

# American Chemical Society – Kalamazoo Local Section Newsletter

February 2, 2012

Vol. 2 - Issue 1



## 2012 KACS Executive Officers

### Chairperson

Dr. Elke Schoffers, WMU – Chemistry  
[elke.schoffers@wmich.edu](mailto:elke.schoffers@wmich.edu)

### Past-Chairperson

Dr. Doug Williams, Kalsec, Inc.  
[DWilliams@kalsec.com](mailto:DWilliams@kalsec.com)

### Chairperson-Elect

Vacant  
Consider getting involved

### Secretary

Carolyn Pugh, Bridge Organics  
[carolyn.a.pugh@bridgeorganics.com](mailto:carolyn.a.pugh@bridgeorganics.com)

### Treasurer

Dr. John Miller, WMU – Chemistry  
[john.b.miller@wmich.edu](mailto:john.b.miller@wmich.edu)

### Councilor

Dr. Lydia E. M. Hines, WMU – Chemistry  
[lemhwgh@gmail.com](mailto:lemhwgh@gmail.com)

### Alternate Councilor

Mr. Michael Kiella  
[mike.kiella@charter.net](mailto:mike.kiella@charter.net)

## Comments from the Chair

Elke Schoffers

Dear Colleagues,

As the 2012 Chair of the Kalamazoo Local Section for the American Chemical Society I cordially invite you to join this years KACS activities and encourage you to get involved. It is a pleasure to have the opportunity to work with a talented pool of experienced chemists in the area. My first duty as Section Officer is to thank the many volunteers that have made our Section a success over the years. I look forward to work with a diverse group of ACS members and non-members in academia and industry in addition to the many chemistry students in Southwest Michigan. I hope to support a wide-ranging program that appeals to local chemists and the general public.



Elke Schoffers, Ph.D.  
KACS Chair

Our first social event will be on Tuesday, February 7 at 4:30 PM (see page 4 for details). Please join us to meet up with old friends, make new friends and catch up with KACS. This will also be your opportunity to provide feedback about upcoming activities and to interact with local student organizations. I encourage you to stay tuned to learn how other events take shape, some of which are coordinated with the themes released by the National ACS Office:

Chemists Celebrate Earth Day (CCED, April 22):  
“Rethinking Recycling – It’s Easy to Be Green”

National Chemistry Week (NCW, October 21-27):  
“Nanoscience – As It Relates to the Environment, Energy, Materials and Health”  
NCW 2012 also marks **25 Years of National Chemistry Week.**

(Continued on page 2)

### KACS website:

<http://www.wmich.edu/acs/>

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to:  
[ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com)

## Upcoming events at a glance (Feb 2012)

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**Feb 7** – Boost your Career Meet and Greet & Cheese and Wine Mixer, 4:30 p.m. – 7:00 p.m., 1260 Chemistry Building, Western Michigan University. See page 4 for details

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### SIP Symposium

**Feb 17-18** – Dow 226, K-College

Details can be found at:  
<http://reason.kzoo.edu/chem/seminar/>

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### WMU Seminars

**Feb 20** – Andrew Maverick (Louisiana State University), 4 p.m., 1260 Chemistry Building, WMU

**Feb 27** – Darrin M. York (Rutgers University), 4 p.m., 1260 Chemistry Building, WMU

Details can be found at:  
<http://www.wmich.edu/chemistry/events/index.html>

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**Feb 29** – Kalamazoo Mass Spectrometry Discussion Group, 5:30 - 8 p.m., location TBA, see page 7 for details

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Feel free to contact KACS at [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you would like to announce specific events or would like to share a link.

## Comments from the Chair

(Continued from page 1)

Bassam Shakhashiri, Ph.D., assumed his role as the ACS President for 2012, and selected as his theme “Advancing Chemistry and Communicating Chemistry” in support of the overall mission, “to advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people”. Marinda Wu, Ph.D., is the current ACS President-Elect and focuses on improving the business climate for domestic job creation and on helping members with professional development.

Concluding my remarks, I would like to take this opportunity to give special thanks to Doug Williams, our outgoing chair, for his enthusiasm and leadership to make 2011 a very productive year. Moreover, he has been a tremendous help to prepare me for a new professional role. Last but not least, Lydia Hines deserves a special recognition for her energy and dedication in the KACS Section since 1975. Overall her involvement with ACS spans more than four decades. It is a privilege to be able to work with such an experienced volunteer.

I look forward to meeting everybody in 2012.



Bassam Z. Shakhashiri, Ph.D.  
ACS President



Marinda Li Wu, Ph.D.  
ACS President-Elect

# Chem-Able Matching Grant Program

(Sponsored by the Kalamazoo Section of the American Chemical Society)

## Purpose

The purpose of the Chem-Able matching grant program is to assist chemical professionals and students in obtaining training or experience to improve chances of employment or re-employment.

## Scope

Funds provided under this program may be used to partially defray the costs of:

- Training sessions
- Meeting costs (where a presentation is being made or workshop held)
- Travel to training or meeting

Funds may *NOT* be used for:

- Meals or entertainment
- Taxi, unless necessary for airport access

## Award amount

Typical awards will be less than \$500, and are limited to no more than 90% of the total allowable costs.

## Eligibility

- Chemical professionals residing or working within the Kalamazoo Section.
- Students enrolled at accredited post-secondary institutions within the Kalamazoo Section who are declared chemistry majors or conducting chemical research.

(Members of the grant review committee are **not** eligible for this program.)

## Proposals should include

- Brief (<1 page) declaration of how the proposed training or experience would improve the applicant's employability
- A short description of the specific use of any grant funds.
- Documentation of the proposed training or experience, including costs.
- *Curriculum vitae* or résumé
- Contact information of at least two references who can comment on the suitability of the proposed activity for improving employability.

Proposals will be reviewed on a rolling basis with awards made as funds permit. Awarded funds will generally be distributed as reimbursement upon submission of a brief report after the event.

**Submit materials to:** KACS Chem-Able Grants, c/o Chemistry Dept – MS5413  
Western Michigan University, Kalamazoo, MI 49008

**Or by email:** [KACSGrants@gmail.com](mailto:KACSGrants@gmail.com)

**Donate** to support the *Chem-Able* Matching Grant: [KACSGrants@gmail.com](mailto:KACSGrants@gmail.com)

# Special Announcement



The KALAMAZOO Section  
presents

“B   s t your Career!”

**Lower Your Activation Energy  
Increase Your Efficiency  
Be A Catalyst**

**Tuesday, February 7, 2012  
4:30-7:00 pm  
1260 Chemistry Building  
Western Michigan University**

***Mix & Mingle, and Celebrate Kalamazoo Chemistry***

***4:30 pm – Refreshments***

***5:00 pm – Introduction & Highlights of 2011 KACS  
Events***

***5:15 pm – Panel Discussion about Career Choices***

***6:00 pm – Wine & Cheese Mixer***

This event is open to ACS members, non-members, and the general public. Contact [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you have any questions. Follow events of the **Kalamazoo American Chemical Society (KACS) Local Section** at <https://www.wmich.edu/acs>.

# Illustrated Poem Contest



## Chemists Celebrate Earth Day 2012 Illustrated Poem Contest:

### “Rethinking Recycling— It’s Easy to Be Green!”

The **Kalamazoo** Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten - 12th grade.

Contest (Receipt) Deadline for Entries: **March 23, 2012**

Mail entries to: Dr. Lydia Hines, 5596 Parkview Ave., Kalamazoo, MI 49009-9487

Winners of the Kalamazoo Section illustrated poem contest will advance to the ACS National Illustrated Poem Contest!

Write and illustrate a poem using the CCED theme, “**Rethinking Recycling— It’s Easy to Be Green!**” Your poem must be **no more** than 40 words, and in the following styles to be considered:

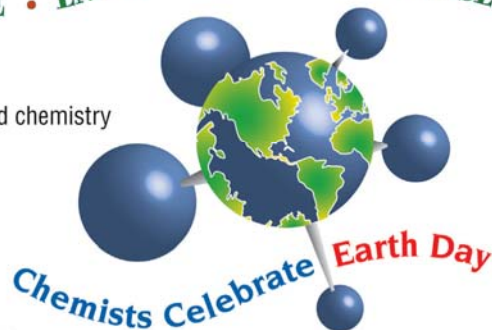
HAIKU • LIMERICK • ODE • ABC POEM • FREE VERSE • END RHYME • BLANK VERSE

#### Possible topics related to *recycling* and *chemistry* include:

- Recyclable materials (e.g. aluminum, glass, paper, plastic) and the related chemistry
- Green chemistry and sustainability
- Biodegradable materials
- Reduction of greenhouse gases, pollution, and waste
- Any other relevant topics

#### Entries will be judged based upon:

- Relevance to and incorporation of the theme
- Word choice and imagery
- Colorful artwork
- Adherence to poem style
- Originality and creativity
- Overall presentation



#### Contest Rules:

- Poems must conform to a particular style. No poem may be longer than 40 words.
- The topic of the poem and the illustration must be related to the CCED 2012 theme, “Rethinking Recycling – It’s Easy to Be Green!”
- All entries must be original works without aid from others.
- Each poem must be submitted and illustrated on an unlined sheet of paper (of any type) not larger than 11” x 14”. The illustration must be created by hand using crayons, watercolors, other types of paint,

colored pencils or markers. The text of the poem should be easy to read and may be printed with a computer, before the hand-drawn illustration is added, or the poem may be written on lined paper which is cut out and pasted onto the unlined paper with the illustration.

- Only one entry per student will be accepted.
- All entries must include an entry form.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners’ names, likenesses and entries for editorial, advertising and publicity purposes.

# 2012 ACS Leadership Institute in Fort Worth, TX

## Report

Elke Schoffers (Chair) and Carolyn Pough (Secretary)

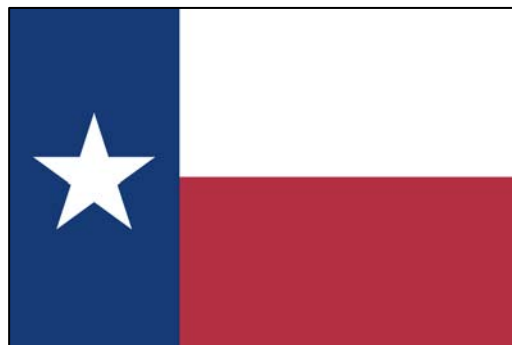
Having assumed our new positions on the Executive Board of the Kalamazoo Local Section, we already had an opportunity this year to learn new skills. We were among almost 400 chemists who descended on Fort Worth, Texas for the 2012 ACS Leadership Institute that invited not only Section Officers but also Student Chapter and Younger Chemists Committee (YCC) representatives.

The development courses that were offered over three days are designed for ACS members and non-members. They highlight best practices from within and outside the organization, and incorporate research from the corporate and public sector. Since 1965 ACS has offered tools and skills in some way, shape or form to support its many grassroots volunteers.

Every participant received an action-packed schedule before the meeting. There were also many occasions to network with a diverse group of participants. Most attendees became part of a pseudo fan club after being encouraged to complete a "Passport" booklet. It contained a page for each of the 13 (out of 15) members of the ACS Board of Trustees who joined us in Fort Worth. Collecting all signatures would allow one to be entered into a drawing to win one of two Amazon Kindles. Sadly, none of them traveled back to Kalamazoo.

The busy program did not leave much time to explore the downtown area even though it was in walking distance. Yet it was difficult to forget that one had entered the Lone Star State. The title of the local paper was the "Star-Telegram, WHERE THE WEST BEGINS". The walls in the hotel were decorated with many stereotypical artwork pieces, large renditions of hats, cowboys, horses, hat-wearing cowboys on horses, longhorns, and glass cases filled with horseshoes and leather whips.

It was good to return to snow-covered Southwest Michigan after an exhausting but productive weekend.



# Miscellaneous Announcements

## Mass Spectrometry Meeting

Andre Venter

The Kalamazoo Mass Spectrometry Discussion group is currently planning a meeting on Wednesday, February 29, 2012 from 5:30 p.m. to 8 p.m. with presentations sponsored by Waters Corporation. Location is to be announced. For more details about this event, contact Andre Venter at [andre.venter@wmich.edu](mailto:andre.venter@wmich.edu) or (269) 387-2420, or go to the MS discussion group website at [http://homepages.wmich.edu/~gzt8940/andre\\_venter/KzooMSG.html](http://homepages.wmich.edu/~gzt8940/andre_venter/KzooMSG.html)

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## A KACS Success Story

The Tice Family

Around 23-24 years ago, my husband and I began taking our daughter to "Chemistry Day" at the Kalamazoo Public Library [that is where our Chemistry Day was held for several years, before the Museum moved to its new location]. Since all three of us love the sciences, we had a great time. Anna, our daughter, enjoyed all of the experiments that were set up, and I think the activity really enriched her life and ours.

We also began subscribing to WonderScience [a Grade 4-6 publication of the ACS Education Division samples of which were available at the activity] around that time. I was a "stay-at-home-mom" when Anna was little, and we had lots of kids in the neighborhood. We used to invite the neighbor kids in to do science experiments from WonderScience. I would clear away the chairs, open the dining room table to its largest option, and we'd "play" at being scientists when the weather was too rainy, too cold, or too whatever to enjoy the lake where we live.

I want to **thank you for the interest that the ACS sparked in our child**. We had loads of fun, and the entire neighborhood of children learned lots more science than they might have without your inspiration.

As a former teacher, I know what it means to learn years later that work made a difference. Your efforts made a big difference in our lives. Thank you. I have fond memories.

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## A Letter from Madeleine Jacobs

David Bolliet

On our [website](#), you can find an excerpt from an informative column written by Madeleine Jacobs, ACS Executive Director and Chief Executive Officer, published in the December 2011 Councilor Bulletin, where Madeleine discusses the many benefits offered by an ACS membership. (The article was reprinted with permission from the Dec. 2011 Councilor Bulletin)

# American Chemical Society – Kalamazoo Local Section Newsletter

March 29, 2012

Vol. 2 - Issue 2



## Comments from the Chair

Elke Schoffers

I have enjoyed my role as KACS Chair so far. It is a great opportunity to look at the broader issues of chemistry and to collaborate with scientists from different backgrounds. It is very rewarding when events attract a broad audience, which was the case for the social event "Boost your Career", the MS User Group meeting and the Science Café titled "Hondatron".



Elke Schoffers, Ph.D.  
KACS Chair

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[lemhwgh@gmail.com](mailto:lemhwgh@gmail.com)

#### Alternate Councilor

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[mike.kiella@charter.net](mailto:mike.kiella@charter.net)

I urge all readers to regularly check our website and newsletter for upcoming events. Please note that we are currently looking for new KACS officers. The Chair-Elect position is vacant and the Treasurer position will soon need a new volunteer. Self-nominations are strongly encouraged. Lastly, I wish to thank WMU Professor of Chemistry James Kiddle for taking charge of the Competitive Exam Subcommittee that is responsible for identifying talented high school students through their performance in a preliminary and a final exam. Top competitors will be recognized during a Spring Awards Ceremony (date TBA).

Best regards,

Elke Schoffers, Ph.D.  
Professor (WMU)  
Chair - Kalamazoo Section (ACS)

#### KACS website:

<http://www.wmich.edu/acs/>

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to:  
[ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com)



# Upcoming events at a glance (Apr 2012)

## KACS

**Apr 4** – Committee Meeting of KACS Executive Officers, contact [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) to submit agenda items

**Apr 21** – Chemists Celebrate Earth Day (CCED), “Rethinking Recycling – It’s Easy to Be Green”, Free admission at the Kalamazoo Nature Center and CCED display table. 9 AM – 4 PM.

## Miscellaneous

**Apr 2** – Deadline for abstract submission for the University of Michigan Chemical Engineering Graduate Symposium on May 1, 2012. Details at: <http://che.engin.umich.edu/graduateprogram/gradsymposium2012>

**Apr 18** – Frontiers in Chemistry Lecture Series: “Need to Make Bond? Try it in Water @ RT”. Dr. Bruce Lipshutz, who won the Presidential Green Chemistry Challenge Award in June 2011, will present a lecture in 1720 Chemistry Bldg, WMU, 5 PM.

**Apr 20** – 3<sup>rd</sup> Annual Chemistry Research Symposium  
Chemistry Bldg Atrium, WMU,

Feel free to contact KACS at [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you would like to announce specific events or share links.

# Announcements

## Science Olympiad

Elke Schoffers

On Saturday, March 17, 2012, Western Michigan University held its annual Science Olympiad event that involved more than 150 WMU students and faculty members to host hundreds of middle and high school students. Thanks to several volunteers (James Guzinsky, Gellert Mezei, Guda Ramakrishna, Blair Szymczyna, Brianna Hyder) about 26 students had the opportunity to carry out different types of chemistry experiments.



WMU volunteers Gellert Mezei and Guda Ramakrishna (orange shirts). (Photo taken by WMU undergraduate student Alejandro Carrasco Pena)

## Harmon Lecture Series with Dr. Gunda Georg (University of Minnesota)

Three dates to remember:

- **April 9, 2012 (Monday, 4-5:15 PM)**  
Research Presentation: “Natural Products as Leads for Anticancer Drug Discovery”, 1260 Chemistry Bldg, WMU
- **April 10, 2012 (Tuesday, 7:30 AM-9:30 AM)**  
Breakfast Meeting: “Women In Sciences: Meeting Challenges - Overcoming Barriers”, 2401 Chemistry Bldg, WMU. While the event is free to all participants please RSVP to [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) by Thursday, April 5, to reserve a seat.
- **April 10, 2012 (Tuesday, 11 AM-12:15 PM)**  
Chemistry Colloquium: “The Evolving Landscape for Drug Discovery Innovation”, 1260 Chemistry Bldg, WMU

# Summary the 87<sup>th</sup> Annual Dow Open at Kalamazoo College

Margarite Matossian

The 87<sup>th</sup> Annual Dow Open, a putt-putt golf tournament hosted by the Kalamazoo College chemistry and biology departments, occurred on Friday, April 22. This social event is a Kalamazoo College tradition in which both students and professors enjoy a friendly putt-putt competition and an afternoon of relaxation.

There were a total of 18 teams; each team had to have a chemistry major, a biology major, a freshman and a 'wildcard' student who could be in any major and/or year. These teams are made to help freshmen meet with upperclassmen and become familiar with the professors, and students from different majors also mingled. Professors from different science departments across campus, and other campus-associated organizations (such as the admissions office and alumni relations) created a total of 18 themed tees that were scattered around all three floors of the Dow science building. Each tee was creatively hand-made and constructed with many different obstacles that the students and/or professors would have to putt through in order to get to the target hole. In the end of the tournament, after each team has gotten through at least nine of the eighteen tees, the teams are brought together in a classroom and in no specific order, teams are called up to choose a prize.

Food and drinks were also graciously provided by the chemistry and biology departments. Both students and professors look forward to this event each year, and it is an opportunity for students and professors to interact with each other outside of the classroom as well as relax after a long week of intense science courses.

(Pictures by Mary-Jane Holcomb)



A team of freshmen and Dr. Diano Kiino (professor of health sciences) playing on a 'tee' composed of sheep brains previously used in neuroanatomy.



All the students (both upperclassmen and underclassmen) and professors who participated in this putt-putt event gathered to receive prizes at the end of the event.



(Left to Right) Zach Janes, senior biology major; Simone Arora, freshman; Dr. Vivien Pybus, biology (microbiology, genetics) professor; Grant Carey, freshman. These students and professor flaunt their prizes of colorful boas.

# Kalamazoo MS User Group

Andre Venter

On February 29, 2012 about 35 scientists from local industries such as Kalsec, MPI, Pfizer, Perrigo, Proteos, SMIC, Forensic Fluids and others, together with faculty and graduate students from Western Michigan University, Grand Valley State and Kalamazoo College gathered at Bell's Eccentric café. On the menu were two intriguing presentations on mass spectrometry as well as beer and southern style BBQ sponsored by Waters Corporation. Dr. Dan Jones, Professor at Michigan State University delivered a presentation entitled 'Metabolome analysis: When Mass Alone Is not Enough'. Delano Turner, Mass spectrometry Specialist from Waters Corporation, presented on the use of sophisticated workflows and MSE for wildlife protection through the identification of pesticides used in poisoning of the endangered red kite.

The event was the first in the Kalamazoo Area Mass Spectrometry Discussion Group's Industry Sponsored Lecture Series. For information about upcoming events contact [andre.venter@wmich.edu](mailto:andre.venter@wmich.edu) or visit the KazooMS website at <http://goo.gl/bqj0j>

(Pictures by Andre Venter)



# Miscellaneous Announcements

## WMU Chem Club Report

Brianna Hyder

Meetings: The Chem Club meets every Wednesdays at 5 pm, 2871 Chemistry Building, WMU

Ongoing:

Ronald McDonalds pop tab collection  
Study groups - Genetics

Past Events:

Valentine's Day Bake Sale – Weds, Feb. 15 at 11 am – 4 pm in Chem Bldg lobby  
Red, pink, white baked goods themed into periodic table  
Demo Practice Night – Weds, Feb. 15 in place of regular meeting in Chem Club room  
Tour at Kalsec – Sat., Feb 25 at noon  
Second Demo Practice Night – Weds, Feb. 29 in place of regular meeting  
Demo at Prairie Ridge Elementary – Mon., March 12 at 1:45 pm  
Assembly of 3 fourth grade classes  
Science Olympiad – Sat., March 17 at 8 am – 4 pm in Chem Bldg  
Some members volunteered to help run events and monitor hallways. More members also participated in an assembly demo at 3 pm.

Upcoming:

Habitat for Humanity volunteer – Sat., March 24 at 8:15 am  
Nominations for new officers – April 4<sup>th</sup>

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## Request for Volunteers

Lydia Hines

Please come to the Kalamazoo Nature Center to help with our display of materials and activities/interaction for Chemists Celebrate Earth Day (CCED) to be shared with the many parents and children and young people who attend the Earth Day celebrations there. The event will be on Saturday, April 21, at between 9 a.m. and 4 p.m. Admission fee to the Nature Center is waived on that day. The theme for CCED this (9th) year is **Rethinking the 3 Rs: It's Easy to be Green.**

Any assistance (for any length of time) at our display table would be appreciated; come and help spread the news that chemistry is integral to our well-being and that chemists are involved and concerned about being good caretakers of our environment and not wasteful in the consumption of resources.

I will be waiting for all the phone calls at 375-7349.....

# Science Café: “Hondatron”

## An Amateur Electric Car Vehicle Conversion

Elke Schoffers

Martini’s was the location of the recent Science Café presentation by Dr. Paul Pancella (Physics, WMU) who discussed why and how he converted a 1992 Honda Civic compact car to an electric vehicle. He was very motivated to make a personal contribution to reducing the amount of CO<sub>2</sub> emissions by pursuing this unusual project. Carbon dioxide is a greenhouse gas and contributes to global climate change. Moreover, internal combustion engines are far less efficient than electrical ones. The presentation outlined many details about how to replace a gasoline-powered engine into one that uses electrical power from batteries. Conventional cars contain many components that need to be regularly replaced, e.g. the engine oil and oil filter. The majority of work entailed connecting and disconnecting wires and mechanical auto components. However, one part in particular requires the use of better chemistry. Efficient batteries need lighter elements. For example, the traditional lead acetate battery not only contains a toxic heavy metal (Pb) but it is also very heavy and uses corrosive acid. Alternatively, batteries that use the very light lithium component (Li) show increased efficiency. The initial project was carried out within 6 months, followed by additional modifications and upgrades.

The event drew 40 attendees who enjoyed the informative presentation, a vigorous discussion afterwards, and the delicious food; pizza and antipasto salad appetizers. The Science Café concluded with a close-up look at the modified car. It proudly displayed stickers that read “No gas in... No gasses out”.



(Pictures by Elke Schoffers)



This is a close-up view of the converted car, which now has lithium batteries in place of a combustion engine.

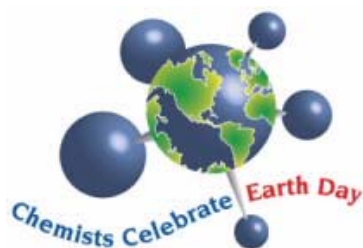


Paul Pancella addressed many questions in an engaging discussion with an audience of approximately 40 people who were eager to learn more about this unusual science project.

# American Chemical Society – Kalamazoo Local Section Newsletter

April 30, 2012

Vol. 2 - Issue 3



## Earth Day 2012

*"Many nations. One planet. Our home."*

*"Our Earth. Our Choice. Still hope".*

*"I see lawns as potential gardens."*

*"Inspire change. If not you, who?"*

*"Remember 3 R's... Reduce, Reuse, Recycle."*

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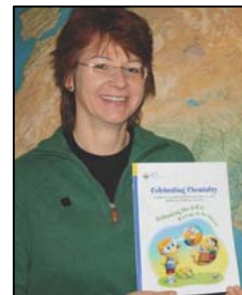
Mr. Michael Kiella  
[mike.kiella@charter.net](mailto:mike.kiella@charter.net)

## Comments from the Chair

Elke Schoffers

Dear Colleagues,

Above are listed some of the entries for the "six-words for the planet" essay competition held by the Environmental Protection Agency (EPA) in collaboration with SMITH Magazine. The last quote was embraced by the ACS this year under the motto "Rethinking the 3 R's – It's Easy to be Green". It was outlined in its newest edition of "Celebrating Chemistry".



Elke Schoffers, Ph.D.  
KACS Chair

(Continued on Page 2)

### KACS website:

<http://www.wmich.edu/acs/>

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to:

[ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com)

## Upcoming events at a glance (May 2012)

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### KACS

#### **Tuesday, May 1, 2012**

KACS High School Science  
Symposium

9 AM - 1 PM, Chem Bldg, WMU

Contact

[donald.schreiber@wmich.edu](mailto:donald.schreiber@wmich.edu) for  
details

#### **Wednesday, May 9, 2012**

KACS Executive Committee  
Meeting.

Submit new agenda items to  
[elke.schoffers@wmich.edu](mailto:elke.schoffers@wmich.edu)

#### **Monday, May 21, 2012**

KACS Awards Reception

6-8 PM, Chem Bldg, WMU.

Outstanding high school students  
who became finalists of the  
Competitive Scholarship Exams will  
be recognized during this event. In  
addition, KACS will announce  
awards for outstanding high school  
teachers, chemistry college  
students and long-term ACS  
members.

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Feel free to contact KACS at  
[Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you  
would like to announce specific  
events or share links.

## Comments from the Chair

(Continued from Page 1)

This ACS outreach effort is on point given that the United States lags far behind other nations with respect to sustainability and environmental stewardship. Yearly, Americans generate 250 M tons of waste, which is buried, burned, or recycled. The transport of garbage (often across state lines) is a \$70 B industry. Recycling is at ca 34 % in the US today, compared to less than 10% in 1980. Despite a positive trend over 40 years, the US could do much better. In Japan only 16% of waste is sent to landfills versus 70% in the US. There is much room for improvement. For example, the economic value of recycled glass is destroyed because of comingling of all colors during curbside pickup. In comparison, Germany began separating different-colored glass in the 1980's. Japan made significant progress after passing relevant environmental laws and by educating its citizenry, especially children. However, it must also be noted that everybody would benefit from the development of more sustainable materials and their application worldwide.

Please read on about additional Earth Day-related topics and upcoming events in your Kalamazoo Local Section.

Best regards,

Elke Schoffers, Ph.D.  
Professor (WMU)  
Chair - Kalamazoo Section (ACS)



(Photo by Elke Schoffers)

Celebrating Earth Day at the Kalamazoo  
Nature Center.

# Kalamazoo Section Annual Awards Program

Don Schreiber

The Kalamazoo Section of the ACS will hold its fortieth Annual Awards Program on Monday, May 21, 2012, in the New Chemistry Building on the Western Michigan University Campus from 6:00 to 8:00 PM. The awards ceremony is held annually to honor outstanding high school senior chemistry students and high school teachers. This year the ceremony will start at 6:45, preceded by a free reception.

The program will include the honoring of the Outstanding High School Chemistry seniors from the 35 high schools in the area served by the Kalamazoo section. The section will also present checks and certificates to the winners in the Kalamazoo Section's Competitive Examination program. Outstanding College Chemistry Seniors from Kalamazoo College and Western Michigan University will also be acknowledged.

An award will be given to the Outstanding High School Chemistry Teacher for 2012 from the Kalamazoo Section area schools. This year we will be accepting nominations for the award from the KACS membership, so if you want to nominate your child's High School Chemistry Teacher, please contact, Dr. Don Schreiber at 269-387-2856 or by email at [donald.schreiber@wmich.edu](mailto:donald.schreiber@wmich.edu).

Also to be honored at the banquet will be Fifty- and Sixty-Year ACS members and a special Kalamazoo Section Achievement award will be presented.

There is no cost for the reception, however we ask that any Kalamazoo Section member or guest who wishes to attend please RSVP by May 14, 2012 and return the following information by mail, email ([robin.k.lenkart@wmich.edu](mailto:robin.k.lenkart@wmich.edu)) or by phone (269) 387-2846.

---

PLEASE RETURN by May 14, 2012 to:

Ms. Robin Lenkart  
Chemistry Department  
Western Michigan University  
Kalamazoo, MI 49008

## RSVP Slip

<u>Name</u>	<u>Address</u>	<u>Places</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
	Total Attending	_____



# Announcements

## Call for Section Member Award Nominee

Lydia Hines

Each year at our Section's Award Ceremony - where we recognize our 50 and our 50+ year members, our outstanding High School chemistry students, a High School chemistry teacher and two outstanding College students - we also recognize at least one member of our Local Section who has **served selflessly over an extended period of time**. We have awarded this recognition to 29 volunteers over 22 years.

If you would like to recommend (a) Section member(s) for recognition, please send a note giving the **name(s)** and the **rationale for the nomination(s)** to the chair of the Awards Committee, Lydia Hines, at [lemhwgh@gmail.com](mailto:lemhwgh@gmail.com) by **May 5**. Thank you.

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## Call for volunteers for the 2015 Joint Great Lakes-Central Regional Meeting in Grand Rapids

Lydia Hines

The Kalamazoo Section is located in the Great Lakes Region (GLR) for the purposes of Regional Meeting (RM) participation. At the last RM, which was held jointly with the Midwest Region in St. Louis, MO, the GLR Board decided to organize a RM for the benefit of our membership every other year, in odd-numbered years; in 2013 the GLRM will be held in Wisconsin and will be hosted by the LaCrosse-Winona Section. The 2015 RM will be held in Grand Rapids as a Joint Meeting with the Central Region's West Michigan Section. Needless to say, any meeting takes planning, so we are extending an open invitation for KACS members to **volunteer** to help in the organization of the 2015 Joint Great Lakes-Central Regional Meeting (JGLCRM). The **immediate need** is to identify a **General Co-chair** and a **Program Co-Chair** for that meeting. At this time the General Co-chair from the Central Region is Mark Thomson of Ferris State University. For more details on the responsibilities entailed in the volunteering positions for which we are sending a plea you may contact Lydia Hines (269-375-7349, [lemhwgh@gmail.com](mailto:lemhwgh@gmail.com)) or Donald Schreiber ([donald.schreiber@wmich.edu](mailto:donald.schreiber@wmich.edu)) or John Miller ([john.b.miller@wmich.edu](mailto:john.b.miller@wmich.edu)) as we have been involved in the planning of past Joint RMs.

# Miscellaneous Announcements

## ACS Strategic Plan

Lydia Hines

After extensive input from the membership, the ACS has adopted the following Strategic Plan for 2012 and beyond:

- With the **VISION** of Improving people's lives through the transforming power of Chemistry.
- And a **MISSION** to Advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people.

The following four **GOALS** have been set forth:

- Goal 1: Be the most authoritative, comprehensive, and indispensable provider of chemistry-related information
- Goal 2: Empower an inclusive community of members with networks, opportunities, resources, and skills to thrive in the global economy
- Goal 3: Foster the development of the most innovative, relevant, and effective chemistry education in the world
- Goal 4: Communicate chemistry's vital role in addressing the world's challenges to the public and policymakers.

A more detailed description of the implementation of these goals may be found at [www.acs.org/strategicplan](http://www.acs.org/strategicplan)

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## Expired or Unwanted Medicine – Free Disposal

David Bolliet

Please remember that if you have any unwanted or expired medicines, Kalamazoo County has initiated a Permanent Medication Disposal System. Do you have unwanted medicines?

Bring your expired or unneeded prescriptions and drop them off at any of these locations. You don't even need an appointment! Drop offs are free and completely anonymous:

- Kalamazoo Township Police Department (Riverview Dr.)
- Kalamazoo Department of Public Safety (Crosstown Pkwy.)
- Portage Police Department (Shaver Rd.)
- Kalamazoo Sheriff's Office (Lamont St.)

For more information, please visit [www.redmedbox.com](http://www.redmedbox.com)

# Chemists Celebrate Earth Day - Report

Lydia Hines with pictures by Elke Schoffers

Our Chemists Celebrate Earth Day (CCED) celebration plans this year began in early March when students (Grades K-12) in our Local Section area were invited through their teachers to submit Illustrated Poems on the theme "Recycling: It's Easy to be Green". For the first time ever we received a response from **five schools** and 3 grade levels (3-5; 6-8; 9-12). One winning entry from each grade level was selected and sent on to the National competition (results will be posted on the ACS website shortly).

On April 21 we once again cooperated with the Kalamazoo Nature Center (KNC) as host for our outreach during their Earth Day event - another first was the participation from Kalamazoo College (Josh Abbott, Lynza Halberstadt, Margarite Matossian, Agust Olafsson, Caity VanGelderren), Western Michigan University (Brianna Hyder) and Kalamazoo Valley Community College (Kim Greve) who along with Lydia Hines, our Section's CCED coordinator, spent a gorgeous day handing out materials related to this year's CCED theme - "**Rethinking Recycling: It's Easy to be Green**" - and sharing the fun and applications of chemistry with visitors of a large age range.

We talked about "Green Parenting", Recycling codes, talked about "Magic Sand" properties, as well as polymers and the use of super-absorbent polymer in diapers, and made Silly Putty with about 150 young children – the accompanying parents liked it, too ♫. In all our conversations we emphasized chemists' positive contributions to our environment. Though we did not see as many classroom teachers as in prior years several home-schooling families came by and were thankful to know about KACS' outreach efforts



Pictured, left to right: Kim Greve Josh Abbott, Brianna Hyder, Margarite Matossian, Lydia Hines.



Josh Abbott (right) helps out with making a polymer.

# A Special Earth Day Report

Elke Schoffers

ACS has recognized Earth Day since its inception on April 22, 1970. Thus, 2012 marks the 42<sup>nd</sup> year of ACS involvement. This April also marks the second anniversary of the Deepwater Horizon oilrig explosion. The Gulf of Mexico was polluted with 200 million gallons of oil and 2 million gallons of chemical dispersants over 3 months. Many animals immediately perished from the oil slick. Now, the long-term effects are becoming more evident. An increasing number of deformities have been observed in sea life like shrimps and crabs. The 2010 accident occurred while drilling at 5000 feet. A related spill in the Gulf occurred at 200 feet depth in 1979. While research has led to ever increasing drilling depth for oil exploration, the response to oil pollution has not progressed in over 30 years. The clean up and containment technology was the same for both accidents: dispersants, booms and skimmers.



(Photo: Wikipedia)

The year 2012 also marks the 50<sup>th</sup> publication anniversary of the best seller “Silent Spring” by Rachel Carson. While completing her degree in English she enrolled in a biology class to fulfill her general education requirement. Her interest in science expanded. Carson eventually became a biologist in the U.S. Bureau of Fisheries and a full-time nature writer. Her research into the use of synthetic pesticides is summarized in “Silent Spring”. It documents numerous examples of adverse effects on the environment and wildlife. Carson’s work is credited with launching the environmental movement in the US. Her staunchest critics decry her as a mass murderer because she advocated for a more responsible use of pesticides like DDT. DDT was effective for controlling malaria in selected climates before insects became resistant. Meanwhile, indiscriminate spraying became a threat to wildlife, especially birds. DDT was banned in the U.S. in 1972. Bird populations rebounded, including the bald eagle.

Any pesticide is meant to kill a pest. That includes so-called “organic pesticides”. Pesticides can be harmful to the environment and have unintended consequences. For example, the barn owl shown here suffered neurological damage. Blood work indicated that it was exposed to rat poison after eating a mouse. It can no longer catch live prey and is housed by the Michigan Raptor Center for educational purposes.



(Photo by Elke Schoffers)

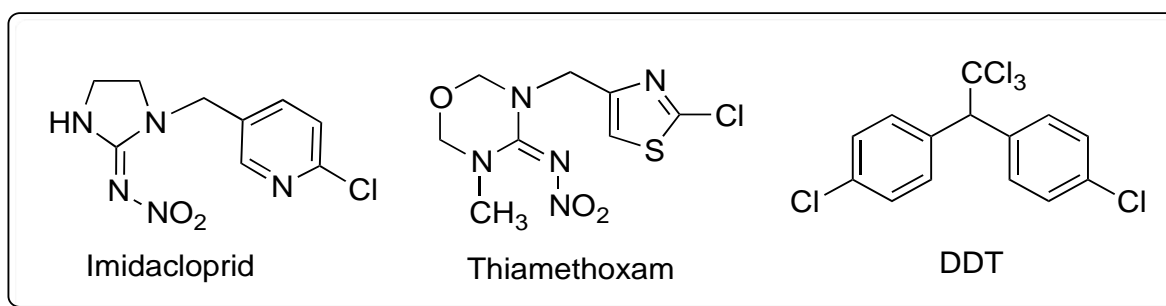
Rescued barn owl.

(Continued on Page 8)

# A Special Earth Day Report

(Continued from Page 7)

Compared to commercial growers, American residential homes use a disproportionately high amount of pesticides for their front and backyards. The chemicals are often applied to maintain monocultures like large lawn areas. Lawns offer little support for wildlife. In contrast, integration of native flowers and shrubs supports beneficial insects like bees and butterflies. Pollinators (mostly insects) play a pivotal role. They are needed by 85% of all plants and responsible for 35% of crop production worldwide. Many flowers and shrubs can help pollinators. However, the indiscriminate and excessive use of pesticides will still adversely affect wildlife. Gardeners can use alternative methods (traps, physical methods) or make small adjustments. For example, pesticide applications at the end of the day are less harmful because insects forage predominantly in the morning and midday.



Imidacloprid and thiamethoxam are commonly used pesticides; DDT is banned in most countries.

1



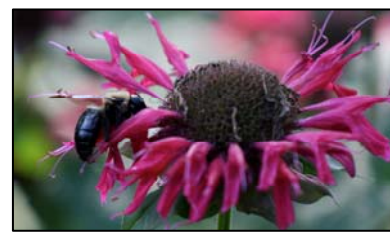
2



3



4



1. A Monarch butterfly that emerged from a chrysalis. 2. A Swallowtail butterfly on a butterfly bush. 3. A hummingbird on a Monarda flower. 4. A Mason bee on a Monarda flower. (Photos by Elke Schoffers, taken in her Kalamazoo garden)

Spring came early to Michigan this year because of unusually high temperatures in March. Bees play a pivotal role in pollinating fruit trees during the spring season. Regretfully, bee populations have plummeted for several years now due to Colony Collapse Disorder (CCD). Scientists suspect a variety of causes (fungal infections, viruses, insecticides, unbalanced diet). Two recent *Science* articles have described how neonicotinoid pesticides like imidacloprid and thiamethoxam interfere with the bees foraging and homing abilities.

(Continued on Page 9)

# A Special Earth Day Report

(Continued from Page 8)

To conclude my remarks, I would like to describe the work by Professor Robert Bergman at Berkeley. His career at the University of California has always included a lively mix of teaching, research and public service.\* A few years ago, California approved the agricultural use of methyl iodide ( $\text{CH}_3\text{I}$ ), a powerful electrophile and cancer suspect agent. For years, Bergman, approximately 50 colleagues from the National Academy of Science and many other chemists have raised concerns about its toxicity. At last, the controversial fumigant has been pulled from the U.S. market.

The environment continues to face many challenges. These challenges can also offer new opportunities for chemists that are aligned with the current ACS Strategic Plan: a vision of improving people's lives through the transforming power of chemistry and a mission to advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people.

*Chemists can play an important role in the development of more environmentally benign chemicals and practices. Chemists can play an important role in educating the public about sensible applications of chemicals. Chemists can be important consultants to policy makers. Lastly, chemists can be important advocates.*

Thank you for reading!

\*Professor Robert Bergman has made seminal research contributions to the field of inorganic and organometallic chemistry. A lesser-known fact is that Bergman is an excellent ballroom dancer.

(Any comments included in this summary reflect the views of the author and are not part of an official statement of the ACS.)

# American Chemical Society – Kalamazoo Local Section Newsletter

June 19, 2012

Vol. 2 - Issue 4



## Comments from the Chair

Elke Schoffers

Dear Colleagues,

It is difficult to believe that half the year has already passed. I have enjoyed working with a diverse group of chemists thus far. Hopefully you were able to participate in some of the KACS events over the last six months: the “Boost your Career” discussion and mixer; the “Hondatron” Science Café, the “MS User Group” meeting at Bell’s, the “Earth Day” booth at the Kalamazoo Nature Center, the “Science Symposium” and the “KACS Awards Reception” at WMU.

There will be yet another social event at the end of this month: the “Allegan Meet N’ Greet” and crossword puzzle competition on June 22<sup>nd</sup>; it will take place just around the corner from Perrigo Company. These events could not have been organized without the help and dedication of KACS officers and numerous volunteers. They are paramount to our section. Thank you!



Elke Schoffers congratulates Al Nieboer, this year’s Outstanding High School Chemistry Teacher, Kalamazoo Christian High School

### 2012 KACS Executive Officers

#### Chairperson

Dr. Elke Schoffers, WMU – Chemistry  
[elke.schoffers@wmich.edu](mailto:elke.schoffers@wmich.edu)

#### Past-Chairperson

Dr. Doug Williams, Kalsec, Inc.  
[DWilliams@kalsec.com](mailto:DWilliams@kalsec.com)

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Vacant  
Consider getting involved

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Dr. Lydia E. M. Hines, WMU – Chemistry  
[lemhwgh@gmail.com](mailto:lemhwgh@gmail.com)

#### Alternate Councilor

Mr. Michael Kiella  
[mike.kiella@charter.net](mailto:mike.kiella@charter.net)

(Continued on Page 2)

#### KACS website:

<http://www.wmich.edu/acs/>

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to:

[ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com)

## Upcoming events at a glance (June 2012)

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### KACS

**Friday, June 22, 2012**  
Allegan Meet 'N Greet

4:30 – 6:30 pm  
Dailey's Kitchen  
340 Water St, Allegan  
(see flyer on Page 3)

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**HAVE  
A GOOD  
SUMMER!**

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Feel free to contact KACS at  
[Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you  
would like to announce specific  
events or share links.

## Comments from the Chair

(Continued from Page 1)

You, too, can get involved regardless of whether you are a member or not. There are many opportunities to support KACS in an official or unofficial role. For example, we need many helpers to coordinate National Chemistry Week activities. Please sign up for the October 13 "Chemistry Day at the Museum" to support the hundreds of people who turn out each year. Moreover, I am asking all members to help recruit individuals who would be willing to accept responsibilities as "Chair-Elect" (immediate need as well as for election in the fall for 2013) and for "Treasurer" (during fall elections for a two-year term). Self-nominations are strongly encouraged.

My experience as KACS chair has already been extremely rewarding despite the fact that it added to my workload. Interacting with many new and talented people is a unique experience. And I cannot help but admit my intrigue with a new activity we are planning for the fall. I look forward with keen anticipation to our "Chemistry and Culture" event. Are you curious yet? Get involved!

Thank you for reading.

Elke Schoffers, Ph.D.  
Professor (WMU)  
Chair - Kalamazoo Section (ACS)

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To find your KACS on Facebook, click on the link below or go to  
<https://www.facebook.com/ACSKalamazoo> and **LIKE** (👍) us!





# Upcoming Event



The KALAMAZOO Section  
presents

## Allegan Meet 'N Greet

Win \$25

Friday, June 22, 2012  
4:30-6:30 pm  
Dailey's Kitchen

340 Water St. in Allegan, (269) 512-4878  
[www.DaileysKitchen.com](http://www.DaileysKitchen.com)

### *Mingle, Puzzle & Celebrate Chemistry*

4:30 pm – Refreshments

5:00 pm – Opening Remarks & Highlights of KACS Activities

5:15 pm – Crossword Puzzle Distribution

*All are invited to this social event in a charming setting in downtown Allegan. The first correct entry to our chemistry crossword puzzle wins the prize. **One entry per person only.***

*This may be a good time to review those KACS newsletters – just in case!*



This event is open to ACS members and their families. Non-members and the general public are also welcome. Contact [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you have any questions. Follow events of the Kalamazoo American Chemical Society (KACS) Local Section at <https://www.wmich.edu/acs>.

This event is co-sponsored by

**Perrigo**

# 39<sup>th</sup> Annual Awards Reception

Lydia Hines and Don Schreiber

The Kalamazoo Section of the American Chemical Society held its Thirty-ninth Annual Awards Event on Monday, May 21, 2012, in the Chemistry Building Atrium on the campus of Western Michigan University from 6:00 to 8:00 pm. About 100 enthusiastic parents, teachers, awardees, and Section members gathered at this year's event. The Awards event honors excellence in chemical education and service to the Society. Those recognized are from the three counties covered by the Section: Allegan, Kalamazoo and Van Buren Counties.

Names of outstanding seniors are solicited from high school teachers in our Section's three counties. At the ceremony which followed this year's reception nine outstanding high school chemistry students nominated by their teachers were given a certificate, a check for \$75, and, if present, a Merck Index (14<sup>th</sup> ed). A list of the students along with his/her high school and nominating teacher is given below.

The twenty winners in the 2012 Competitive High School Chemistry Examination were also presented with checks and certificates and a Merck Index (14<sup>th</sup> ed). Names of each of these Competitive Scholarship winners can be found below.

Each year, the names of deserving high school chemistry teachers are solicited from our Section's High School principals to bestow the Outstanding High School Chemistry Teacher Award. **Al Nieboer** (Kalamazoo Christian High School) was honored this year.

Two college students, **Alex Poulsen**, Western Michigan University, and **Margarite Matossian**, Kalamazoo College, were honored as Outstanding College Chemistry Students. Each received a certificate and a check.

Also honored at the event were **Jochanan Stenesh** (a fifty-year member of the American Chemical Society) and past chairs of the Section, each of whom was given a commemorative lapel pin. Former chairs recognized were **Don Iffland** (1967), **Robert Nagler** (1971), **Robert Kelly** (1974), **Wade Adams** (1982), **John Greenfield** (1994), **John Stodola** (1999), and **Benjamin Maxey** (2003).

The Education Committee organized the Awards Program and is chaired by WMU Chemistry Faculty Dr. Donald Schreiber, chair, and Drs. James Kiddle, Sherine Obare, and Andre Venter, with able assistance from Mrs. Robin Lenkart.

(Continued on Page 5)

# 39<sup>th</sup> Annual Awards Reception

(Continued from Page 4)

## Outstanding High School Chemistry Students

Ali Butler – Gull Lake High School – Brad Portis  
Paul Smith – Hackett Catholic Central High School – Amy Johnston  
Eric Thornburg – Kalamazoo Central High School – Mark Branch  
Vincent McLain – Kalamazoo Christian High School – Al Nieboer  
Kyle Sunden – KAMSC – Joe Thorstenson  
Faith Potgiesser – Lawton High School – David Williams  
Anna Berglund – Paw Paw High School – Doreen Odiziana  
Aaron Thompson – Portage Central High School – Jon Taylor  
Ryan Winkels – Portage Northern High School – Michele Mason



## 2012 Competitive Scholarship Winners

First Place – Stephen John – Portage Central & KAMSC  
Second Place (tie) – Lucas Hamelink – Gull Lake & KAMSC  
Second Place (tie) – Kyle Sunden – Gull Lake & KAMSC  
Fourth Place – Aaron Thompson – Portage Central  
Fifth Place – Quinton Colwell – Portage Central & KAMSC  
Sixth Place – Cooper Quartermaine – Gull Lake & KAMSC  
Seventh Place – Eric Thornburg – Kalamazoo Central  
Eighth Place – Lance McCauley – Gull Lake  
Ninth Place – Steven Vorbrich – Loy Norrix & KAMSC  
Tenth Place (tie) – Nicholas Bertoldi – Mattawan  
Tenth Place (tie) – Stephen Norton – Gull Lake



## Honorable Mention

Thomas Bannon (Gull Lake), Mark DeFouw (Hamilton), Joshua Dippel (Mattawan),  
Jane Fisher (Kalamazoo Central), Olivia Goethe (Mattawan), Zachary Hummel  
(Mattawan), Adam Licavoli (Plainwell), Jeremy Simon (Gull Lake), Paul Smith (Hackett)

## Outstanding College Chemistry Students

Outstanding College Chemistry Students: Alex Poulsen (Western Michigan University)  
and Margarite Matossian (Kalamazoo College)



(Continued on Page 6)

# 39<sup>th</sup> Annual Awards Reception

(Continued from Page 5)

## Outstanding High School Chemistry Teacher

Al Nieboer (Kalamazoo Christian High School) was honored as this year's Outstanding High School Chemistry Teacher

## Fifty Year Membership

Jochanan Stenesh was honored as a fifty-year member of the American Chemical Society.



## Past Chairs

KACS Past-Chairs (left to right): Donald Schreiber, John Greenfield, Benjamin Maxey, Robert Kelly, Lydia Hines, Wade Adams, Robert Nagler, Doug Williams, John Stodola, James Kiddle



KACS Past Chair Don Iffland



# Forensics Day in Dow

Margarite Matossian

Thursday May 24th from 3:30-5:00pm was an afternoon filled with excited middle school children, a staged crime scene and forensics experiments; not exactly an average day in Dow Science Building at Kalamazoo College. The Kalamazoo College ACS group decorated Dow with crime scene tape, we outlined a 'dead' body and made fake bloody fingerprints on the windows. Without question, many of the other chemistry and biology students attending their classes who were aware that this event was happening were very confused. We had prepared for this day months in advance: formulating the murder that we would stage, determining which forensics-related experiments we would perform, gathering materials and writing up procedures for each station. Our murder scenario was that two professors have had a long history of arguing over whose chemistry jokes were better. Finally, one professor, Dr. Thomas Smith, could not take it any more and chose to hit Dr. Jeffrey Bartz with a rock, killing him. He left a murder note, bloody fingerprints and footprints. The children had to figure out which professor was the murderer. To do this, they visited a total of five stations: ink analysis, fingerprinting analysis, fiber analysis, blood analysis and handwriting analysis. These children received hands-on experiences with chromatography, microscope use, comparative analysis, acid/base reactions and solution mixing and agglutination. The students rotated around these stations for an hour. Then, all the students and volunteers gathered in a large classroom where we made delicious liquid nitrogen ice cream. The children who attended this event participate in the 'Keeping the Doors Open' math enrichment program that the Kalamazoo College Math Department leads. Each year, we invite these children to teach them how chemistry, biology and physics can be applied in the real world. We had plenty of volunteers from both the math department and the chemistry department to chaperone the children and explain the experimental procedures to them. All in all it was a very enjoyable day for both the children and the volunteers.

The outline of the 'body' in the atrium of the Dow Chemistry Building at Kalamazoo College where the fake murder took place.



Two students from the KDO math enrichment program perform a blood analysis to determine the blood types of blood samples that were found at the scene of the crime.

# Announcements

## 2012 Chemistry Graduate Student Association Barbeque

Alia Hinz

On Friday, June 8, the Chemistry Graduate Student Association (CGSA) at Western Michigan University (WMU) hosted its second annual barbeque for local chemists at Oshtemo Township Park. Members of the Department of Chemistry at Western Michigan University and KACS were invited to join the graduate students for an afternoon of food, fun, and festivities; 37 people attended. Hamburgers, veggie burgers, and assorted side dishes were provided. Activities included a soccer game, disk golf, Frisbee, and football. Everyone seemed to enjoy themselves, with over 90% of the attendees staying for at least two of the three hours that the barbeque lasted. Given the positive outcome of this event, CGSA would like to host another barbeque next year.

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## Call for *volunteers* for our 26th Chemistry Day at the Museum: The 25th anniversary of our Society's National Chemistry Week (NCW).

Lydia Hines

The theme for this year's major outreach to our community is "**Nanotechnology: the smallest BIG Idea in Science**", focusing on the nanoscience contributions to the environment, energy, materials, and health. Each year NCW is scheduled for the third full week of October, this year October 21-27. However, because of scheduling concerns our activity at the Kalamazoo Valley Museum this year will be held on **Saturday, October 13, from 12 noon to 4 p.m.**

Over the years we have had a *tremendous impact* on many in our geographical area and even across the state; we have patrons who return to interact with our volunteers, do hands-on activities and observe demonstrations throughout the museum space and sometimes even outdoors. Our longevity has seen youngsters who have grown and now bring their own children to the event. Several times the event has drawn up to 1000 patrons. All this would not be possible without the **willing participation of you, our Members and Student Members**. Needless to say **the Week can include more activities and outreach events than at the museum, so I am always open to opportunities which you may want to suggest and/or spearhead** in Kalamazoo, Allegan and/or Van Buren counties.

It may seem that October is a long time off, but with the summer months, vacations and then the Fall activities taking shape as the weather becomes enticing, I would appreciate it if you would make time **now to reserve October 13** for our outreach activity and [contact me](#) to let me know. Thank You!

---

Thank You KACS Members!

*"Dear Members of the Kalamazoo ACS,*

*Thank you for bestowing on myself and others the generous scholarships that you hand out. It certainly always feels good to be recognized for the hard work we students put in, and I appreciate your dedication as an organization to learning.*

*Sincerely, Aaron Thompson " - Portage Central High School*

# American Chemical Society – Kalamazoo Local Section Newsletter

September 25, 2012

Vol. 2 - Issue 5



## 2012 KACS Executive Officers

### Chairperson

Dr. Elke Schoffers, WMU – Chemistry  
[elke.schoffers@wmich.edu](mailto:elke.schoffers@wmich.edu)

### Past-Chairperson

Dr. Doug Williams, Kalsec, Inc.  
[DWilliams@kalsec.com](mailto:DWilliams@kalsec.com)

### Chairperson-Elect

Vacant  
Consider getting involved

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Carolyn Pugh, Bridge Organics  
[carolyn.a.pugh@bridgeorganics.com](mailto:carolyn.a.pugh@bridgeorganics.com)

### Treasurer

Dr. John Miller, WMU – Chemistry  
[john.b.miller@wmich.edu](mailto:john.b.miller@wmich.edu)

### Councilor

Dr. Lydia E. M. Hines, WMU – Chemistry  
[lemhwgh@gmail.com](mailto:lemhwgh@gmail.com)

### Alternate Councilor

Mr. Michael Kiella  
[mike.kiella@charter.net](mailto:mike.kiella@charter.net)

## Comments from the Chair

Elke Schoffers

Dear Colleagues,

You are cordially invited to attend several upcoming events this fall, among them...

- Chemistry Day at the Museum: "Nanotechnology – The Smallest BIG Idea in Science" *Saturday, October 13, 2012, 12-4 PM, Kalamazoo Valley Museum*
- "Doping in Sports: How chemists catch the 'cheaters' (sometimes)" by ACS Tour Speaker Thomas C. Werner (Union College) *Tuesday, October 23, 2012 (Mole Day!), 6:30 PM, 1260 Chemistry Bldg, WMU*

We hope that you will participate. We also hope that you will consider volunteering for Museum Day and step up to fill upcoming ACS officer vacancies: Chair-Elect, Treasurer, and National Chemistry Week Coordinator. Please don't hesitate to contact me at [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) to learn more.

The Kalamazoo Local Section cannot succeed without the support of its members and the many people who help out.

Mark your calendar and join us!

### KACS website:

<http://www.wmich.edu/acs/>

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to: [ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com)

Attend  
Volunteer  
Hold an office



Elke Schoffers, Ph.D.  
Professor (WMU)  
Chair - Kalamazoo  
Section (ACS)

## Upcoming events at a glance (October 2012)

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**Saturday, October 13, 2012,**  
12-4 PM, Kalamazoo Valley  
Museum

Chemistry Day at the Museum:  
"Nanotechnology – The Smallest  
BIG Idea in Science"

---

**Tuesday, October 23, 2012**  
(Mole Day!), 6:30 PM, 1260  
Chemistry Bldg, WMU

"Doping in Sports: How chemists  
catch the 'cheaters' (sometimes)"  
by ACS Tour Speaker Thomas  
C. Werner (Union College),

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Feel free to contact KACS at  
[Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you  
would like to announce specific  
events or share links.

## Announcements

### Pennies for PUR Water – Update

Lydia Hines

As you may recall, during 2011 our Local Section was collecting "Pennies for PUR Water", a project intended to enhance our international outreach, as U.S. chemists, during the International Year of Chemistry.

Our Local Section **contributed \$60** (collected at our meetings and other Local Section programs) to the national effort which netted \$18,000. The amount was presented to Proctor & Gamble's Children's Safe Drinking Water (CSDW) Coalition, ACS' partner in this endeavor. Given the extreme and continued need worldwide for safe and adequate drinking water the project is continuing through 2012.

Contributions by cheque are welcome and should be made payable to ACS, with "Water Project" written in the memo line. Checks should be mailed to the American Chemical Society, 1155 16th Street N.W, Washington, DC 20036 (attn: **Accts Receivable**)

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### Councilor's Report

Lydia Hines

The KACS Councilor's Report from the 2012 Fall ACS Meeting in Philadelphia may be accessed at our [KACS website](#).

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To find your KACS on Facebook, click on the link below or go to <https://www.facebook.com/ACSKalamazoo> and **LIKE** (👍) us!





# Chemistry Day at the Museum

Lydia Hines

Since 1988, when we hosted two, our Kalamazoo Section (KACS) has been hosting a **Chemistry Day at the Kalamazoo Valley Museum (KVM)** in conjunction with the **2012 ACU National Chemistry Week (NCW)** celebration. This year that week of excitement is October 21-27, and our annual **outreach** to our community will be happening on **Saturday, October 13, from noon to 4 p.m.** This year's emphasis is on the nanoscience contributions to the environment, energy, material and health. **The theme is "Nanotechnology: The Smallest BIG Idea in Science"**; so we will have an opportunity to share with the 800-1000 visitors (ages 4 -104) who come through the Museum doors that day about how chemistry and chemicals contribute to a healthy lifestyle; how chemists have a hand in designing diagnostic methods and equipment; how our lifestyle, from the food we eat, to our medications, to our very breathing are results of chemistry and chemists at work. We will also talk about relative **size** and that **size matters** in the formulation and delivery of chemicals. Children love the fun at the KVM, learn the importance of chemistry, and they and their parents (and teachers) get reading/activity materials to take home and to school.

This is an **appeal to you to volunteer** to set up and share an activity on that day with the goal of explaining in simple terms how chemistry is central to that activity. We get amazing set-up and material support from the KVM, so **PLEASE indicate your willingness to be a volunteer** for that outreach by **sending your name and e-address by September 2,** to our NCW coordinator, Lydia E. M. Hines, at [lemhwgh@gmail.com](mailto:lemhwgh@gmail.com) !

**Ideas** for appropriate activities **may be found at**

- (National Nanotechnology Infrastructure Network - NNIN)  
<http://www.nnin.org> → NNIN education portal → K-12 teachers → "Link to pdf document" (shows demos with some explanatory info)
- (National Informal Science Education Network – NISE Net)  
<http://www.nisenet.org/national-chemistry-week>

Other activities happening in connection with **NCW** are the following:

- We are conducting an **Illustrated Poem Contest for K-12 students** in our Section (**Kalamazoo, Allegan and VanBuren counties**). Student submissions from teachers will be accepted if received by Lydia E. M. Hines through October 26. If you know of a student in K-12 who hasn't heard of this opportunity please contact me with the name/address of his/her teacher.
- A live interview with Keith Roe, host of **Monday Night Live**, will be taped on Monday, October 1, in the studios of Public Media Network for broadcast in advance of October 13; its intent is to generate enthusiasm for chemistry and encourage attendance at Chemistry Day.
- A **Community Event** which emphasizes how we can "Do more with less" is being considered by our WMU **Chemistry Graduate Student Association**.

# Miscellaneous

## For our Unemployed ACS Members

Lydia Hines and David Bolliet

A couple of comments helpful for our unemployed members:

1) The ACS has a plethora of materials to encourage unemployed members with job searches. For assistance you may visit [www.acs.org/careers](http://www.acs.org/careers)

2) Also, Chemical Abstracts Service (CAS) is offering complimentary SciFinder access to unemployed former users to help them in their job search; to be eligible for this free access a scientist must have become unemployed on or after January 1, 2011, from a US or Canadian or European employer that participated with the SciFinder enterprise-wide pricing program. Eligible participants may apply at [www.cas.org/products/scifindr/scifinder\\_special\\_prog.html](http://www.cas.org/products/scifindr/scifinder_special_prog.html)

3) We will be posting local job opportunities on our [website](#) as we are made aware of them. If you would like to publish your open positions on our website, please send an email to [ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com). This is a free service.

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## Expired or Unwanted Medicine – Update

David Bolliet

We are extremely pleased to learn that 587 pounds of expired or unwanted medicine were collected in the first three months of 2012. This represents about 250, 000 pills. Read about it on [MLive](#).

Remember that you can bring your expired or unneeded prescriptions and drop them off at any of these locations. You don't even need an appointment! Drop offs are free and completely anonymous:

- Kalamazoo Township Police Department (Riverview Dr.)
- Kalamazoo Department of Public Safety (Crosstown Pkwy.)
- Portage Police Department (Shaver Rd.)
- Kalamazoo Sheriff's Office (Lamont St.)

For more information, please visit [www.redmedbox.com](http://www.redmedbox.com)

# Fall Speaker Announcement



The KALAMAZOO Section  
presents

## *Doping in Sports*

*How chemists catch the 'cheaters' (sometimes)*

**Thomas C. Werner**  
(Union College)

**October 23, 2012**

6:30 pm, Tuesday (Mole Day)  
1260 Chemistry Bldg  
Western Michigan University

The alleged use of performance-enhancing drugs has tainted athletic accomplishment since the beginning of sporting competition. Contemporary examples of this sports "doping" problem appear almost daily in the news: pro cycling is brought to its knees by doping allegations, resulting in the loss of sponsorship, the BALCO case and the Mitchell Report pummel Major League Baseball with evidence of steroid use and drug testing concerns become a higher profile issue at the Olympics.

The talk will focus on the methods that chemists use to detect sports doping with substances such as amphetamine, steroids, human growth hormone and EPO. Limitations of these methods will be discussed, along with a listing of some of the enormous challenges facing chemists as newer doping substances and methods become available. The talk is based on a course entitled *Chemistry and Athletic Performance*, which was developed by the speaker with the aid of Dr. Don Catlin and staff at the UCLA Olympic Analytical Laboratory and Anti-Doping Research, Inc.



**Stay in touch with KACS at <http://www.wmich.edu/acs/>.**

# American Chemical Society – Kalamazoo Local Section Newsletter

November 5, 2012

Vol. 2 - Issue 6



## 2012 KACS Executive Officers

### Chairperson

Dr. Elke Schoffers, WMU – Chemistry  
[elke.schoffers@wmich.edu](mailto:elke.schoffers@wmich.edu)

### Past-Chairperson

Dr. Doug Williams, Kalsec, Inc.  
[dWilliams@kalsec.com](mailto:dWilliams@kalsec.com)

### Chairperson-Elect

Vacant  
Consider getting involved

### Secretary

Carolyn Pugh, Perrigo  
[carolyn.pugh@perrigo.com](mailto:carolyn.pugh@perrigo.com)

### Treasurer

Dr. John Miller, WMU – Chemistry  
[john.b.miller@wmich.edu](mailto:john.b.miller@wmich.edu)

### Councilor

Dr. Lydia E. M. Hines, WMU – Chemistry  
[lemhwgh@gmail.com](mailto:lemhwgh@gmail.com)

### Alternate Councilor

Mr. Michael Kiella  
[mike.kiella@charter.net](mailto:mike.kiella@charter.net)

## Comments from the Chair

Elke Schoffers

Dear Colleagues,

KACS hosted two more events since the September newsletter was published. A big THANK YOU goes to the **59 volunteers** who oversaw **23 activities** during **Chemistry Day** at the Kalamazoo Valley Museum, which was organized by Lydia Hines and Annette Hoppenworth.

On Mole Day, we welcomed Thomas Werner as ACS Tour Speaker who presented a fine lecture on doping in sports. Over 50 attendees learned about amphetamines, anabolic steroids, human-growth hormones and blood doping as part of a drug detection cat-and-mouse game and its societal implications.

KACS initiated a new program titled “**Chemistry and Culture**”. “**Elements of Dance**” is hoped to be the first in a series that targets a broader audience by highlighting the connections between chemistry and culture. Therefore, in **November**, local chemists will trade in their laboratory gear for elegant ballroom attire at the KIA. Chemists, dancers and the general public are invited to this free event to witness a “fun reaction”. Dancing is not required but I sure hope that you will try. Find details online at <http://www.wmich.edu/acs/>. In **December**, local scientists are invited to present a newly prepared or recycled poster at Bell’s. A presentation by John Mallett about brewing will be followed by mingling amongst posters. This will be an opportunity to reconnect with old friends and make new friends. Hope to see you soon! Meanwhile, stay connected with KACS [online](#) and via [Facebook](#).



Elke Schoffers, Ph.D.  
Professor (WMU)  
Chair - Kalamazoo  
Section (ACS), found  
her dance shoes for  
the Nov. 9 KIA event

**KACS website:** <http://www.wmich.edu/acs/>

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to: [ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com)

## Upcoming events at a glance (Nov - Dec 2012)

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**Friday, November 9, 2012**

6:30-9:30 PM

Kalamazoo Institute of Arts

“Elements of Dance”  
(see enclosed flyer)

CONTACT:

[Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu)

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**Thursday, November 15, 2012**

5:30-8 PM, LECO, 3000 Lakeview  
Avenue, St Joseph, MI 49085.

“Kalamazoo Mass Spectrometry  
Discussion Group”

RSVP:

[Andre.Venter@wmich.edu](mailto:Andre.Venter@wmich.edu)

---

**Tuesday, December 4, 2012**

5-9 PM, Bell's Eccentric Café

“Sustainable Science – Recycle a  
Poster”

Keynote speaker John Mallett:  
‘Scientific Influences on the Ancient  
Art of Brewing (and Drinking) Beer’  
(see enclosed flyer)

CONTACT:

[John.A.Wendt@pfizer.com](mailto:John.A.Wendt@pfizer.com)

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Feel free to contact KACS at  
[Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you  
would like to announce specific  
events or share links.

## Announcements

### Kalamazoo Mass Spectrometry Discussion Group

On November 15, LECO Corporation in St. Joseph will be the venue for the 2<sup>nd</sup> event for this industry-sponsored series. It includes dinner, refreshments, two short lectures (TBA) and a tour of the manufacturing facility. There is no admission fee. Attendees please RSVP to [Andre.Venter@wmich.edu](mailto:Andre.Venter@wmich.edu) by Monday, November 12. Car-pooling is available. Additional information is available at <http://goo.gl/ZHcG6>

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### CGSA Student Receives NSF Fellowship

David Sellers is an active member of the WMU Chemistry Graduate Student Association and currently is pursuing a Ph.D. degree under the direction of Dr. Elke Schoffers. David recently received a coveted National Science Foundation Graduate Research Fellowship. The award will cover his stipend and educational expenses for up to three years. Of the ca. 2000 applications received, 153 were awarded in Chemistry, of which 5 were given to graduate students at two Michigan universities (four to the University of Michigan and one to WMU).



David Sellers,  
WMU Chemistry  
Graduate Student  
Association

### Stay Connected!

To find your KACS on Facebook, click on the link below or go to <https://www.facebook.com/ACSKalamazoo> and LIKE(  ) us!



# Report: National Chemistry Week (NCW)

## NCW 2012 – “Nanotechnology: the smallest BIG idea in science”

Lydia Hines

The Kalamazoo Section celebrated the theme with

- A **poster contest** for all children in grades K-12 in our Local Section; two teachers participated in 2 grade categories (6-8, 9-12) with posters submitted for National judging.
- A live **TV interview** with two of our members on Monday, October 1 [<http://archive.org/details/MNLCelebratingChemistry10-01-12.mpg>] - highlighting the topic and informing the public of the free hands-on Chemistry activity at the Kalamazoo Valley Museum; it was broadcast at least 5 times during the following 2 weeks to a coverage area of 300,000 residents.
- Our flagship event for NCW was our **hands-on science event** at the Kalamazoo Valley Museum: **Fliers** of advertisement were distributed throughout the area, the event was publicized in our **online Section newsletter** and on our **Section website**, via **e-mail** to all K-12 schools, 1000 **placemats** were delivered and used at restaurants in corridor areas and **announcements and advertisements** were published in the *Three Rivers Commercial-News*, the *Kalamazoo Gazette*, *Excelsior*, and a Kalamazoo Valley Museum quarterly **magazine**, *Museon*. Local libraries distributed 400 copies of the Celebrating Chemistry publication along with fliers to their young patrons.

This, our 26<sup>th</sup> hands-on activity (we had 2 in 1988) was attended by 727 patrons during four hours on a rainy, cold Saturday afternoon; fifty-nine (59) volunteers were on hand to present 23 activities from nano-gold, to elephant toothpaste, to slime, to nano-sand, to the volcano; these tables were staffed by high school students, college students, graduate and undergraduate students, faculty, industrial chemists, retirees, and community members. It seemed like all three floors of the museum were a-buzz with joyful learners of all ages. One incentive was the promise of a “**prize**” to visitors who completed at least 10 activities – the youngsters loved that, and at least 150 availed themselves of the opportunity and claimed a **nano mole** as their prize.



Exploring fabrication - Gummy Capsules  
(Photo by Elena C. Hines)



Fun with Dry Ice – Bubbles (Photo by Elena C. Hines)

(Continued on Page 10)

# National Chemistry Week 2012 in Pictures



A sincere thank you to the NCW organizers Lydia Hines (right) and Annette Hoppenworth (left) from Elke Schoffers (middle) (Photo by Melissa Basileo)



Silly putty experiment (Photo by Melissa Basileo)



Luminescence experiment (Photo by Melissa Basileo)

Find many more pictures on our [Facebook](#) page

# Chemistry & Culture

## “Discover the Elements of Dance”

by Elke Schoffers

### Chemist + Dancer = Fun!

Local chemists will trade in their laboratory gear for elegant ballroom attire for “**Elements of Dance**” at the Kalamazoo Institute of Arts (KIA, 314 S. Park) 6:30-9:30 PM on Friday, November 9, 2012. Chemists, dancers and the general public are invited to this FREE event.

Chemists are not just experts in their fields but are also interested in art, history, cooking, baking, brewing, sports and dancing, among others. Therefore, the Kalamazoo Local Section of the American Chemical Society (KACS) has initiated a new program titled “**Chemistry and Culture**”. “**Elements of Dance**” is hoped to be the first in a series that targets a broader audience by highlighting the connections between chemistry and culture.

All are welcome to observe or participate in various activities. There will be door prizes, open dances, dance showcases, a Salsa dance lesson and games to ensure a lively evening. We will also disclose the winning design for our illustration contest based on a “chemistry – dancing” theme. The graphic will adorn our custom-made T-shirts. They will be available for sale but will also be given out as prizes.

*Refreshments and displays of sponsors and various student organizations will be set up in the KIA lobby. The KIA auditorium will be the venue for showcases, the dance lesson, a special demo and open dances. Dancing is not required but we sure hope that you will try.*

KACS thanks its cosponsors: the Kalamazoo Institute of Arts, Southwest Michigan Ballroom Dance and the Kalamazoo Dance Chapter of USA Dance.

This event is made possible with funding from the American Chemical Society (ACS) and through generous donations from the American Association for the Advancement of Science (AAAS), the Kalamazoo Spice and Extraction Company (Kalsec), Aldrich, VWR and the WMU Business Technology and Research Park.



Kalamazoo American Chemical Society – Visit us at <https://www.wmich.edu/acs> or on Facebook



# Special Event



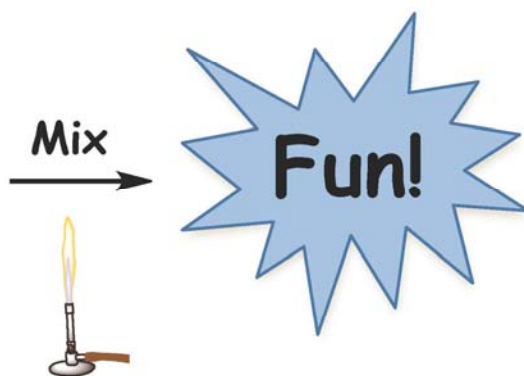
# Elements of Dance



Chemist



Dancer



Friday, November 9, 2012, 6:30-9:30 PM  
Kalamazoo Institute of Arts  
314 S. Park St.

Free Admission.  
Free Snacks.  
Free Dance Lesson.  
Dance Showcases.  
Puzzles – Win Prizes!  
Music: Ballroom, Latin, Swing.  
Partner not necessary – No dress code.  
Open to the general public.



Limited seating. Contact [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) by November 7 to reserve a chair.  
This event is organized by the **Kalamazoo American Chemical Society (KACS) Local Section**. For additional information visit <https://www.wmich.edu/acs>.

# Special Event



The **KALAMAZOO** Section  
presents

## Kalamazoo Sci-Mix Poster Session

### “Sustainable Science - Recycle a Poster”

5:00-9:00 pm, Tuesday, December 4, 2012

6:00 pm – Keynote Speaker John Mallett:

“Scientific Influences on the Ancient Art of Brewing (and Drinking) Beer”



Bell's Eccentric Café  
355 E. Kalamazoo Ave

*Open bar. Complimentary hors  
d'oeuvres will be provided.*



The Kalamazoo area has always been historically rich with exciting chemistry. Please join us and share the area's wealth of exciting chemistry by bringing a poster of your chemistry accomplishments. Your poster can either be newly prepared or a recycled poster from a previous event. This Mixer invites local academic and industrial chemists from all areas of chemistry: Analytical, Biochemistry, Inorganic, Organic, and Physical, in addition to Food and Medicinal Chemistry. See you there!

### *Present Science, Network, Mingle, Celebrate Kalamazoo Chemistry*

Attendees must be (1) a current ACS member, or (2) a poster coauthor or (3) a Pfizer employee. Poster presenters should email Dr. Wendt at [john.a.wendt@pfizer.com](mailto:john.a.wendt@pfizer.com) by **Friday, November 30** to reserve an easel by sending (a) the **title(s)** of the poster(s) and (b) a **list of authors**.

Stay in touch with KACS at <http://www.wmich.edu/acs/>.

Funding provided by  Pfizer Animal Health

# Student Organizations

## NOBCChE Student Chapter at WMU Recognized Nationally for Outstanding Service

Sherine Obare

The National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) hosted its 39<sup>th</sup> Annual Meeting at the Marriott Wardman Park Hotel in Washington DC on September 25-28, 2012. Dr. Obare, Associate Professor of Chemistry at Western Michigan University served as the Chair for the NOBCChE Science Bowl and Science Fair. The NOBCChE™ Science Bowl is a program in which middle and high school students compete as teams of four players in a double elimination quiz bowl, while the Science Fair is a poster competition in which elementary, middle and high school students present an individual completed research project. The program attracted over 150 students and teachers from around the country.

The planning of such a program takes a large amount of effort, and the NOBCChE Student Chapter at Western Michigan University stepped up to the challenge. Twelve (12) members of the organization attended the conference, presented their research, and also served as moderators, judges and timekeepers for the program. Participants included Clara Adams, Semere Bairu, Chartanay Bonner, Kelley Current, Carline Dugue, Jameel Hasan, Noah Masika, Edwin Mghanga, Cheyla Milo, Justin A. Moore, Jacinta Mutambuki, and Jared Wabeke. Each member was recognized for outstanding service in secondary education. Their extraordinary efforts toward this national program earned the chapter the Outstanding Service Award.

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## Chem Club at WMU

Maren Zanotti, Kevin Heinze, Emily Cobb and Scotty Lambert

The Chemistry Club at Western Michigan University is dedicated to working throughout the Kalamazoo community within local schools and districts. We perform large demonstrations for entire schools, break down into classrooms doing hands on activities with students, and participate in local science fairs. Our target audiences range from toddlers, to high school students. We also host social events to help further student's careers and help create professional connections among the arts and science community here at Western. So far this year we have volunteered at the Kalamazoo Valley Museum Chemistry Day, where we made Slime with kids and students.

Upcoming events for this semester include:

- Chem Club bake sale in the Chemistry Building lobby on **October 30<sup>th</sup>**
- An apple cider social for all WMU science RSOs on **November 5<sup>th</sup>**
- A chemistry presentation for Prairie Ridge Elementary School on **November 9<sup>th</sup>**
- Volunteering for the KACS Elements of Dance event on **November 9<sup>th</sup>**
- Guest speaker, Lieutenant Marty Johnson, from the Kalamazoo Crime Lab to talk about forensic chemistry on **November 12<sup>th</sup>**

# Student Organizations

## Chemistry Graduate Student Association

Alia Hinz

In support of the **Community Event** associated with this year's National Chemistry Week, the Chemistry Graduate Student Association (CGSA) at Western Michigan University pursued a project with Oshtemo Township. Four CGSA members spent two and a half hours at Drake House (927 Drake Road, Oshtemo Township) on Friday, October 26; we assisted the Oshtemo Historical Society in insulating the second floor windows and sanding several wooden support beams on the front porch.

The President of the Oshtemo Historical Society was most appreciative of our efforts and time invested, and, in turn, we were pleased to have been able to contribute to a local, historic public works project.

Drake House was originally built in 1852 by Benjamin Drake, one of the first settlers in the Kalamazoo area. The house remained as private property until 2004, when it was acquired by Oshtemo Township. Since that time, the Oshtemo Historical Society has been working with Oshtemo Township to restore the house.



The CGSA members who volunteered at Drake House. From left to right: Jared Wabeke, Alia Hinz, Shino Toma, and David Sellers. (Photo by Millard Loy)



David Sellers and Jared Wabeke, sanding the pillars on the front porch. (Photo by Shino Toma)

# Announcements

## Award Opportunities Available to Women in Chemistry

Lydia Hines

The Women Chemists' Committee (WCC) of the American Chemical Society has several awards available to female students/chemists to attend and/or present at an ACS National Meeting. The following awards have various deadlines beginning February 15.

- The WCC/Eli Lilly Travel Award
- The Overcoming Challenges Award
- The WCC Rising Star Award
- The Priscilla Carney Jones Scholarship

For full descriptions of these and other awards, as well as application information and deadlines visit <http://womenchemists.sites.acs.org/>

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## NCW 2012 – “Nanotechnology: the smallest BIG idea in science”

(Continued from Page 3)

Over the 25 years that our Section has co-hosted this event with the Kalamazoo Valley Museum many patrons have become loyal participants, returning to get ideas for their own use in their classrooms, their homes, their scout troops, etc. Some who came as children themselves are now bringing their own children to introduce them to activities that meant so much to them! [Look for a testimonial in the [Comment](#) by Cheryl Frech, chair of the ACS Committee on Public Relations and Communications, in the December 10, 2012, issue of *C&EM*]. Just **this year a lawyer who brought his son to the event took copies of our ACS-provided handouts and reported later that he spent considerable time doing activities at home with his son!**

Many educational materials, from both the current and prior years, were distributed. Though the survey software was not functional through the whole afternoon there was delight registered in everyone's face during the event, and on the way out participants left with questions about the timing of our **next** activity! [The planned theme for NCW 2013 is “Energy: Now and Forever”]

- Four members of the Chemistry Graduate Student Association from Western Michigan University assisted with refurbishing efforts at a historic home in the West Kalamazoo area as a **community outreach** to highlight the concept of “Making More with Less” (Read more about it on Page 9).

A **reminder** to our members that the **mission of NCW** is to reach the public, particularly elementary and secondary school students, with positive messages about chemistry; its **major thrust is the improvement of the public's impression of the role chemistry and chemists play in every aspect of our way of life and its quality** – in the matters of health, materials, energy, technology, and the environment.

# American Chemical Society – Kalamazoo Local Section Newsletter

December 21, 2012

Vol. 2 - Issue 7



## 2012 KACS Executive Officers

### Chairperson

Dr. Elke Schoffers, WMU – Chemistry  
[elke.schoffers@wmich.edu](mailto:elke.schoffers@wmich.edu)

### Past-Chairperson

Dr. Doug Williams, Kalsec, Inc.  
[dWilliams@kalsec.com](mailto:dWilliams@kalsec.com)

### Chairperson-Elect

Vacant  
Consider getting involved

### Secretary

Carolyn Pugh, Perrigo  
[carolyn.pugh@perrigo.com](mailto:carolyn.pugh@perrigo.com)

### Treasurer

Dr. John Miller, WMU – Chemistry  
[john.b.miller@wmich.edu](mailto:john.b.miller@wmich.edu)

### Councilor

Dr. Lydia E. M. Hines, WMU – Chemistry  
[lemhwgh@gmail.com](mailto:lemhwgh@gmail.com)

### Alternate Councilor

Mr. Michael Kiella  
[mike.kiella@charter.net](mailto:mike.kiella@charter.net)

## Comments from the Chair

Elke Schoffers

Dear Colleagues,

2012 ended with two popular KACS events. The social dance at the KIA attracted 179 participants while 86 people attended the poster session at Bell's Eccentric Café. I thank everybody who joined us, and especially the many volunteers who helped out. I invite you to read more about each event in this newsletter, and to enjoy the other activity highlights in this issue.

KACS held elections. Please join me in welcoming our new 2013 officers. John Engelmann will be the Chair-Elect and John Miller will continue his work as Treasurer. Our Past-Chair Doug Williams will assume responsibilities as Alternate Councilor in the New Year. I thank everybody for committing to working on the Executive Committee. You can learn more about their background in the enclosed report.

Don't hesitate to contact any of the committee members with new suggestions to better serve the local section membership that is currently 451 members strong. Lastly, I wish everybody an enjoyable winter break. Thank you for reading.



Holiday wishes from Elke Schoffers, Ph.D., Professor (WMU), Chair (KACS)

## Best Wishes!

## Happy New Year!

**KACS website:** <http://www.wmich.edu/acs/>

Do you have questions, comments, or would like to contribute to this newsletter? Send an email to: [ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com)

# 2012 KACS Elections

Elke Schoffers

KACS held elections for three positions on the Executive Committee. 7% of the membership confirmed all candidates. Below please find additional background information. If you have not met any of them yet I ask that you please take the opportunity to approach them at an upcoming event.

## **Dr. John Engelmann, Chair-Elect**

Dr. John Engelmann received his B.S. from the University of Wisconsin - Madison and his Ph.D. (organic chemistry) and his J.D. from the University of Illinois - Urbana-Champaign. He practices law in the intellectual property area including U.S. and foreign patent procurement, trademarks, patent strategies, patent estates assessment, and transactional matters. He has been an ACS member for 45 years.



Dr. John Engelmann

## **Dr. John Miller, Treasurer**

Dr. John Miller completed his undergraduate studies at Harvard University before receiving his Ph.D. at Princeton University. He is a physical chemist and has been a member of the KACS and the WMU Chemistry faculty for seventeen years. He has served as KACS treasurer since 2006. His research interests are currently focused on sustainable energy.



Dr. John Miller

## **Dr. Doug Williams, Alternate Councilor**

Dr. Doug Williams obtained his B.A. from Augustana College (Rock Island, IL) and his Ph.D. (inorganic chemistry) from the University of Michigan. He has previously worked as an assistant professor at Kalamazoo College (analytical, general and organic chemistry) and senior research chemist at Dow Chemical - Central Research & Development (inorganic materials and catalysis). He is the Director of Analytical and Sensory Services at Kalsec, Inc. (Kalamazoo), where he has worked since 1997. He has been an ACS member for 33 years and is currently serving as Past-Chair of the Kalamazoo Section.



Dr. Doug Williams

Feel free to contact KACS at [Elke.Schoffers@wmich.edu](mailto:Elke.Schoffers@wmich.edu) if you would like to announce specific events or share links.



Find us on  
**Facebook**

# Kalamazoo Area Mass Spectrometry Discussion Group

## Field trip report: Visiting Leco

Andre Venter

On November 15 seventeen members of the Kalamazoo Area Mass Spectrometry Discussion Group (KZooMS) visited the LECO Life Science and Chemical Analysis Centre in St Joseph, MI.

Dr Gavin Reid, a professor at Michigan State University, presented on *Chemical Derivatization and High Resolution Mass Spectrometry for Comprehensive Lipidomic Analysis of Disease*.

The attendees were also treated to a fascinating tour of the LECO mass spectrometry manufacturing facility. LECO is a privately owned, vertically integrated company which offered attendees a view of the entire mass spectrometry manufacturing process.

The event was the second in the Kalamazoo Area Mass Spectrometry Discussion Group's Industry Sponsored Lectures Series. For information about upcoming events contact [andre.venter@wmich.edu](mailto:andre.venter@wmich.edu) or visit the KzooMS website at <http://goo.gl/bqj0j>



Dr. Gavin Reid, MSU, presenting on chemical derivation of lipids for MS analysis. (Photo by Andre Venter)



LECO scientists, Lucas Smith and Nick Hall, taking KZooMS members on tour of the LECO manufacturing facility. (Photos by Andre Venter)



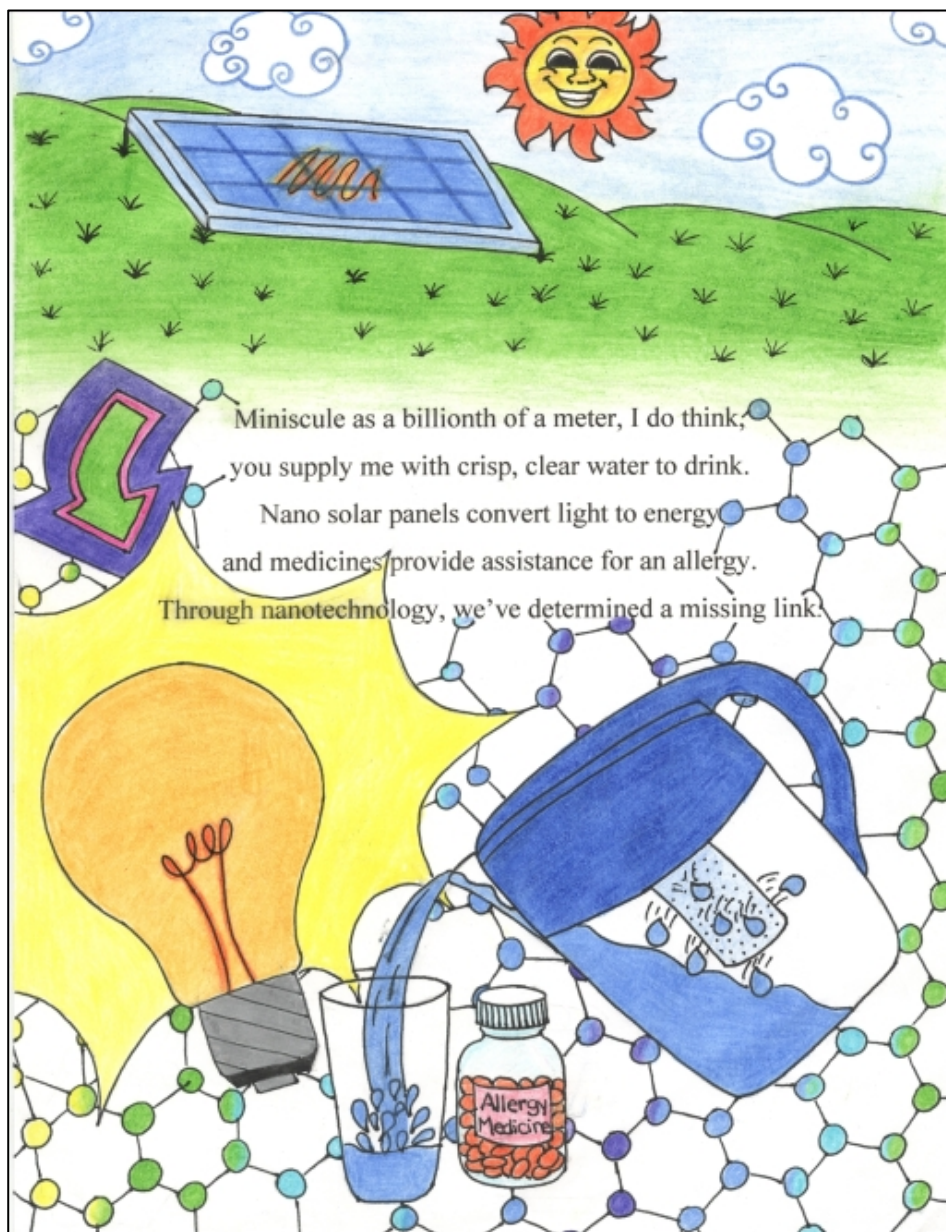
# NCW Illustrated Poster Contest Winner

Lydia Hines

It is our great pleasure as a Section to recognize our very own **Cassie Kiewiet**, an 11th grade student from Heritage Christian Academy in Kalamazoo, who was **the first-place winner in the grades 9-12 category of the National Illustrated Poem contest** on our 2012 National Chemistry Week theme [open to K-12 students in all 189 Local Sections of the Society during through the month of October].

If you recall, the 2012 theme was "Nanotechnology - the smallest BIG idea in Science". Her entry appears below. Cassie will receive a \$300 check, a certificate, and an award letter from the American Chemical Society. The Kalamazoo Section awarded Cassie a \$15 gift card to Pizza Hut when her entry was selected for submission to the National evaluation.

Cassie, congratulations!



First-place winning poster, grades 9-12 category of the National Chemistry Week Illustrated Poem Contest, by Cassie Kiewiet, 11<sup>th</sup> grade, Heritage Christian Academy.

# Culture & Chemistry: Elements of Dance

Report by Elke Schoffers with Photos by Denis Billen (DB) and Melissa Basileo (MB)

KACS launched its new “Chemistry & Culture” initiative with a big success by attracting 179 participants to the Kalamazoo Institute of Arts on November 9, 2012, for the first event titled “Elements of Dance”. The lively evening began with open dances at 6:30 PM followed by a brief program and more open dances until 9:45 PM. The event was overseen by Joseph Reish (WMU Dean of Libraries) as the Master of Ceremonies. Chemist and KACS member Denis Billen (Pfizer) provided music in Ballroom, Latin and Swing. He played some disco songs with special light and smoke effects. The lineup included showcase performances by dancing chemists James Guzinski (ret. Kalsec) and Elke Schoffers (WMU) in the Fox Trot and Argentine Tango with their respective partners. The program and open dances took place in the KIA auditorium while the lobby was set up with display and handout tables (including from student clubs) to encourage informal interactions over wine and snacks. Two large periodic tables were made available to help attendees win the “Chemistry of Dance” competition, which required the matching of elemental symbols to dance names. Attendees also won prizes by filling out a dance card. Among others, prizes included Au-, K-, and Zn-elemental pins, Meg-A-Moles, and custom-made lime green T-shirts with blue print of the winning design submitted by Evan Dalke, a WMU Graphic & Printing Science major. The competition was announced several weeks prior to the event. The audience was invited to join the Cupid Shuffle, which was started by chemistry students. Participation was also encouraged for the Zumba performance by the “Xtreme Z Team” and for the Salsa dance lesson given by Guzinski and Schoffers.



Joe Reish was the Master of Ceremonies (DB).



Open dance at the Kalamazoo Institute of Arts auditorium (DB).

(Continued on Page 6)



Showcases performers, from left: Guzinski and dance partner Jenny Grunberg, a Kalamazoo dentist, and Schoffers with Art Downey, a professional dance instructor (DB).



Doug Williams (Kalsec) dancing with his wife, Karen (DB).



Guzinski and Grunberg during open dancing (DB).



From left: Hilary Leaf, Heather Christy, Sara Burnhans, and Melissa Leach from the Xtreme Z Team performed a Zumba dance (DB).

# Culture & Chemistry: Elements of Dance

(Continued from Page 5)

This event was made possible through an “ACS Innovative Project Grant” (submitted by KACS Chair Schoffers) and through generous donations by AAAS, Kalsec, Aldrich-Chemistry, VWR, and the WMU Business Technology Research Park. Special thanks also go to co-sponsors Kalamazoo Institute of Arts, the Southwest Michigan Ballroom Dance (SWMBD) and the Kalamazoo chapter of USA Dance.



Downey and Schoffers conclude the Argentine tango (MB).



WMU chemistry majors Sarah Ellison (left) and Ashley Mead (DB).



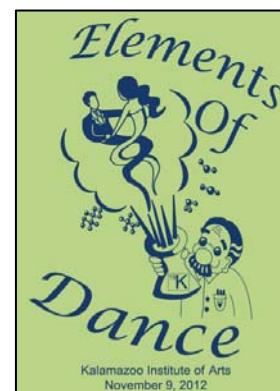
WMU chemist Patricia Holten (Environmental Safety and Emergency Management) with David Pease (MB).



WMU chemistry instructors Guzinski and Schoffers teach new steps during Salsa lesson (DB).



Attendees practice Salsa dancing at the KIA (DB).



Evan Dalke's T-shirt design (front), note “K” for KACS.

## Announcement

**Save the Date: ACS Great Lakes Regional Meeting GLRM2013**

**JUNE 5 – 8, 2013**  
(Wednesday - Saturday)

**Plan now to join us in La Crosse, Wisconsin for the  
2013 ACS Great Lakes Regional Meeting (40th)-- GLRM 2013**

*Abstract Submittal will open in mid-December*

*Registration will open in mid-January*

<http://qlrm-lax.sites.acs.org/>

Jessica Brozek, General Chair -- [Jessica.Brozek@Hydrite.com](mailto:Jessica.Brozek@Hydrite.com)

Stacey Glidden, Program Chair -- [Stacy.Glidden@mtservices.com](mailto:Stacy.Glidden@mtservices.com)

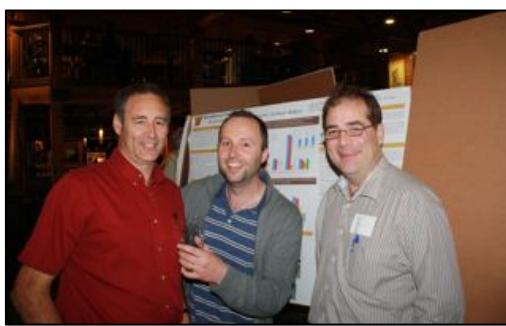
# Sci-Mix Poster Session

## Report and Photos by Elke Schoffers

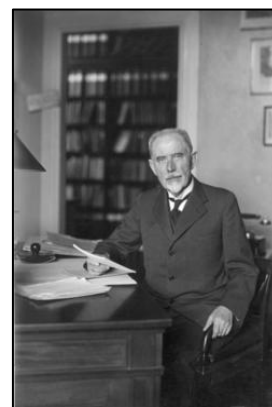
With the help of a generous grant from Pfizer Animal Health KACS hosted its second Sci-Mix Poster Session on Dec. 4, 2012, at Bell's Eccentric Café in downtown Kalamazoo. There were over 30 posters displayed in the "music tavern", including contributions from Pfizer, Kalexsyn, Kalsec, K-College and WMU. Approximately 86 attendees had plenty of time to mingle in an informal setting while enjoying hors d'oeuvres and an open bar. John Mallett, Director of Operations at Bell's, gave the keynote address at 6 PM titled "Scientific Influences on the Ancient Art of Brewing (and Drinking) Beer". He shared his brewing experience interwoven with specific historical contributions. Those included the work by statistician William Sealy Gosset (Guinness brewery), the sugar chemist Arthur Robert Ling and those by Danish chemist Søren Peder Lauritz Sørensen (Carlsberg Laboratory) who played a seminal role for first introducing the concept of pH.



Left to right: organizers John Wendt (Pfizer) and Elke Schoffers (WMU) with speaker John Mallett (Bell's brewery).



John Miller (WMU, right) with PAH's Paul Misiak (left) and Denis Billen who was also the evenings DJ.



S. P. L. Sorensen first introduced the pH concept.



400-Barrel fermentation vessels.



Some 86 people turned out for informal discussions over beer.



Left to right: K-College students Joshua Abbott, Mara Livezey and Amanda Bolles.



Larry Bell and his family. He founded his home-brewery sale shop in 1983.



Over 30 posters were on display.



WMU Chemclub members Kevin Heinze and Maren Zanotti.

# Sudoku Challenge... is back!

## Solve the puzzle, win a prize!

Here's how to win a prize:

- 1) Solve this Sudoku puzzle on your own.  
(please, ***do not use*** an online Sudoku solver)
- 2) Email the solved puzzle to [ACSkzoo@gmail.com](mailto:ACSkzoo@gmail.com)
- 3) Submission deadline is **January 15, 2013**.
- 4) Prizes will be awarded to the first 3 correct entries (entries must be from Kalamazoo Local Section ACS members who have not won a prize in the most recent newsletter).
- 5) Winners and solution will be announced in the next newsletter.

## Have fun!

<u>First Name:</u>	<u>Last Name:</u>
<u>Email address:</u>	

Difficulty: **MEDIUM**

9			3		4	6		
2			7			5		
		6	1		2		4	
6		7		9				
	8			3			5	
				2		3		6
	2		8		6	1		
		5			3			8
		4	9		5			2

New to Sudoku? Click on the [link](#) to learn the few basic rules of the game.