

Chesapeake Chemist

Maryland Section
American Chemical
Society

Newsletter
Dec. 1, 2021

December Issue

2021 Chemist of the Year

Award Recipient

Takashi Tsukamoto

**Award
Lecture**

*Connecting
fluorinated
dots*

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Dr. Takashi Tsukamoto is an Associate Professor of Neurology at Johns Hopkins University and the Director of Medicinal Chemistry at Johns Hopkins Drug Discovery

**Maryland Local Section
Newsletter**

Editor in chief: [Beatrice Salazar](#)

Policy

Pumtiwitt McCarthy, Chair-2020/social media
Sarah Zimmerman, Web Master

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Cover: Vol. 78 No. 5

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From the Editor's Desk...

This time of year is a suitable time to celebrate our survival from COVID-19 and to reflect on our careers as chemists. Through webinars, reading clubs and podcasts we have stayed in touch. However, I miss meeting friends and colleagues in person. We were hoping 2021 was going to be the year we would get back to normal; things unfortunately did not work out that way. COVID-19 is still with us and there is a renewed sense of urgency to address climate change. But the last thing we lose is hope.



Our spirit of recognition to those who have a history of contributions to education and research is alive. This year we celebrate the achievements of Professor Takashi Tsukamoto from Johns Hopkins University. The abstract of his award lecture and a link to connect to his virtual presentation is on p4 . The lecture and award presentation are planned for December 8, 2021, at 7:00 PM. I hope you will be able to join. There is also information about Dr. Tsukamoto's accomplishments in the following pages and a brief history of the Chemist of the Year Award on p8.

We welcome the new officers for 2022 (p9) and recognize those who are still in leadership positions (p26). We say goodbye to our chair 2021, Dr. Eric Cotton (p17). All ACS-Maryland initiatives are implemented thanks to the generous volunteer work by chemists from the community like you.

Your comments and initiatives are always welcome. Happy Holidays!



Beatrice Salazar

Editor-in-Chief, ACS Maryland Section



December 1, 2021

CHAIR'S MESSAGE



Dr. C. Eric Cotton
Associate Professor

Chair, ACS Maryland Section
acsmaryland.org

C. Eric Cotton, Ph.D.

Associate Professor of Chemistry
The Community College of
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ccotton2@ccbcmd.edu



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Greetings Maryland ACS Members,

I hope that everyone is well receiving this message. My best wishes for you and your family at the end of 2021. Of note, the 2021 Officer Elections have concluded, and the following members have won their elections:

Jiangnam Peng - Chair Elect
Louise Hellwig - Secretary
Lee Lefkowitz - Treasurer

Members at Large:

Nicole Carbonaro
Sara Narayan
Rose Pesce-Rodriguez
Fasil Abebe
Nirupam Trivedi

I hope that you will also welcome Dr. Sarah Zimmermann as your Chair for the 2022 term, as well as welcoming Dr. Kelly Elkins as your Vice-Chair. We know that these fine people are dedicated to the advancement of the section and the society, so you are in good hands.

Best,

C. Eric Cotton

C. Eric Cotton, Ph.D.
2021 Chair
ccotton2@ccbcmd.edu

2021 Chemist of the Year Award Lecture

Wednesday,
Dec. 8, 2021
at 7:00 P.M.

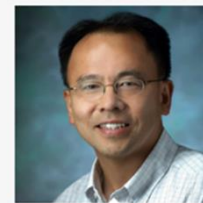
RSVP to Angela Sherman
(asherman@ndm.edu)

Speaker

Dr. Takashi Tsukamoto, Ph.D.

Associate Professor of Neurology at
Johns Hopkins University, JHU

Medicinal Chemistry



Takashi Tsukamoto

Connecting fluorinated dots

Abstract: Looking back at my career as a medicinal chemist over the last decades, the most rewarding experience has been overcoming challenges unique to each of various drug discovery projects through molecular design and synthesis. While there seems to be no common structural feature among compounds designed and synthesized for different therapeutic targets, fluorinated molecules have occasionally played a driving role in moving projects forward.

My longstanding interests in fluorinated molecules can be traced back to the time I first began working in an organic chemistry lab in my senior year of college. Since then, I have developed a habit of incorporating fluorine atoms into molecules whenever the opportunity arises. In this lecture, I will connect my fluorinated dots that are unrelated but have served as the backbone of my career as a medicinal chemist at the deepest level.

"Award Ceremony"

<https://us02web.zoom.us/j/87831758102?pwd=OG9aQlZHNjUyc1NXaTc0WWFzanhPUT09>

Please join us with video and audio off, ask your questions or send comments through the chat feature. Thank you.

Biography

Takashi Tsukamoto is an Associate Professor of Neurology at Johns Hopkins University and the Director of Medicinal Chemistry at Johns Hopkins Drug Discovery. Dr. Tsukamoto received his Ph.D. degree in Chemistry from Tokyo Institute of Technology and pursued postdoctoral studies in the Department of Medicinal Chemistry at the University of Michigan, College of Pharmacy. Prior to joining Johns Hopkins in 2009, Dr. Tsukamoto has held a number of positions of increasing responsibility at Guilford Pharmaceuticals, MGI Pharma, and the Eisai Research Institute. During the course of his career, he has served as a lead medicinal chemist in several drug discovery projects, exploring new therapeutics for neurological disorders and cancer. He is the lead inventor of the cytidine deaminase inhibitor, cedazuridine, and its combination with decitabine, which received FDA approval as Inqovi in 2020.

* Learn more about Dr. Angela Sherman on page 7 "*History Corner*"

MORE ON...

DR. TAKASHI TSUKAMOTO HIS LIFE EXPERIENCE IN THE CHEMISTRY FIELD



Award Lecture Program

Zoom Meeting: <https://us02web.zoom.us/j/87831758102?pwd=OG9aQlZHNjUyc1NXaTc0WWFzanhPUT09>

Please join us with video and audio off, ask your questions or send comments through the chat feature. Thank you.

This year we celebrate the 2021 Chemist of the year award recipient with a virtual meeting. [Dr. Angela Sherman](#)* Award Committee Chair will open the ceremony.

Dr. Tsukamoto will have a brief introduction by the nominators and by [Dr. Barbara Slusher](#) who will introduce Dr. Tsukamoto after she shares with the public various anecdotes and experiences with Dr. Tsukamoto.

Dr. Tsukamoto will present his lecture followed by [Dr. Eric Cotton](#) who will continue the program coordinating the questions and answers at the end of the lecture. Finally, Dr. A. Sherman will present the Chemist of the Year award and conclude the ceremony.

The Scientist...

AS A LEADER IN THE CHEMISTRY FIELD DR. TSUKAMOTO IS: [DIRECTOR OF MEDICINAL CHEMISTRY](#) WITH 27 SCIENTISTS IN HIS GROUP (ttsukamoto@jhmi.edu 410-614-0982 Rangos 231)

AS A SCIENTIST DR. TSUKAMOTO DOES [RESEARCH](#) ON: [Publications > 2021](#) Just a few of his numerous papers...

1. 190Tsukamoto T. et al. "Model studies towards prodrugs of the glutamine antagonist 6-diazo-5-oxo-L-norleucine containing a diazo precursor", Bioorg Med Chem Letters, 2021 [Pubmed]
2. 186., Tsukamoto T. et. al. "Nipping disease in the bud: nSMase2 inhibitors as therapeutics in extracellular vesicle-mediated diseases", Drug Discov Today, 26(7):1656-1668, 2021 [Pubmed]

3. 179. Tsukamoto T. et al "Small molecule inhibitors targeting biosynthesis of ceramide, the central hub of the sphingolipid network", J Med Chem, 64(1):279-297, 2021 [Pubmed]
4. Tsukamoto T. et al. - Activation of MrgC receptor inhibits N-type calcium channels in small-diameter primary sensory neurons in mice. Pain. 2014;155(8):1613-21. [PubMed]
5. Tsukamoto T.et.al. Design, synthesis, and pharmacological evaluation of bis-2-(5-phenylacetamido-1,2,4- thiadiazol-2-yl)ethyl sulfide 3 (BPTES) analogs as glutaminase inhibitors. J Med Chem. 2012;55(23):10551- 63. [PubMed]

AS A PROFESSOR DR. TSUKAMOTO TEACHES DRUG DISCOVERY CASE STUDIES.



“Drug Discovery Case Studies” is part of “Introduction to Drug Discovery Research” designed to provide students with insights into the ever-changing landscape of drug discovery research by presenting case studies for various breakthrough drugs discovered since the 1940s. Each lecture selects a particular drug that has made a significant impact on patients’ lives and examines key elements that have contributed to its successful discovery and development.

REF: [Chesapeake Chemist Vol.78 No.4](#) page 17

VOLUNTEER MENTOR FOR PROJECT SEED

This project started in 1993 (Summer Experiences for the Economically Disadvantaged). It is a paid summer internship program for high school students. For 8 to 10 weeks during the summer, SEED students work in real laboratories, with real scientists serving as their mentors. Students learn about careers in chemistry and receive mentoring in college preparation and professional development projectseed@acs.org Maryland Locations

NEWS & EVENTS - JHU



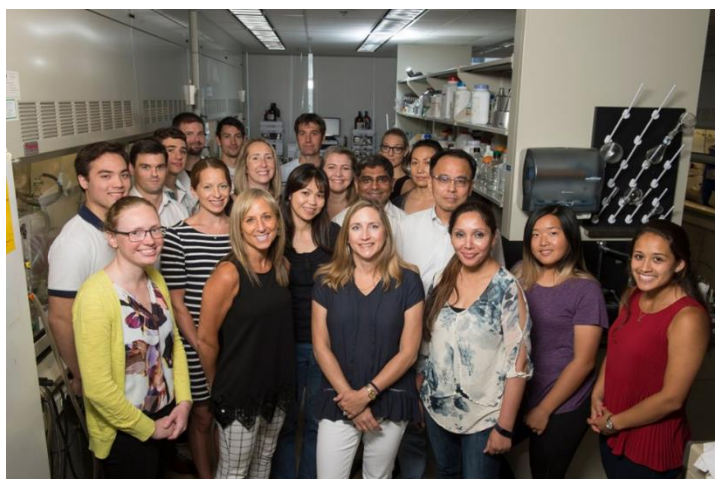
Takashi and Post-docs: Eva Prchalova, Ondrej Stepanek, and Graduate Intern Martin Hadzima. Photos courtesy of Sarah Zimmerman



2021 photo Courtesy of Takashi Tsukamoto



JHDD Group



2021 Chemist of the year Award

Nominator:

Beatrice Salazar



I nominated Takashi Tsukamoto for his invaluable work as a chemist, researcher, and teacher. And for his excellent work as volunteer for the ACS Maryland local section of the American Chemical Society where he serves the scientific community, teachers, students at High Schools and college levels with outstanding diplomacy and valuable knowledge.

His volunteer work is an inspiration. **At high schools:** he has visited public schools and performed chemistry demonstrations. He has inspired high school students to advance in Chemistry by formalizing the U.S. National Chemistry Olympiad for the ACS Maryland local section and by delegating the duties to key people. **With college students:** he has embraced college students to give them firsthand experience with the work of a scientist through **Project SEED** (Summer Experiences for the Economically Disadvantaged - see explanation above p.6). He teaches university students and designs his own courses for a comprehensive [drug discovery case studies](#)

on biological research. **For the community:** He has worked in industry and academia. His involvement with the community let us enjoy diverse activities like wine tours, seminars, and visits to Maryland Companies. He has directed various Middle Atlantic Regional Meetings e.g., MARM-2012 and MARM-19, enhancing chemistry education, research studies as well as bringing economic support for the Maryland local section. His leadership is commendable; we are proud of his work and accomplishments; the Maryland Chemist of the Year Award is a well-deserved Award. Congratulations to Takashi and his family!

Nominator brief/relevant background:

Volunteer for the ACS Maryland Section since 2010

Leadership positions:

Councilor for the ACS Maryland Section for the serves the e year 2020-2023

Chesapeake Chemist Editor- in-Chief 2020 - present

Member at Large & Immediate past Chair - 2019

Chair ACS Maryland Local Section - 2018, Vice-chair - 2017, Chair Elect - 2016

Coordinator / School Outreach Programs since 2010

1_ Chemist [Celebrate Earth Day](#) Outreach Events since 2016

2_ U.S. National Chemistry Olympiad, [USNCO](#)

Teacher Mentor and Chemistry and Physis Teacher at Baltimore County Public Schools 2000-2020

Educational and professional experience

Master's in chemistry education from the University of Pennsylvania (UPENN)

BA in mathematics and computer Science from Eastern Connecticut State University (ECSU)

Teacher of Mathematics at University of Wisconsin (Milwaukee)

Teacher of Computer science at ECSU

Teacher Mentor and Chemistry Teacher at Baltimore County Public Schools, BCPS

Teacher of Chemistry and Physics Philadelphia, PA and Baltimore County, MD.

Activities and Presentations Poster presenter: at ACS Leadership Institute meetings in Dallas, TX

Poster Presenter: ACS National Meetings: New Orleans, NOLA 2018 and San Diego, LA, 2019.

Panel Presentation *Future of Chemistry Education* for teachers Baltimore County Community College-2018

Webinar: ACS USNCO panel of five: *An introduction to USNCO to High School Students and Teachers* Oct./Nov.2021.

HISTORY CORNER...

Maryland Chemist of the Year Award

The Maryland Chemist Award was established in **1962**.

The award recognizes and honors, each year, a member of the Maryland Section for outstanding achievement in the fields of chemistry

[Previous Award Recipients](#)

History of the award and changes since 1975 by Dr. Angela Sherman, Chair of the Award Committee see [2020 Chemist of the year award](#) pages 7 and 8.



Dr. George L. Braude (left) being presented with 1968 Maryland Chemist Award by Section Chairman Timothy F. Parr (right). In the center is George Steinberg, Chairman of the Awards Committee.

Dr. Angela Sherman, Ph.D.



Dr. Angela Sherman is a Vice President for Academic Affairs at the Maryland Independent College and University Association. Also, Former Chair and Professor in the Chemistry Department at Notre Dame of Maryland University. She obtained her Ph.D. from Purdue University and began her professional career working in the chemical industry prior to accepting a faculty position.

Award Recipients from Johns Hopkins University

2021 Takashi Tsukamoto, Johns Hopkins University

2020 David Yarcony, Johns Hopkins University

2017 Thomas Lectka, Johns Hopkins University

2011 Kenneth Karlin, Johns Hopkins University

2001 Raymond A. Mackay, Johns Hopkins University

The Johns Hopkins award recipients since the millennia are listed above, they make a great team!

Let your colleagues be recognized, send their names with a list of accomplishments and we will do the rest, contact Angela Sherman and read about [the requirements](#) for this prestigious award. All Chemists from Industry, Universities and Colleges in the State of Maryland are eligible for this award. Let them know that you value and admired their commitment to science.

Congratulations!



The Maryland Section of the ACS: 2021 Officer and Councilor Elections

President Elect

Dr. Jiangnan Peng

Alternate

President Elect

Dr. Michele Foss

Alternate

President Elect

Dr. Rebekka klausen

Secretary

Dr. Louise Hellwig
Since 2000

Treasurer

Dr. Lee Lefkowitz
2nd Term

Member At Large

Dr. Sara Narayan

Member At Large

Dr. Rose Pesce-
Rodriguez

Member At Large

Dr. Nirupam J. Trivedi
1st Term

Member At Large

Dr. Nicole Carbonaro

Member At Large

Dr. Fasil Abebe

ANNOUNCEMENTS

EXECUTIVE COMMITTEE MEETING No. 4. Year 2021

December 10th at 7:00PM Zoom meeting

Here is the link to the zoom meeting:

<https://us02web.zoom.us/j/84578882896?pwd=bm1VRG9WUHJXU1J0ajNuS1o3R05MQT09>

Contact:

ACS Maryland Local Section Chair, 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 |

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message at 443-801-0582.

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CALL FOR NOMINATION: 2022 Braude Award <https://acsmaryland.org/braude-award/>



Louise Hellwig,
Ph. D.

The Braude Award created to honor a professor conducting outstanding research involving students at a college or university in the Chesapeake region, is awarded every year in October. The award ceremony takes place at the October ACS Maryland Section meeting. The honored recipient presents his/her research and receives a plaque describing his/her contributions to chemistry. In addition, the honoree receives monetary award to help support further student research. Nominations for the 2022 Braude Award nominations are open for submission now. Nominees must be members of the ACS Maryland local Section of the American Chemical Society. We encourage underrepresented candidates both men and women. Please submit a list or description of the research accomplishments of the nominee, as well as an indication of the number of students involved in the research to Louise Hellwig.

Email: louise.hellwig@morgan.edu. **Deadline: June 1, 2022**

CALL FOR CONTRIBUTIONS: 2022 The Chesapeake Chemist Newsletter, CCNL. <https://acsmaryland.org>



Send your articles, ideas and share your chemistry interest with your colleagues. They will be published in the following sections: SECTIONS OF

BOOKS...

Which book influenced your career? Provide title, author, edition, year of publication and a brief paragraph on how the book influenced you and why.



ARTICLES...

Did you read a fascinating article, recently or long time ago? Share with younger scientists, share it with other colleagues



CHEMISTRY LITERATURE SPOTLIGHT...

Welcome to the section created for chemists to discuss chemistry.

Samples of previous discussions:

- Science, **Cryo-EM structure of the 2019-nCoV spike in the prefusion confirmation.**

<https://science.sciencemag.org/content/sci/early/2020/02/19/science.abb2507.full.pdf> by

Dr. C. Rojas "What dis the science behind COVID-19?"

[Chesapeake Chemist March/April 2020](#) Vol.77 Issue No.2 p19

- Chemical reviews: **Reactivity of Nitrogen from the Ground to the Atmosphere**

<https://pubs.acs.org/doi/pdf/10.1021/acs.chemrev.0c00361>



WHY I CHOSE ACS MARYLAND LOCAL SECTION...

An invitation to all ACS Maryland **NEW members** to submit your statement and a short biography. Let us know who you are and get involved with the chemist community.

Congratulations Takashi!

2021

Maryland Chemist of the Year Award Recipient



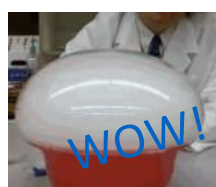
Your Legacy at ACS Maryland Local Section



USNCO



Project SEED



K-12 Schools



Editor 2011

Chair ACS MD 2012



[MARM 2019](#)

Laugh a little...



- **Why did the 22140857×10^{23} molecules of Methyl Acetate go to jail?** It was a Mole-Ester!
- **Three Helium molecules walk into a bar.** The bartender asks, "what's so funny?"
- **I once went carbon dating...** I was arrested because carbon was only 14
- **An environmentalist friend of mine told me I should buy organic because it is sustainable.** I looked at my bank account, and I really disagree
- **Man, I hate organic chemistry** - It can be so indecisive. Whenever I ask oxygen if it prefers a methyl group or an ethyl group it always responds: "Ether"
- **An organic chemist, an analytical chemist, and a physical chemist** are asked, if a certain horse will win the race. The organic chemist asks what the horse has been eating and drugs given to it. The analytical chemist asks for the makeup of the track and mud. The physical chemist starts with "If we assume that the horse is a sphere..."
- **What do you call it when an organic lifeform goes out with another organic lifeform?** Carbon dating
- **What do you call an organic compound in which a hydroxyl is bound to a carbon atom of an alkyl?** See? Sometimes alcohol IS the answer!



Bonding Through Chemistry

ACS Spring 2022

March 20 - 24

San Diego, CA and Online

[Abstract and symposia information is available.](#)

Undergraduate and Graduate Student Travel Grants

Undergraduate and Graduate students may apply to the ACS Maryland Section to receive up to \$500 for travel and expenses to attend a National ACS Meeting. This is open to ACS members who are enrolled full time in a college or university in the Maryland Section.

The application should include:

- The meeting you plan to attend along with location and dates
- Your ACS membership number
- An estimated budget (cost for travel, registration, lodging, and meals)
- A 250 word essay describing your motivation for attending the meeting
- A copy of your abstract and the abstract number ACS gave it when your abstract was accepted
- A letter of support from your faculty advisor
- Please state what would be the most convenient way for the check to be made out, in the event you are awarded a travel grant.

Applications for the spring national ACS meeting are NOW BEING ACCEPTED; decisions will be announced by January 20, 2022.

To a certain extent the decisions will be made on a first come, first served basis, however the goal is to allow students from as many schools as possible to attend, so special consideration will be given to the first student who applies from each college/university. We especially encourage schools which have never had a student apply for a travel grant, to consider applying for a travel grant this year.

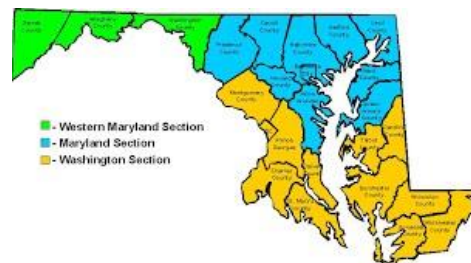
Submit your application to Louise Hellwig by e-mail: Louise.Hellwig@morgan.edu

If you are awarded a travel grant, the following items need to be submitted after the meeting:

- Photocopies of receipts totaling the amount of the award.
- Trip report summarizing your experience at the meeting and photos of yourself at your poster at the meeting so we can proudly post them on the section website.

Contact:

Louise Hellwig
Chemistry Department, SP 212
Morgan State University
1700 E. Cold Spring Lane, Baltimore, MD 21251
443 885 2085 - URL: <https://acsmaryland.org>

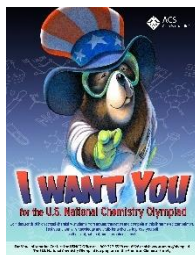


MARYLAND SECTION REPORTS

ACS has launched a 2021 series of webinars to prepare high school participants to the U.S. National Chemistry Olympiad. These webinars are targeting coordinators, teachers, and students. A course has been created to prepare teachers and students for the exam. Students need to create an ACS ID and login the same as a regular ACS members <https://acs.org>. For questions email USNCO@acs.org.

USNCO webinars' topics and schedule for 2021 is below.

Topic	Date	Time
Introduction to the USNCO for Students <i>Presenter: Christine Saber, Erie LS.</i> Panelists: Beatrice Salazar, Maryland LS; Mitk'El Santiago, Puerto Rico LS; and Yitian Zhu, 2021 IChO gold medalist. Register for Introduction to the USNCO for Students	October 22, 2021	7:00 PM ET
Preparing for the USNCO Local Section Exam for Students <i>Presenter: Esther Hines, Northeastern LS.</i> Panelists: Monica Arroyo, Puerto Rico LS; Denis Merat, Memphis LS; and Andrew Wu, 2018 IChO gold medalist Register for Preparing for the USNCO Local Section Exam for Students	November 19, 2021	7:00 PM ET
Preparing for the USNCO National Exam for Students. <i>Presenters Joshua Pak, Idaho LS and Steve Lantos, Northeastern LS.</i> Panelists: Steven Chen, Princeton LS; Derek Chien, USNCO alumnus; Alec Zhu, 2020 IChO gold medalist Register for Preparing for the USNCO National Exam for Students	December 10, 2021	7:00 PM ET
Marketing and Promotion of the USNCO Program for Coordinators. <i>Presenters: Mitk'El Santiago and Monica Arroyo, Puerto Rico LS</i> Register for Marketing and Promotion of the USNCO Program for Coordinators	December 17, 2021	7:00 PM ET



2022 U.S. National Chemistry Olympiad an Invitation to High School Chemistry Teachers

Dear Colleague,

As chair of the **Beatrice Salazar** Section of the American Chemical Society (ACS), I am pleased to announce that we will be participating in the 2022 U.S. National Chemistry Olympiad (USNCO). The primary goals of this program are to stimulate interest and achievement in chemistry among high school students throughout the United States and to provide recognition of outstanding young chemistry students, teachers, and schools.

My immediate task is to encourage you and your students to participate in this program. It is the responsibility of the **Maryland Local Section** to nominate students from this area to take the USNCO national examination. In order to identify these students, we have decided to conduct a preliminary screening of students through

- 1. Students complete the registration form** available at the [USNCO](#) Maryland website
- 2. Complete the ACS virtual form**, participants need to view the introductory webinar, sign up to take

preparatory courses for the USNCO exams, and learn how to navigate the new ACS USNCO platform

- 3. Prepare for the exam** by using the previous exams websites and taking the practicing test available at ACS

USNCO website

- 4. Participate in the Local Maryland Exam**

IF the student qualifies for the National exam three additional requirements are needed to proceed. We inform students after the local exam is completed

Requirement 1. Provide a letter of recommendation from Chemistry teacher (or teacher sponsor)

Requirement 2. Complete an additional form - Photo release signed by parents or by students if 18 yrs. old. The form is available at the Maryland USNCO website

Requirement 3. Take the U.S. National Chemistry Olympiad exam

The national exam involves three parts administered to more than 1,000 students. Students can use past exams available at www.acs.org/olympiad to prepare.

I encourage your school to participate in this academic competition. All students who participate in the local competition will be recognized and presented with a certificate that they can include in their college portfolio. Students who sit for the national level of the competition receive additional certificate for national nominees and a commemorative lapel pin. A approximately 150 top scoring students receive recognition for outstanding performance at the national level. We hope this recognition will serve to stimulate interest in chemistry and to promote a positive attitude toward chemistry. Students will also receive a certificate of participation from both Local section and from ACS at the National level.

Additional certificates will be presented if students excel in the exams. In addition, the Maryland Local Section of the American Chemical Society will give a token of appreciation for your interest un chemistry.

Students competing in the USNCO are eligible to be selected as members of the United States team for the International Chemistry Olympiad (ICHO). For the past thirty-eight years, the United States has sent a team of four students to compete with nations around the world at the IChO. The students participate in examinations, get to know students from other countries and learn about the host country's culture over several days. Gold, silver, and bronze medals are awarded to the best performers, and the IChO provides students the opportunity to interact with their peers from other countries. **The 54th international event will be organized by China, July 10-20, 2022.**

Beatrice Salazar has been appointed the USNCO Coordinator for the Maryland area. We encourage you to enter students from your school in this competition by completing and returning the registration form before **March 5, 2022**. Thank you for helping promote chemical education in this country.

Sincerely,

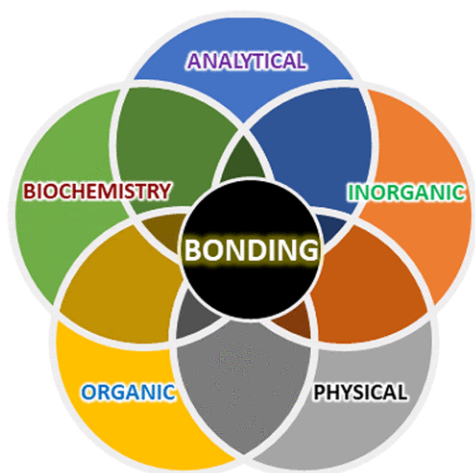

Chair, Maryland Local Section, ACS

Contact information:

Maryland-USNCO website: <https://beatricesalazarusncocoordinator.webs.com>
Maryland-USNCO Coordinator: Beatrice Salazar
Address: 1204 Roundhill Rd. Baltimore, MD 21218
Phone: 443-801-0582 leave a message "USNCO"
Email: beatricesalazar1@gmail.com

BOOKS

An interesting reading... The chemistry department at the United States Naval Academy developed a process to examine student learning in one particular thematic area of chemistry that was addressed in multiple courses throughout the entire curriculum, namely bonding.



JOURNAL OF CHEMICAL EDUCATION

[A Program-Level Assessment of Student Understanding of Bonding in the Chemistry Major](#)

Melonie A. Teichert, Shirley Lin, *et al.*

doi.org/10.1021/acs.jchemed.1c00104

Publication Date (Web): November 18, 2021

[Read Article](#)

ACS MARYLAND Local Section Councilor's Corner...

Goals

- To bring the best communication between ACS and Maryland members in order to improve their professional career. *Beatrice Salazar*
- To continue to support the development and employment of chemical professionals. *Jan E. Kolakowski*
- to maintain contact with ACS National and represent our Section's concerns and needs to ACS National staff and committees. *Kelly Elkins*
- To continue to support the Maryland Section at ACS meetings. *Stephanie Watson*

COUNCILORS REPORT

by Beatrice Salazar, Councilor 2021-2023

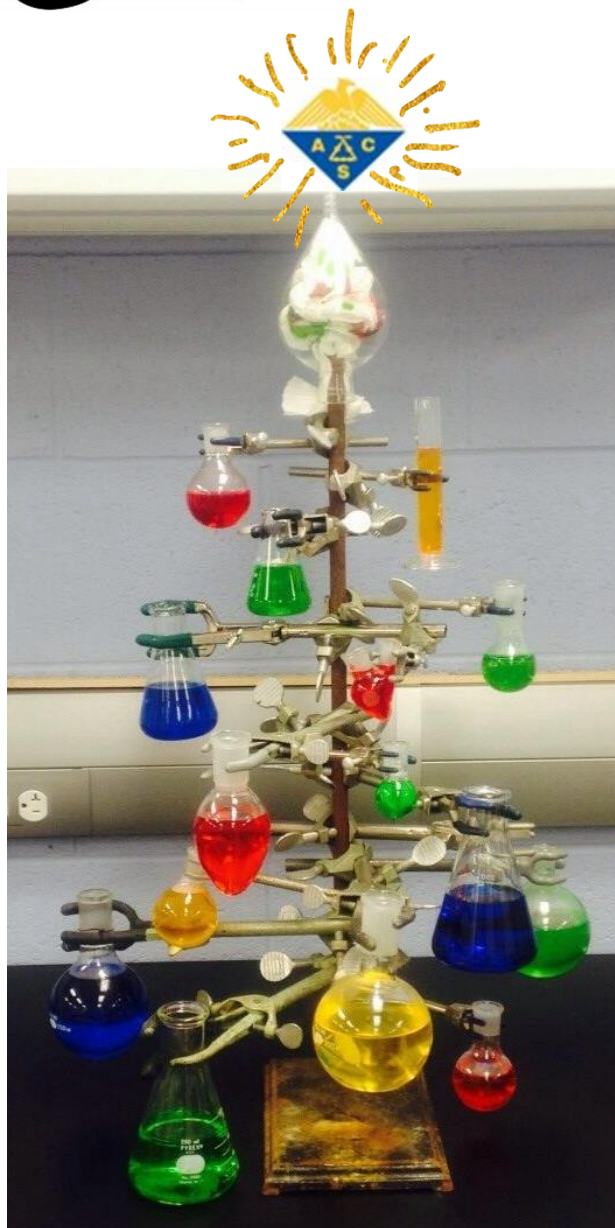
ACS National Meetings of 2021, a time to reflect on what has been done...

Councilors had opportunity to ask questions during Councilor National Meetings. We discuss the major initiatives for 2021-2022. It is time that the local sections review the year's activities and reflect on what has been done and what we need to do soon.

- Innovation is important to leaders in science -
- A need to close the gap between chemist and industry -
- Prominent issues on how to increase diversity -
- Project SEED programs (1993) expansion at both local and national level
- Build upon past goals
- Councilors could serve as mentors at all levels and engage all local sections
- Address local section's concerns to create better ties with university students
- Influence university leaders and planning virtual lessons learnt from the pandemic - Train scientists to be better communicators
- Increase virtual communication
- "Walk the walk" lead by example
- Plan engagement of young chemists with emphasis on K-12 chemists, involve local sections
- Work on regulation before materials are created

...rather than after... Solve unsolved problems where chemistry will be the solution.

We need challenging issues papers. Believe in the power and value of chemistry in every-day life (involve local sections). Communication between industry and chemistry teachers. Safety is part of all activities: when a chemist invents something, he/she thinks of safety. Meaning of safety refers to behavior which turns to ethics.



**Thank you and
Goodbye!**

From all of us at ACS Maryland Local Section

We want to express our gratitude to **Dr. Eric Cotton, Chair 2021** for all his work as volunteer for the local section. We will continue his initiatives with the high school virtual chemistry tutoring and we will follow closely the amendments of the Maryland Local section by-laws (see p.18)

ACS Maryland Local Section

Welcomes the new officers for the year 2022

Sarah Zimmerman, Chair 2022

Jiangnan Peng, Chair Elect 2022

Other leadership positions see pages 9 & 25

Best of Luck to all!

OUTREACH LIBRARY PROGRAM

Contact:

Rose A. Pesce-Rodriguez CIV USARMY ARL (US) at rose.a.pesce-rodriguez.civ@mail.mil



Chemistry in the Library: National Chemistry Week Fast or Slow...Chemistry Makes It Go!

Join a chemist from the Army Research Laboratory and the American Chemical Society and participate in hands-on experiments exploring the chemistry of reaction rates. Ages 7 & up (7-8 year olds must be accompanied by an adult); 45 min. Registration required.

Library System	Branch	Day	Date	Time
Anne Arundel County	Maryland City	Saturday	04 Dec	11:00 am
Howard County Library System			http://polaris.hclibrary.org/polaris/	
Enoch Pratt Free Library			https://www.prattlibrary.org/	
Carroll County Public Library			https://library.carr.org/	
Anne Arundel County Public Library			https://www.aacpl.net/	

The USNCO Maryland

Few and Easy Requirements

American Chemical Society

Our Process

Become informed

Register

Take the Local Exam

Take USNCO Exam

Get Nominated

Chemistry Teacher Letter of Recommendation

All Maryland 9-12 students may participate



All information and forms required are on the website of the Maryland Local Section acsmaryland.org or use [USNCO-MD](#)



¹BYLAWS OF THE MARYLAND SECTION OF THE AMERICAN CHEMICAL SOCIETY

BYLAW I: Name

The name of this organization shall be the Maryland Section (hereinafter referred to as the "Section") of the AMERICAN CHEMICAL SOCIETY (hereinafter referred to as the "SOCIETY").

BYLAW II: Objects

Section 1. The objects of the Section shall be the same as those of the SOCIETY as stated in the Constitution of the SOCIETY.

Section 2. Nothing in these bylaws shall be inconsistent with the Charter, Constitution, and Bylaws of the SOCIETY.

BYLAW III : Territory and Headquarters

The territory of the Section shall be that assigned to it by the SOCIETY.

BYLAW IV: Members and Affiliates

Section 1. The rolls of the Section shall include those MEMBERS, ASSOCIATE [STUDENT] MEMBERS, and Society Affiliates of the SOCIETY residing within the territory of the Section, provided that exceptions to this rule shall be made in conformity with the Constitution and Bylaws of the SOCIETY.

Section 2. The Section may have Local Section Affiliates as authorized in the Constitution and Bylaws of the SOCIETY.

Section 3. MEMBERS, ASSOCIATE [STUDENT] MEMBERS, Society Affiliates, and Local Section Affiliates shall have such rights and privileges as are accorded them by the Constitution and Bylaws of the SOCIETY. All members may vote. An ASSOCIATE [STUDENT] MEMBER is entitled to all privileges of membership except that of holding an elective position or serving as a Temporary Substitute Councilor.

Society Affiliates and Local Section Affiliates may not vote for or hold an elective position of the Section, vote on articles of incorporation or bylaws of the Section, or serve as Temporary Substitute Councilor.

¹**Effective May 12, 2008.** Approved, as amended, by the Committee on Constitution and Bylaws, acting for the Council of the AMERICAN CHEMICAL SOCIETY.

BYLAW V: Organization

Section 1. The officers of the Section shall be a Chair, Vice-Chair, Chair-Elect, Secretary, and Treasurer.

Section 2. The Section shall have Councilors and Alternate Councilors as provided in the Constitution and Bylaws of the SOCIETY.

Section 3. The Executive Committee shall consist of the officers of the Section, the Councilors, Alternate Councilors, Past Chairs residing within the territory of the Section, five Members-at-Large, the Editor and Business Manager of *The Chesapeake Chemist*, and the chairs of all standing committees.

Section 4. All officers, Councilors, Alternate Councilors, and other persons holding an elective office shall be chosen from the MEMBERS.

BYLAW VI: Manner of Election and Terms of Office

Section 1. Officers of the Section and Members-at-Large of the Executive Committee shall be elected annually and serve for a term of one year, beginning on January 1 following their election, or until their successors are qualified. The Vice-Chair shall automatically be nominated to serve in the office of Chair upon completion of the term of the Vice-Chair. The Chair-Elect shall automatically be nominated to serve in the office of Vice-Chair upon completion of the term of Chair-Elect.

Section 2. Councilors and Alternate Councilors shall be elected for a term of three years, beginning on January 1 following their election, or until their successors are qualified. The number of Councilors shall be determined by the SOCIETY.

Section 3. In the event of a vacancy in the office of Chair, the Vice-Chair shall assume the duties of the Chair for the unexpired term and the Chair-Elect shall assume the added duties of the Vice-Chair when that position is vacant. In the event of a vacancy, elective positions shall be filled for a period up to the next annual election by a vote of the Executive Committee. In the event the office of Chair-Elect is filled by such interim appointment, the Section shall elect both a Vice-Chair and Chair-Elect at its next annual election. A Chair may not serve a term of more than one year unless the duties of Chair were assumed for a partial term to fill a vacancy.

Section 4. Nominations.

- a. The Chair shall appoint in August of the year preceding the election a Nominating Committee of five persons, not more than three of whom are to be members of the Executive Committee. One of the appointees shall be the Vice-Chair. The Chair shall designate any of the five to be Chair of the Committee.
- b. Notice of the names of those on the Nominating Committee shall be published in *The Chesapeake Chemist* by November of the year preceding the election. This shall be prior to the meeting of the Nominating Committee to permit members time to suggest suitable candidates for elective positions for which vacancies shall occur after December 31 of the following year.
- c. The Nominating Committee shall meet at such a time that its nominations may appear in the January issue of *The Chesapeake Chemist*. The Committee shall select one or more candidates for each position up for election.
- d. Before February 15, members of the Section may nominate candidates for any office by providing the Section Chair with nominating petitions containing the signatures of at least two percent (2%) of the Section members. To be valid, the signature of a member may not appear on behalf of more than one candidate for the same

office. The names of any such MEMBERS so nominated shall be included on the ballots with the names of those nominated by the Nominating Committee.

- e. In all cases, before a name can be placed on the ballot, the nominee must agree to serve if elected.
- f. Publication of the slate of candidates in *The Chesapeake Chemist* shall be considered adequate notice to the members.

Section 5. Elections.

- a. The elections shall be held by ballot published in *The Chesapeake Chemist* or distributed separately before May 15 to all members of the Section. The names of all candidates shall appear on the ballot whether opposed or not.
- b. The voted ballots must be returned to the Chair by July 10.
- c. If a single candidate is to be elected, the candidate with the largest number of votes will be declared elected. Positions for which more than one candidate is to be elected (e.g., Member-at-Large of the Executive Committee) shall be filled by declaring those candidates elected who receive the largest number of votes. In the event of a tie vote, a special committee consisting of the Section Chair, Vice-Chair, Chair-Elect, Secretary, Treasurer, and Chair of the Nominating Committee shall by a majority vote determine the winner.
- d. The Chair of the Section shall count the ballots in the presence of witnesses and certify to the Executive Director of the SOCIETY, as soon as possible but not later than August 1 of each year, the names, addresses, and terms of the elected officials from the Section for the following year.

BYLAW VII: Duties of Officers and Executive Committee

Section 1. The duties of the officers shall be those customarily performed by such officers, together with those responsibilities prescribed by the Constitution and Bylaws of the SOCIETY and these bylaws along with other duties as may be assigned from time to time by the Executive Committee.

Section 2. The Chair of the Section shall serve as Chair of the Executive Committee, shall appoint members and/or affiliates and chairs to standing committees, and may establish any standing committees authorized in these bylaws or by the Executive Committee. The Chair shall appoint a committee to audit the Treasurer's records annually.

Section 3. The Executive Committee shall be the governing body of the Section and, as such, shall have full power to conduct, manage, and direct the business and affairs of the Section in accordance with the Constitution and Bylaws of the SOCIETY and these bylaws.

Section 4. The latest edition of *Robert's Rules of Order, Newly Revised* shall be used as the authority to resolve procedural matters during business meetings.

BYLAW VIII: Committees

Section 1. There shall be the following standing committees:

- a. Archives and History
- b. Awards and Nominations
 - (1) George L. Braude Award
 - (2) Society Nominations
 - (3) Maryland Chemist Award

- (4) Maryland Service Award
- (5) Remsen Memorial Award
- (6) Student Awards
- (7) W. R. Grace & Co. Award

- c. Bylaws
- d. Chemical Education and Safety
- e. Education
- f. Finance
- g. High School Activities
- h. House
- i. Investment
- j. Long Range Planning
- k. Member Assistance
- l. Membership Development
- m. Program
- n. Public Relations
- o. Publicity
- p. Women Chemists

Section 2. The Chair or Executive Committee may establish, abolish, and define the duties of any *ad hoc* committee. The duties of all committees shall be as described from time to time by the Executive Committee.

Section 3. The Vice-Chair of the Section shall be the Chair of the Program Committee.

Section 4. The chairs of the various Awards and Society Nominations Committees shall submit the names of all nominees and all supporting documents along with the committee's recommendations to the Section Chair. Submissions must be made by the dates that follow:

- a. George L. Braude Award: May 1 of the year of the award
- b. Maryland Chemist Award: July 1 of the year of award
- c. Maryland Service Award: August 1 of the year of award
- d. Remsen Memorial Award: December 1 of the year preceding award

Section 5. The final selection of individuals for Section awards or nominations for other awards shall be made by a committee consisting of the Section Chair, Vice-Chair, Chair-Elect, Treasurer, Secretary, and Immediate Past Chair of the Section.

Section 6. Recipients of the Maryland Chemist Award must have been members of the Section for a minimum of five years and have made outstanding contributions to chemistry as defined in the Constitution of the SOCIETY (chemistry is defined in very broad terms). The work on which the award is based should have been performed in Maryland.

Section 7. The Investment Committee shall select appropriate investments for the Section's funds subject to approval of the Executive Committee. When necessary, the Investment Committee shall have independent authority to direct the Treasurer on buying and selling an investment. The Treasurer shall report the status of all such actions at each Executive Committee Meeting or on request by the Section Chair. The Investment Committee should consist of three members, preferably past Treasurers with some investment experience.

Section 8. The Finance Committee shall prepare an annual budget for annual review by the Executive Committee.

BYLAW IX: Meetings

Section 1. A regular meeting of the Section shall be one at which business of the Section, which may require a vote of the members, may be conveniently transacted.

Section 2. The Section shall hold not less than 6 regular meetings each year, at places and times designated by the Executive Committee.

Section 3. The Section may hold special business meetings at the call of the Executive Committee, or by the request of 50 members of the Section. Any other meetings shall be called only by the Executive Committee. The notices of special business meetings shall state the exact nature of the business to be transacted, and no other business shall transpire at such meetings.

Section 4. Due notice of all meetings shall be sent to each MEMBER, ASSOCIATE [STUDENT] MEMBER, Society Affiliate, and Local Section Affiliate of the Section. A quorum for all meetings of the Section shall consist of four percent (4%) of the members of the Section. In the absence of a quorum, no business shall be transacted, except that any pending business shall be postponed to a meeting to be held on a specified date.

Section 5. The Executive Committee shall meet not less than four times each year upon due notice to its members at the call of the Chair or at the request of a majority of the members of the Committee. In the absence of a quorum, which shall be 25 percent (25%) of the members of the Executive Committee, exclusive of Past Chairs not serving in another capacity on the Executive Committee, called meetings of the Executive Committee shall adjourn to a specified date.

BYLAW X: Finances

Section 1. All Section funds shall be received and disbursed by the Treasurer, subject to the approval of the Executive Committee.

Section 2. The Executive Committee may authorize the Treasurer to solicit from all MEMBERS, ASSOCIATE [STUDENT] MEMBERS, Society Affiliates, and Local Section Affiliates of the Section, except members of the SOCIETY in emeritus status, the payment of such voluntary Section dues as may be set by that Committee.

Section 3. The annual dues of the Local Section Affiliates shall be set by the Executive Committee in accordance with the Constitution and Bylaws of the SOCIETY. The dues of Local Section Affiliates will be equivalent to current Section dues plus an amount approved by the Executive Committee approximately equivalent to the apportionment made by the SOCIETY for each member. Failure to pay such dues in advance shall automatically terminate such affiliation.

Section 4. The Executive Committee may authorize the Treasurer to solicit from MEMBERS, ASSOCIATE [STUDENT] MEMBERS, Society Affiliates, and Local Section Affiliates of the Section such voluntary contributions for special purposes as may be set by that Committee from time to time.

BYLAW XI: Section Affiliation

Section 1. The Section may affiliate with other technical and professional organizations that operate within its territory and enhance its ability to pursue the objects of the SOCIETY providing such affiliations

- a. do not make the Section responsible for debts incurred by said organization
- b. do not commit the Section to actions or positions of said organization
- c. shall be approved by ballot of the Section's members; and
- d. are approved by the Committee on Constitution and Bylaws acting for the SOCIETY.

Section 2. Affiliation shall permit business arrangements between the organizations if such arrangements meet the first two criteria and generally support the program goals of the Section.

BYLAW XII: Amendments

Section 1. A proposed amendment to these bylaws must first be submitted to the Executive Committee. If it is approved by a majority of the Executive Committee, or if the proposal is signed by 50 or more members of the Section, the Secretary shall publish for all members of the Section copies of the proposed amendment.

Section 2. A ballot, a copy of Bylaw XII, and the section of the bylaws to be amended shall accompany the notice of the proposed amendment. The amendment may be adopted if two-thirds (2/3) of the ballots returned to the Secretary, within 30 days after publishing of the notice, are in the affirmative. The amendment shall become effective upon approval by the Committee on Constitution and Bylaws, acting for the Council, unless a later date is specified.

BYLAW XIII: Dissolution of the Section

Upon the dissolution of the Maryland Section, any assets of the Section remaining thereafter shall be conveyed to such organization then existent, within or without the territory of the Local Section, as is dedicated to the perpetuation of objects similar to those of the AMERICAN CHEMICAL SOCIETY, or to the AMERICAN CHEMICAL SOCIETY, so long as whichever organization is selected by the governing body of the Local Section at the time of dissolution shall be exempt under Sec. 501(c)(3) of the Internal Revenue Code of 1954 as amended or under such successor provision of the Code as may be in effect at the time of the Section's dissolution.



COMMENTS:

Thank you for your contributions!

We sincerely appreciate your contributions and the time you spend writing articles, comments and news for our newsletter. Your Collaboration makes this newsletter an important part of the Maryland Local section activities.

Useful Links from contributors:

- <https://www.editage.com/insights/a-young-researchers-guide-to-perspective-commentary-and-opinion-articles>
- See Chesapeake Chemist [volume 77 Issue No. 4 pg.13](#) for the announcement of a government job
- Senior Chemists presentations: [Dr. G. Lozos, Dr. R. Berninger and Dr. C. Milton](#)
<https://acsmaryland.org/chemistry-video-links/>

EVENTS CONTACT

The U.S. National Chemistry Olympiad
USNCO MARYLAND

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

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 Sara Narayan, Stevenson University,
SNARAYAN@stevenson.edu

April

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

Senior Awards

Email: Merle Eiss, meiss32@aol.com

Email: Linda Gonzalez <linda_gonzalez@mccormick.com>

May

National Chemistry Week Events

[Rose Pesce-Rodriguez](#)

<http://www.beatrizosalazarusncocoordinator.webs.com>

Beer Tours: Louise Hellwig <Louise.Hellwig@morgan.edu> & Michele Foss <foss.michele@gmail.com>

May to 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/>

Email: Angela Sherman, asherman@ndm.edu and

Dec.

2021 ADMINISTRATION OFFICERS

2021 SECTION OFFICERS

Chair 2021.....	Eric C. Cotton, Community College, of Baltimore County, ccotton2@ccbcmd.edu
Vice-Chair 2021.....	Sarah Zimmerman, Web Master, scatzim@gmail.com
Chair-Elect (Chair 2023)	Kelly Elkins, Kmelkins@towson.edu
Secretary 2021.....	Louise Hellwig, Morgan State University, louise.hellwig@morgan.edu
Treasurer 2021.....	Lee Lefkowitz, lee_lefkowitz@hotmail.com
Past Chair (2020).....	Pumtiwitt McCarthy, Morgan State University pumtiwitt.mccarthy@morgan.edu

2021 SECTION COMMITTEE ON NOMINATIONS and ELECTIONS

Chair of the Committee on Nominations.....	Eric Cotton, Chair 2021 ccotton2@ccbcmd.edu
Additional 4 members:	Dana Ferraris, Chair-2019, dferraris@mcdaniel.edu
.....	Pumtiwitt McCarthy, Chair-2020, pumtiwitt.mccarthy@morgan.edu
.....	Beatrice Salazar, Chair-2018, beatricesalazar1@gmail.com
.....	Sara Narayan, Stevenson University, Chair-2015, SNARAYAN@stevenson.edu

COUNCILORS/COMMITTEES

- 2020-2022 Kelly Elkins Kmelkins@towson.edu
- 2021-2023 Beatrice Salazar beatricesalazar1@gmail.com
- 2021-2023 Jan Kolakowski jek6042@gmail.com
- 2021-2023 Stephanie Watson stephanie.watson@nist.gov

ALTERNATE COUNCILORS/COMMITTEES

- 2021-2023 Alexander Samokhvalov alexandr.samokhvalov@morgan.edu
- 2021-2023 Rob Clapper rob.clapper@scioninstruments.com
- 2021-2023 Michele Foss foss.michele@gmail.com
- 2020-2022 Paul Smith pjsmith@umbc.edu

MEMBERS-AT-LARGE

- Angela Sherman, asherman@ndm.edu
- Fasil Abebe fasil.abebe@morgan.edu
- Therese Ku, tkyaya@gmail.com
- Rose A. Pesce-Rodríguez, rose.a.pesce-rodriguez.civ@mail.mil
- Sara Narayan, Stevenson University, SNARAYAN@stevenson.edu

Maryland Section on the Website: www.acsmaryland.org

Webmaster..... Sarah Zimmerman, 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: acsmarylandsection10@gmail.com

PROGRAM CHAIRS

AWARDS

Braude Award, L. Hellwig

Remsen Award, D. Ferraris

Maryland Chemist of the Year Award,
A. Sherman

Senior Chemist Award, M. Eiss/L. Gonzalez

Student Award, S. Narayan

Women Chemists, S. Narayan/K. Elkins

PROGRAMS

Women Chemists Committee, S. Narayan/K. Elkins

Student Travel, Louise Hellwig

High School Outreach: National Chemistry Olympiad & Chemist Celebrate Earth Day,
B. Salazar

Middle and Elementary School Outreach
(National Chemistry Week, Earth Day Week),
R. A. Pesce-Rodríguez

Publicity, S. Zimmerman/B. Salazar/P. McCarthy

Entertainment/Tours, M. Foss/L. Hellwig

CHEMUNITYNEWS

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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, please add the MD ACS e-mail



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