

ACS MD Celebrates 50, 60, & 70-Year Members



“STEM Outreach in Our Communities”
Drs. Sandy Young and Rose Pesce-Rodriguez
MD ACS Section

Drs. Young and Pesce-Rodriguez have been active in K-12 outreach for nearly 20 years, and they have established programs for children and adults in Baltimore City and Harford, Howard and Carroll counties. They bring hands-on STEM activities to schools and public libraries to promote awareness of chemistry in the world around us. They will give an informal presentation on the development of their STEM outreach programs and involve the audience in some hands-on activities that they can bring home and share with others to spread excitement about the Central Science!

Friday, May 25, 2018
Mathew's 1600
1600 Frederick Road
Catonsville, MD 21228
11:30 am to 2:00 pm

Chesapeake Chemist

Maryland Section
American Chemical Society

2018 Section Officers:

Chair 2018..... Beatrice Salazar, beatricesalazar1@gmail.com
Vice Chair 2018..... Dana Ferraris, McDaniel College, dferraris@mcdaniel.edu
Chair-Elect (Chair 2020).... Pumtiwitt McCarthy, Morgan State University, pumtiwitt.mccarthy@morgan.edu
Secretary 2018..... Louise Hellwig, Morgan State University, louise.hellwig@morgan.edu
Treasurer 2018..... Angela Sherman, Notre Dame of Maryland University, asherman@ndm.edu
Past Chair (2017)..... Stephanie Watson, N.I.S.T., stephanie.watson@nist.gov

2018 SECTION COMMITTEE ON NOMINATIONS

Nominated by current Chair, Congratulations!

Chair of the Committee on Nominations..... James Saunders, jsaunders@towson.edu
Additional 4 members: Beatrice Salazar, Chair, beatricesalazar1@gmail.com
..... Dana Ferraris, Vice Chair (required), dferraris@mcdaniel.edu
..... Sara Narayan, Stevenson University, SNARAYAN@stevenson.edu
..... Sandra Young, RDECOM, sandra.k.young26.civ@mail.mil

COUNCILORS/COMMITTEES

1. 2018-2020 Dana Ferraris Chair of the Section Program Committee (McDaniel College), dferraris@mcdaniel.edu
2. 2018-2020 Jan Kolakowski Chair of Section Finance/Investment Committee, jek6042@gmail.com
3. 2017-2019 Merle Eiss Member of ACS Meetings and Expositions Committee, meiss32@aol.com
4. 2017-2019 Paul Smith Member of ACS Local Section Activities (LSAC) Committee Associate/Chair of Long Range Planning Committee (MARM-2019) (UMBC), pjsmith@umbc.edu
5. 2018-2020 Stephanie Watson Member of the ACS Committee on Committees (ConC) Liaison on [Nomenclature, Terminology and Symbols](https://www.nist.gov/p11sep/nomenclature-terminology-and-symbols) (NIST), stephanie.watson@nist.gov

ALTERNATE COUNCILORS/COMMITTEES

1. 2017-2019 Kelly Elkins Member of the ACS Ethics Committee, Kmelkins@towson.edu
2. 2017-2019 Pumtiwitt McCarthy Chair of Publicity Committee, pumtiwitt.mccarthy@morgan.edu
3. 2017-2019 Sandra Young Chair of Community Outreach Activities Committee, sandra.k.young26.civ@mail.mil
4. 2018-2020 Michele Foss Committee TBA, foss.michelle@gmail.com
5. 2018-2020 Sarah Zimmerman Chair of Member Assistance Committee,* scatzim@gmail.com

*New 2018 Committee as per Maryland Section Governance Bylaws, nominated by current Chair, Congratulations!

<https://www.acs.org/content/dam/acsorg/about/governance/charter/lsbylaws/maryland.pdf>

MEMBERS-at-Large

Suzanne Procell, Edgewood Chemical Biological Center, suzanne.a.procell.civ@mail.mil
Rose A. Pesce-Rodriguez, RDECOM, rose.a.pesce-rodriguez.civ@mail.mil
Sara Narayan, Stevenson University, SNARAYAN@stevenson.edu
James Saunders, jsaunders@towson.edu
George Farrant, gfarrant@yahoo.com

[Awards Committee Chairs & Local Section Committees Chairs](#)

Maryland Section on the Web:

maryland.sites.acs.org

Webmaster:

Pumtiwitt McCarthy, Pumtiwitt.McCarthy@morgan.edu

Chesapeake Chemist Editor-in-Chief:

Pumtiwitt McCarthy, Pumtiwitt.McCarthy@morgan.edu

Contact us at:

contact-us@mdchem.org

Message from the Chair

Dear colleagues:

I want to thank all members of the ACS Maryland section for their participation in the activities this past month.

- On April 14th we had the Chemistry Olympiad in Maryland which was part of the competition at a National level (USNCO); selected students will eventually compete at the 50th International Chemistry Olympiad (IChO) in Prague, Czech Republic.
- We provided opportunities to young chemists to attend programs of interest such as the recent WCC lecture by Dr. Clare Muhoro, Associate Professor at Towson University. Dr. Muhoro is an organometallic chemist. Some of her research work is carried out in Ecuador and Kenya where she and her students focus on remediating the immediate needs for water resources in these countries. Another event was the Student Awards Ceremony where we celebrated accomplished young chemists from Maryland universities and colleges.
- April proved to be an open door for diversity and inclusion. Earth Day and ACS Earth Week brought students, teachers and professionals together to learn about the environment. Water treatment and the contributions of chemistry to public health was a major theme during our tour of the Montebello Lake Water Plant facility for high school students. Students enjoyed learning about chemistry and its relevance to water treatment. In a science fair at Saint Francis School, students K-5th learned about polymers, electricity, conductivity, forensic chemistry, diabetes and sugars in food and about wild animal rescue in the Maryland area.

We are looking forward to May and June events:

On May 12, 2018 we will have our tremendously successful annual beer tour, this time at the Peabody Heights Brewery. Please sign up using Doodle (see the flyer in the Chesapeake Chemist)

We will get together with senior chemistry members on **May 25th** to celebrate their long-standing membership to the society. We will be celebrating 50, 60 and 70-year memberships!

In June we are having two programs. The first will be another tour of the Montebello water filtration plant in Baltimore, this time for adults; a tribute to the environment and sustainability of clean drinking water. Our second program is a tour of the Baltimore Museum of Art (BMA) highlighting “Materials and human creativity through time and place.” The tour will include different media used by artists to express their creativity at different times and in different places. **Saturday, June 30, 2018** at 2 PM. Save the date!

Continue to look for: *2018-Information is key* calendar that will keep you informed in detail about activities at the local section.

Beatrice Salazar

Maryland Section Chair-2018

Information is Key

The following includes a background on ACS and the Maryland Local Section, information on our website, and executive committee meetings and more section's programs for 2018. Please check the *2018 Year Events* to see in detail each month of activities. For information on previous months events or other past activities please refer to Chesapeake Chemist publications: [January](#), [February](#), [March](#) and [April](#).

III. Executive Committee Meetings

Plans for this year include four regular executive committee meetings:

First executive committee meeting: **Monday Feb. 12, 2018** at Notre Dame of Maryland University

Second executive committee meeting: **Tuesday, April 24, 2018** at Stevenson University

Third executive committee meeting in September 2018, exact date TBA

Fourth executive committee meeting in December 2018, exact date TBA

Exact dates will be announced approximately two weeks prior to each meeting. Please allocate time in your schedules. An extra meeting will be assigned to discuss MARM-2019. Dates could change. Please use our website to stay informed on exact dates. For [minutes](#) of previous meetings please check the website.

If you have any event to be considered please contact us before each month's meeting.

The Maryland Section Program for 2018 continues...

All ACS members are welcome to our local section activities, lectures and events. They could bring new initiatives to us and ask for support on their activities. We are good at collaborating.

MAY

Saturday, May 12, 2018 at 2:00 P.M.

Let's have FUN! See the advertisement on our next BEER TOUR Contact Louise Hellwig, Kelly Elkins or just sign up at <https://doodle.com/poll/imebe95v74spbnbm>

Friday, May 25, 2018 at 11:30 A.M.

Let's Celebrate! Senior Chemists Luncheon at Matthew's, 1600 Frederick Road in Catonsville.
Presentation: STEM Outreach in our Communities by Rose Pesce-Rodriguez and Sandra Young, Maryland Section members.
Contact: [Paul Smith](#)

JUNE

1. **BMA Tour** "Materials and human creativity through time and place." The tour will focus on different media (wood, ceramic, bronze, marble, oil, steel, etc.) used by artists to express their creativity in different places and at different times. Saturday or Sunday - Exact date TBA. [Contact: Beatrice Salazar](#)

Student Travel Awardees

Comment on their experience at the 255th ACS meeting in New Orleans!



Ethan Hain,  **UMBC**
AN HONORS UNIVERSITY IN MARYLAND

Attending, presenting, and networking at this year's ACS was a rewarding and helpful experience. I attended many oral presentations detailing antibiotic resistance, the presence of antibiotics in the environment, and phototransformation of antibiotics. These presentations have inspired new research ideas that I hope to pursue during or after my graduate research studies. They have also helped me in thinking about how to contextualize and complete the narrative of the manuscript I am writing on my current research. Presenting my poster describing my work involving *Pseudomonas fluorescens* at both Sci-Mix and the Environmental Chemistry poster session aided in my communication of results, and gave me good feedback on how to organize the data in the manuscript I am writing. I also learned of important considerations to think through from conversations shared with experts in the field during the poster session. By presenting my research, observing talks and asking questions, and attending the ACS Environmental Chemistry reception dinner, I was able to network with many professors and graduate students in the field of environmental engineering. These relationships may offer opportunities in the future for post-doctoral work, which will be critical for my development and possible employment in academia or policy. The relationships and knowledge gained from this year's conference were invaluable to my current and future development.

Mamatha Hopanna,  **UMBC**
AN HONORS UNIVERSITY IN MARYLAND

I had a great experience at the 255th American Chemical Society (ACS) national meeting in New Orleans, LA. My work that I presented was well appreciated. I received lots of positive feedback with constructive suggestion to solve some of the challenges of my project. It was certainly a confidence boosting exercise presenting to the peers of environmental photochemistry field. As I had expected, attending the conference was an excellent opportunity to network with other professors and grad students. It was an excellent opportunity to interact and exchange ideas and views with graduate students during conference sessions. I was also able to attend a lot of interesting talks given by peers of my field as well as other environmental topics. I would like to thank you for considering me for the ACS Maryland travel grant.

Greg Vickers, UMB Pharmacy

Following my recent trip to the ACS conference in March, I learnt a variety of skill that I will use in the future. I learnt how to communicate effectively while presenting my work and network with new



people with the possibility of communicating with them again if it would help us out. Some of the lectures I attended gave me further insight on different parts of my research as well as showing me other projects relating to other matters that peak my interest. Overall, the experience was invaluable and I thoroughly enjoyed my time talking to everyone I met.

Nathan Bowen, UMB Pharmacy

Our trip to the ACS conference in New Orleans was without doubt a worthwhile experience. To present my research gave me a great opportunity to consolidate my work and unveil some more ideas for the remaining months of my project. Communicating with and listening to seminars of those who are involved with different areas of research gave me a better perspective of how my work fits in and allowed me to discover more interests, of which I could possibly explore in my further education and subsequent career. The whole trip was incredibly enjoyable and I would definitely like to visit an event like this again.

Ivie Conlon, UMB Pharmacy

Going to the ACS conference in New Orleans this year was extremely beneficial. Not only was I able to see and hear different talks relating to my own research, but I was able to attend talks on subjects I wouldn't have been able to learn about or been aware of had I not gone. Having a poster on display also allowed me to interact with other peers, as well as people working in my field in industry as well as academia. At the poster session I was able to work on my speaking and presenting skills as well, helping me become more comfortable when I talk about my research. Overall, the conference was valuable for me, helping me grow in a variety of skillsets as well as furthering my education in chemistry.

Maisha Khan, Hood College



I was very excited to have the opportunity to go to the ACS National Meeting this year. I loved getting a chance to learn about more careers in the field of chemistry. Incidentally, the meeting was also an opportunity to meet with Hood College alumni that now have careers in chemistry and hear about their career paths. Furthermore, the many lecture sessions were a fascinating look into the world of chemical research and the exciting advances involving nanoparticles or clean energy, just to name a few. This glimpse into recent advancements was especially useful to me as an upperclassman who will have increasing opportunities to choose topics for assignments and projects in upper level chemistry courses. Most importantly, it was wonderful to have the chance to present my own research during a poster session. As a student at a small college, it was great to test both my scientific and public speaking skills with a larger audience. Overall, the ACS National Meeting in New Orleans was a unique way to experience what my future in the field of chemistry may look like, hone my own skills in STEM, and be inspired by the strides made by the field as a whole.



ACS Local Section
Maryland

is going on **another**
BREWERY TOUR!



Location 401 E 30th St,
Baltimore, MD 21218

Date/Time: Saturday, May 12, 2018 at 2:00 P.M.

Cost: FREE admission! (just pay for your drinks)

RSVP to <https://doodle.com/poll/imebe95v74spbnbm>

Tour the Peabody Heights Brewery & learn how beer is made!

Tour includes lots of baseball history, since the brewery
is on the site of an Old Orioles stadium!

You must be 21+ years of age to drink.

For safety reasons, no open toe shoes, flip flops, heels, etc.

CONGRATULATIONS

Senior Chemists!

Mr. Orley R. Bourland Jr.
Frederick, MD
Emeritus Member

Mr. D. N. David
Annapolis, MD
Emeritus Member

Dr. Warren W. Hillstrom
Bel Air, MD
Emeritus Member

Dr. Yuan Chuan Lee
Johns Hopkins Univ.
Baltimore, MD
Emeritus Member

Mr. Herman Adolph Bode
Street, MD
Emeritus Member

Dr. Richard L. Hall
Towson, MD
Emeritus Member

Dr. Irving Wender
University of Pittsburgh
Pittsburgh, PA
Emeritus Member

Mr. Harold L. Gotoff
Baltimore, MD
Emeritus Member

Mr. John K. Detrick
Cockeysville, MD
Emeritus Member

Mr. Clare L. Milton Jr.
Slack Assoc.
Baltimore, MD
Emeritus Member

Dr. Robert Caldwell Badger
Frederick, MD
Emeritus Member

Dr. Ronald William Berninger
Baltimore, MD
Emeritus Member

Dr. James Anthony Kelley
NCI Frederick
Chem Bio Lab 376 RM 106
Frederick, MD
(H) Silver Spring, MD
Regular Member

Dr. George Peter Lozos
Baltimore, MD
Regular Retired Member

Dr. John F. McCarthy
Adamstown, MD
Emeritus Member

Mr. Thaddeus John Novak
Bel Air, MD
Emeritus Member

Dr. Joseph E. Saavedra
Thurmont, MD
Regular Retired Member

Dr. S. Stoney Simons Jr.
Galesville, MD
Emeritus Member

Dr. Richard Roman Smardzewski
Bel Air, MD
Emeritus Member

Dr. Stanley A. Sojka
Frederick, MD
Emeritus Member

Dr. Robert E. Tarney
Rising Sun, MD
Emeritus Member

Dean W. Robinson
Bradenton, FL
Emeritus Member

American Chemical Society

Congratulations!

on reaching this important milestone

50, 60 and 70-years of American Chemical Society membership!

We are celebrating your great achievement with a luncheon. Come and join us with your wife, friends and relatives!

Luncheon date: Friday, May 25, 2018
Location: Mathew's 1600
1600 Frederick Road
Catonsville, MD 21228
Time: 11:30 am to 2:00 pm

Agenda:

11:30 -11:45	Registration
11:45 -12:30	Lunch
12:30 - 1:30	Presentation by Drs. Young and Pesce-Rodriguez
1:30 - 2:00	Remarks from 50/60/70 Year Members

Presentation: STEM Outreach in our communities

Our speakers Dr. Sandra Young and Dr. Rose Pesce-Rodriguez have been active in K-12 for nearly 20 years. They have established programs for children and adults in Baltimore City, Howard, Hartford and Carroll counties. They will present the development of their STEM outreach programs and involve the audience in some hand-on activity that spread excitement about chemistry, the central science.

Thank you,

The Maryland Local Section of the American Chemical Society

Please RSVP to Beatrice Salazar
e-mail: beatricesalazar1@gmail.com

The Maryland Section
of the
American Chemical Society

Congratulates

U.S. National Chemistry Olympiad Finalists!



Back row: Linda Prentice (CCBC, Dundalk), Yashas Anil (Mount Hebron HS), Isuru Sachinta Herath (Marriotts Ridge HS), Chase Blanchette (Mount Hebron HS), Ronald Henry Erdman (Loyola Blakefield), Zhuoyuan Li (Marriotts Ridge HS), Wilson Robert Turner and Benjamin Elias Ruggeri (Towson HS), William Jeffery Holbrook (Hereford HS), Abhinav Modugula (Long Reach HS), Kevin Wang Philadelphia LS. Front row: Sayak Maity (Centennial HS), Abigail J. Macher (Bethesda Chevy Chase HS), Rachel Pontious and Elizaveta Zheleznyakova (Baltimore Polytechnic Institute), Beatrice Salazar Maryland Section Chair-2018/USNCO Coordinator, Evon Ford, (CCBC Essex) and Eric Cotton, Coordinator at CCBC Catonsville (taking photo).

Fourteen highly qualified high school chemistry students participated in the 50th U.S. National Chemistry Olympiad on Saturday, April 14, 2018. These students are from the Maryland area and one of them from Philadelphia. The team was competing with approximately 1300 students at the

national level! Students used the facilities at the Community College of Baltimore County, CCBC at Catonsville campus. Three long and challenging exams were given at the Mathematics and Science (MASH) building.



The Maryland Section of the American Chemical Society (ACS) nominated the above students after a process of registration, teacher recommendation and a preliminary qualifying local examination. We congratulate all nominees for their academic

excellence and commitment to chemistry. Special thanks to parents and teachers for their continuing guidance; the success of these youngsters is a direct result of their encouragement and support. The U.S. National Chemistry Olympiad



Consist of 5-hour examination process on chemistry theory, laboratory skills and problem solving exercises. The first part of the exam evaluated student's knowledge in inorganic and organic chemistry. This exam consisted of 60 multiple choice questions.



The second part was the laboratory practical. Students' creativity and logical thinking process are tested in this part of the exam. Students must design and carry out their own experiments to solve two questions. The equipment for each experiment is placed on the laboratory bench prior to the exam thus giving students a guideline on procedures to use.



The third part of the exam consisted of 8 problem solving questions. These questions are to be answered in a booklet in essay form. This part of the exam can be the most challenging part of the exam in part because it requires writing ability in addition to chemistry knowledge.

Students had pizza for lunch at the chemistry conference room where they enjoyed lively conversation on their topics of interest, plans for college, chemistry jokes and gave a token of appreciation to the teachers at CCBC. This relaxing atmosphere helps students connect and relate to one another. Students received a jacket with the ACS Maryland logo; this team-souvenir will remind them of their accomplishment for quite few years. They also receive a publication from ACS. See the next picture where we capture one happy moment!



Elizaveta and Rachel present a thank you card and a USNCO commemorative pin to Eric Cotton and Diane T. Winter

Next Steps – The results of this exam will be the basis to select 20 students from across the US to participate in the chemistry camp at the US Air Force Academy in Colorado (June 10-25). After a grueling training period the top four students will be chosen to represent the United States at the International Chemistry Olympiad in Prague, Czech Republic (July 19 - 29).

The US National Chemistry Olympiad is open to all high school students in the State of Maryland. The invitations to all schools are sent during the months of December and January. The registration and local examination occur during the months of February and March. The National Exam is in April.

Contact:

Beatrice Salazar,

Chair-2018, Maryland Local Section of the American Chemical Society

USNCO Coordinator in Maryland

E-mail address: beatricesalazar1@gmail.com.

For information on the program use the local [USNCO](http://www.usnco.org) website or <http://www.maryland.sites.acs.org>

Gallery



William J. Holbrook



Rachel Pontious

Elizaveta Zheleznyakova



Wilson R. Turner

Benjamin E. Ruggeri



Chase Blanchette

Abigail J. Macher



Sayak Maity

Zhuoyuan Li



Yashas Anil



Abhinav Modugula



Kevin Wang



Ronald H. Erdman



Isuru S. Herath

Collection:



U.S. National Chemistry Olympiad, April 14, 2018



Successful Activities

Maryland Section 2018

Chemists Celebrate Earth Day

EVERY DAY IS EARTH DAY... IN THIS ISSUE: MONTEBELLO WATER FILTRATION PLANT-I APRIL EVENT

The year 2015 marks the 100th anniversary of the Montebello Water Filtration Plant-I in Baltimore. Since then, the Maryland Section is providing a tour of the facilities to high school students to spread the knowledge of chemistry and let students learn the chemistry involved in the treatment of water. This year, chemistry students from the Baltimore Polytechnic Institute (BPI) visited the plant with their chemistry teacher Alan S. Wishart. Students listened to the detail explanations of analytical chemist Richard Nuss, Laboratory Director at the Montebello Plant. He began introducing the history of the construction of the plant and the impact it made on public health in the early 1900's. Due to the clean and purified water, dysentery, cholera and other deadly diseases disappeared completely by 1930. There are three water treatment plants in Baltimore but the Montebello plant is the oldest and is still 100% operational providing water to about 1.8 million residents of Baltimore and surrounding counties. At the

beginning of the tour there is a model of the Plant-I where one could observe two man-made lakes where the backwash water is deposited after raw water treatment. One of these lakes is the largest and beautiful Montebello lake.



Water Treatment begins with the addition of Cl_2 to raw water to kill bacteria. This is **Pre-Chlorination** step-1. There are some microbes that resist chlorine so the treatment continues to step-2 **Coagulation and Flocculation**; for this purpose Alum is added to water to form floc, the mixing

of alum is fast and thorough to obtain good solubility. The floc formed is separated in large **sedimentation** basins (step-3) with slow moving paddles to direct the floc out of the clean water. The water at the surface is drained to filtration tanks (step-4) for RSF or **Rapid Sand Filtration**, the most basic and effective water treatment where all remaining impurities are removed. At this step of the process turbidity is analyzed (see photo at the bottom). The filters are backwashed to maintain efficiency and reuse the filters; the backwashed water goes to different places: one - for irrigation, two - a reservoir for further treatment, if it contains toxic materials or three- to the Montebello lake (used as reservoir with a natural treatment).

Purification and medicinal methods

The addition of Fluoride began in 1945; since then this has been a controversial issue. Many doctors and professionals in the field support the addition of **Fluoride (F)** because it prevents caries. The treated water is exposed to air, the environment and



gets in contact with the metal pipes used for water distribution. To prevent further contamination more chlorine is added, **Post-Chlorination** and a residue of 1.0 ppm is left in the clean

drinking water. Finally, to avoid corrosion in the pipes and the release of unwanted copper, iron or lead ions the **pH level of the water is increased** to about 8.0. This is

obtained **by adding lime** to treated water, This process has been effective and safe. Baltimore water is considered one of the most clean, pure drinking water in the USA.

The final part of the tour was a treat!
Students were able to see the laboratory with sophisticated equipment to aid analytical chemists analyze the water at every step of the process. Where they make the decisions on how much and what type of chemicals will be added to water and where they draw conclusions on how to proceed in case of emergencies. This is a routine and a daily procedure that the people in charge of the water must follow daily. Thanks to them, very qualified scientists, we can enjoy the clean pure drinking water we use in our homes daily.



Students present Richard Nuss a token of appreciation for his contribution to Maryland Section's Outreach Programs



Earth Day is celebrated around the world on April 22nd of each year. We joined the fun and showed our love for earth by taking few seeds to help with the beautification of the Montebello Lake



WELCOME TO THE THIRTY-FOURTH ANNUAL CHEMATHON

Saturday, April 28, 2018
Department of Chemistry and Biochemistry
University of Maryland, College Park
<http://blog.umd.edu/chemathon/>

SCHEDULE 8:00 A.M. - 2:00 P.M.

CHEMATHON EVENTS

Level I Teams

A. Reactions in Action (Rm 0119)
Weighing by Redox (Rm 1346)

B. Hydronium Hijinks (Rm 1356)
Mendeleev Madness (Rm 0128)

C. Density Dilemma (Rm 1112)
Viscoelastic Bounce (Rm 1360)

D. Chemysterie (Rm 1342)
Avogadro's Tiebreaker (Rm 0115)

Level II Teams

E. Beat the Clock (Rm 1326)
The Balancing Act (Rm 0127)

F. Traveling Electrons (Rm 1308)
Density Dilemma (Rm 1128)

G. Chemysterie (Rm 1330)
LeChatelier's Lunacy (Rm 0124)

H. Make My [Fara]day (Rm 1302)
Avogadro's Tiebreaker (Rm 0115)

Chemathon Sponsors

Fisher Scientific
Educational Innovations, Inc.
Paul Ford, McCormick and Company, Inc.
Kim Morehouse, Chemical Society of Washington

Mike Zapf, American Chemical Society, Maryland Section

Participating schools

Bethesda-Chevy Chase High School

Bryn Mawr School

Century High School

Garrison Forest School

Georgetown Preparatory School

Holton Arms School

IDEA Public Charter School

John Carroll School

Kenwood High School

Laurel High School

Magruder High School

Muslim Community School

North Harford High School

Patterson Mill High School

Richard Montgomery HS 2nd Place

River Hill High School

South River High School

The Catholic High School of Baltimore

Thomas S. Wootton High School

Tuscarora High School

Walter Johnson High School

Winston Churchill High School

Urbana High School

Perry Hall High School

Montgomery Blair HS 2nd place

Long Reach High School

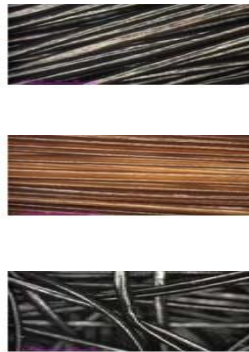
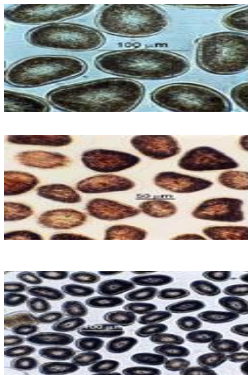
La Plata High School

Annual SFA STEM Club Earth Day/Science Night

Last April 26, 2018, 5:30-7:15 P.M. The SFA STEM Club for pre-K-5th grade at Saint Francis School hosted an exciting science night event. The hands-on science experiments hosted by the Maryland section of the American Chemical Society included:



Finger printing



Hair analysis

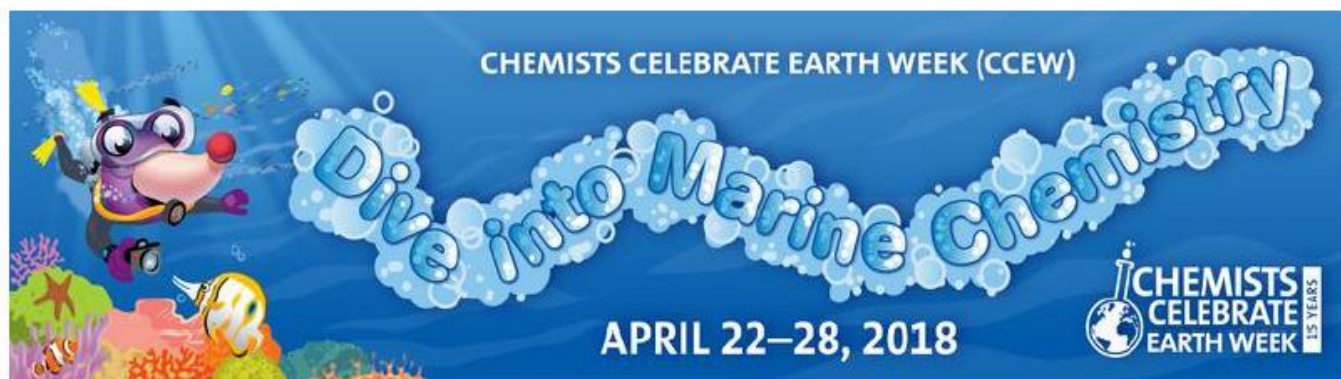


Potential and Kinetic Energy



St. Francis of Assisi School





MAY 5 – JULY 21, 2018

Chemistry in the Library: Chemists Celebrate Earth Week Events

Programs are for children ages 7 & up; 7-8 year olds must be accompanied by an adult.

Miller Library program on 9 May at 7pm is open to all ages.

60 min. Registration required. Please register with the appropriate library system.

Howard County Library System

Glenwood Branch

Sat, April 7 @ 11 am

<https://hclibrary.org/>

Enoch Pratt Free Library

Govans Branch

Saturday, April 14 @ 2pm

www.prattlibrary.org/

Howard County Library System

East Columbia Branch

April 21 @ 2 pm

<https://hclibrary.org/>

Howard County Library System

Savage Branch

Sat, April 28 @ 2pm

<https://hclibrary.org/>

Howard County Library System

Elkridge Branch

Sat, May 5 @ 2 pm

<https://hclibrary.org/>

Howard County Library System

Miller Branch

May 12 @ 1 & 3 pm

Wednesday, May 9th @ 7pm (adult/family program)

<https://hclibrary.org/>

Howard County Library System

Central Branch

Sat, May 26 @ 2 pm

<https://hclibrary.org/>

Carroll County Library System

Eldersburg Branch

Sat 21 Jul @ 1pm

<https://library.carr.org/>

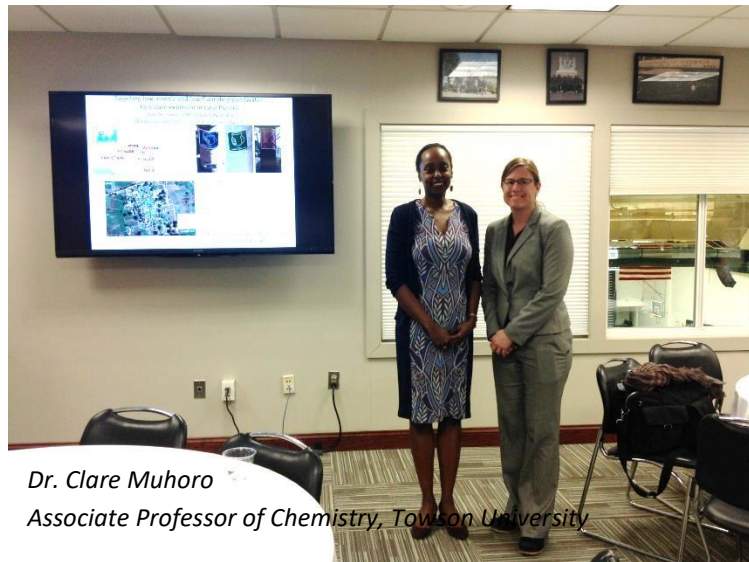
WCC Special Event on April 12, 2018

Dr. [Clare Muhoro](#) presented a stimulant talk to members of the Maryland Section of the American Chemical Society: [Science for Diplomacy and Global Development: Perspectives of an Organic Chemist](#).

Dr. Muhoro is an Organometallic Chemist from Yale University. Some of her research work is carried out in Ecuador and Africa where she and her students focus on degradation of organic pesticides in tropical aqueous environments and remediating the immediate needs for water resources in these countries. She is a

science policy advisor at the Agency for International Development (USAID). She promotes and develops international research collaborations through programs that address critical developmental changes in lower-and middle-income countries around the world. Dr. Muhoro supports women in science through her world-wide engagement with [COACH](#) for scientists. Her talk was very engaging, informative and interesting. We hope to learn more about her research and programs' outcomes in the near future.

The event took place at Loyola University thanks to Dr. Theresa Nguyen who made possible the location and the delicious dinner we had that night. This event is coordinated by two Maryland Section members who co-chair the Women Chemist Committee (WCC). Contact: [Sara Narayan](#) and [Kelly Elkins](#) (in photo above).



*Dr. Clare Muhoro
Associate Professor of Chemistry, Towson University*



Dinner, engaging conversation and Presentation. Photos courtesy of Beatrice Salazar, Chair-2018 Maryland Section

SUCCESS STORIES Update on Student Travel Awards and its impact to Chemistry Safety

Sarah Ashleigh Wirick and her professor Christopher Stromberg research was featured in C&EN, March 26 edition. Congratulations!

Some safety eyewear fails to protect against ultrafast lasers

Users should test eyewear under their own working conditions, researchers suggest

by Jyllian Kemsley

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C&EN website <https://cen.acs.org/safety/lab-safety/safety-eyewear-fails-protect-against/96/i13>

To Maryland Section Executive Board: *“Thank you. That feature was a direct result of us being able to attend the meeting, which we couldn’t do it without the Maryland Section’s support! Thanks, Chris”* Christopher Stromberg.

Abstract ID: 2860140

Femtosecond laser eyewear protection: Measurements and precautions Maximilian Riedel-Topper¹, Sarah Wirick¹, Joshua A. Hadler², Brian G. Alberding³ Edwin J. Heilweil³, Christopher J. Stromberg¹

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Unlike continuous-wave lasers, femtosecond pulsed lasers have wide spectral bandwidths and extremely high peak power. Lasers such as Ti:Sapphire oscillators also have an adjustable center wavelength. These factors become an issue when selecting eyewear protection, as the eyewear may not protect the user from the entire laser spectrum, and the integrity of the eyewear material may be compromised by the high peak powers. This study was a continuation of a previous study that measured the effective optical densities of commercially donated filter samples. In this study, the same samples were tested to characterize their potential modes of failure using a 1 kHz Ti:Sapphire regenerative amplifier which generated ca. 80 fs pulses with various wavelengths, powers, repetition rates, and beam spot sizes. For some filters, the wide bandwidth and variable center frequency of the laser caused the observed optical densities to be significantly lower than the supplier’s rating at the center frequency. The observed modes of failure included melting, burning, bleaching, and saturable absorption behavior. Several filters transmitted several orders of magnitude more light than the supplier’s suggested optical density ratings without any physical signs of damage. In general, plastic lenses were considerably more likely to fail, while all glass samples tested maintained their integrity under the conditions tested. The results of these experiments indicate that eyewear protection should be tested under the given experimental conditions to determine their efficacy before use.

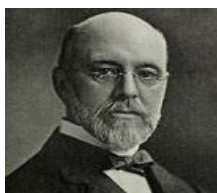
SUCCESS STORIES: Update on Project SEED Alumni

Corshai Williams, formerly a student at Western High School, was a Project SEED high school student at Morgan State University during the summer of 2013 (working with Dr. Yousef Hijji) and the summer of 2014 (Dr. Pumptiwitt McCarthy). We have now received word that she has been accepted at MIT for a PhD in Chemistry with a full scholarship and teaching assistant position! Congratulations Corshai! The ACS Project SEED summer research program allows economically disadvantaged high school students to intern in an academic, industrial, or government laboratory. <https://www.acs.org/content/acs/en/education/students/highschool/seed.html> Corshai's stipend was paid by the national ACS (50%) and by the Maryland Section.

SUCCESS STORIES: 2018 Outreach Volunteer of the Year Award

Dr. Angela Sherman (Chemistry Department Chair at Notre Dame of Maryland University and Maryland Section Treasurer) has received the 2018 Outreach Volunteer of the Year Award for her commitment to the local section and the outreach programs. An announcement of the award and her picture came out in [February 8th](#) on the ACS website.

The Remsen Award is announced!



The Ira Remsen Award was inaugurated in 1946 in honor of Ira Remsen who was the second President of Johns Hopkins University.

The 73rd **Ira Remsen Award (2018)** will go to Professor Chad Mirkin of Northwestern University. The award will be presented on November 15, 2018 at Johns Hopkins University.



► Remsen Award to Chad Mirkin

Chad Mirkin, the George B. Rathmann Professor of Chemistry and director of the International Institute for Nanotechnology at Northwestern University, is the winner of the \$2,500 Remsen Award, presented by the ACS Maryland Section for outstanding achievement in chemistry. The award is named after Ira Remsen, Johns Hopkins University's first chair

of the chemistry department.

Among Mirkin's achievements is the invention of spherical nucleic acids, which have applications including extracellular and intracellular molecular diagnostics, gene regulation, and immune modulation. He will present a lecture on Nov. 15 at Johns Hopkins University.—LINDA WANG

Please send announcements of awards to L_wang@acs.org.



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Announcement courtesy of C&EN. Lisa Wang

Announcements

CALL FOR NOMINATIONS: MD ACS OFFICER POSITIONS Nominations are solicited from the membership for positions as officers within the Maryland Section of ACS. Nominations may be sent to the Chair of the Nomination Committee, Dr. James A. Saunders at jsaunders@towson.edu either as self-nominations or to nominate a colleague. Positions that are elected in 2018 are: 1 Chair-Elect 1 Treasurer 1 Secretary 5 Members At Large 2 Councilors The Chair-Elect term is 3 years: candidate is Chair-Elect for one year, and then moves to Vice-Chair for one year, followed by Chair for the last year. Two Councilor positions are also open for a 3-year term in 2018. Members-at Large, Treasurer and Secretary are elected each year.

CALL FOR NOMINATIONS: 2018 Braude Award.

The Braude Award, established by George and Monique Braude, is awarded at the October meeting and honors a professor conducting outstanding research involving students at a college or university in the Chesapeake region. At the October dinner meeting the recipient presents his/her research and receives a plaque describing his/her contributions as well as a monetary award to help support further student research. Nominations are now being accepted for the 2018 Braude Award. Nominees must be a member of the ACS, and underrepresented candidates including women, are encouraged. 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 that research, to Louise Hellwig via e-mail: louise.hellwig@morgan.edu. Deadline: June 1, 2018.

MARM 2018 (NANOMARM 2018)

The 2018 ACS Middle Atlantic Regional Meeting will be held at Lehigh University in Bethlehem, PA on June 3, 2018. For more information see the following website: <http://marmacs.org/2018/marm2018.html>.

ACS Call for papers Present Your Innovative Work at the 2018 Green Chemistry & Engineering

Conference. The call for abstracts is now open! Submit abstracts for presentation at the [22nd Annual Green Chemistry & Engineering Conference \(GC&E\)](#), to be held June 18-20, 2018, in Portland, OR. The theme for the 2018 GC&E is "Product Innovation Using Greener Chemistries."

REMINDER:

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 MD ACS membership in October 2006.

Changing your e-mail address? Moving out of the MD ACS area? E-mail changes can be updated either by:

- E-mailing us at acsmarylandsection10@gmail.com – give us your member #, full name, and e-mail changes and we can ensure that your records are updated with National ACS.
- **Contacting the National ACS membership division: 800-333-9511 (US only)** or service@acs.org

To ensure that you receive the Chesapeake Chemist, please add the MD ACS e-mail acsmarylandsection10@gmail.com.

If you are a member who currently doesn't receive the Maryland ACS Chesapeake Chemist but download it from our website, it is possible that National ACS does not have your e-mail address on file. If you want to receive the Chesapeake Chemist via e-mail, please e-mail us at acsmarylandsection10@gmail.com – give us your member #, full name, and e-mail address and we can ensure that your records are updated with National ACS.

The current edition and previous editions of the Chesapeake Chemist can ALWAYS be obtained via our website: <http://www.maryland.sites.acs.org> – please see the Newsletter Archive link on the left-hand side of the website.



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