, reflecting on the opportunities, challenges, and responsibilities of scientists in shaping the future of not only our discipline, but also the future of American science.

A World Built On Science

ACS

**CHEMISTRY FROM 100 YEARS AGO:** "Several hundred chemists convened last week in Philadelphia for the Golden Jubilee of the American Chemical Society (*Time*, Sept. 13, 1926) and it was along the lines of synthesis that much of their talk ran. … Prof. Paul Sabatier, faculty dean of Toulouse University, described the personality and performances of Marcellin Berthelot (1827-1907) under whom he had worked at the College de France. Berthelot it was who first prepared "organic" compounds (containing the inevitable constituent of living matter, carbon) from their constituent elements: hydrogen, oxygen, carbon. It seemed then as if Chemist Berthelot had made life from dead matter though nowadays the things he made, benzene, alcohol, etc., are regarded more calmly."

# The Chicago ACS Election Is Underway!

The annual election of officers, directors, councilors, and alternate councilors is scheduled to launch Monday, November 2. The election **ends 11:59 AM Sunday, November 15**. You are welcome to review the candidate information any time on this web page:

https://chicagoacs.org/election2026_candidateinfo

We present here the slate of candidates produced by the Nominating Committee for the Chicago Section. The Chair-Elect platform statement and biography can be found in this issue of the *Bulletin*.

Eligible members will be notified by email with specific information about how to log in and cast their ballot. **Emails will come directly from our online voting platform, AssociationVoting.com, not from the Section**. The outcome of the election will be shared with section members on the Chicago Section website, chicagoacs.org. Those elected will take office in January 2027.

*LOGGING IN AND VOTING:*

Please CHECK YOUR EMAIL INBOX for a message from "announcement–at–associationvoting.com" with the subject line "Cast Your Vote in the 2026 Chicago ACS Election". Please check both your Inbox and (because it was a mass emailing) your Junk mail. This email contains your ***election-only* login information**, which you must use to enter the voting platform.

Once you have logged in and can see the ballot, perform THREE STEPS to make your choices actually count:

(1) Make your selections. You are not required to vote in every race or make the maximum number of selections. The software prevents you from mistakenly over-voting (making too many selections in a race).

(2) Click the "Preview ballot" button at the bottom to review all your selections and make sure they correctly reflect your intentions.

(3) Click the "**CAST BALLOT**" button to actually cast your ballot. Your selections are not recorded as votes until you click "Cast Ballot".

*DIDN'T RECEIVE YOUR VOTER EMAIL?*

Your email may have been blocked. To UNBLOCK/RESUBSCRIBE, navigate to this Resubscribe Request link:

https://tinyurl.com/resubscribe-av

IMPORTANT: In the field called "Election Name/Abbreviation", type "chicagoacs".

HELP: Contact the Section office at office-at-chicagoacs.org and elections-at-chicagoacs.org.

Happy Voting!

| | Candidates |
|---|---|
| **Chair-Elect** | Ilana Lemberger |
| (Vote for 1 or write in) | Write in on ballot |
| **Vice Chair** | Josh Kurutz |
| (Vote for 1 or write in) | Write in on ballot |
| **Secretary** | Mike Koehler* |
| (Vote for 1 or write in) | Write in on ballot |
| **Treasurer** | Russ Johnson* |
| (Vote for 1 or write in) | Write in on ballot |
| **Director** | Daniela Andrei* |
| (Vote for up to 7) | Karina Bahena |
| | Sharada Buddha |
| | Leslie Castillo |
| | Lilly D'Angelo |
| | Raihan Febryanto |
| | Nicolas Gerst |
| | Rebecca Haley |
| | Claire Kennedy |
| | Gaby Martinez-Ramirez |
| | Xiolmara Martinez |
| | Eric Mertz |
| | Andrea Twiss-Brooks* |
| | Mark Zhen |
| **Councilor** | Russ Johnson* |
| (Vote for up to 4) | Fran Kravitz* |
| | Ilana Lemberger |
| | Andrea Twiss-Brooks |
| | Gowri Kuda-Singappulige |
| **Alternate Councilor** | Daniela Andrei |
| (Vote for up to 3) | Avrom Litin* |
| | Rebecca (Becky) Sanders* |
| | Madelyn Smith |

** incumbent*

# 2026 Chair-Elect Platform and Biography

**ILANA LEMBERGER**

I am honored to be nominated for Chair-Elect of the ACS Chicago Local Section. With more than a decade of dedicated service, including leadership roles as Program Chair, Director, Alternate Councilor, and Women Chemists Committee Co-Chair, I am passionate about advancing our mission, strengthening member engagement, and inspiring the next generation of chemical professionals.

As the recipient of the 2026 ACS Chicago Section Emerging Star Award, I am grateful for the opportunity to serve our vibrant scientific community. Throughout my leadership tenure, I have championed innovative scientific programming, professional development, educational outreach, and meaningful connections between academia and industry.

As a result of my global pharmaceutical and life sciences experience, including my recent participation at CPHI Milan 2026, I bring an international perspective and extensive professional network to our section. I will leverage these connections to attract distinguished speakers, showcase emerging scientific innovations, and foster collaborations that expand opportunities for our members.

My priorities include strengthening industry-academic partnerships, expanding student and early-career engagement, promoting chemical literacy, and increasing ACS Chicago's visibility locally, nationally, and internationally.

As Chair-Elect, I will lead with enthusiasm, collaboration, and a commitment to ensuring our members feel valued, connected, and empowered. Together, we can build on our section's proud legacy while shaping an innovative, inclusive, and inspiring future for chemistry in Chicago.



**ACS member since:** 2010.

**Professional experience:** Customer Success Manager, Pharma, Chromatography and Mass Spectrometry, Thermo Fisher Scientific 2020-2025; Research and Development Laboratory Manager, Old World Industries 2019-2020; Senior Research Scientist (Contractor), Becton Dickinson 2018; Chemist, Fresenius Kabi 2016-2017; Chemical Products Chemist, W. R. Grace and Company 2007-2016.

**Education:** MS Analytical Chemistry, Illinois Institute of Technology; BS Biological Science/Spanish, University of Illinois.

**Chicago Section experience:** Program Chair; Alternate Councilor; Director; Program Arrangements Committee; House Committee; Women Chemists Committee; Nominations Committee; Younger Chemists Committee.

**National & Divisional ACS Service:** Participated in Council Meetings; member of the Division of Analytical Chemistry; Business Development; Women Chemists Committee; Younger Chemists Committee.

**Non-ACS Service:** Iota Sigma Pi; Malta Conferences Foundation.

**Awards:** Chicago ACS Section 2026 Emerging Star Award.

https://www.linkedin.com/in/ilanalemberger

**MORE CHEMISTRY FROM 100 YEARS AGO:** The

Golden Jubilee Fall 1926 ACS Meeting in Philadelphia.
"Irénée du Pont, vice chairman of the E. I. du Pont de Nemours & Co., in the course of his remarks on the dyestuff industry, strayed into the future to propose that chemists could and should discover catalytic chemicals that would counteract the muscle poisons which we now have to sleep off. Instead of going to bed for the night, one would have a shot in the arm or a pink pill, change his shirt and bid every one 'Good Night' with a cheery morning smile. Other chemicals—not to call them drugs—might be evolved for stimulating mental activity without

PAST EVENT

# Education Night at Truman College

What an unforgettable American Chemical Society – Chicago Section Education Night!

A heartfelt thank you to everyone who joined the Chicago ACS Section at Harry S. Truman College on Friday, September 17 for an inspiring evening celebrating education, science, and the next generation of STEM leaders.

We were honored to welcome Jennifer Kopach, CEO of **Science Olympiad, Inc.** and the Science Olympiad USA Foundation, and Jolly Patro, Science Olympiad Alumni Research award winner, of the Northwestern University Department of Chemistry, for our fireside chat on the topic of "Inspiring the Next Gen in Chem". Their insights reminded us how powerful mentorship, access, and encouragement can be in shaping a young person's future.

Thank you to our students, educators, ACS members, community partners, volunteers, and guests for bringing such wonderful energy and enthusiasm. Also, I am deeply grateful to my Chicago ACS colleagues and everyone behind the scenes whose dedication made the evening possible. Events like this succeed because of teamwork—and this team truly delivered!

As Program Chair, it was a privilege to help bring us together for an evening filled with meaningful conversations, new connections, and a shared commitment to advancing science education.

The College Education Committee hosted a poster session at Education Night. Six undergraduate students from four different universities presented posters, as did one Project SEED participant. The poster presented by Akin Fatoke of Truman College was judged by a panel of three judges to be the Best Poster. Mr. Fatoke was the recipient of a $50 Amazon Gift Card.

Winners of scholarships (see previous issue) were also recognized during the meeting. Ilana Lemberger was awarded a plaque honoring her achievement as Chicago Section Emerging Star for 2026. In addition, the Teacher Excellence Award plaque was given to WenHua Deng, who thanked the Chicago Section with a moving speech expressing her deep gratitude (see next page). Russ Kohnken coordinated the award selection team. All those receiving awards took home Chicago Section bags of "swag".

Thank you for coming, supporting our mission, and helping us inspire the next generation of scientists. I hope you left feeling as energized and hopeful as I did that evening!

Congratulations again to all the student award winners!

—ILANA LEMBERGER

with contributions from BOB CHAPMAN




Presenter-panelists (left to right) Jolly Patro and Jenny Kopach. *Image credit: Ilana Lemberger*




Continuing the sesquicentennial celebration!



Chair Amy Balija with 2026 Emerging Star Awardee Ilana Lemberger. *Image credit: Milt Levenberg*

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PAST EVENT

# Education Night at Truman College

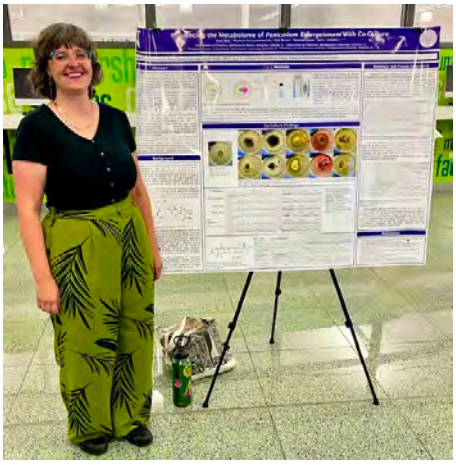
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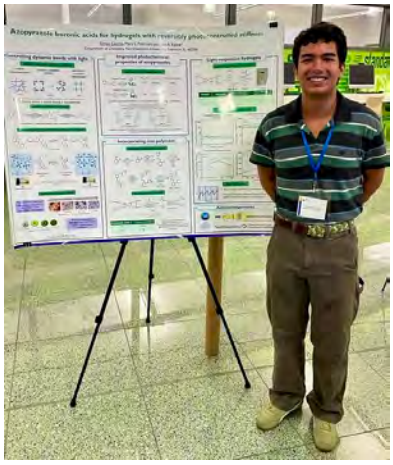



Panelists (from left) Jolly Patro, Jenny Kopach, Ilana Lemberger, and Amy Balija.




WenHua Deng receiving the Teacher Excellence Award, with (l. to r.) Matt Van Duzor, Bob Chapman, and Russ Kohnken.







From left: Poster presenters Kate Peltz of Northeastern Illinois University and Tomas Castillo of Northwestern University; Prof. Charles Abrams (Truman College) with poster award winner Akin Fatoke (Truman College), Bob Chapman, and Amy Balija.



Scholarship and annual scholarship exam winners with Chicago Section officials.



*Image credits: Ilana Lemberger, Milt Levenberg, Bob Chapman*

# Teacher Excellence Award




The Chicago ACS High School Education Committee has selected **Ms. WenHua Deng** of Chicago's Whitney M. Young Magnet High School as the 2026 recipient of the Award for Excellence in High School Teaching of Chemistry. Ms. Deng has been teaching at Whitney Young for the past seven years and espouses a rigorous program of scientific inquiry while developing curiosity about the world in her students. Ms. Deng supports her students' path to excellence with formative exercises, real-world experiences, and the nurturing of a caring mentor.

Over the past several years, students have continually improved in their performance in her Advanced Placement (AP) Chemistry classes and have participated in the U.S. National Chemistry Olympiad and International Chemistry Olympiad competitions. Ms. Deng supports STEM activities as the Team Sponsor of Whitney Young's Chemistry Competition Team and as Sponsor of the Garden Club and the Asian American Students Club. It was our pleasure to recognize Ms. Deng at Education Night with a framed certificate and $1000 monetary award.

The ACS Chicago Section shared high praise for her impactful work, stating: "As always, there were a number of very strong candidates. We were impressed not only by WenHua's classroom strategies, teaching philosophy, and the growth in her students arising from her leadership, but also the passion exhibited by both former students and parents in support of WenHua."

—RUSS KOHNKEN

*Image credit: Whitney Young High School*

## FROM THE EDITOR'S DESK

As readers will notice from this issue—and from the Chicago Section social media postings and website—there is a lot going on! In addition to our monthly program meetings, volunteers have been planning and hosting high-quality events for various chemist-cohorts, including youngsters and younger scientists. Recent programs have featured an evening mentoring and networking for college-age students (next issue) and an inside look into the workings of the Science Olympiad.

Importantly, Please take a few moments to cast your vote at the easy-to-navigate online system we have been using for several years now. The fall election will determine the Section's officials for 2027. Can we try for a higher turnout than the recent national ACS election, which was 10.8% of eligible voters?

Included in these pages is the second and final part of Dr. Chandra Man Karki's piece on the RAMP Framework for laboratory safety. The article offers well-researched information and fresh insights into relevant—and potentially life-saving—practices.



The bulletin's "run" of puzzles and games continues with an original crossword written by Amy Balija, our endlessly creative Chair. Ever since the origin of this genre in 1913, crossword puzzles have appeared in chemistry and engineering journals and newsletters. Did you know that the original term applied was "word-cross"?

Finally, in this season of giving thanks, I am grateful to our energetic program planners, prolific event photographers, scholarship exam specialists, outing and outreach organizers, article authors, and election engineers—and the teams of volunteers making it all unfold in real time. If you wish to submit an article or topic idea, please contact me at editor-at-chicagoacs.org. To volunteer for your favorite facet of Section activities, please contact chair-at-chicagoacs.org. Thanks for reading.

—MARGARET SCHOTT, Editor

# Applying RAMP in the Laboratory

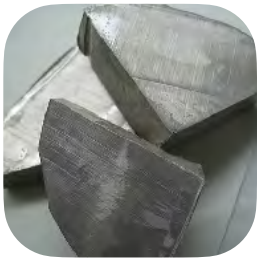



*Editor's note: In the August/September 2026 bulletin issue, University of Chicago safety scientist Chandra Man Karki described the principles of the RAMP safety framework, where RAMP refers to four preparatory steps used in planning laboratory experiments: **R**ecognize hazards, **A**ssess Risks, **M**inimize hazards, and **P**repare for emergencies. Here, the RAMP framework is applied to the drying of THF over sodium.*

## SAFETY FIRST – SODIUM / THF EXAMPLE

The following example illustrates the use of sodium metal (Na, pictured) as a drying agent during the distillation of tetrahydrofuran (THF). Each step demonstrates how the RAMP framework[1–3] is applied before potentially hazardous work begins.

## Recognize Hazards



The first step in the RAMP framework is to recognize all hazards before beginning any experiment. The primary resources for identifying chemical hazards are Safety Data Sheets (SDSs) and chemical container labels. While Globally Harmonized System (GHS) labels communicate hazards using standardized pictograms, signal words, hazard statements, and precautionary information, SDSs provide detailed information on hazards, safe handling, storage, incompatibilities, exposure controls, and emergency response.

A review of the SDSs for sodium (pictured) and THF reveals that Na metal reacts violently with water, producing heat and flammable hydrogen gas. Sodium metal is category 1 corrosive to skin. Tetrahydrofuran is highly flammable and may form explosive peroxides upon prolonged storage or exposure to air. While artificial intelligence (AI) can assist in locating and interpreting SDS information, hazard recognition remains the researcher's responsibility.

> ***Safety Takeaway:*** *Hazard recognition is the foundation of every safe experiment. Consult the SDS and chemical label before opening any container.*

## Assess Risks

After identifying hazards, the next step is to assess the risks. While a hazard is the potential to cause harm, risk considers the *likelihood* that harm will occur and the *severity* of the consequences under the planned experimental conditions. A risk matrix provides a systematic method for evaluating the likelihood and severity of each hazard and helps prioritize appropriate control measures. Risk assessment is not a one-time exercise; it should be revisited whenever there is a change in experimental conditions, reagent quantities, personnel, or equipment.

| Likelihood \ Impact | Negligible | Minor | Moderate | Significant | Severe |
|---|---|---|---|---|---|
| Very Likely | Low Med | Medium | Med Hi | High | High |
| Likely | Low | Low Med | Medium | Med Hi | High |
| Possible | Low | Low Med | Medium | Med Hi | Med Hi |
| Unlikely | Low | Low Med | Low Med | Medium | Med Hi |
| Very Unlikely | Low | Low | Low Med | Medium | Medium |

Risk assessment matrix illustrating the relationship between hazard likelihood and consequence severity (impact).[4]



*Continued on the next page*

# Applying RAMP in the Laboratory

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Risk assessment extends beyond recognizing that sodium is water-reactive and THF is flammable. Factors such as the quantity of sodium, solvent volume, peroxide testing results, experimental scale, equipment condition, available engineering controls, and researcher experience all influence the overall level of risk. When uncertainty exists, consultation with the principal investigator, experienced researchers, safety professionals, or reliable resources such as PubChem and CAMEO Chemicals can support the assessment.

> ***Safety Takeaway:*** *Hazards are inherent, but risk depends on how the work is planned and performed.*

## Minimize Risks



Once risks have been assessed, the next step is to minimize them by applying the hierarchy of controls. Controls should be implemented from highest to lowest effectiveness. Always comply with the institution's Chemical Hygiene Plan (CHP), laboratory safety policies, and applicable local, state, and federal regulations, including OSHA's Laboratory Standard (29 CFR 1910.1450).[5]

Risk reduction measures include using the minimum quantity of sodium necessary; conducting the distillation in a certified chemical fume hood under an inert atmosphere; confirming that THF tests negative for peroxides prior to distillation; following the laboratory standard operating procedure (SOP); and wearing appropriate PPE including chemical-splash goggles, a flame-resistant lab coat, and nitrile rubber gloves.

> ***Safety Takeaway:*** *The most effective control is to eliminate or reduce hazards at the source. PPE is the last line of defense, not the first.*

## Prepare for Emergencies

The tragic death of Sheharbano "Sheri" Sangji as the result of a laboratory fire at the University of California, Los Angeles, in 2008 serves as a reminder that emergency preparedness is an essential component of laboratory safety.[8] The incident highlighted the importance of proper training, emergency planning, and ensuring that laboratory personnel know how to respond effectively during an emergency. This is why the **"P"** (**Prepare** for Emergencies) in the ACS RAMP framework is so important. A good rule of thumb is to always prepare for the worst-case scenario that could reasonably result from your work.




Required laboratory emergency equipment includes a safety shower, emergency eyewash station, fire extinguisher, first aid kit, and chemical spill response supplies.[6, 7]



*Continued on the next page*

# Applying RAMP in the Laboratory

*Continued from previous page*

***Safety Takeaway:*** *Emergency preparedness begins before an emergency occurs. Know your exits, your equipment, and your emergency contacts before the first chemical is opened.*

**Summary** – The best time to apply RAMP is before the first chemical is opened, before the first instrument is powered on, and before the first AI prompt is entered. AI is a powerful tool, but it cannot RAMP for you. By making RAMP the starting point of every project, researchers create a common language for discussing hazards, evaluating risks, and preparing for emergencies while strengthening communication, collaboration, and the lab's safety culture.

—CHANDRA MAN KARKI

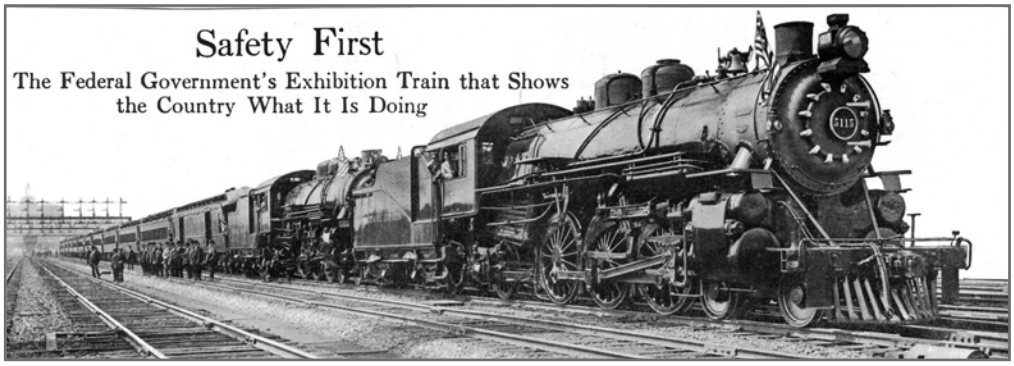


University of Chicago

*The author wishes to acknowledge the Office of Research Safety at The University of Chicago for their support and the resources provided in the preparation of this article. Dr. Selina Hess assisted with document preparation. The written content, technical interpretations, and conclusions were developed by the author using the listed references.*

## References

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The 12-car, all-steel Safety First Train, furnished with safety exhibits, is shown departing Washington, D.C. on its tour of the Central United States. The train was "hauled over the entire B. & O. system" so that "every citizen who cares to do so may see just what his government is doing for him."

(*Scientific American*, June 10, 1916)

# Melting Snow

I don't' think we're quite ready for this yet, but I was thinking the other day about a question posed to me by a kindergartner who was in a science fair. They had noticed that the snow on the streets and sidewalks seemed to melt faster than the snow in the grass. What an excellent observation, I thought, and one worthy of investigating for ChemShorts.

**Materials:**

- Ice cubes
- Paper plate
- Aluminum or metal pan
- Glass or ceramic plate
- Plastic Plate



**Experiment:**

Gather the plates and the metal pan and let them all sit in the room for 10 minutes or so. They should all come to the same temperature. Touch each of the plates and notice if some of them feel colder while others feel warmer. If you place an ice cube on each plate, predict which one you expect will have the ice melt first, and last. Do the experiment. It may take 5–10 minutes to see appreciable melting. Did your prediction hold?



**What's Happening?**

You probably noticed that the "coldest" plate (metal pan) had the ice cube that melted the most while the warmest plate melted the ice cube the least. The metal pan was coldest to the touch because it is a very good conductor of heat and pulled the heat from you easily, while the paper or plastic plate was probably the warmest and the ice cube melted the slowest. These substances are poor conductors of heat so they don't pull the heat away from you. This is the reason that Styrofoam coolers are so good at keeping things cold —the food and drinks inside the container cannot pull heat from the container since it's a poor conductor.

**Extension:**

What are some other objects that can be tested? The original observation was about snow on grass. How would you test this and compare it to cement? What materials would you use in designing a refrigerator? Check your refrigerator and see what the inside of it is made of.

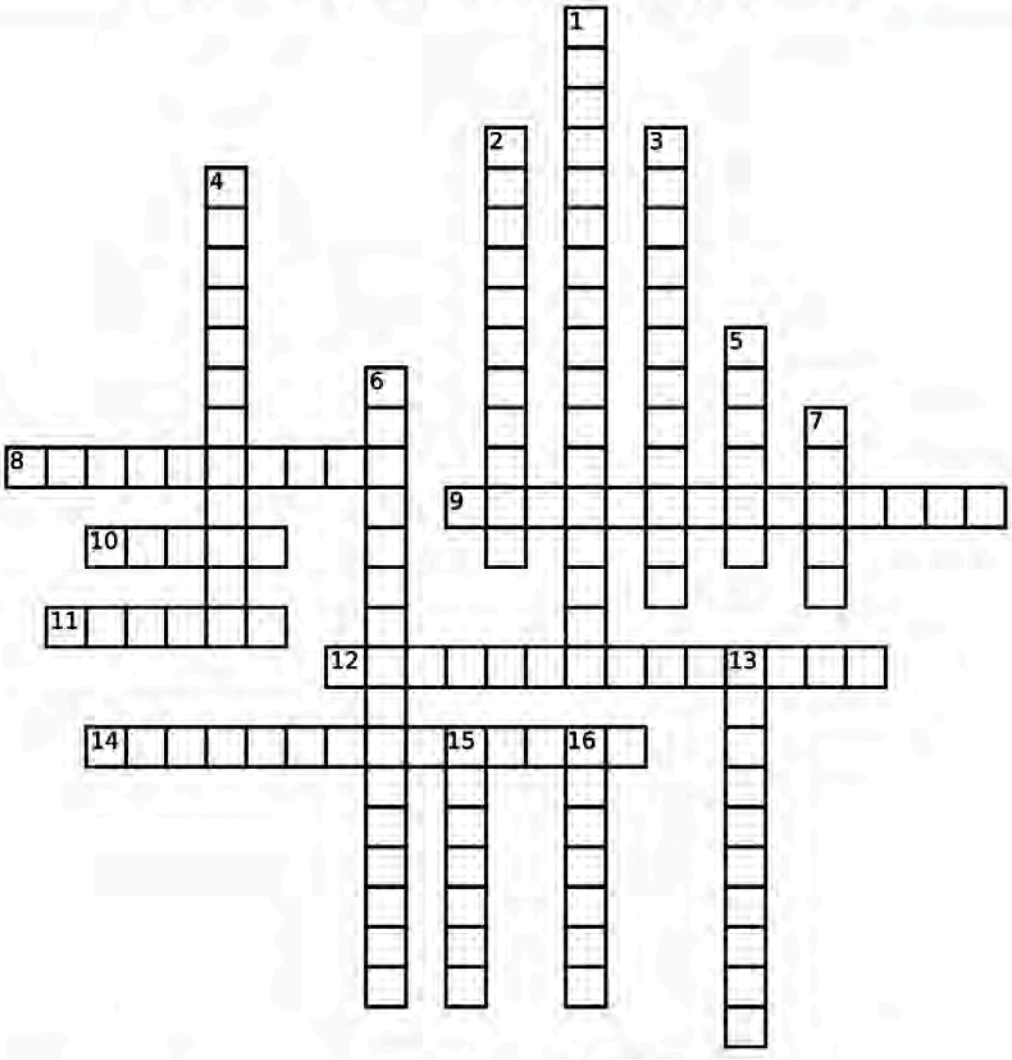
**Resources:**

https://www.experimentarchive.com/experiments/warm-and-cold-plates/

To view all past "ChemShorts for Kids", go to: https://chicagoacs.org/ChemShorts

—PAUL BRANDT

# Chemistry of Thanksgiving Dinner



**Down:**

1. tears caused by the sulfur like gas created when onion cells are cut
2. acidic fruit with sharp flavor
3. process which causes water droplets to form on the outside of a glass
4. antioxidant pigment that gives vegetables their orange color
5. natural substance used to make jelly
6. process in which heating causes proteins to bond with each other
7. living organisms which consume sugar and release carbon dioxide
13. starch when heated absorb water and expand to thicken gravy
15. base that neutralizes acid in the stomach which causes a painful burning feeling
16. process in which a salty bath draws moisture out of a turkey

**Across:**

8. an amino acid which breaks down in turkey
9. process of starch granules absorbing water and swelling which softens potatoes
10. what makes up 75% of a turkey
11. element used in making bowls which react with egg whites for a stable meringue
12. process which heats proteins and sugars giving food a rich, roasted color
14. mixing two liquids that normally do not separate well

# UPCOMING EVENTS

## ACS WEBINARS [Register for Free!]

**Nov 5 10–11 AM Central Time**

*"Mapping the Future of Polymer Innovation with AI: What's Hot, What's Not, and What's Next"*
Join CAS and the PetroChina Shanghai Advanced Materials Research Institute (SAMRI) as they illustrate how artificial intelligence and natural language processing, applied to nearly 1 million polymer publications from the CAS Content Collection™.

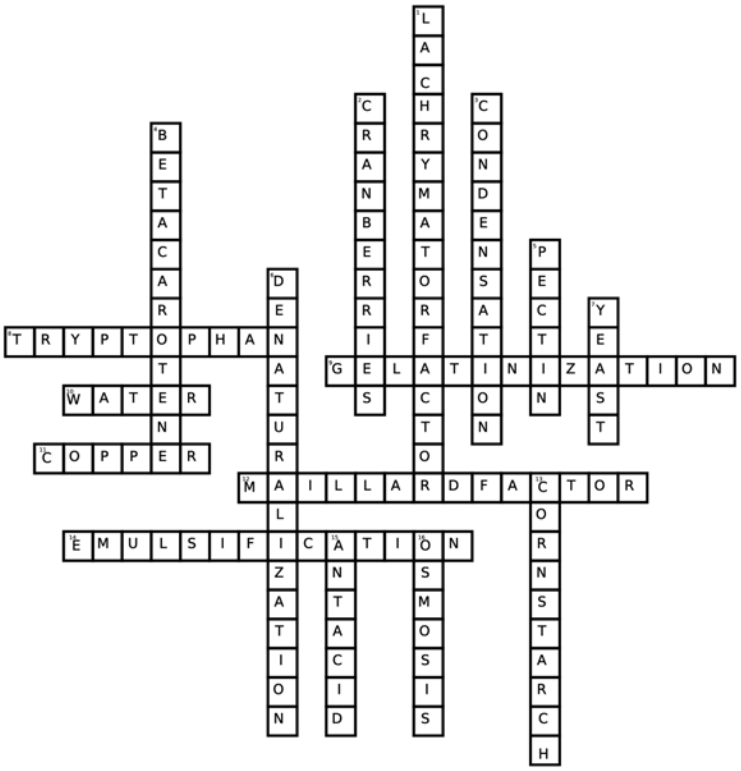
**Nov 10 Noon–1 PM Central Time**

*"Science Has a Voice. Is Yours Part of It? An ACS Town Hall on Advocacy, Advisory, and Action"* with ACS President Rigoberto Hernandez.

**Nov 12 1–2 PM Central Time**

*"The Accessibility Equation: What ADA Title II Means for STEM Education"*
Join experts in disability law, digital accessibility, and STEM education as they discuss common challenges in implementation, emerging expectations, and practical approaches for creating more accessible learning experiences.

## Chemistry of Thanksgiving Dinner




ACS | Regional Meetings **NOV 15–17** **Register at: www.acscerm2026**




Researchers, and students, and colleagues are invited to participate in a program featuring cutting-edge science, professional development opportunities, and networking events. Invited speakers include **Omar K. Farha** (Northwestern), **Jie Xu** (UChicago), **Mickey Rogers** (AAAS Science & Technology and Policy Fellow), and **Paul S. Weiss** (UCLA), presenting on topics including sustainability, AI-driven chemistry, science communication, and nanoscience. Planned event include Career Workshop Day Facilitated by ACS and The Procter & Gamble Company (Saturday, Nov 14) / Women in Science Innovators Breakfast / Awards Banquet / From Writing to Visuals: Scientific Figure Design / Tour of the Oesper Collections in the History of Chemistry / Chemistry on Tap – Beer and Spirit Tasting, and The Science Behind Beer, Fermentation and Flavor.

## SCRIPPS LECTURE

**Nov 18 6–7 PM Central**
*"Controlling the where, when and how long of vaccine delivery"* with Dr. Darrell Irvine. Click here to register.

## NIU STEAM Cafés

**Nov 4 6:30 PM**
*"Responding to Food Systems Challenges"* at Prairie State Winery, Genoa, IL

**Dec 2 6:30 PM**
*"The Science of Play"* at South Moon BBQ, Hinkley, IL.

# UPCOMING EVENTS

## CHICAGO SECTION BOARD MEETINGS

Board meetings are held virtually over Zoom on Thursdays at 6:30 pm. Meetings are open to Chicago ACS Section members. To obtain the Zoom link contact: office-at-chicagoacs.org.

2026 Dates: Nov 12, Dec 3

## BULLETIN DEADLINES

Deadline for bulletin submissions is the **16th of each month**. Content can include photos, reports, past event summaries, flyers and information for upcoming events, original articles, current chemistry, and more. Contact editor-at-chicagoacs.org. Thank you!

| *Issue* | *Deadline* |
|---|---|
| December 2026 | November 16, 2026 |
| January 2027 | December 16, 2026 |
| February 2027 | January 16, 2027 |

## CHICAGO SECTION PROGRAMS

| | |
|---|---|
| Nov 6 | 4:30–5:30 PM – Basolo Medal Lecture, Lecture Room 3 (LR3), Northwestern University, with Prof. Kimoon Kim (POSTECH, South Korea). See pages 1–2. |
| Nov 7 | 4:30 PM – Younger Chemists will meet for a Career Panel at Loyola University Chicago, Lakeshore Campus. See page 2. |
| Nov 15 | Last day to vote in Section Election. |
| Nov 20 | 5:00–9:00 PM – Monthly program with speaker Angela K. Wilson, Past ACS President, at Roosevelt University, 1400 North Roosevelt Road, Schaumburg. See pages 1–2 for details. |
| Dec 11 | 5:00–8:30 PM – Holiday dinner meeting with speaker Dr. Joseph Jones (U.S. Drug Testing Laboratories), at Benedictine University, 5700 College Road, Lisle, IL 60532 |

For more information go to: https://chicagoacs.org

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