

*ACS/CSC International Awards Banquet*  
at

**Walkerville Brewery**

525 Argyle Rd, Windsor, Ontario N8Y 4Z8 Canada

**Wednesday, May 21, 2014**

**Featuring:**

***“Kathy's Favorite (Chemistry) Things!”***

**Presented by Kathleen A. Kitzmann,**

**Mercy High School, Farmington Hills, Michigan**

5-6 pm Cash Bar, Self-Guided Tour, Sample Beer

6-7 pm Dinner

7-9 pm Awards and Presentation

The Chemical Institute of Canada (Canadian Society for Chemistry) and the American Chemical Society will celebrate students, volunteers and members on May 21st at Walkerville Brewery. On that night we will recognize Chemical Institute of Canada Student Awards and Prizes and ACS 50 and 60 year Members, Volunteers, Salutes to Excellence Award Recipients, Volunteer of the Year Award Recipient, Section Distinguished Award Recipient and Undergraduate Student Awards. The evening will include cash bar from 5-9, dinner buffet, awards and presentation. Koolini's catering will offer a buffet of salad, vegetable ravioli, chicken, bread, coffee and desserts. The dinner will cost \$40 US funds; \$40 CAN funds, payable by check at banquet.

Biography: Kathleen A. Kitzmann has been teaching for 40 years and currently teaches Chemistry and AP Chemistry at Mercy High

*(Continued from page 1)*

School in Farmington Hills, MI. She has also taught Honors Chemistry and ChemCom (Chemistry in the Community) at the high school level, as well as Introductory College Chemistry and Biochemistry at the college level. At Mercy H.S., she serves as the science department chairperson and the moderator of the science club, the largest club at the school.

Kathy received a B.S. in Chemistry from Taylor University and an M.S. in Medicinal Chemistry from the University of Michigan. She is a member of the Detroit Section ACS Education Committee and has served on several of the exam-writing committees for the ACS Examinations Institute. Kathy is also the co-director of the Science and Engineering Fair of Metropolitan Detroit and the Michigan Science and Engineering Fair. In her “spare” time, Kathy enjoys playing the cello, piano and guitar, song-writing, and volunteering at Trinity House Theatre!

Abstract: Kathy is a self-described “chemistry geek”. She enjoys ALL things chemistry (“What in the world isn’t chemistry?”) From favorite chemistry jokes to favorite chemistry songs, from her favorite compound to her favorite labs, from her favorite chemistry demo to her favorite chemistry book, Kathy will share the things that she most likes about chemistry. Her desire is that the audience members will “go forth” and discover their own favorite chemistry things!

Reservations must be received by Tuesday, May 13, 2014.

For ACS Members: Please make a reservation by contacting Megan Klein at [Klein\\_megan@hotmail.com](mailto:Klein_megan@hotmail.com) or by phone at: 248-470-5059.

For CIC/CSC Members: Please make a reservation by contacting Samuel Johnson at [sjohnson@uwindsor.ca](mailto:sjohnson@uwindsor.ca) or by phone at: (519)253-3000 ext. 3769.

Walkerville Brewery: The building, constructed in 1928, was originally designed as a racking warehouse. The Walkerville Brewery consists of a 4 vessel, 25 HL brew house. The brewery has a fermentation capacity of 40,000 liters (800 Kegs) and two bright beer tanks for filtered, carbonated beer.

A link to the facility is at <http://walkervillebrewery.com/index.html>.

**Please see page 13-14 for a map and directions to the Brewery.**

## **Volunteers Recognized at Annual Awards Meeting**

Every year the Detroit Local Section of the American Chemical Society honors members that have gone above and beyond the call of duty. These volunteers have taken time and energy out of their busy schedules to provide assistance and resources to the Section in various roles. Please join us in congratulating the following honorees at the Annual Awards Meeting at the Walkerville Brewery in Windsor, Ontario.

Salutes to Excellence is an award program that gives ACS members an opportunity to conduct an event within their communities that recognizes the positive impact on everyday life made by a product of chemistry, a practitioner of chemistry, or a place of importance in chemistry. A central part of the event is the presentation of a commemorative plaque, furnished by Office of Community Activities, for the honorees for the chemistry achievement being honored.

### **Salutes to Excellence Recipients 2014 – Kathleen Kitzmann, Mercy High School Julia Winter, Detroit Country Day**

The Distinguished Service Award was established in 1978 to honor members for long and meritorious service to the Section. Candidates for the award are nominated at a regular Executive Board meeting and elected Board members determine the recipient. The recipient will receive a plaque from the Section.

### **Distinguished Service Award Recipient 2014 – Emil Lozanov, Wayne State University**

### **Volunteer of the Year Award – Denise Grimsley, BASF Corporation**

### **Past Chair Award – Megan Klein, Ash Stevens**

## **Detroit Section 50 and 60 Year Members for 2014**

Congratulations are in order for the following members of the Detroit Section who have reached 50 and 60 years of service! These milestones will be acknowledged at the Awards Banquet on May 21, 2014.

It is truly a pleasure to acknowledge these distinguished members who have contributed so much to the success of the American Chemical Society. Everyone at the Detroit Section offers our congratulations, and we wish to express our gratitude for their service to the Society. This year's honorees are:

### **50 Year Members**

Robert Gault

James Keiser

Dr. Daniel Klempner

Dr. Andreas Lindert

Dr. Michael McMillan

William Nolan

Dr. Gordon Parker

Louis Trudell

Charlotte Varzi

Peter Warner

Dr. Wen Kuei Wong

### **60 Year Members**

Edward Budzinski

Dr. Michael Dubeck

Dr. Ed Havlena, Jr.

Dr. J.R. Soulen

Congratulations to all the honorees  
Everyone looks forward to seeing you at the Awards Banquet in May.

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

# Brewing Chemistry

Detroit, Michigan

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

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

There is no admission charge, and free parking is available. Feel free to join us before the talk at 6:00 PM for a dutch-treat dinner.. For more information, contact Meghann at 313.993.1259 or [meghann@brewingchemistry.com](mailto:meghann@brewingchemistry.com)

[www.brewingchemisry.com](http://www.brewingchemisry.com)

**Tuesday, May 20th, 2014 at 7 PM**

## **Fracking & Water Quality**

Presented by:

**Jim Nash, Oakland County Water Resources  
Commissioner**

Jim Nash will talk about the environmental impact of fracking and new state-issued oil and natural gas drilling leases in Southeast Michigan. Fracking, the common term for slick water horizontal fracturing, drills wells up to two miles into the earth, then turns the drill bit horizontally to drill up to several miles. The resulting well is then filled with millions of gallons of fresh water mixed with sand, salts and chemicals. This mixture is then subjected to bursts of intense pressure to loosen rock formations and release natural gas. Many fear possible contamination of groundwater resources and have voiced concerns about disposal of the resulting fracking fluids.

Commissioner Nash will also discuss other regional issues such as the Detroit Water and Sewerage Department concerns as they relate to the Detroit bankruptcy.

[www.brewingchemistry.com](http://www.brewingchemistry.com)

## **NOMINATIONS FOR 2015 SECTION OFFICERS AND COUNCILORS**

The Section's Nominating Committee has selected a slate of candidates to run for the Detroit Local Section 2015 officer election. According to the bylaws, Councilor and

Alternate Councilor offices must have at least one more nominee than there are available openings. Councilors and Alternate Councilors serve three year terms. Nominations may also be made by petition. Section members interested in running for an office can submit a Petition to the Section Secretary stating the office for which they wish to run. The Petition must be endorsed by 1% of the Section Membership (13 members) and sent to the Section Chair, Megan Klein, postmarked on or before July 31, 2014. For more information or for help in obtaining the necessary endorsements, email the Section Chair, Megan Klein at: Klein\_megan@hotmail.com.

### **SLATE OF NOMINEES FOR FALL 2014 ELECTION**

Chair: Charlene Hayden

Chair-Elect: Matthew Mio

Secretary: Denise Grimsley

Treasurer: Shannon Timmons

Councilor: Mark Benvenuto  
Anthony Sky

Alternate Councilor: Kevin Perry  
Meghann Murray

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## **Detroit ACS and Facebook**

Please "like" our Facebook page. You can do this one of two ways, you can either go to our web site at <http://detroit.sites.acs.org/> and click the "like" button on the right hand side of the home page, or you can find us on Facebook directly. Our page is called Detroit Section of the American Chemical Society. Once the page comes up, please click the "like" button to receive innovative scientific findings provided by the National ACS and also to hear what's going on locally in the Detroit Area with the Detroit Section of the ACS.

Sincerely,  
Kevin Perry

## **Thomas Edison's chemical developments to be recognized as a National Historic Chemical Landmark in Michigan**

American inventor and businessman Thomas Alva Edison will be recognized as a National Historic Chemical Landmark in Dearborn on Saturday, September 20, 2014. Thomas Edison developed an interest in chemistry as a boy in Michigan, and applications of chemistry were a common theme in many of his inventions including carbon filaments used in light bulbs, development of the nickel-iron alkaline electric storage battery, and research into domestic sources of rubber.

Edison's legendary "invention factory" in Menlo Park, N.J., was moved from its original site to Dearborn in 1928 when it was reconstructed by Edison's close personal friend Henry Ford. The family-friendly event will begin at 11:00 AM with tours of the laboratory and presentations, and Edison himself may make an appearance. The American Chemical Society, ACS Detroit Local Section, and The Henry Ford are sponsoring the event. For updates and information, visit [www.acs.org/landmarks](http://www.acs.org/landmarks).

Additional celebrations of Edison's work in chemistry will be held by the ACS at the present-day locations of his laboratories. The Edison Botanical Laboratory at the Edison & Ford Winter Estates will be commemorated on May 25, 2014, in Fort Myers, Fla., in partnership with the South Florida Section of ACS. Edison's West Orange laboratory complex will be commemorated at the Thomas Edison National Historical Park in West Orange, N.J., on June 6, 2014, in partnership with the ACS North Jersey Section.

The Menlo Park Laboratory at The Henry Ford will join two existing National Historic Chemical Landmarks in Michigan: commercial production of bromine by Herbert H. Dow in Midland and the discovery of organic free radicals by Moses Gomberg at the University of Michigan.

The American Chemical Society established the National Historic Chemical Landmarks program in 1992 to recognize important achievements in the history of the chemical sciences. Subjects recognized through this program have included Bakelite, the world's first synthetic plastic; the discovery and development of penicillin; and the work of historical figures such as Joseph Priestley, George Washington Carver and Rachel Carson. More information is available online at:

[www.acs.org/landmarks](http://www.acs.org/landmarks).

## **2014 U.S. National Chemistry Olympiad Detroit Local Section Competition**

On Thursday, March 20, 208 students representing 28 area high schools converged on the University of Michigan-Dearborn campus for the Local Section exam for the US National Chemistry Olympiad. The two-hour exam is the first step in the process of selecting the four-person team to represent the United States in the International Chemistry Olympiad, to be held this year in Hanoi, Vietnam. The scores on the seventy-question multiple choice exam were quite impressive: an average of 41 questions right and a high score of 67. While the students were completing the exam, their teachers attended a meeting sponsored by SEMCTO and the Section's Education Committee.

The top twelve students on the local section exam were selected as Nominees of the Detroit Section; the next eight students were named as Runners-up. Additionally, Stephen Li and Aaron Zeng were automatic Nominees by virtue of having attended the Study Camp in 2013. The complete list of Nominees and Runners-up appears below. The Nominees will return to UM-Dearborn on April 24 to sit for the National Exam. The grueling National Exam includes a multiple-choice portion, free response questions, and two laboratory problems. From the nearly one thousand test-takers nationwide twenty will be chosen to attend the Olympiad Study Camp in Colorado Springs.

The Chemistry Olympiad program is organized locally by Dr. Mark DeCamp, Detroit Section Olympiad Coordinator, with the assistance of the Section's Education Committee. Special thanks are due to Peg Convery (Farmington High School) for organizing the SEMCTO meeting, the UM-Dearborn Chemistry Club for lively chemical demonstrations following the exam, and Prof. Simona Marincean (UM-Dearborn) for providing the answer to the free-response question.

*(Continued on page 9)*



## NOMINEES

<u>Name</u>	<u>Hometown</u>	<u>High School</u>	<u>Teacher</u>
David Bindon	Canton	U of Detroit Jesuit H.S.	Priscilla Oshikiri
Steven Cheng ±	Troy	Troy High School	William Hevel
Ethan Curtis	Brighton	Brighton High School	Josef Hudecek
Saumeel Desai	Sterling Heights	Utica Center for Math, Science and Technology	Mike Attan
Joshua Inwald	Bloomfield Hills	Bloomfield Hills H.S.	Dennis Kwasy
Naveen Jasti	Troy	Detroit Country Day	Julia Winter
Jason Ji	Troy	Troy High School	William Hevel
Dong Hyun Kim	Novi	Novi High School	Rand Helmkamp
Jonathan Li	Troy	Troy Athens High School	Jane Marie Moss
Stephen Li ##	Troy	Troy High School	William Hevel
Steven Schmatz #	Birmingham	International Academy-C	Megan Phillips
Navraj Singh	Lake Orion	The Roeper School	Jamie Benigna
Suchet Srinivasa ±	Novi	Novi High School	Rand Helmkamp
Aaron Zeng ##	Novi	Detroit Country Day	Julia Winter

## RUNNERS-UP

<u>Name</u>	<u>Hometown</u>	<u>High School</u>	<u>Teacher</u>
Jackie Bredenber	Royal Oak	Detroit Country Day	Julia Winter
Brendan Campbell	Novi	Novi High School	Rand Helmkamp
Naoto Hikawa	Novi	Novi High School	Rand Helmkamp
Manuel Kansy	Northville	Northville High School	Tom Silak
Sharang Karve	Troy	Troy High School	William Hevel
Gary Luo	Novi	Novi High School	Rand Helmkamp
Dhruv Medarametia	Troy	Troy High School	William Hevel
Lawrence Wu ±	Troy	Troy High School	William Hevel

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CHEMISTRY OLYMPIAD  
PARTICIPATING SCHOOLS (28)

Anchor Bay High School  
Bloomfield Hills High School  
Brighton High School  
Cabrini High School  
Chippewa Valley High School  
Churchill High School  
Crestwood High School  
Detroit Catholic Central  
Detroit Country Day School  
Divine Child High School  
Farmington High School  
Franklin High School  
Genesee Early College  
Grosse Pointe North High School  
Groves High School  
International Academy-C  
International Academy-East  
Kensington Woods High School  
North Farmington High School  
Northville High School  
Novi High School  
Plymouth High School  
Rochester Adams High School  
The Roeper School  
Troy Athens High School  
Troy High School  
Univ. of Detroit Jesuit High School  
Utica Center for Math, Science and Technology

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## **Project SEED 2012-2013 Participant Gives Detroit Public School First Grand Award Winner in a Decade**

On March 12, 2014, many metro Detroiters were digging out of one of nature's last major snow storms. Area schools were closed. However, nearly 1,600 student science projects were presented as part of the Detroit Metro Science Fair, at Cobo Hall. Nadim Bari, a Cass Technical High School senior was one of these students. Furthermore, the project he presented was that of his research assignment as a second year participant in the Detroit Section's Project SEED' 13 program. After a long day of judging, Nadim earned a grand award in Engineering, see abstract below.

Enhance target efficiency of a laser by the integration of a stabilization system

Nadim Bari, Wen Li, Wayne State University Department of Chemistry

### *Abstract:*

The objective of this study is to improve the accuracy of laser pointing by stabilizing the beam to stay constant on a specific target. To increase accuracy and stabilize the laser, a laser detection and stabilizer system was created. The computer programs Labview and NI Vision Acquisition Module, by National Instruments, were used in this investigation. The abovementioned programs were used to create a driver that allows the system to continuously complete specific tasks. The system itself consists of a webcam, mirror, motorized mirror mount, and a computer. The webcam captures the position of the laser and calculates the laser's center of mass (the position is represented by coordinates on a Cartesian plane); Feedback is then sent to the mirror mount to correct the drift. The mirror mount controls the direction of the laser by corresponding to the analyzed destination sent by the webcam. If the laser starts to drift away from the target, the cen-

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ter of mass calculation will change. As soon as the center of mass coordinates change by 0.2 decimals, the mirror mount redirects the laser back to the target. This system is now used to improve the overall accuracy of the laser pointing stability's active feedback.

Mr. Bari said, "While I was confident, I was nervous as well. Once the completion started, I settled down and tried my best to communicate my knowledge of the research." Being selected as a grand award winner, Mr. Bari was the first to be recognized, at this level, by a Detroit Public School student in over 10 years.

Felicia Benson, a high school science teacher, STEM Educational Services associate, and project coordinator, says, "This honor earned by Nadim, speaks to the quality of the research assignments given to participants in the section Project SEED program. More importantly, the result of this science fair competition is an example of the dedication and hard work put in by Mr. Bari. In the nearly 22 years Project SEED students have been given research assignments, only a few students have entered their research in local science fairs with a high level of success. Perhaps entering the local fair should be an expectation placed on participants." It should be noted Project SEED '14 participant Mumta Kadir, Cass Technical High School, also entered her project, "Analysis of SNPs in AlkB Genes," faculty advisor: Andres Cisneros Wayne State University, in the 2014 competition and placed third place gold.

The impact of Project SEED is evident, in it is current structure under the section's committee chair Keith Williams. Over the last 20 years, there has been a shift toward increasing the diversity in the science technology engineering and mathematics (STEM) careers. The reality is this has become increasingly challenging to provide these types of pre-college experiences due to the lack of funding. Moreover, to obtain this diversity there needs to be more opportunities not less. The talent to be

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developed and interest is out there. Project SEED takes financially disadvantaged with an interest in science particularly chemistry and place them in an advanced research assignment.

Mr. Bari, competed last month in the State of Michigan Science Fair where he placed fourth overall. Nadim will travel to Los Angeles this month to compete in an International Science Fair. The above mentioned opportunities were all the results of his grand award win at the local competition. Mr. Bari, will begin his college experience, all expenses paid, at the University of Michigan-Ann Arbor in the fall. The section's Project SEED program is slated to begin its 22nd year under Keith Williams, in late-June. Corporate and private financial support is always welcome.

*Article by Keith B. Williams*

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## Directions to Walkerville Brewery

Please note these routes have tolls.

### From the Detroit Windsor Tunnel:

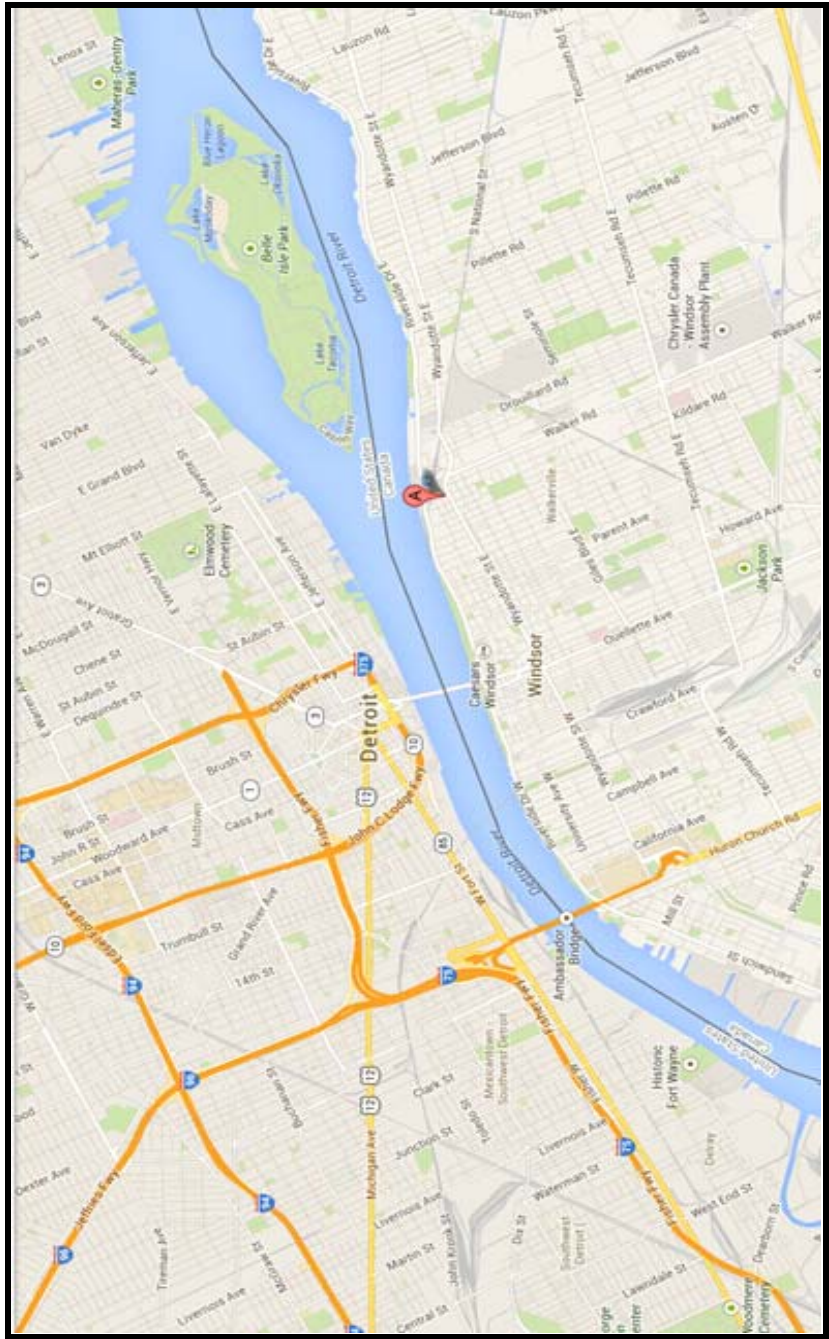
Exit the Tunnel Plaza and turn **right onto Park Street E**. Take the 2<sup>nd</sup> **left onto Goyeau St**. Turn **right onto Riverside Dr. E**. Wave at beautiful Detroit. Drive about 1 mile. When the right hand lane becomes a turn lane, **turn right onto Devonshire Rd**. Take the 1st **left onto Assumption St**, which turns right and becomes **Argyle Rd**. After passing Brant St. the brewery entrance is on the right.

### From the Ambassador Bridge:

After exiting the customs booth, immediately cut 90 degrees right across all the customs lanes to find the *poorly marked u-turn exit* for **Huron Church Rd** heading north. Within 0.5 miles turn right onto **Riverside Dr**. Drive about ~3 miles. When the right hand lane becomes a turn lane, turn **right onto Devonshire Rd**. Take the 1st left onto **Assumption St**, which turns right and becomes **Argyle Rd**. After passing Brant St. the brewery entrance is on the right.

**Parking:** Free parking is available in the lot directly across from the brewery entrance after 3:30 pm. If this lot is full, there is also a parking lot off of Brant street, directly across from the brewery.

# Map to May Section Meeting



# Business Directory



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## Calendar of Upcoming Events

**Second Tuesday of the Month:** Section Executive Committee Meeting – from September through May. The meetings will start at 7:00 PM.

**Third Tuesday of Every Month:** Brewing Chemistry. Please see <http://brewingchemistry.com> and page 5 for information on May event.

**May 14:** Anachem Fellow Award honoring Kendra Evans (UDM) at O'Mara's, contact Felix: [flixschn@wowway.com](mailto:flixschn@wowway.com)

**May 14:** MSU Dept Chem Eng & Mat Sci Research Forum: <http://www.chems.msu.edu/forum2014>

**May 20:** Brewing Chemistry: see page 5

**May 21:** CIC-ACS Awards; May 21: see pages 1-4 and 14.

**August 10-14:** ACS National Meeting, San Francisco, CA

**September 20:** National Historical Chemical Landmark commemoration: see page 7.

**October 1-4:** CERM in Pittsburg: <http://www.acscerm2014.org/>: details TBA

**October:** NCW- volunteers needed, contact Denise Grimsley: [denise.grimsley@basf.com](mailto:denise.grimsley@basf.com)

**November 3:** Monthly Meeting: Dr. Peter Bonk on Spontaneous Resolution at Madonna University 7 pm, contact Megan Klein

**November 6:** Anachem Symposium: <http://anachem.org/>

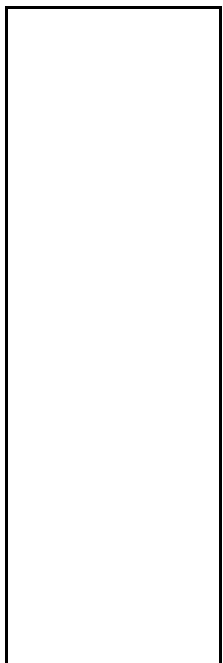
**November 8:** Tenth Annual Girl Scout Day—volunteers needed, contact Mary Kay Heidtke: [mkheidtke@aol.com](mailto:mkheidtke@aol.com)

**November 1:** ANACHEM Symposium, details TBA

**November 10:** Annual Chemistry Day

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