

Chesapeake Chemist

Maryland Section
American Chemical
Society

February Issue
Vol. 80 No.2

WCC Lecture

February 8, 2023

7:00 P.M. Via Zoom
by

**Dr.
Rebecca
Ruck**

INSIDE

ACS News

—
ACS Leadership Institute
Report

—
*The Chemistry of the
Corpse Flower P. 11*



“At Merck, we aspire to develop breakthrough innovations that provide lifesaving medicines and vaccines to patients worldwide.” P. 4

Happy New Year 2023 ACS Members!

I'm excited to serve as your Chair this year. After serving since 2015 on the ACS Ethics Committee (ETHX), I'm also excited to serve you in my newly elected role on the ACS Nominations and Elections (N&E) Committee and continue to serve as one of our four Councilors for the Maryland Local Section.

Our annual calendar includes several longstanding and exciting events including the Women Chemists February seminar, Chemists Celebrate Earth Week, the Maryland Student Awards, 50+ Year Member Luncheon, Project SEED, U.S. National Chemistry Olympiad, the Braude Award, the Remsen Award, and the Maryland Chemist of the Year award. All of our latest news can be found in the latest special issue of the Chesapeake Chemist which was published in January. See acsmaryland.org.

My goals for the year include highlighting forensic chemistry research in Maryland, engaging more industrial chemist members, facilitating networking around chemistry in each "corner" of the state, and facilitating a community of practice for chemistry teaching professionals.

Our Section welcomes new ideas and volunteers. We would like to extend our networking and seminar events more frequently outside of the Baltimore area. We need your help. Let me know if you will help plan an event in your area.

Contact us at: acsmarylandsection10@gmail.com.

Kelly M. Elkins, Ph.D.
2023 Chair

<https://www.towson.edu/fcsm/departments/chemistry/facultystaff/kelkins.html>
<https://wp.towson.edu/kmelkins/>



Twitter: @forensicsprof



LinkedIn: <https://www.linkedin.com/in/kellymelkins>

Publications:

https://pubmed.ncbi.nlm.nih.gov/?term=Elkins+KM&cauthor_id=25697649

CHAIR'S MESSAGE

KELLY M. ELKINS,
Ph.D.

kmelkins@towson.edu

Professor
Department of Chemistry
Forensic Science Program
Towson University
8000 York Road
Towson, Maryland,
21252, USA



WOMEN CHEMIST COMMITTEE, WCC

Presents

DR. REBECCA RUCK, Ph.D.

Associate Vice President, Process Research & Development Enabling
Technologies at Merck



*Using Great Chemistry
to Influence the Field*

Abstract.

At Merck, we aspire to develop breakthrough innovations that provide lifesaving medicines and vaccines to patients worldwide. In our Process Research & Development organization, that translates to inventing new scientific methods that enable us to create ideal manufacturing processes. When you deliver great chemistry, it provides the platform – and I would argue, the responsibility to not only impact the scientific discipline but also the culture of the field. This talk will highlight some of the chemistry accomplishments to which I have contributed as well as how these achievements have been parlayed into even broader impact.

Contact:

Lecture Presenter: rebecca_ruck@merck.com

Program Coordinator: Kelly M. Elkins, kmelkins@towson.edu WCC Co-chair

Program Coordinator: Sara Narayan, snarayan5@yahoo.com WCC Co-Chair

ZOOM Meeting: [WCC February Lecture](#)

ID: 827 0683 6448 Pass Code: WCC TIME: 7:00 P.M.

Recording will be available after the lecture.

MEETINGS

ACS Leadership Institute, Atlanta GA Jan. 20-22, 2023

Conference offered leadership courses and resources to newly selected ACS Local Section members

Report, ACS Maryland Local Section attendees

The Atlanta Leadership Institute on future chemistry leaders took place on January 20-22

300 participants of the 180 local sections of the American Chemical Society, ACS.

The meeting brought together and engaged members in conversations that focused on one specific theme "TRUST".

The newly elected ACS President Dr. Judith C. Giordan explained the importance of returning the trust in science and in scientists by members of the society and the community.

Plenary sections were embedded during breakfast, lunch and dinner times. The themes of the courses and presentations were selected according to the leadership track of each participant. The goal of the conference was to inform all attendees of the resources available, to meet the ACS Board of Directors, to train members in their specific leadership track and to build a network of potential collaborators.

Attendees had the opportunity to voice

their concerns, to improve their leadership skills and to set up a stage of future activities to enhance their professional careers, and to serve more efficiently as volunteers of the society. From this conference several initiatives were created, specifically for the ACS Maryland Section we have:

1_ Work directly with President J. C, Giordan in a video message about "trust" it will feature Jillian Malbrough (1). The video will be aired during the ACS Spring National Meeting in Indianapolis.

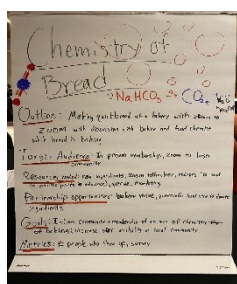
II_ Create a Younger Chemist Committee, YCC. For this purpose, Beatrice Salazar, Councilor - ACS-Maryland and Kaylyn Stewart (2), chemistry student at UMBC (December 2022 panelist of the Webinar-1of the Maryland Section titled *Nutrient Recovery Economy*), gathered all required information and documentation to start the YCC in Maryland LS.

The Chair of the committee will be Kaylyn under the mentorship of Beatrice.

III_ All attendees stormed ideas for future projects and learned about how to plan activities, requests grants and other resources available for the success of their activities. One idea for the ACS Maryland Section is a hybrid workshop on the Chemistry of Bread Baking. This idea initiated by five participants was so well received that at the time of preparing the specifics, the venues, and the impact on the community, about 20 more attendees joined to work on this idea. The activity became very popular! And according to one member the title was very "Heminwayish". This type of meeting is very beneficial for the new leadership of the local sections of the society.

If the institute created a change for the better of the section, it was worth it! The next Leadership will take place on the last weekend of January 2024.

Beatrice Salazar Chair Elect - 2023
and Kaylyn Stewart



Jillian Malbrough
Alternate
Councilor

Photo Gallery of the 2023 ACS Leadership Institute



1.



2.



3.



4.



Board of Directors, 5/14 members: President Judith C. Giordan, Katherine L. Lee, District I, Kimberly Agnew-Heard, District II, Lisa Houston District IV, Angela K. Wilson, Past ACS President.



ACS International Table represented by Central America, Colombia, Mexico and Puerto Rico.

1. and 2. Workshop and Poster session

3. Strategic planning

4. Resources Fair



2023 Project SEED Introductory video Jan. 12, 2023

for coordinators and mentors [Video for Project SEED](#)

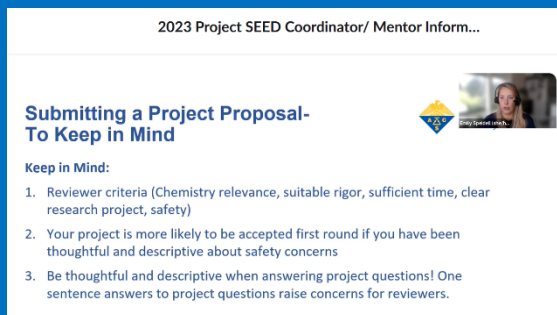
Maryland Local Section

Website information

Deadlines to apply for both Mentors and Students

February 8, 2023

For projects keep in mind:



2023 Project SEED Coordinator/ Mentor Inform...

**Submitting a Project Proposal-
To Keep in Mind**

Keep in Mind:

1. Reviewer criteria (Chemistry relevance, suitable rigor, sufficient time, clear research project, safety)
2. Your project is more likely to be accepted first round if you have been thoughtful and descriptive about safety concerns
3. Be thoughtful and descriptive when answering project questions! One sentence answers to project questions raise concerns for reviewers.

Program I.

At The ACS Maryland Section last executive-board meeting we spoke about wanting to give less advantaged students the opportunity for a summer internship through **Project SEED** run by the national ACS. Now's the time to consider whether you could mentor a high school student in your lab this summer.

- The student stipend is \$3200, (1500 from ACS Maryland Local section and \$1700 from ACS)
- Apply soon because there's a limit to how many students can be supported
- Take the first steps and offer some projects. The project description should be written by the mentor Scientist.

Thanks for considering.

If you have any questions about Project SEED, contact :

Louise Hellwig | Chemistry Department, SP 212 | Morgan State University 1700 E. Cold Spring Lane
Baltimore, MD 21251 | 443 885 2085

Program II.

Summer Research Opportunity for High school students that do not qualify for Project SEED. This program was created in 2022 under the name project Seed *-germinating seeds-* the title has been changed. The student's stipend is different. Please inquire with Program coordinators: [Louise Hellwig](#), [Beatrice Salazar](#) or [Kelly Elkins](#).

Please use the following information to be more familiar with the [Project SEED process](#)

Project SEED

How to Engage with the Program



Project SEED is a summer internship program for high school students from low-income households. SEED provides students access to a meaningful technical research experience, connections with scientists, and exposure to potential careers in the sciences. Students spend 8-10 weeks in the lab working on a project with a mentor and additional lab members. Over the course of this fellowship, mentors and coordinators discuss career and educational choices in chemistry and may provide additional professional development opportunities. This is an opportunity for you to bring in a student from your community and serve as a mentor and role model. Start a site or participate in one to be rewarded with the gratifying experience of using your research to positively influence a young person.

Coordinator Duties

- Project SEED coordinators are the primary operators of the program and are the point of contact for the national Project SEED office
- Coordinators can act in a dual role, as coordinator and mentor at their site
- Below are examples of coordinator duties:

Before the summer program

- Responsible for identifying mentors
- Recruiting students
- Raising matching funds
- Submitting project proposals for approval

During the summer program

- Ensuring students fulfill their duties and organizing activities such as orientation, luncheons, or field trips
- Communicate with students and mentors to ensure success

Mentor Duties

- Provide a meaningful technical project designed for a high school student
- Manage day-to-day research and work directly with the student during the summer
- May rely on graduate students, undergraduate students, or other lab staff to help ensure that the SEED students are adequately supervised in the lab
- Below are examples of mentor duties.

Before the summer program

- Submit project proposals to SEED coordinators
- Help with student recruitment

After the summer program

- May be asked to write letters of recommendation for scholarship and college applications

During the summer program

- Guide student research
- Cultivate mentor-mentee relationships
- Assist students in completing their final report and can support students in creating a research poster

Becoming a Coordinator

- Visit our website (www.acs.org/projectseed) to learn more about our program
- Reach out to potential mentors and identify suitable projects
- Reach out to our office with any questions projectseed@acs.org

Joining an Existing Site as a Mentor

- Locate SEED sites in your area using our locator tool online at www.acs.org/projectseed
- Contact coordinators and express interest in their program
- Reach out to our office with any questions at projectseed@acs.org



300+
Volunteer
Scientists
in 2022



**Visit Our
Website To
Learn More!**

Email: projectseed@acs.org
Website: www.acs.org/projectseed

ANNOUNCeMeNTS

STUDENT TRAVEL AWARDS

Nine graduate and undergraduate students each received a \$500 travel grant to present their papers at the national ACS meeting in Indianapolis March.26-30. Also four high school students received \$149 apiece for registration to present their talks and posters virtually.

Contact Students Travel Grants Coordinator: Louise Hellwig | Chemistry Department, SP 212 | Morgan State University | 1700 E. Cold Spring Lane | Baltimore, MD 21251 | 443-885-2085

JUNE 9-10, 2023

MARM 2023 CHEMISTRY REFOCUSED

New York, NY

 www.acs.org > [meetings](#) > [regional Middle Atlantic Regional Meeting \(MARM\) - American Chemical ...ACS](#) | [Meetings & Events](#) | [Regional Meetings](#)

[MARM 2023](#)

 [Home](#) | [Program](#) | [Abstract Submission](#) | [Registration](#) | [Exposition & Sponsorship](#) | [Special Events](#) | [Awards](#)

 Seeking Awards Nominations for Maryland Local section Members:

There are 4 regional awards that will be given at the 2023 Mid Atlantic Regional Meeting of the ASC. They are:

1. The [Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences](#) – Sponsored by the [ACS Committee on Minority Affairs](#)– deadline **March 1, 2023**
2. The [ACS Division of Chemical Education \(CHED\) Regional Awards for Excellence in High School Teaching](#) – deadline **March 8, 2023**
3. The [E. Emmet Reid Award in Chemistry for Teaching at Small Colleges in the ACS Middle Atlantic Region](#) – deadline **March 8, 2023**
4. The [E. Ann Nalley Regional Award for Volunteer Service to the American Chemical Society](#) – deadline **March 8, 2023**

Visit: www.MARM2023.org/awards for more information about eligibility and the nomination process. **CONTACT: C. Eric Cotton, Ph.D.** | Associate Professor of Chemistry | The Community College of Baltimore County | Catonsville Campus, MASH 014 | 800 S. Rolling Road, Catonsville, MD 21228 | 443-840-5932 | Fax: 443-840-3414 | ccotton2@ccbcmd.edu | *CCBC. The incredible value of education.*

U.N. Day of Women and Girls in Science

Feb. 14



Wednesday, Feb. 8th | 2-3:15pm ET

[Change Time Zone](#) →

Breaking Barriers: Women in Green and Sustainable Chemistry

Co-produced with the ACS Green Chemistry Institute

Register for Free

Hi,

The United Nations has outlined 17 sustainable development goals with ambitious targets for the world to reach by 2030, including zero hunger, affordable and clean energy, and responsible consumption and production. As part of the lead up to the **IUPAC Global Women's Breakfast and U.N. Day of Women and Girls in Science on Feb. 14**, panelists from across the chemistry community will explore how a more systematic inclusion of women in all aspects of green and sustainable chemistry is crucial to achieving those U.N. Sustainable Development Goals. They will also delve into the barriers currently faced by women and describe how the community can help ensure that women are empowered to make holistic contributions.

This webinar is part of the lead up to the IUPAC Global Women's Breakfast (#GWB2023) and U.N. Day of Women and Girls in Science on Feb. 14 (<https://iupac.org/gwb>). A recording will be made available by Feb. 14 for #GWB2023 events to use.

This ACS Webinar is moderated by Adelina Voutchkova-Kostal (American Chemical Society) and Audrey Moores (McGill University, *ACS Sustainable Chemical & Engineering*)

ACS Division of Chemical Health and Safety Virtual Workshop "Empowering Academic Researchers to Strengthen Safety Culture" Sunday, March 05, 2023, from 2 PM to 5:30 PM ET via Zoom. A STEM departments workshop.

DESCRIPTION: This interactive workshop provides an opportunity for frontline researchers in academic institutions to learn more about safety culture and gain skills to be a leader in safety. Our target audience is **graduate students, postdocs, and undergraduates** in STEM departments, but we also welcome faculty and safety professionals interested in supporting the development of Laboratory Safety Teams (LST) and the strengthening of safety culture. If your department has already established an LST, this workshop can also help it grow and mature - as well as build connections among students across universities who are working hard to strengthen their safety culture.

COST: The workshop is \$25 per attendee, and participants will receive a certificate of participation to add to their resume or portfolio upon completion of the workshop.

REGISTRATION: Click [here](#) for more information on the workshop and to register by Monday February 22, 2023. If you'd like to know more about Lab Safety Teams, I recommend this [article](#).

CONTACT:

Monica Nyansa | Chemistry Ph.D. Candidate | [Tanasova Lab](#), [Michigan Tech](#) | mnyansa@mtu.edu, 906-231-2283



CORPSE FLOWER

THE CHEMISTRY OF THE CORPSE FLOWER

Article Inspired by Esperanza Ruiz, Colombia



A. Titanium: Male (above, yellow) and female, (below brownish purple) flowers at the base of the spadix, Botanical Garden University Bonn 1992.



The largest scientifically documented inflorescence of the titan arum plants was flowering in the Botanical Gardens of the University of Bonn in 2003. Its height was 306 cm from the tuber, 274 cm from the surface of the soil (right picture). This titanium tuber (left) weighs 117 kg. In 2006 produced three inflorescences, this is what remains after the corpse flower dies.

The *Amorphophallus Titanium* or corpse flower is native to Indonesian Island of Sumatra. This is a medicinal plant acquired from botanical gardens and universities for its beauty (very short life 2-3 days), for its medicinal use and for research. It is a flower that rarely blooms and when it does it has a very unpleasant odor. Olivia Sparks of St. Paul Univ. said, "smell like walking by a dumpster on a hot day." In 2011 Roseville High School, (Roseville, California) acquired this titan arum and they became the first High school to bring this plant to bloom.

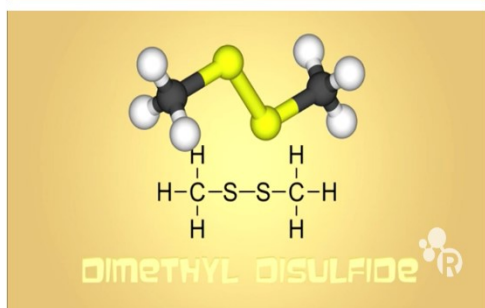
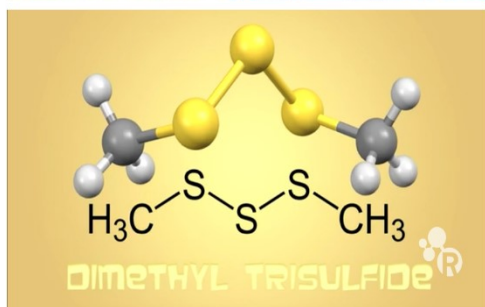
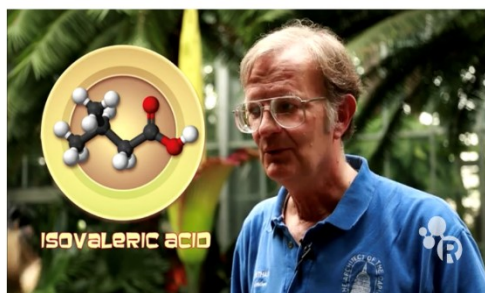
The reproductive parts (see photo) hardly generate new plants; scientists are still researching the reason for this lack of reproduction.

At flowering the spadix heats up to 37 °C or 99 °F and releases a powerful odor that attract pollinators, insects which fed on dead animals or lay eggs in rotten meat. As the odor gradually increases beetles and flesh flies are active and seek the flower where many of them become trapped.

The chemicals released by spadix include: **dimethyl trisulfide** (smells like limburger cheese), **dimethyl disulfide** (smell like garlic), **trimethylamine** (smells like rotting fish), **isovaleric acid** (smells like sweaty socks), **benzyl alcohol** (the only sweet floral scent), **phenol** (smells like chloraseptic), and **indole** (smells like feces).



Corpse flower lifecycle and pollination



Where does the odor come from?

Watch the video created by Dr. Todd Brethauer a ACS volunteer of the US Botanical Gardens https://www.youtube.com/watch?v=uDMI_ZJt1go.

The plant has very long singular tubular leaves, in its vegetated or leafy stage (about 6 years), they photosynthesize producing sugars and storing starches and proteins. When the flower opens reaches high temperatures a release odorous chemicals used to attract pollinating animals like beetles and animals that lay their eggs in rotten flesh. The photos show the chemicals most common found in this flower and tubular leaves.

The dimethyl trisulfide has also the smell of rotting onions or cabbage.



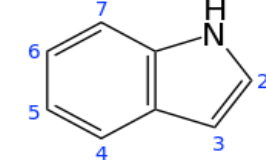
The dimethyl disulfide although is produced in copious quantities is not as odoriferous for humans.

The trimethylamine, on the other hand, smells like rotten fish. Finally, the isovaleric acid bring a smelly socks odor. All these odors combined are so bad, that the name corpse was given to this flower.



As the flower matures (few hours) it starts emitting - **thermogenesis**- this is the photosynthetic machine that produces all the resources that allows the plant to produce the giant **inflorescence** (stem, stalks, brackets and flowers).

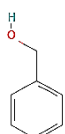
INDOLE



An [intercellular signal molecule](#), indole regulates various aspects of bacterial physiology, including [spore](#) formation, [plasmid](#) stability, [resistance to drugs](#), [biofilm](#) formation, and [virulence](#).

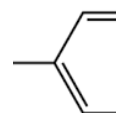
Indole is a [solid](#) at room temperature. It occurs naturally in human [feces](#) and has an intense fecal [odor](#). At very low concentrations, however, it has a flowery smell,^[4] and is a constituent of many [perfumes](#).

Benzyl Alcohol



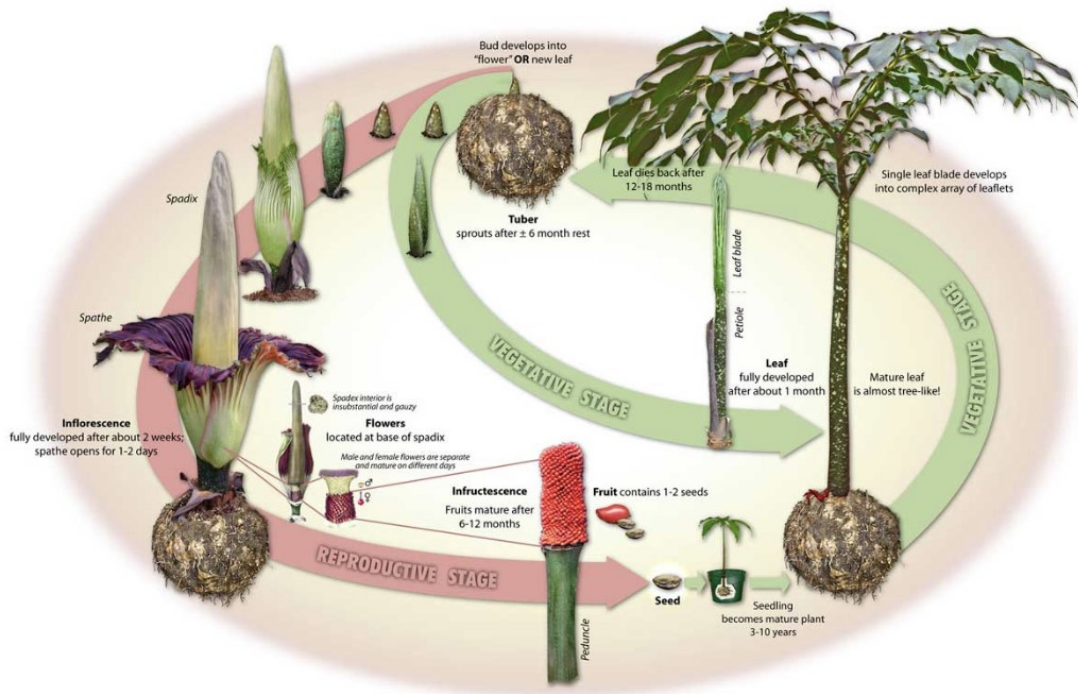
is a colorless liquid with a mild pleasant aromatic odor. It is a useful solvent due to its polarity, low toxicity, and low vapor pressure.

and Phenyl



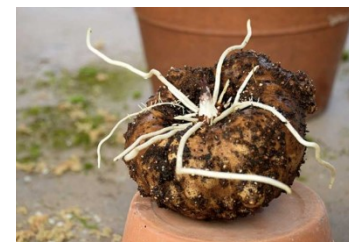
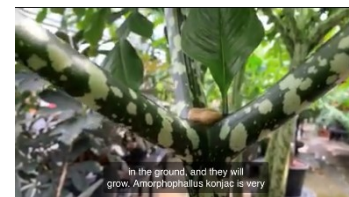
It is used as a disinfectant. It removes odors and kill microorganisms.

Corpse Flower Lifecycle



The Titan Arum grows on limestone hills at low elevation, in rainforests openings where there is enough light and space to produce massive leaf and inflorescence (flower) structure.

Pict and information from huntington.org



The plant grows from a large bulb-like tuber, or "corm," under the soil.



Huntington botanists hand-pollinate the plants, resulting in fruit and fertile seeds from which several seedlings eventually were produced.



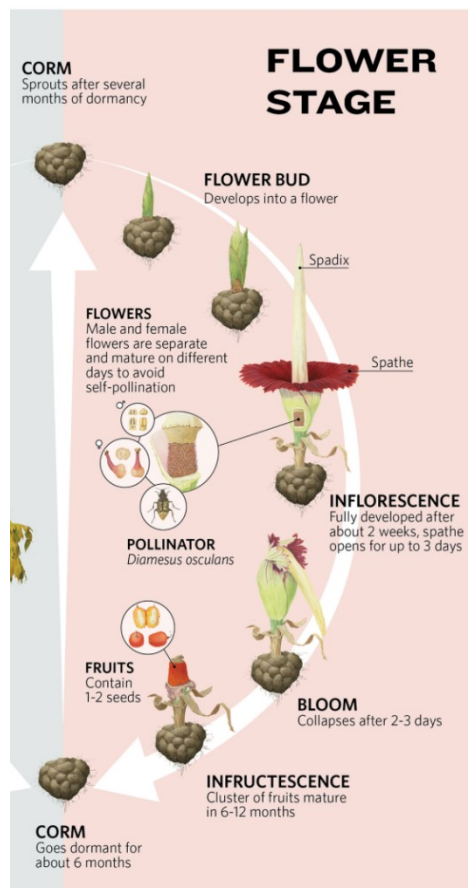
When the plant blooms, the spathe (the petal-like outer covering) opens to reveal a velvety maroon interior and begins to emit a foul stench.

Life cycle, smell and reproduction
 Of the Corpse Flower
 Botanical gardens in USA
<https://www.usbg.gov>

www.bytesize-science.com
 Produced by the American Chemical Society



This information was obtained from the US Botanical Gardens, the Huntington and Other free information sources. It was edited for the Chesapeake Chemist, whose editorial staff is the solely responsible for its content.
[Contact Editor 2023](#)

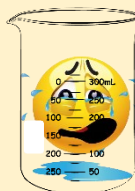


Laugh a Little...



Courtesy of the artist
 Pablo Rojas

1. Why are you blue?
 Because I am Copper Sulfate



2. Why shouldn't you fall in love with a pastry chef?
 They'll dessert you.

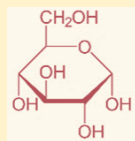


What did the paper clip say to the magnet? **I find you very attractive.**

3. What did the baker say to his wife on Valentine's Day?



Give me some



4. What did one molecule say to the other?
We've got great chemistry!

5. Want to hear a joke about nitrogen oxide? **NO.**

6. Here is a pick-up line: You must be copper and tellurium **cause you sure are CuTe!**

2023 USNCO

The program has four tiers:

The U.S. National Chemistry Olympiad (USNCO) program is a chemistry competition for high school students. ACS has sponsored the program since 1984.

Students Support



MARCH 1-31 - Local Chemistry Olympiad Exams

The first step in USNCO, held each March. High school students can participate by contacting their ACS Local Section Coordinator.

APRIL 15-23 - National Chemistry Olympiad Exams

A three-part exam administered to more than 1,000 students each April.

JUNE 4-17- Study Camp

The 20 top-scoring students from the National Exam spend two weeks at a Study Camp.

JULY 16-25- International, IChO, Chemistry Olympiad Exams

Only four students represent USA.

2023 Administration Officers

2023 Section Officers

Chair 2023	Kelly Elkins,	Kmelkins@towson.edu
Vice-Chair (Chair 2024)	Jiangnan Peng,	jiangnanpeng@morgan.edu
Chair Elect (Chair 2025)	Beatrice salazar,	beatricesalazar1@gmail.com
Immediate Past Chair-2022	Sarah Zimmermann,	scatzim@gmail.com
Secretary 2023-2024	Louise Hellwig,	louise.hellwig@morgan.edu
Treasurer 2023-2024	Lee Lefkowitz,	lee_lefkowitz@hotmail.com

2023 Committee on Nominations and Elections

Chair, Committee on Elections	Eric C. Cotton	Chair 2021,	ccotton2@ccbcmd.edu
Additional four committee members	Jiangnan Peng,		jiangnanpeng@morgan.edu
	Beatrice Salazar,		beatricesalazar1@gmail.com
	Sara Narayan,		snarayan5@yahoo.com
	Pumtiwitt McCarthy,		pumtiwitt.mccarthy@morgan.edu

Councilors/Committees

2023-2025	Kelly Elkins, Nominations Committee,	Kmelkins@towson.edu
2021-2023	Beatrice Salazar, Education Committee,	beatricesalazar1@gmail.com
2021-2023	Jan Kolakowski, Tech. Committee,	jek6042@gmail.com
2021-2023	Stephanie Watson,	stephanie.watson@nist.gov

Alternate Councilors/Committees

2023-2025	Jillian Malbrough	jillian.malbrough2@gmail.com
2021-2023	Alexander Samokhvalov	alexandr.samokhvalov@morgan.edu
2021-2023	Michele Foss	foss.michele@gmail.com
2021-2023	Robert Clapper	rob.clapper@scioninstruments.com

Member-At-Large

2023	Eric C. Cotton	ccotton2@ccbcmd.edu
2023	Michele Foss	foss.michele@gmail.com
2023	Nirupam J. Trivedi	nirupam.j.trivedi@mail.mil
2023	Olivia Harper Wilkins	olivia.h.wilkins@nasa.gov
2023	Rose A. Pesce-Rodriguez,	rose.a.pesce-rodriguez.civ@army.mil
2023	Saraswathi Narayan	snarayan5@yahoo.com

Maryland Section Website/Social Media

2023 Webmaster	Sarah Zimmerman, Chair 2022,	scatzim@gmail.com
Chesapeake Chemist Editor-in-Chief	Beatrice Salazar, Chair 2018,	beatricesalazar1@gmail.com
Social Media Liaison	Pumtiwitt McCarthy, Chair 2020,	pumtiwitt.mccarthy@morgan.edu

CONTACT US: acsm Marylandsection10@gmail.com

AWARDS

Braude Award, L. Hellwig
Remsen Award, D. Ferraris
Maryland Chemist of the Year Award,
 B. Salazar
Senior Chemist Award, M. Eiss / L. Gonzalez
Student Award, S. Narayan

PROGRAMS

Women Chemists Committee, S. Narayan/K. Elkins
Student Travel, L. Hellwig
High School Outreach: National Chemistry Olympiad & Chemists Celebrate Earth Day,
 B. Salazar
Middle and Elementary School Outreach
 (National Chemistry Week, Earth Day Week),
 R. A. Pesce-Rodriguez
Publicity, P. McCarthy / B. Salazar / R. Clapper
Entertainment/Tours, M. Foss / L. Hellwig

EVENTS CONTACT

The U.S. National Chemistry Olympiad

USNCO MARYLAND

URL: <http://www.beatricesalazarusnccocoordinator.webs.com>

WCC Lecture [Kelly Elkins](#) & [Sara Narayan](#)

Jan - April

Student Travel Awards

<https://acsmaryland.org/travel-awards/>

Email: Louise Hellwig <Louise.Hellwig@morgan.edu>

Jan - March

Student Award <https://acsmaryland.org/student-awards/>

Email: Sara Narayan, snarayan5@yahoo.com, SNARAYAN@stevenson.edu

April

Chemists Celebrate Earth Day – beatricesalazar1@gmail.com

Senior Awards

Email: Merle Eiss, meiss32@aol.com

May

National Chemistry Week / Earth Week Events

[Rose Pesce-Rodriguez](#)

Chemists Celebrate Earth Day – [Beatrice Salazar](#)

<http://acsmarylandevents2016.webs.com>

Beer & Social Tours: Louise Hellwig <Louise.Hellwig@morgan.edu>

and Michele Foss <foss.michele@gmail.com>

May - Sept.

Braude Award

<https://acsmaryland.org/braude-award/>

Email: Louise Hellwig <Louise.Hellwig@morgan.edu>

Oct.

The Remsen Award

<https://acsmaryland.org/remsen-award/>

Email: Dana Ferraris (dferraris@mcdaniel.edu)

<dferraris@mcdaniel.edu>

Nov.

The Maryland Chemist of the Year Award

<https://acsmaryland.org/maryland-chemist-of-the-year/>

[Beatrice Salazar](#), Award Committee Chair

Dec.

Subscribe to Chesapeake Chemist! it is Free!

Send us your email
if you are not receiving
our newsletter

Receiving the Chesapeake Chemist

Hopefully, if you are reading the Chesapeake Chemist this month. You are receiving it via e-mail from us. We went to electronic-only mailings to our Maryland ACS membership in October 2006.

Changing your e-mail address? Moving out of the MD ACS area?

Let us update your email if you have any changes.

- E-mail us at acsmarylandsection10@gmail.com
- Provide your ACS member number, full name, and email changes and we can ensure that your records are updated with National ACS.
- **Contact the National ACS membership division:** 800-333-9511 (US only) or at service@acs.org to ensure that you receive the Chesapeake Chemist, and please add your ACS email.



micron inc
ANALYTICAL SERVICES

MATERIALS CHARACTERIZATION
MORPHOLOGY CHEMISTRY STRUCTURE

OM / SEM / EDXA / TEM / SAED, EPA / WDXA
XRF / ESCA / AUGER / XRD
DSC / TGA / MFTIR

3815 LANCASTER PIKE, WILMINGTON, DE 19805
Phone: 302-998-1184, Fax: 302-998-1836

E-mail: (micronanalytical@compuserve.com)
Website: (<http://micronanalytical.com/>)

The Chesapeake Chemist is e-published monthly September through June by the Maryland Section of the American Chemical Society. Send submissions to the editor in electronic format. The Maryland Section is not responsible for opinions expressed herein. Editorials express the opinions only of the authors. The editor is not responsible for all unsigned material.