

Chesapeake Chemist

Maryland Section
American Chemical
Society



~ Dr. Judith A. Harrison ~
Professor of Chemistry
US Naval Academy
(<http://www.usna.edu/ChemDept/facultyInfo/jah/jah.htm>)

“Unraveling the mechanisms of Friction using Computer Simulations”

Wednesday, October 21, 2009 – 6pm – Berkshire Marriott Conference Hotel, Towson, MD

Message from the Chair

Dear Fellow Members,

~ Insert October Chair Note Here ~

Sincerely,

Walter A. Roy, Jr.

2009 Chair, Maryland Section

October Meeting - Braude Award

Wednesday, October 21, 2009 - 6-9:30pm - Burkshire Marriott Hotel & Conference Center, Towson, MD

6:00-6:45pm	Registration / Networking & appetizers
6:45-7:45pm	Dinner
7:45-8pm	Braude Award
8-9pm	Braude Lecture: Dr. Judith A. Harrison Chemistry Department US Naval Academy <i>"Unraveling the mechanisms of Friction using Computer Simulations"</i> ~Question and Answer (10 minutes)~

Price: Members - \$25; Retired Members and Guests - \$20; Students - \$10

Contact: For questions, contact Shirish Shah at 410-323-0803 (H) or by email at dr.shah@juno.com

Where: Burkshire Marriott Hotel & Conference Center, Baltimore, MD

Directions to Burkshire Marriott Hotel & Conference Center:

10 W. Burke Avenue
Towson, Maryland 21204

- From the Baltimore beltway, I-695, follow to exit 27, Dulaney Valley Road.
- The Berkshire is on the left side as you enter Burke Ave. (18-story building). Meeting attendees should proceed to the left lane. Turn left into the Berkshire's parking entrance. Turn the corner and make an immediate right into the P2 parking garage.
- (You may have to press the intercom button for admittance to the elevators.)
- Proceed to the front desk to get a parking pass required for your car.
- Look for signs posted in the lobby and elevators to locate the dining room.

Directions & map are also available on the MD ACS website (<http://mdchem.org/meetings/burkshire.html>).

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~ Directions, Abstract, & Speaker Information continued on Page 4 ~

ACS Maryland Section - Officers and Committee Chairs

Section Officers:

Chair 2009 - Walter Roy, McCormick & Company, Inc, (410) 771-7886; walter_roy@mccormick.com
Vice-chair (chair 2010) - Alvin Kennedy, Morgan State University, (443) 885-3115; alvin.kennedy@morgan.edu
Chair-elect (chair 2011) - Mike Zapf, McCormick & Company, Inc, (410) 771-7471 ; Mike_Zapf@mccormick.com

Secretary - Sara Narayan, Stevenson University - (443) 334-2326; snarayan@stevenson.edu

Treasurer - Liina Ladon, Towson University, Chemistry Department, 8000 York Road, Smith Hall Rm. 538, Towson, MD 21252, (410) 704-3054, lladon@towson.edu

Councilors:

Merle I. Eiss
McCormick & Co, Inc
meiss32@aol.com

Stephanie J. Watson
NIST
stephanie.watson@nist.gov

David Roswell
Loyola College
droswell@lovol.edu

Charles Rowell
retired
cfrowell35@verizon.net

Alternate Councilors: Shekar Munavalli (ECBC), Shirish Shah (Towson), Paul Smith (UMBC), Joseph Topping (Towson)

Members at Large: Lance Baird (JHU-APL), Maurice Iwunze (Morgan), Angela Wells Winstead (Morgan), Takashi Tsukamoto (JHU)

Committee Chairs:

Student Awards (April) - George Farrant - (410) 455-4120; gfarrant@yahoo.com

MD ACS Student Grants - Travel & Student Affiliate Awards (February/March) - Paul Smith, pjsmith@umbc.com
or Louise Hellwig, Louise.Hellwig@morgan.edu

Remsen Award (May/June) - Lev Ryzhkov; lryzhkov@towson.edu

Braude Award (October) - Charles Rowell

Maryland Chemist Award (December) - Angela Sherman - (410) 532-5713; ASherman@ndm.edu

Maryland Service Award - Shree Iyengar - (410) 777-2266; ssiyengar@aacc.edu

Programs:

Archives - Ernie Silversmith - (443) 885-3214
Career Planning - Linh Cheong - (410) 762-1159
Earth Day - Paul Smith, Lance Baird
(Lance.Baird@jhuapl.edu)
Environmental Issues - Shirish Shah - (410) 704-2720
sshah@towson.edu & Lance Baird
Finance Committee - Jan Kolakowski - (410) 436-2755
jan.kolakowski@us.army.mil
Government Relations - Shirish Shah & Robert von Tersch - robert.l.vontersch@us.army.mil
Long Range Planning - Shekar Munavalli
MARM - Shirish Shah & Paul Smith
Membership - Merle Eiss
Minority Affairs - Alfred Amah - (410) 602-7164;
aamah@coppin.edu
Public Relations - Shirish Shah & Walter Roy,
Walter_Roy@mccormick.com
Retired Chemists - Alvin Bober, 410-581-5321
Student Affiliate Liaison - Louise Hellwig
Women Chemists/Younger Chemists - Sara Narayan -
443-334-2326 / Amanda (Miller) Idstein -
aredmiller@cs.com

Educational Programs:

Chemistry Olympiad/Chem-a-Thon -
Shirish Shah & Mike Zapf,
Mike_Zapf@mccormick.com
Continuing Education/High School Education -
Shirish Shah / Ellen Pisciotta
Kids & Chemistry/Chemistry-in-the-Library -
Sue Procell, 410-436-4604,
suzanne.procell@us.army.mil / Sandy Young
National Chemistry Week (NCW) -
Shirish Shah & Sandy Young

Maryland Section on the Web: <http://mdchem.org>

Webmaster - Sandy Young (mdchem@mdchem.org)

Chesapeake Chemist Editor:

(mdchem@mdchem.org)

Have a job to post?, a good news chemistry story? - contact the Maryland Executive Committee through e-mail via: (mdchem@mdchem.org).

Abstract: “Unraveling the mechanisms of Friction using Computer Simulations”

Machines wear out and lubricants break down. These are two examples of the detrimental results of friction. If the processes governing machine wear and lubricant breakdown were understood at the most fundamental (atomic) level, lubricants and machine parts might be designed for specific purposes with pre-determined lifetimes. This would save energy and conserve natural resources. This talk will outline some of the computer simulations carried out in my group aimed at elucidating the atomic-scale mechanisms of friction and wear of solid lubricants.

About the speaker



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Annapolis, MD 21402-5026
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(<http://www.usna.edu/ChemDept/facultyInfo/jah/jah.htm>)

Speaker Bio:

EDUCATION

- June 1992 *Thinking Machines Corporation, Boston, MA*- CM FORTRAN class
- September 1985- June 1989 *University of New Hampshire, Durham, NH* - Ph. D. in Physical Chemistry, September 1989 - Dissertation: *The Effect of Reagent Rotation on Gas Phase Reactivity* -Specialization: Theoretical Chemistry
- September 1980- May 1984 *Saint Anselm College, Manchester, NH* - B.A. Chemistry, May 1984

PROFESSIONAL RECORD

- August 2003 - *United States Naval Academy, Annapolis, MD* - Professor, Department of Chemistry
- August 1997 - August 2003 *United States Naval Academy, Annapolis, MD* - Associate Professor, Department of Chemistry
- August 1993 - August 1997 *United States Naval Academy, Annapolis, MD* - Assistant Professor, Department of Chemistry
- October 2008 - *Chair of the NSTD (American Vacuum Society)*
- October 2007 - October 2008 *Vice Chair of the NSTD (AVS)*
- October 2005 - *NSTD Executive Committee Member (AVS)*
- April 2007 - *Research Committee for Tribology* - Member
- January 2007 - January 2008 *Advances in Tribology* - Associate Editor / Editorial Board Member
- June 2004 Instructor at the NSF Workshop on “Multiscale Modeling and Simulation of NanoMechanics and Materials”, held at Northwestern University
- September 1996 - August 1999 *Tribology Transactions* - Associate Editor
- August 1995 - September 1997 *Research Committee for Tribology* - Member
- October 1990 - July 1993 *Naval Research Laboratory, Washington, DC* - Office of Naval Technology Postdoctoral Associate
- July 1989 - August 1989 *Duke University, Durham, NC* - Postdoctoral Associate, Department of Chemistry

MD ACS Section 2010 Executive Committee Member Elections

~ Insert Information Here about 2010 Election ~



Fall 2009 - Important Dates



October 18-24, 2009	National Chemistry Week! - Chemistry - It's Elemental!
October 21, 2009	Section Meeting & Braude Award Dinner - Berkshire Marriott, Towson, MD
November 2009	Section Meeting - Details To-Be-Announced
November 15, 2009	America Recycles Day (http://nrc-recycle.org/americanrecycles.aspx)
December 2009	Section Meeting & Maryland Chemist of the Year Award Dinner



Spring 2010 - Important Dates



February 2010	Section Meeting - Details To-Be-Announced
March 2010	Section Meeting - Details To-Be-Announced
April 3, 2010 (Saturday)	MD ACS Earth Day Community Event - Project Clean Stream - Herring Run Park (Argonne Drive & Harford Road), Baltimore, MD
April 2010	Student Awards Meeting - Date/Location to be determined
April 22, 2010	Earth Day

Student Affiliate (SA) Corner

University of Maryland – Baltimore County – Dr. Tara Carpenter

On September 23, the UMBC chapter of student members held their 2nd annual Saccharide Social. We made s'mores and ate a lot of sugary treats! We had about 80 people in attendance. We helped students get to know one another by pairing new students with current members and took advantage of ACS's Member Get A Member program. It was a huge success!



Applications are Being Accepted for the 2010 Undergraduate Student Travel Awards

Students can apply to receive up to \$500 for travel and expenses to attend a National ACS Meeting or up to \$300 to attend a Regional ACS Meeting. Open to undergraduate student affiliates of the ACS 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, dates
- An estimated budget (cost for travel, registration, lodging, and meals)
- A 250 word essay describing your motivation for attending the meeting (if you plan to present, include a brief description of the work to be presented)
- A letter of support from a faculty member in your department

Review of applications will begin January 15th but will continue through the year until all funds are utilized. Applications should be mailed to: Dr. Paul Smith, UMBC, Department of Chemistry and Biochemistry, 1000 Hilltop Circle, Baltimore, MD, 21250 or sent via e-mail: pjsmith@umbc.com.

National Meeting Travel Grants Available for Student Affiliates

Active Student Affiliates chapters with students presenting posters at the Spring 2009 national meeting can apply for a \$300 travel grant. Applications are due by January 15, 2010. Information is available on the [National ACS website](#).



Outreach

National Chemistry Week 2009 – Chemistry! It’s Elemental!

As has been celebrated for over 20-years, National ACS will celebrate National Chemistry Week across the nation during the week of October 18-24, 2009. Everyone has been inspired by someone scientifically in their lifetime... whether a teacher, colleague, or student. It’s a good time to consider who inspired you and pass along some of that inspiration to the next generation. National ACS published Celebrating Chemistry and it’s available on-line for downloading: http://issuu.com/kate1dc/docs/ncw_2009_celebrating_chemistry.

Date:	Location:
Friday, October 16 th , 2009 – 10pm	Miller Library, Ellicott City, MD (Howard County)
Friday, October 16 th , 2009 – 2am	Savage Library, Laurel, MD (Howard County)
Saturday, October 17 th , 2009 – 2pm	East Columbia Library, Columbia, MD (Howard County)
Saturday, October 24 th , 2009 – 2pm	Rising Sun Library, Rising Sun, MD (Cecil County)
Saturday, October 24 th , 2009 – 2pm	Elkridge Library, Elkridge MD (Howard County)
Friday, November 6, 2009 – 11am	Glenwood Library, Cooksville, MD (Howard County)
Friday, November 6, 2009 – 2pm	Central Library, Columbia, MD (Howard County)
Sunday, November 8 th , 2009 – 1:30-3pm	Rawlings Conservatory (Baltimore City)
Tuesday, November 10 th , 2009 – 4:15pm	Waverly Library, Baltimore, MD (Baltimore City)

October School Visits	Baltimore County	<ul style="list-style-type: none"> • Pleasant Plains Elementary, Baltimore, MD 21286 • Johnnycake Elementary School, Baltimore, MD 21228 • Colgate Elementary, Baltimore, MD 21224
	Harford County	<ul style="list-style-type: none"> • APG AA Youth Center, APG, MD 21005 • Roye-Williams Elementary School, Havre de Grace, MD 21078 • Hall's Cross Roads Elementary, Aberdeen, MD 21001 • Churchville Elementary School, Churchville, MD 21028
	Baltimore City	<ul style="list-style-type: none"> • Moravia Park Elementary, Baltimore, MD 21206
November School Visits	Baltimore County	<ul style="list-style-type: none"> • Halstead Academy, Baltimore, MD 21234 • Carver Center for the Arts HS, Baltimore, MD 21204 • Jemicy School, Owings Mills, MD 21117
	Harford County	<ul style="list-style-type: none"> • Hall's Cross Roads Elementary, Aberdeen, MD 21001 • Southampton MS, Bel Air, MD 21014 • Youth's Benefit Elementary, Fallston, MD 21047
	Baltimore City	<ul style="list-style-type: none"> • Moravia Park Elementary, Baltimore, MD 21206
	Cecil County	<ul style="list-style-type: none"> • Tome School, NorthEast, MD 21901

Stop in and join us if you have time!! If you have any questions or want to assist with an event, please feel free to contact us at (mdchem@mdchem.org).

National Chemistry Week Poster Contest:

As part of every annual celebration of National Chemistry Week (NCW), the American Chemical Society (ACS) sponsors a poster contest for students in Kindergarten – Grade 12. This year, students are invited to create a poster that celebrates the 2009 theme “Chemistry – It’s Elemental”, which commemorates the 140th anniversary of Mendeleev’s Periodic Table of Elements. This is a wonderful opportunity to investigate and appreciate the discovery and use of the elements in every aspect of our lives.

Dr. Shirish Shah is the POC for the Maryland ACS contest - 410-323-0803 (H) or by email at dr.shah@juno.com. Posters must be received by Saturday, October 17th in order to be considered for the National Contest. Contest guidelines can be found at: http://portal.acs.org/portal/PublicWebSite/education/outreach/ncw/studenteducators/CNBP_022328

Terrific Science

Don't have time to come out to one of our National Chemistry Week events with your elementary or middle school aged child or grandchild? Mickey Sarquis (winner of the 2008 Helen M. Free Award for Public Outreach) and the wonderful team at Terrific Science have free activities available for download on their website (<http://www.terrificscience.com/>). It's a great resource (besides the National ACS publication 'Celebrating Chemistry') for you to do some hands-on experiments at home and/or have some stimulating conversations. Check it out!

RE-SEED (*Retirees Enhancing Science Education through Experiments and Demonstrations*)

Since 1991, the RE-SEED program at Northeastern University has trained retired scientists and engineers and others with backgrounds in science or mathematics to provide classroom assistance to K-12 science teachers. There are over eighty volunteers assisting science teachers in the greater Boston area. After taking part in a comprehensive training program, participants typically assist in school classrooms one day a week for most of the academic year.

The RE-SEED Program is part of the Center for STEM (science, technology, engineering and mathematics) Education at Northeastern University. Other programs focus on science teacher training and student assistance in science learning.

Northeastern University has assisted in the formation of more than fourteen regional volunteer centers where over 600 RE-SEED volunteers have worked in schools in about 100 communities throughout the country, offering approximately 600,000 hours of their time. You can learn more about RE-SEED by visiting their website, www.reseed.neu.edu or by calling Paul Conroy at 617-373-8388 or by email to pa.conroy@neu.edu.

The Center for STEM Education, Northeastern University, 1135 Tremont St., Suite 940 RP, Boston, MA 02120

News from the National meeting:

ACS is now using Twitter. To get news on upcoming events, ask questions to the webinar presenter in advance, or to join group colleagues twittering, please search or include **#acsimp hashtag** in your twitter text.

Show your support to professionals in the chemical industry. ACS is pleased to be hosting a series of monthly Teleconferences and Webinars to address current issues and topics of importance to bio/chemical industry professionals and members. Sponsorship opportunities are available. To learn more about how we can help you reach bio/chemical industry professionals, please contact Samuel Toba at imp@acs.org or call 202-872-4447.



October Historical Events In Chemistry

By: Leopold May

- October 1, 1940 Air Products and Chemicals, Inc. was incorporated on this day.
- October 3, 1904 Charles J. Pedersen, who was born on this date, found that alkali metal ions could be bound by crown ethers in a rigid layered structure. In 1987, he shared the Nobel Prize in Chemistry with [Jean-Marie Lehn](#) and [Donald J. Cram](#) for their development and use of molecules with structure-specific interactions of high selectivity.
- October 4, 1918 Kenichi Fukui, who developed the frontier orbital theory of reactivity, was born on this day. He shared the Nobel Prize with Ronald Hoffmann in 1981 for their theories, developed independently, concerning the course of chemical reactions.
- October 6, 1897 Florence B. Seibert studied the biochemistry of tuberculosis and was awarded Garvin Medal in 1942. She was born on this date.
- October 8, 1918 Jens C. Skou, discovered the enzyme that promotes directed (vectored) transport of substances through cell membrane, Na⁺, K⁺-ATPase; Nobel Prize (1997) for the first discovery of an ion-transporting enzyme, Na⁺, K⁺-ATPase" with P. D. Boyer & J. Walker for elucidation of the enzymatic mechanism underlying the synthesis of adenosine triphosphate (ATP).
- October 11, 1884 One hundred and twenty-five years ago on this date, Frederick Bergius was born. He researched chemical reactions at high pressure, conversion of coal into oil, hydrolysis of wood to sugar and cattle feed. He shared the Nobel Prize in Chemistry in 1931 with Carl Bosch in recognition of their contributions to the invention and development of chemical high-pressure methods.
- October 14, 1886 Jacobus H. Van't Hoff presented law showing that osmotic pressure of a dilute solution obeys Boyle's, Charles's & Avogadro's Laws, & that $pV = RT$ before Swedish Academy of Sciences.
- October 17, 1890 Unocal was incorporated as Union Oil Co. of California on this date.
- October 19, 1909 One hundred years ago on this date, Maguerite Perey was born. She discovered francium in 1939.
- October 25, 1934 Seventy-five years ago, Otto Folin died. He was a pioneer in clinical chemistry and did research in the systematic development of "micromethods, use of colorimetry in biochemistry using the Duboscq colorimeter, and the use of an enzyme for analytical purposes, urease to measure urea. Vintila Ciocalteu and he developed the "Phenol Reagent" for use in protein determinations. He was born on April 4, 1867
- October 23, Any Year [Mole Day](#), 6.02 a.m. through 6.02 p.m. (Mole time); Mole Moment: 50.453 s after 6.42 p.m.
- October 30, 1895 Dickinson W. Richards, Jr., who was born on this date, made the first clinical use of cardiac catheterization. He shared the Nobel Prize in Physiology or Medicine in 1956 with [André Frédéric Cournand](#) and [Werner Forssmann](#) for their discoveries concerning heart catheterization and pathological changes in the circulatory system.

For more historical facts on chemistry, visit Dr. May's website at <http://faculty.cua.edu/may/>.

An informal association, Society for the Propagation of the Music of the Chemist-Composers, has been formed to publicize the music of chemist-composers. For information, see <http://faculty.cua.edu/may/SPMCC.htm>.

Job Hunting Corner

Teaching Position - McDaniel College

McDaniel College seeks an Adjunct Instructor to teach a Physical Chemistry course with lab for the 2010 Spring semester (1/25-5/7). Topics covered are basic thermodynamics and kinetics. An evening schedule for lecture and lab is possible. Interested applicants should send resume and transcript to: rhsmith@mcdaniel.edu (Richard H. Smith, Jr., Chemistry Dept., McDaniel College, 2 College Hill, Westminster, MD 21157). McDaniel College is an AA/EEOC institution.

Job Hunting?

We don't always have job posts in the Chesapeake Chemist. But if you have a position available locally, you are welcome to send them to us for posting in the Chesapeake Chemist. If you are job hunting, remember to put your membership to work by using the ACS job bank: (ACS Careers: www.acs.org/careers).

ACS offers special benefits for unemployed members

During these tough economic times it's more important than ever to belong to the American Chemical Society. Unemployed members can tap into a host of valuable benefits and services that help them get back in the workforce. And, members in good standing may qualify for an unemployed member dues waiver, allowing them to renew their memberships and keep their member benefits at no cost. Contact ACS at service@acs.org, 800-333-9511 or 614-447-3671 for complete details.

Other valuable benefits that help ACS member get back in the workforce include:

- Free registration at ACS National Meetings and registration fees at Regional Meetings of just \$25. Meetings offer ACS Career Fairs with on-site interviews.
- Special discounts for ACS/Harvard courses, ACS ProSpectives and Short Courses, and the ACS Leadership Development System.
- Membership in the ACS Network, your online resource to connect and communicate with friends, colleagues, and potential employers
- Free Guidance from ACS Career Consultants - ACS mentors offer resume reviews, job search strategies, and interview tips that make you stand out from the rest.
- Free access to InterviewStream, an online tool that will sharpen your interview skills
- Members-only access to the ACS Salary comparator.
- And more!

Contact ACS customer service today at service@acs.org, 800-333-9511 or 614-447-3671 today and let us know how we can help.

Call for Volunteers for Committee Positions

Interested in how your dues get used and want to work on interesting member programs/projects? If you want to get involved with the Maryland Section Executive Committee and/or with section activities, we want to hear from YOU! The Maryland ACS Executive Committee meets 4 times during the year to discuss and plan activities. Please feel free to contact the chair, vice-chair, or chair-elect via e-mail to get more information on various areas/activities that you are interested in or that we would like to start or expand in the future. The amount of time to commit would be up to you but might be around 2 hours per month, depending on the activity. We are always looking for individuals with budget/financial, editing, and planning skills.

Our Section is always looking for volunteers for our various committees. We are currently looking to fill positions for:

- Archivist
- Young Chemist Chair
- Women's Chemist Chair

Please contact **Walter Roy** (Walter_Roy@mccormick.com, 410-771-7886) or **Alvin Kennedy** (alvin.kennedy@gmail.com, 443-885-3794)



Johns Hopkins University Chemistry Department
The Ephraim and Wilma Shaw Roseman Colloquium
Series

Fall 2009– Tuesdays, 4:15 pm
Remsen Hall 233

Oct 13
Prof John Toscano

"Structural Dynamics from NMR Spectroscopy of Weakly Aligned Proteins"
Joel Tolman – Johns Hopkins University

Oct 20
Prof John Toscano

*"Synthesis, Photochemistry, Electrochemistry, and Computation:
First Forays Toward Photochromic Photooxidants"*
Jason Gillmore – Hope College

Oct 27
Prof Gerald Meyer

*"Photoacoustic Calorimetry in Chemistry and Biology: Listening to What
Molecules Have to Say"*
Randy W. Larsen – University of South Florida

Nov 3
Prof Kit Bowen

*"Scanning Magnetic Imaging and Magnetic Resonance Imaging with
Atomic Magnetometers"*
Shoujun Xu – University of Houston

Nov 10
Prof J.D. Tovar

"Exploring β -Sheet Structure and Interactions with Chemical Model Systems"
James S. Nowick – University of California, Irvine

Nov 17
Prof Justine Roth

"Molecular Determinants Governing Oxylipin Biosynthesis in Fatty Acid Oxygenases"
Michael G. Malkowski – Hauptman-Woodard Medical Research Institute

For more information contact Rosalie Elder, 410-516-7432

<http://chemistry.jhu.edu/colloquia.html>

The schedule can be downloaded in pdf or html format

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. Please remember that we are dependant on the National ACS records for your correct, current e-mail.

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

- E-mailing us at mdchem@mdchem.org – 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 (mdchem@mdchem.org) to your accepted e-mail address list IF you have a spam filter.

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 mdchem@mdchem.org – 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://mdchem.org> – please see the Newsletter Archive link on the right-hand side of the website.

Get Involved, Stay Involved

As you know, the American Chemical Society offers many ways for its members and non-members to get involved at the local, regional and national levels. There are opportunities for everyone, whether you are a student, or just starting your career, or a seasoned professional. Are you interested in getting involved, but don't know where to start? Are you already involved with one or more ACS activities but need help finding resources? Please visit (<http://www.acs.org/getinvolved>) to find a streamlined list of links of helpful procedures and resources specifically geared towards your area of interest.

Alternately, you can contact the Maryland ACS Section directly... Like working with students? Have a talent for encouraging students in science? Have ideas for outreach events? Sign up for our volunteer news. Contact us at mdchem@mdchem.org.



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ANALYTICAL SERVICES

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