

# American Chemical Society – Kalamazoo Local Section Newsletter

December 3, 2014

Vol. 4 - Issue 9



## The Tastes of the Holidays

John H. Engelmann



John H. Engelmann, Ph.D.  
(KACS Chair)

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The cookies, pies and other holiday sweets derive their flavor from spices including vanilla, ginger, and cinnamon. Another group of chemicals responsible for flavor, especially citrus flavors, are the terpenes. This is a large group of molecules based upon isoprene which deserves a discussion of its own.

The common spices, vanilla, ginger, and cinnamon, derive their flavor and odor from aromatic compounds. Interestingly, the term "aromatic" came about because the first known aromatic compounds were fragrant substances. These fragrant molecules were found in balsams, and essential oils. In view of the origin of the term "aromatic," perhaps it is not surprising that the flavor of these common spices comes from aromatic compounds. All the spice flavoring compounds noted below, contain oxygen in the form of phenols, alcohols, aldehydes, ketones and ethers. Here are some of the compound which give the common spices their flavor. As I have noted before, chemistry is everywhere -- even in a pumpkin pie.

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**KACS website:** <http://kalamazooacs.org/>

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



# Wally Hines in Memoriam

By Doug Williams

We are saddened by the death of 67-year ACS member Wallis Gartside Hines on October 31, 2014. Wally was born in Chicago, Ill. on Feb. 2, 1919, the fifth son of Herbert Waldo and Helen (Gartside) Hines. He graduated from Springfield High School (IL) in 1935. As a young man Wally had his heart set on becoming a surgeon; he became turned on to Chemistry after being in Dr. John C. Bailar's freshman chemistry class at the U of Illinois where he began his collegiate studies and completed a B.S. degree in applied science from Michigan State College in 1941. Following WWII, he earned an M.S. in organic chemistry from Michigan State University (MSU) in 1948, and his Ph.D. in organic chemistry from Louisiana State University in 1968. Wally had a long and adventurous career in chemistry that included laboratory jobs with Ditzler Color Co. of Detroit, E. I. duPont at the Kankakee Ordnance Works of Joliet, IL, the Michigan State Department of Agriculture Labs of Lansing, the Burlington Railroad, Armour Pharmaceutical Co., and The Upjohn Co. He also had an academic career as professor and head of the chemistry department at Aurora College (now University) in Illinois for 16 years and 20 years as director of chemistry labs at Kalamazoo College, from which he retired at age 84. He also had brief teaching assignments at Southwestern Michigan College in Dowagiac, Kalamazoo Valley Community College, and Nazareth College. We fondly remember Wally's faithful service to the KACS in many capacities, including his term as our local section Chair in 1986. Wally was awarded our section service award in 1991. He is survived by his wife, Lydia (Moissidou) Hines of Kalamazoo, two sons, three daughters, one brother, three sisters-in-law; three grandchildren; six great-grandchildren; three great-great-grandsons; many, many nieces, nephews and cousins. He was predeceased by one son, one grandson, six brothers, and two sisters. Wally served in WWII with the Third Chemical Mortar Battalion in Italy, France, Belgium and Germany. He served eight years as a member of Gideons International, and was a member of Berean Baptist Church in Portage. Whatever Wally did he pursued with a passion – and he had a passion for his genealogical research, which he began in 1970. He demanded perfection of himself and others and did everything to the best of his ability. His life verse was Galatians 6:2 “Bear ye one another's burdens and so fulfill the law of Christ”. His body has been willed to the MSU Medical School; it will later be cremated and ashes scattered over Isaacs Harbour, Nova Scotia (ancestral homesite).

# School Outreach Events

By Angela Willson

## A) Gobles Elementary School Science Day

October 23, 2014

On Mole day our KACS secretary, Angela Willson, spent the afternoon at Gobles Elementary School in response to their preschool teacher's request for assistance with a grant she had received to promote STEM at her school. It was their first ever school-wide celebration of science. Over 50 students and parents went from room to room open house style and got to see many experiments to get them interested in science. Our celebration of chemistry included activities dealing with soap, like surface tension of water and milk and foaming hydrogen peroxide (elephant toothpaste). The elementary students definitely enjoyed their afternoon of learning about chemistry through hands on activities.



## B) Haverhill Elementary School's Halloween Science Celebration

We celebrated another fun day of science with some of our local elementary schoolers by demonstrating science experiments at the all-school assembly on October 30th. Demonstrations included the colors of gobstoppers, dry ice bubbles, elephant toothpaste in a pumpkin, and other festive Halloween science-themed activities. Deb VanAntwerp, a third grade teacher, gave the following glowing review about the presentation: "Your experiments were festive, meaningful, interesting, and fun, and you explained everything in such a positive, understandable manner! You really made Chemistry "come alive" for all of us!"





# Miscellaneous

## Kalamazoo College Chemistry Club Activities

By Mara Birndorff and Sarah Glass

In an effort to promote chemistry and membership in Kalamazoo College's ACS student group, a Mole Day event was held in the lounge of the Dow Science Center on October 23d, 2014. There were donuts, hot chocolate, and mole jokes around the room for students along with faculty to come and enjoy throughout the day. Many students use this as a way to relax after getting out of lab. This is an important opportunity for chemistry and biology majors to socialize with each other and for first-years and sophomores to ask upperclassman about their Senior Individualized Projects (SIPs), classes, and plans for after graduation. Overall, Mole day brings the science majors of Dow together to celebrate an integral part of National Chemistry Week while piquing students' interest in chemistry in a fun environment. This was a successful event which was made possible with the financial support from KACS.

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## Joint Great Lakes Central Regional Meeting

By Lydia Hines, co-General Chair

Mark your calendars and offer to assist in the successful implementation of this **ACS Meeting** to be held at the Amway Grand Hotel/DeVos Place in **Grand Rapids** on Wednesday through Saturday, May 27-30, 2015. Participate along with about 1000-1400 other chemist in an affordable venue.

Offer to **chair a symposium** in your area of Chemistry, and/or invite your students and colleagues to **present papers orally or in poster form**, to help with **registration**, with **assisting our visitors** to the area, with **keeping exhibitors happy** with their surroundings, and by **attending technical sessions and social events**, etc.

**Dr. Scott Denmark** (University of Illinois at Urbana–Champaign), **Dr. Joan Brennecke** (University of Notre Dame) and **Dr. Dustin Mergott** (Eli Lilly) have agreed to be our keynote speakers.

**Dr. Tom Lane** (Past-President, ACS) will be giving the Award address at the banquet on Friday evening.

Visit our website at [www.JGLCRM2015.com](http://www.JGLCRM2015.com) for updates on program and other “breaking news”....



Grand Rapids, MI | [jglcrm2015.com](http://jglcrm2015.com)

# Sci-Mix Poster Session at Bell's Eccentric Café

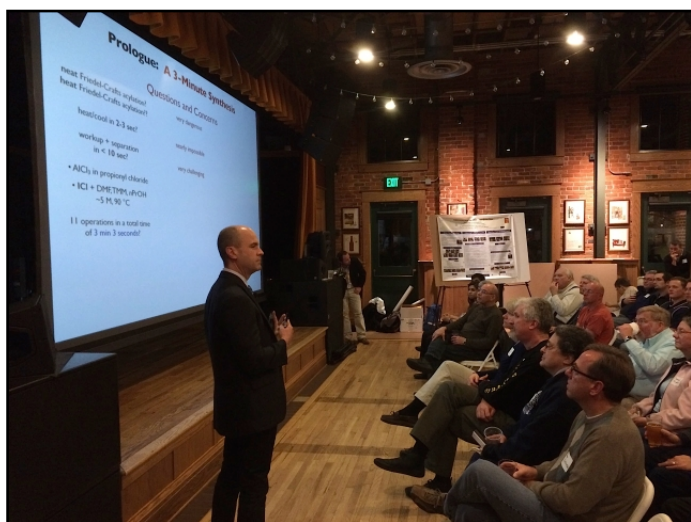
By Elke Schoffers with photos by Brian Eklov

Now in its fourth year, KACS hosted the annual poster session titled "Sustainable Science - Recycle a Poster" at Bell's brewery downtown Kalamazoo on Nov. 5, 2014. An unprecedented crowd of over 120 participants visited the local pub.

For the first time KACS hosted an out-of-state speaker for this event series. The audience was excited to hear an engaging presentation by Prof. Tim Jamison from Massachusetts Institute of Technology. Jamison is known for his novel methods in organic synthesis and their implementation in the total synthesis of natural products. In his seminar on "Continuous Flow Multistep Synthesis" he outlined how flow chemistry holds so much potential to reduce reaction times and increase efficiency.

Visitors had a chance to enjoy hot appetizers and beer while listening to the presentation, which was followed by the poster session. There were dozens of presenters, including 27 students. Some posters were newly prepared or "recycled" from a previous conference. Poster contributions were based on research carried out at Carnegie Mellon University, Kalamazoo College, KAMSC, Michigan State University, Oklahoma State University, Rutgers University-Newark, Western Michigan University and Zoetis. Attendants were able to mingle, enjoy a relaxed atmosphere and continue informal discussions with Jamison and other scientists from academia and industry.

This last event of the year was also an opportunity to thank all volunteers without whom KACS could not fulfill its goals and missions. For example, Dr. Lydia Hines received the ACS "2014 Outreach Volunteer of the Year" award. The event was made possible through a generous grant by Zoetis.



Keynote speaker Prof. Tim Jamison, Massachusetts Institute of Technology, in front of a captivated audience.



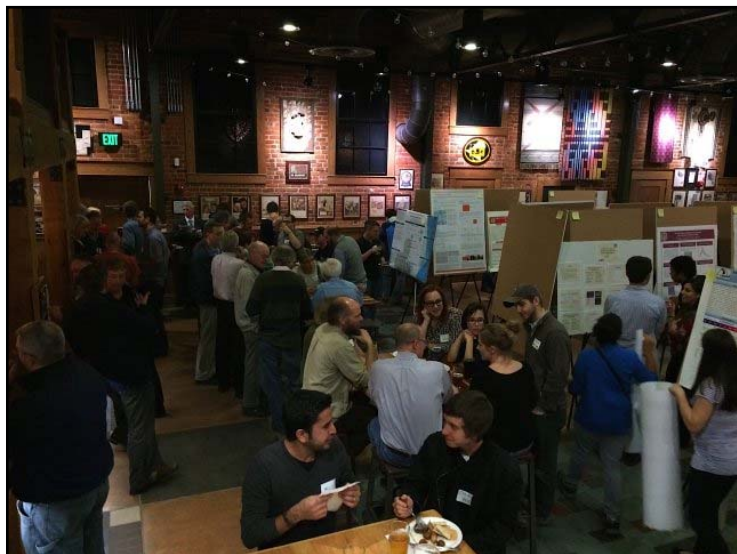
Listening to the keynote presentation.

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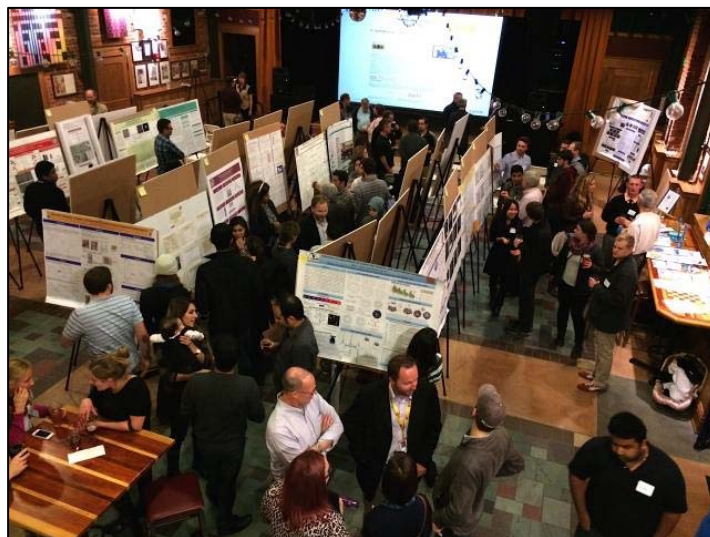


# Final Thoughts

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Sci-Mix attendees mingling.



Poster session.



Lydia Hines (KACS Councilor) receiving the ACS "2014 Outreach Volunteer of the Year" award, presented by Elke Schoffers (KACS Past-Chair).



Doug Williams (KACS Past-Chair, Alternate Councilor), and Elke Schoffers celebrating the two ChemLuminary awards received at the 248<sup>th</sup> ACS National Meeting, San Francisco, CA.

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