

November Detroit Section ACS Meeting



“Senior Chemists Behind-the-Scenes Tour of the Conservation Labs at the DIA”

When: Friday, November 20, 2015

Where: Detroit Institute of Arts
5200 Woodward Ave.
Detroit, MI 48202
(313) 833-7900
www.dia.org

Time: 1:45 PM Arrival (**meet at the John R Group Entrance**)
2:00 PM Tour of 5 Conservation Labs*
3:30 PM Informal Meeting in the Kresge Court Cafeteria
4:00 PM Free time to visit the DIA (up until closing at 10 PM!)

RSVP: *Space is very limited & priority will be given to “Senior Chemists” (ACS members over 50) on a first-come-first-served basis!*
Also, only one guest per ACS member will be permitted.
Contact Charlene Hayden: hayden2@oakland.edu or (248) 370-2325

The Detroit Section of the American Chemical Society would like to develop programs of interest to “Senior Chemists” (defined as over the age of 50). The program will feature a ~1 – 1 ½ hour private tour of the five Conservation Laboratories presented by the conservation scientists who work at the Detroit Institute of Arts. We are hoping that this unique opportunity will attract local ACS members who can help offer their input and suggestions for what Detroit area Senior Chemists would like from a local section Senior Chemists Committee. The cost of the tour itself (which includes general admission to the DIA) is being sponsored by the Detroit Local Section ACS, offset in part by a grant from the national ACS Senior Chemists Committee.

Please make your reservation today and help us initiate a Senior Chemists Committee within our Detroit Local Section ACS!

*Please note that both the DIA and the tour are accessible and ADA compliant.

Nerd Nite Detroit – Food Science Fair



Join us Thursday, October 8 at 8:00 PM for Nerd Nite Detroit's first-ever Food Science Fair.

Brewing Chemistry will have a table at the event discussing the chemistry of bread.

This event will be just like your elementary school science fair (think vinegar and baking soda volcanoes), only with food and a few adult beverages. It will be a strolling affair, filled to the brim with interactive demonstrations and presentations on the neuroscience of taste, to cooking with liquid nitrogen, the nitty-gritty of making beer, and more.

Demonstrations and presentations by: Justin Riopelle, Brewmaster at Detroit Beer Co.; Nathan Glitman, Barista at Chazzano Coffee; Charlie Gibson, Outreach Coordinator at the Michigan Science Center; Tom Fischer, Professor at Wayne State University Behavioral and Cognitive Neuroscience; Julie Lesnick, Assistant Professor, Wayne State University Department of Anthropology; and more!

Come explore the area's expanding food and drink scene in new and nerdy ways, all while supporting COLORS' community development and job training programs.

Date: Thursday, October 8

Time: 8:00 PM – midnight

Location: COLORS Detroit, 311 East Grand River Ave, Detroit, MI 48226

Cost: \$10 at the door, or in advance at <http://detroit.nerdnite.com/>

Questions: E-mail nerdnite313@gmail.com or tweet @nerdnite313



**ANACHEM October Meeting:
Tour of the Michigan Regional Comprehensive Metabolomics Resource Core
– (MRC)²**

**Wednesday, October 21, 2015
6:30 PM**

**University of Michigan
Brehm Tower (Attached to the Kellogg Eye Center)
1000 Wall Street
Ann Arbor, MI 48105**

Event Description: Join us for a guided tour of the Michigan Regional Comprehensive Metabolomics Resource Core – (MRC)², an analytical laboratory facility in the University of Michigan Medical School. The core provides comprehensive metabolomics services to academic and industrial researchers in biomedical and other fields at the university and around the world. The laboratory is equipped with numerous mass spectrometers and other equipment designed to enable detection, identification, and quantitation of known and unknown small molecules (metabolites) in a wide array of biological samples. The tour will be complemented by a brief introduction to metabolomics, its applications, and the manner in which analytical chemistry is critical to the field.

Location and Parking Information: The Brehm Tower is separate from the main university hospital complex, and thus, parking and travel are not difficult. A campus map with parking and building locations is available at <https://www.google.com/maps/place/Brehm+Tower/@42.2882298,-83.7372347,17z/data=!3m1!4b1!4m2!3m1!1s0x883cae6c3f795e73:0x28a2ac8e29113829?hl=en>. In addition to University of Michigan designated lots adjacent to the building, there is ample curbside parking on Wall Street. Meter payment is not required after 6:00 PM. Please enter the building from the Wall Street entrance. We will meet in the Brehm Tower 1st-floor lobby. For questions regarding parking and location prior to the event, contact Terri Ridenour by phone at (734) 647-7449 or email her at voskuhl@umich.edu. On the evening of the tour, call Terri Ridenour at (734) 223-6830 if you have any questions about parking or location.

This event is free and all are welcome to attend! Please email events@ANACHEM.org to RSVP.

Detroit Local Section – Younger Chemists Committee Presents:



Brewing Chemistry is a monthly lectures series. These informal talks are designed to make science fun and accessible for all. The lectures take place at 7:00 PM on the third Tuesday of every month at:

Traffic Jam & Snug, 511 West Canfield Street, Detroit, MI 48201

There is no admission charge, and free parking is available.

Feel free to join us before the talk at 6:00 PM for a Dutch-treat dinner.

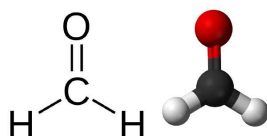
For more information, contact Meghann at 313.993.1259 or meghann@brewingchemistry.com

Tuesday, October 20th, 2015 at 7:00 PM

Mortuary Science

Presented by: Sarah Yzenbaard, Funeral Director/Embalmer

The science of mortuary science will be discussed. Sarah Yzenbaard will talk about the preparation and embalming techniques of the deceased. Embalming is the art and science of preserving human remains by treating them (in its modern form with chemicals) to forestall decomposition. The intention is to keep them suitable for public display at a funeral, for religious reasons, or for medical and scientific purposes such as their use as anatomical specimens. Traditional funeral home methods will be explained stepwise throughout the preservation process.



www.brewingchemistry.com

WARNING: THIS LECTURE CONTAINS GRAPHIC IMAGES



American Chemical Society – Detroit Local Section – Younger Chemists Committee Presents:

James F. O'Brien, Professor Emeritus
Missouri State University
Speaking on

“Famous Mad Hatters”

The origin of the phrase "Mad as a Hatter" is due to the incidence of odd behavior on the part of workers in the early felt hat industry. Their odd behavior, or "madness", was the result of mercury poisoning contracted on the job. This presentation will discuss the recent mercury analyses done on the hair of Isaac Newton; the deterioration of the great mind of Michael Faraday; the bizarre behavior of Boston Corbett, the man who shot John Wilkes Booth, the assassin of Abraham Lincoln; and the possibility that mercury poisoning affected the behavior of other famous people such as King Charles II of England, the author William Makepeace Thackeray, and a number of famous artists, such as Rubens, Renoir, Dufy, and Klee. "Mad" women in History have been more difficult to locate. One eminent female whose health was affected by chemical exposure was Clare Boothe Luce. Her health problems while serving as U.S. Ambassador to Italy in the 1950's will be discussed. Also, mercury analysis of the hair of Russian Tsarina Anastasia, wife of Ivan the Terrible, suggest she may have been poisoned.

Jim O'Brien was born on July 4, in Philadelphia, PA. He received a BS in Chemistry with honors from Villanova University and a Ph.D. in Chemistry from the University of Minnesota. Following postdoctoral work at the Los Alamos Scientific Laboratory in New Mexico, he joined the faculty at Southwest Missouri State University. Dr. O'Brien has received Southwest Missouri State University awards for Excellence in Research in 1989, 1994, and 1998. He has received Southwest Missouri State University awards for Excellence in Teaching in 1992 and 2001. In 2001 he also received the Governor of Missouri's Award for Teaching Excellence. In 2002 the university named him Distinguished Professor. He is now retired and devoting himself to the history of chemistry, golf, bridge, Sherlock Holmes, Civil War history, and walking (formerly running).

Thursday, October 22, 2015

at the University of Detroit Mercy

Refreshments at 5:30 PM in Chemistry Building lobby

Talk begins at 6:00 PM in C114 Chemistry Lecture Hall

For more information, contact Meghann at 313.993.1259 or meghann@brewingchemistry.com

University of Detroit Mercy is located at 4001 W. McNichols Rd. Detroit, MI 48221

National Chemistry Week Volunteers Needed

National Chemistry Week (October 18 - 24) is a community-based annual event that unites American Chemical Society (ACS) local sections, businesses, schools, and individuals in communicating the importance of chemistry to our quality of life. The theme for 2015 is "Chemistry Colors Our World", showcasing the chemistry involved in food colors and fire-works, rainbows, natural dyes and pigments, and more."

The Detroit Section of the American Chemical Society will hold two National Chemistry Week programs this year. Both programs involve hands-on chemistry experiments for kids.

- The Detroit Zoo will host our NCW program as part of their Zoo Boo event. For those not familiar with the Zoo Boo, it is a "trick or treat" around the zoo with activities set up in tents. The program will run from 5:00 – 9:00 PM on **Saturday and Sunday, October 10, 11, 17, 18, 24, and 25**. The Detroit Zoo is located on Woodward Avenue in Royal Oak. Information and a map can be found on their website at www.detroitzoo.org.
- Cranbrook Institute of Science will host our NCW program as part of their Halloween Science event on **Saturday, October 17**. The program will run from 2:00 – 4:00 PM. The museum is located on the Cranbrook Educational community campus on Woodward between Lone Pine and Long Lake roads in Bloomfield Hills. Information and a map can be found on their website at science.cranbrook.edu.

We are looking for volunteers for each program to staff the individual hands-on experiments, to lead the children through activities, and answer questions about the chemistry in the world around us. Children will have fun making things like slime, putty, and candy while learning about the properties of everyday materials.

This is a great opportunity to come out and mix socially with your fellow chemists while performing a valuable public outreach. Please, come join us for one of these programs. If you would like to participate, you can respond directly to our program organizer, Denise Grimsley, at denise.grimsley@basf.com.





2015 ANACHEM / SAS Symposium

Thursday, November 5th, 2015

Burton Manor

Livonia, MI

Symposium Description

The 2015 ANACHEM / SAS Symposium will be held on Thursday, November 5th, 2015 at Burton Manor (www.burtonmanor.net) in Livonia, MI. The site is easily accessible from interstate highway I-96. A plenary lecture and an award session with invited speakers will be given in honor of Dr. David E. Clemmer, the 2014 recipient of the ANACHEM Award. As always, an instrument exhibit and two educational workshops are integral parts of this annual symposium on chemical analysis. This year's symposium will also feature sessions devoted to student research, mass spectrometry, and other topics of current analytical interest. Visit www.ANACHEM.org for further details!



Dr. David E. Clemmer

Registration

Online registration via credit card payment will be offered at a discounted rate through Thursday, October 29th, 2015. To register online, visit www.ANACHEM.org/register. On-site registration (via credit card, cash, or check) will also be offered.

Abstract Submission

Submissions will be accepted through Friday, October 9th, 2015. To submit an abstract, visit www.ANACHEM.org/abstracts. If you have any questions or need assistance with your abstract submission, please contact program@ANACHEM.org.

Exhibitor Questions

Please visit our Vendors Page on our website (www.ANACHEM.org/vendors) for further information or email vendorregistration@ANACHEM.org.



2015 ANACHEM / SAS Symposium Workshop Information

Title: Addressing Chemical Diversity with Innovations in API Source Design: Atmospheric Pressure GC (APGC), Desorption Electrospray Ionization (DESI), Rapid Evaporative Ionization Mass Spectrometry (REIMS), and Atmospheric Solids Probe Analysis (ASAP)

Delano Turner, Mass Spectrometry Specialist

Waters Corporation, 34 Maple Street, Milford MA 01757, USA

Abstract

For many decades, novel atmospheric pressure ionization techniques coupled with mass spectrometry have overcome many of the limitations of pairing LC to MS. The latest coupling of atmospheric pressure ionization sources has expanded the range of techniques available for GC/MS, imaging, and direct sampling application.

The first technique we will explore is the interface of GC/MS using atmospheric pressure gas chromatography (APGC). A benefit of the less energetic ionization process is the significant enhancement of molecular ion intensity, which is a great benefit where analytes are not contained in commercially available EI spectral libraries. Another technique will be desorption electrospray ionization or DESI. In the DESI experiment, ions are generated from the sample surface by bombardment with high velocity, charged micro-droplets through the atmosphere. Extensive applications range from direct surface analysis of polymeric surfaces to the examination of TLC plates and 2D molecular imaging of biological tissue.

Another tool for direct analysis of analytes, the atmospheric solids analysis probe (ASAP), was introduced as a useful tool for the rapid direct analysis of volatile and semi-volatile samples using atmospheric pressure ionization. This allows for a high sensitivity of low polarity compounds and for the analysis of complex mixtures without sample preparation. The last technique is a newer technique called REIMS or rapid evaporative ionization mass spectrometry. REIMS technology removes the need for sample preparation and chromatographic separation and allows accurate mass MS profiles to be collected in the space of a just few seconds per sample.

For speaker biography, please see page 9

Biography

Delano Turner is the Waters Mass Spectrometry Specialist for the Great Lakes Region. Delano received his Bachelors in Arts in Chemistry from Bellarmine University in Louisville, Kentucky. His previous research experience has been with the University of Louisville in the Department of Pharmacology and Toxicology at the Biomolecular Mass Spectrometry Core Lab. His primary focus was the study of environmental contaminants that are presumed to be causative factors in the oxidative stress of proteins. Delano has co-authored several peer-reviewed papers and has analytical laboratory experience with liquid chromatography, gas chromatography, tandem quadrupole MS, time of flight (ToF) MS, and MALDI MS instrumentation.

Michigan College Chemistry Teachers Association (MCCTA) Meeting

The MCCTA meeting will be held at Oakland Community College at the Southfield Campus on Saturday, November 14th. The program will begin with a continental breakfast at 8:30 AM. The conference will run from 9 AM until 2 PM. Dues to the MCCTA meeting are optional. Lunch is provided. Those who wish to attend should e-mail Mark Benvenuto at benvenma@udmercy.edu.

**Oakland Community College
Southfield Campus
22322 Rutland Drive
Southfield, MI 48075**

<https://www.oaklandcc.edu/Maps/SFCampus/>



Calendar of Upcoming Events

Second Tuesday of the Month: Detroit Section Executive Committee Meeting - from September through May (except December). Meetings start at 7:00 PM and are currently held at Lawrence Technological University.

For additional information contact Professor Shannon Timmons, stimmons@ltu.edu

Third Tuesday of Every Month: Science Café - Brewing Chemistry at Traffic Jam & Snug Restaurant at 7:00 PM. For latest information, please see <http://brewingchemistry.com>

Fourth Tuesday (most months): Planning meetings for 2017 CERM at University of Detroit-Mercy. Please contact Professor Mark Benvenuto at benvenma@udmercy.edu for details.

October 1st: FACSS Distinguished Service Award presented to Keith Olson at SciX conference in Providence, Rhode Island. Please see announcement in September edition of The Detroit Chemist.

October Weekends: Chemistry Demonstrations at Zoo Boo for weekends in October. Many volunteer opportunities available. Please see page 6 for details or contact Denise Grimsley at denise.grimsley@basf.com

October 18th—24th: National Chemistry Week. Detroit Local Section activities can be found on page 6. Many volunteer opportunities available. For more information contact Denise Grimsley at denise.grimsley@basf.com

October 19th: A Science Author Event Featuring Ms. Sarah Everts 6:00 PM - 8:30 PM, McMaster Auditorium, Toledo Main Library, Toledo-Lucas County Public Library 325 Michigan Street Toledo, Ohio 43604. Please visit the Toledo Local Section website for more information <http://toledosection.sites.acs.org/>

October 20th: Brewing Chemistry at Traffic Jam & Snug, 7:00 PM, topic Mortuary Science. Presentation by Sarah Yzenbaard, Funeral Director/Embalmer. Please see page 4 for details and visit www.brewingchemistry.com.

October 21st: ANACHEM October Meeting. Tour of the Michigan Regional Comprehensive Metabolomics Resource Core – (MRC)² at University of Michigan Brehm Tower. Please see page 3 for details and to RSVP.

October 22nd: “Famous Mad Hatters” presentation by James F. O’Brien, Professor Emeritus, Missouri State University. University of Detroit-Mercy at 6:00 PM. Please see page 5 for details.

November 5th: ANACHEM/SAS Symposium at Laurel Manor in Livonia. Morning and afternoon sessions—details may be found on pages 7—9 or visit <http://www.anachem.org/>

November 7th: 11th Annual Girl Scout Chemistry Day. For more information or to volunteer please contact mkheidtk@aol.com

November 14: Michigan College Chemistry Teachers Association Meeting at Oakland County Community College. Please see page 9 for details.

November 17th: Brewing Chemistry talk on baking at Traffic Jam & Snug Restaurant at 7:00 PM. For updated information, please visit <http://www.brewingchemistry.com/>

November 20th: Senior Chemists Behind-the-Scenes Tour of Detroit Institute of Arts in Detroit. Please see page 1 for details. RSVP will be required—limited seating available.

Calendar of Upcoming Events

Second Tuesday of the Month: Detroit Section Exec. Committee Meeting – held at Lawrence Tech 7:00 PM.

Third Tuesday of Every Month: Brewing Chemistry. Please see <http://brewingchemistry.com> for information on upcoming topics.

October 1: FACSS DSA Presentation at SciX

October 19: Toledo Section Meeting

October 20: Brewing Chemistry at TJ&S

October 21: ANACHEM Monthly Meeting

October 22: Mad Hatter Meeting

October Weekends: Zoo Boo

Oct 18-24: National Chemistry Week

November 5: ANACHEM/SAS Symposium

November 7: Girl Scout Chemistry Day

November 14: MCCTA Meeting

November 17: Brewing Chemistry at TJ&S

November 20: DIA Behind the Scenes



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