

# The Syracuse Chemist



## Upcoming Events

### July 23

The Summer meeting of the Local Section will be held on July 23 at Syracuse University. Our speaker will be Professor Thomas Amidon from SUNY-College of Environmental Science and Forestry. Dr. Amidon will be speaking about the conversion of cellulosic biomass into ethanol (and chemicals and energy). The food will be from the Limp Lizard Bar and Grill and will feature their "mouth watering BBQ", with "feel like a student pricing" of \$5.00 for everyone. This is a great opportunity to meet with fellow chemists, enjoy a fun meal and meet Syracuse University's summer undergraduate researchers. Hope to see you there!

## May Section Highlights

### Chemistry Olympiad

The Syracuse Section has participated once again this year in the local and national segments of the National Chemistry Olympiad exam. The local segment, consisting of a two-hour standardized test, was held on March 26 at three sites in the section: G. Ray Bodley High School in Fulton, Vernon-Verona-Sherrill High School, and Le Moyne College. The local exam drew 84 participants from 13 area high schools: Bishop Ludden, Bodley, East Syracuse-Minoa, Fayetteville-Manlius, Jamesville-Dewitt, Jordan-Elbridge, Paul V. Moore (Phoenix), Nottingham, Oneida, Southern Cayuga, Syracuse Academy of Science, VVS, and West Genesee. Six students and two alternates qualified to take the national exam. The overall top finisher in the section was Yuan Chen (F-M). Other qualifiers were Joshua Bonville

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(Oneida), Anne Lape (F-M), Scott Millard (Bodley), Ronald Mitchell (Oneida), Patrick Pensabene (Bodley) and Dennis Zhou (J-D). Brittany Gianetti (Oneida) and Samuel Marullo (F-M) are alternates.

The national exam is an all-day affair, consisting of a multiple-choice standardized section, a free-response problem-solving section, and a laboratory exercise. The Syracuse Section site for the national exam was Le Moyne College on Friday, April 13. Approximately 800-900 students nationwide took the test between April 17 and 20. Of these, the top 20 finishers will be invited to a study camp in June, from which a national team will be selected to compete in the International Science Olympiad, scheduled for July in Budapest, Hungary. Joshua Bonville, Anne Lape, Scott Millard, and Dennis Zhou were the local students who took the exam.

The people responsible for coordinating and staging the local section exam are Carmen Giunta (section olympiad coordinator), Robert Morse of G. Ray Bodley High School, and Bernadette van Valkenberg of Vernon-Verona-Sherrill High School, each of whom hosted local exam sites. Carmen Giunta headed the administration of the national exam as well, with assistance from Le Moyne colleagues Barbara Leo and Anna O'Brien.

### Student Affiliate Awards

The Local Section has awarded nine undergraduate students memberships to the American Chemical Society for 2008. The students and their affiliations are Cayuga Community College - Weston Eldred; Hamilton College - Katherine Alser and David Hamilton; LeMoyne College - Kara van Valkenburg; Oswego - Tabitha Maier; Syracuse University - Hester Dang; SUNY-ESF - Matthew Jobbins; Utica - Mike Bayne and Alex Germanovich. Past recipients of the award commented that being a member of the ACS is beneficial for job searches, that they enjoy receiving *Chemical and Engineering News* and that it helped them feel more connected to the chemistry community in general. Congratulations to this year's winners!

### Chemist's Celebrate Earth Day

At the May meeting a slide show was presented highlighting the College Stream Clean-up Event. On June 8<sup>th</sup>, the organizers learned that their entry earned first place in a tie with a school from Texas. The first place prize was \$500 from National and the Local Section also awarded the group \$200. The organizers of the event plan to put their winnings toward future stream clean-up events. The next planned stream event is scheduled for October 4<sup>th</sup>, 2008, on Chittenango Creek in Cazenovia. Congratulations go out to the section for the winning entry and to the students who did the work!

### Local Section Innovative Projects Grant

The Syracuse Section has received a \$3,000 grant to hold chemistry teacher workshops this fall and spring. The grant entitled, "Building a Bridge Between High School and College Chemistry Faculties" was co-authored by Kelley Donaghy (SUNY-ESF) and Sally Mitchell (ESM High School). Workshops will be held once a month for six months and will include high school chemistry faculty and college/university faculty. These workshops will be intended to demonstrate new lab techniques and demonstrations along with the use of Excel in the chemistry curriculum. In addition, workshops will focus on job opportunities for students, organizing chemistry contests and generally sharing knowledge about how to communicate chemistry to students.

Funds were set-aside in the budget to defray the cost of traveling to and from the workshops in an effort to encourage attendance by teachers from outside the Greater Syracuse Area. Please contact Kelley Donaghy ([kdonaghy@esf.edu](mailto:kdonaghy@esf.edu)) for more information and look for a schedule of workshops coming soon.

### May Dinner Meeting

Education night was hosted in conjunction with the May dinner meeting at the Onondaga Yacht Club on May 22, 2008. Winners of the ACS Haiku Contest, the National Chemistry Day Poster Contest and the College Earth Day submission were celebrated. Dr. Betsy Henry presented, "Mercury in the Onondaga Lake Remedy", her talk focused on the containment work that is being done before remediation can occur. She also gave an overview of the Hg cycle in the lake and how the nitrification of waste by Metro is helping to keep the Hg in the elemental form and making it less bioavailable. The event was well attended by members, non-members, the winners of the Chemist's Celebrate Earth Day Haiku Contest and Yacht Club Members.

### Science Café

Anyone interested in getting together to talk about the latest issues in Chemistry? We have received a small allotment from National to host a Science Café this fall. If you are interested in being our guest speaker or the Master of Ceremonies at this event please contact Kelley Donaghy at [kdonaghy@esf.edu](mailto:kdonaghy@esf.edu). More information will be coming shortly on this event, look for it in October or November.

## 50 Years of Membership

Dr. George Clark  
Dr. Harold Pier

## 60 Years of Membership

Mr. Herbert Silvestri

## 2008 Meeting and Events

- July 23: Summer Meeting at Syracuse University
- August 17-21: National ACS Meeting, Philadelphia
- October 4: ACS/SUNY-ESF Adopt-a-Stream
- October 6: Tour Speaker Dr. Finkenstadt
- October 25: National Chemistry Day at the MOST

## Call for Nominations

In accordance with our section bylaws, the Committee on Nominations and Elections is soliciting nominees for

- (1) Chair-elect
- (2) Secretary
- (3) Treasurer
- (4) Delegates from each of the four districts
- (5) Councilor
- (6) Members of the following Committees:  
Nominations and Elections, Awards, Public Relations, Program 2009, Education

You may nominate yourself or any member of the local section, subject to the restrictions below for district delegate. For positions (1)-(5), we require a brief statement about the nominee. Please submit name, address and phone number and email address of nominee to the chair of the Nomination and Elections Committee at:

American Chemical Society  
PO Box 262  
Syracuse, New York 13214  
Phone: 315-633-9508  
e-mail: [stanky@twcny.rr.com](mailto:stanky@twcny.rr.com)

To Serve as **District Delegate** your ACS mailing address should fall in one of the following District definitions:

**District 1:** Seneca and Cayuga Counties and the Southern part of Oswego County including Fulton, Phoenix, Minetto, Pennellville, Central Square, West Munroe and Cleveland.

**District 2:** Cortland and Madison Counties

**District 3:** The northern and central parts of Oswego county, including Oswego, Pulaski, Mexico and Lycoming and the northern part of Oneida county, including Barneveld, Camden, Oriskany, Oriskany Falls, Remsen, Rome, Whitesboro, Sherrill, Verona and Woodgate

**District 4:** The southern part of Oneida County, including Utica, Clinton, New Hartford, Deansboro, Clayville, New York Mills and Waterville.

### July's Meeting Abstract:

During the last few years Dr. Amidon has collaborated with ESF faculty and students to devise a new and subtler method for separating wood into its components. This work has developed a process that yields products by removing some of the sugars in wood and associated chemicals. The sugars have been shown to be fermentable to ethanol and biodegradable plastics. The process uses water and membrane separation techniques to produce easily fermentable sugars and marketable chemicals with residual wood chips improved for subsequent processing. These extracted chips can be used to produce wood pulp, pellet fuel, reconstituted wood products, or burned/gasified to recover energy to power the process and to provide renewable electricity or, in some cases, additional fuels from synthesis gas through the Fischer-Tropsch process. This process and the need for it are discussed in the presentation.

### About the Speaker:

Thomas Amidon is Professor and Director of the Empire State Paper Research Institute. Previously he served as Chair of the Paper and Bioprocess Engineering Department at the State University of New York, College of Environmental Science and Forestry (SUNY-ESF). He is widely experienced in industrial processes, commercial scale-up of pilot operations, regulatory aspects, design and quality improvement. He worked with International Paper from 1976 to 2000 and co-authored five patents. Dr. Amidon's expertise is unique in that it encompasses both academic and industrial arenas and that he is conversant with both technology development and commercial process implementation. He teaches Management in the Paper Industry and is the Academic Advisor for the SUNY Graduate Certificate Program in Bioprocess Engineering.

During the last few years, Amidon collaborated with ESF faculty and students ranging from a home-schooled high school student to ESF doctoral candidates to devise a new and subtler method for separating wood into its components. This work has developed a process that yields products by removing some of the sugars in wood and associated chemicals. The sugars have been shown to be fermentable to ethanol and biodegradable plastics. The process uses water and membrane separation techniques to produce easily fermentable sugars and marketable chemicals with residual wood chips improved for subsequent processing. These extracted chips can be used to produce wood pulp, pellet fuel, reconstituted wood products, or burned/gasified to recover energy to power the process and to provide renewable electricity or, in some cases, additional fuels from synthesis gas through the Fischer-Tropsch process.

Editor *Kelley J. Donaghy*  
 Editorial and *2738 Brennan Drive*  
 Publication Office *LaFayette, NY 13084*  
*315-677-9589*



**Deadline for material:**  
**September 2008 Issue Deadline is August 25, 2008**  
**All submissions must be sent to**  
[donaghykj@gmail.com](mailto:donaghykj@gmail.com)

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Organized as the Syracuse Chemical Society in 1902 and chartered as a section of the American Chemical Society in 1907, the Syracuse Section now includes Central New York counties of Cayuga, Cortland, Madison, Oneida, Onondaga, Oswego and Seneca.

POSTMASTER: Send address changes to: Kelley J. Donaghy, Editor; The Syracuse Chemist; 2738 Brennan Road, LaFayette, New York 13084

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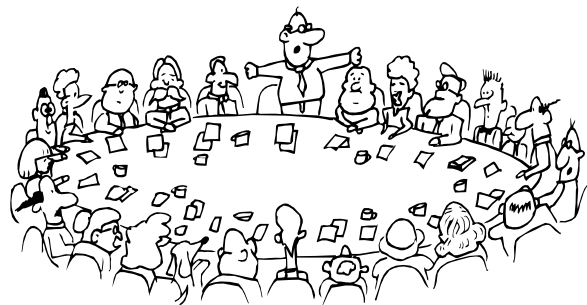
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Treasurer	Carmen Giunta	445.-4128
	<a href="mailto:giunta@lemoyne.edu">giunta@lemoyne.edu</a>	
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	<a href="mailto:jkallmer@sy.edu">jkallmer@sy.edu</a>	Fax: 443-4070
Alt. Councilor	Venera Jouraeva	560-8525
	<a href="mailto:vajourae@yahoo.com">vajourae@yahoo.com</a>	
District 1 Delegate	Venera Jouraeva	560-8525
	<a href="mailto:vajourae@yahoo.com">vajourae@yahoo.com</a>	
District 4 Delegate	Nicole Snyder	859-4742
	<a href="mailto:nsnyder@hamilton.edu">nsnyder@hamilton.edu</a>	

### Committee Chairpersons

Awards	<b>VACANT NEEDS TO BE FILLED</b>	
Career Services	Raymond O'Donnell	341-3048
Education	Kelley Donaghy	<a href="mailto:kdonaghy@esf.edu">kdonaghy@esf.edu</a>
Membership Nominations & Elections	<b>VACANT NEEDS TO BE FILLED</b>	
Program 2008	<b>VACANT NEEDS TO BE FILLED</b>	
Public Relations	<b>VACANT NEEDS TO BE FILLED</b>	
Student Affiliates	Robert Stankavage	432-2732
Syracuse Chemist	Kelley Donaghy	677-9589

VISIT OUR WEB-SITE AT [www.esf.edu/acssyr](http://www.esf.edu/acssyr)



### Section Meeting Schedule

Details on locations and the dinners that precede the talks will appear in future newsletters and on the section website, <http://www.esf.edu/acssyr>. As always, the lectures are free and open to the public; typically, there is a charge and reservations are required for the dinner portion

PLEASE POST



# American Chemical Society Syracuse Section

Wednesday, July 23, 2008

## Wood Based Biorefinery: Conversion of Cellulosic Biomass to Ethanol (and Chemicals and Energy)

Presented by Dr. Thomas Amidon  
SUNY – College of Environmental Science and Forestry

Location: Center for Science and Technology, Room 1-019  
Syracuse University

**Abstract:** During the last few years Dr. Amidon has collaborated with ESF faculty and students to devise a new and subtler method for separating wood into its components. This work has developed a process that yields products by removing some of the sugars in wood and associated chemicals. The sugars have been shown to be fermentable to ethanol and biodegradable plastics. The process uses water and membrane separation techniques to produce easily fermentable sugars and marketable chemicals with residual wood chips improved for subsequent processing. These extracted chips can be used to produce wood pulp, pellet fuel, reconstituted wood products, or burned/gasified to recover energy to power the process and to provide renewable electricity or, in some cases, additional fuels from synthesis gas through the Fischer-Tropsch process. This process and the need for it are discussed in the presentation.

**6:00-6:30 PM:** Social Hour

**6:30-7:30 PM:** Buffet Dinner Featuring the Limp Lizard Bar and

**7:30-8:30 PM:** Presentation and Discussion

Price: \$5.00, ACS Members and Students  
The talk is free and open to the public

Reservations Deadline is: July 16, 2008

e-mail: [stanky@twcnny.rr.com](mailto:stanky@twcnny.rr.com)

Phone: Robert Stankavage 315-633-9508

**Directions to Syracuse University can be found at:** <http://www-che.syr.edu/about/directions.html>. From I-81 exit onto Adams Avenue, follow Adams up the hill to Comstock Avenue, turn right, then turn right again at Euclid Avenue, follow Euclid until you reach the guard booth. Parking is available in the Q4 parking lot just tell attendant in the guard booth you are attending the American Chemical Society Meeting. After the booth, turn right on College Place, and immediately turn right again into the parking lot. Park anywhere but the section between the booth and the building, then walk to this section and enter the door there. The room is straight down the hallway and on the right.

# The Syracuse Chemist



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## THE SYRACUSE CHEMIST

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Syracuse Section of the American Chemical Society  
P.O. Box 262  
Dewitt, New York 13214

