



The Catalyst

PITTSBURGH CHAPTER
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS



Volume 18 Issue 1



September 2003

www.aichepgh.org

SEPTEMBER MEETING NOTICE

Topic: Sunoco Technology and Commercial Center

Where: Sunoco, Inc.
550 Technology Drive
Pittsburgh, Pennsylvania 15219

When: Thursday, September 25, 2003

Time: 5:45 PM Registration and Networking
6:00 PM Site Tour
7:30 PM Dinner at the Hot Metal Grille

Menu:

- ❖ *Honey & Nut Crusted Chicken* - Sautéed chicken breast with a honeyed crust of almonds walnuts and cashews served with chicken jus lié. Includes side salad, smashed roasted garlic redskin potatoes, vegetable, and beverage.
- ❖ *Pork Pecan* - Grilled medallions of pork topped with a pecan honey crust and served with rum compound butter. Includes side salad, smashed roasted garlic redskin potatoes, vegetable, and beverage.
- ❖ *Baked Orange Roughy* - Dressed with a citrus herbed vinaigrette. Includes side salad, baked potato, vegetable, and beverage.
- ❖ *Tortellini Methaldo* (Vegetarian) - Cheese tortellini served in marinara & roasted garlic cream sauce. Includes house or Caesar salad and beverage.

Cost: \$25.00 Members
\$20.00 Students / Unemployed Members
\$30.00 Non-members

RSVP NO LATER THAN
FRIDAY SEPT 19TH, 2003

TO: Dr. Jim Schneider, Vice-Chair
Phone: 412-268-4394
E-mail: schneider@cmu.edu

Your RSVP must include your **Name, Menu Selection, Email Address, and Phone Number.**

PLEASE PAY AT DOOR

CANCELLATIONS: If you must cancel your meeting reservation, please do so no later than 48 hours prior to the meeting. Otherwise, you will be invoiced for the cost of your meal.

~ About the Site Tour ~

The Sunoco Technology and Commercial Center is the home base for the polypropylene business unit of Sunoco Chemicals. The Center houses both research and corporate offices for the unit. Sunoco is the third-largest producer of polypropylene in North America, producing 2.4 billion pounds per year.

At the Technology and Commercial Center, we'll tour the characterization and plastics processing laboratory which includes state-of-the-art plastics conversion operations including injection molding, thermoforming, fiber spinning, compound extrusion, as well as processes to produce non-woven fabrics and tapes.

Sunoco acquired this state-of-the art research center in 2001 when it purchased Aristech Chemical Corporation. The Technology & Commercial Center has extensive customer applications and development capabilities in five areas: fibers, compounding and molding, thermoforming, bench scale reactors and materials characterization testing.

Sunoco Chemicals' major products include aromatics, olefins, plasticizers, phenol and derivatives, and polymers. Derivatives of these petrochemicals are used in the manufacture of many products for the home and industry, including compact discs, carpeting, soft drink bottles, automobile air bags, patio furniture and many more.

Nearby manufacturing facilities operated by Sunoco Chemicals include plants in Marcus Hook, PA, Philadelphia, PA, Frankford, PA, Haverhill, OH, Neal, WV, and Neville Island (Pittsburgh).

Sunoco, Inc. is headquartered in Philadelphia, and is one of the largest independent refiner-marketers in the United States. The company is a growing force in petrochemicals with over nine billion pounds of gross annual production capacity, largely chemical intermediates used in the manufacture of fibers, plastics, film and resins.

MORE INFORMATION CAN BE FOUND AT WWW.SUNOCO-CHEM.COM

FOR DRIVING DIRECTIONS, PLEASE SEE PAGE 2.



LETTER FROM THE CHAIR

Dear Members,

Welcome back! I hope that everyone is enjoying their summer, and will be returning to us refreshed and ready for another year with the Pittsburgh Section of AIChE.

I would like to take this opportunity to welcome Dr. Jim Schneider as our new Section Vice-Chair, and acknowledge our Secretary, Justin Filey, and Treasurer, Leigh Anne Wacker, who are both returning to us for a second term of office. I appreciate the efforts of all of our AIChE Pittsburgh Section officers, and look forward to another productive year in 2003-2004. The chapter also depends heavily on the involvement of its membership to be successful, so I encourage you to join us for our upcoming meetings and community outreach events.

I hope that you are able to attend the Sonoco Research Facility Tour on September 25th, and look forward to seeing you!

Sincerely,

Nathan Peters
AIChE Pittsburgh Section- Chair

MARCH MEETING – CONT.

DIRECTIONS TO SUNOCO:

The Technology and Commercial Center is located just off Second. Ave. near the Hot Metal Bridge in Hazelwood.

From the East:

- Take the Pennsylvania Turnpike West to Exit 57, Pittsburgh/Monroeville.
- Follow Interstate 376 West to Exit 3a, PA-885 South.
- Turn right onto Bates St. and continue under 376 over pass and through the traffic light. This will put you on Technology Drive.
- Follow Technology Drive around to the right
- Turn left into the parking lot for Sunoco Chemical and park in that lot.

From the South:

- Take the Pennsylvania Turnpike east to Exit 28, Perry Highway.
- Follow Interstate 79 South to 279 South (Exit 72).

- Follow signs and go through the Fort Pitt Tunnel
- Exit at 376 East
- Make an immediate left turn onto Grant St.
- Make a right at the second light onto 2nd Ave
- Pass 10th Street Bridge and Armstrong Tunnel. At the next light, make a right onto Technology Drive.
- Make a right into the parking lot by Sunoco Chemical Building and park in that lot.

From the West/North:

- Take Interstate 79 South to 279 South (Pittsburgh).
- Follow 279 South toward Pittsburgh over the Veterans Street Bridge.
- Once on the bridge, stay in the far right lanes and follow signs for 376 East/Monroeville, which will put you on Blvd of the Allies for about a mile.
- Make a right onto PA 885 (Bates Street)
- Cross under 376 and go straight through the light. You will be on Technology Drive
- Follow Technology Drive around to the right, and turn left into the parking lot for Sunoco Chemical.

From Oakland:

- Start out going west on Forbes Ave. (Towards the city.)
- Turn right on either Morewood Avenue or Craig Street.
- Turn left on 5th Avenue.
- Turn left on Craft Street.
- Turn left on Blvd. of the Allies
- Turn right at ramp for 376, but do not get onto 376. (This road is called both PA 885 and Bates Street.)
- Cross under 376 and go straight through the light. You will be on Technology Drive
- Follow Technology Drive around to the right, and turn left into the parking lot for Sunoco Chemical .

DIRECTIONS TO THE RESTAURANT:

The Hot Metal Grille is a brand-new restaurant on the South Side, only 2 minutes from the Sunoco facility.

The Hot Metal Grille
2829 East Carson Street
Pittsburgh PA 15203
(412) 431-2342
www.hotmetalgrille.com

From the Sunoco parking lot, turn RIGHT onto 2nd Ave, then RIGHT onto Hot Metal Street. After crossing the river, turn RIGHT onto East Carson Street. The restaurant is at 2829 East Carson Street.

Parking is available on Carson Street and the surrounding area, or in the garage behind the restaurant. (Follow the signs. There is a \$2 charge.)



MEMBERSHIP CORNER

Dear Members,

We are constantly updating our local membership database. Please send all change of address notifications to our Membership Chair:

Holly Gray
Michael Baker Jr., Inc.
Airside Business Park
100 Airside Drive
Moon Township, PA 15108

hgray@mbakercorp.com

If you have not already done so, please verify your updated e-mail address with us so that you will continue to receive monthly newsletters!

Thank you!

Please sign me up for the local Pittsburgh Section of AIChE

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

Business Phone _____

Residence Phone _____

Email _____

Annual Dues are \$16.00. Make check payable to "AIChE Pittsburgh Section" and send to our Treasurer:

Leigh Anne M. Wacker,
AIChE Treasurer
705 Chrysler Street
Pittsburgh, PA 15226

VOLUNTEERS NEEDED FOR NATIONAL CHEMISTRY WEEK!

National Chemistry Week (NCW) is only two months away and coming fast! Once again the Pittsburgh Section will be celebrating NCW at the Carnegie Science Center on Friday and Saturday October 24-25, 2003, from 9 AM-5 PM. This year's theme is Celebrating Chemistry: Earth's Atmosphere and Beyond. The event will be "Honoring Innovators and Pioneers in Aviation and Atmospheric Chemistry."

Last year, a record 8,000 people attended the two-day National Chemistry Week event at the Carnegie Science Center.

Please join us this year, as we need your help in reaching the public with a positive message about the importance of chemistry to our quality of life.

We are looking for volunteers to help on Saturday, October 25th at the Carnegie Science Center.

Please contact Nancy Hirko at nhirko@air-comp.com or 412-826-3636 for more information. Thank you! We look forward to seeing you there!

Watch the next issue of *The Catalyst* for additional details.

SPONSORSHIPS

Interested in placing your company's information in future AIChE Newsletters?

Full Page	\$300
Half Page	\$175
Quarter Page	\$95
Business Card Size	\$45
1/12 Page	\$30

Place multiple sponsorships and receive a discount!

Three consecutive ads – 10% off
Eight consecutive ads – 30% off

Please contact Mariangela Peters at mariangelapeters@stargate.net or 412-777-4195



for more information.

NATIONAL AIChE NEWS

AND THE NOMINEES ARE...

With ballots for the 2004 election ready to be mailed, AIChE President Dianne Dorland is beginning to put together the Nominating Committee that will select the candidates for the 2005 elections. If you are interested in serving on the committee--or in recommending names for the committee's consideration--contact Dr. Dorland at president@aiiche.org.

CHEMICAL HERITAGE FOUNDATION UNVEILS NEW WEB SITE

On July 1, the Chemical Heritage Foundation (CHF) launched its new Web site at <http://www.chemheritage.org/>. While the address is the same, the new site is faster, searchable, and much easier to use. CHF catalogs the history of the chemical and molecular sciences through interactive education modules, oral histories, images from the world's largest collection of alchemical art, and news that makes history.

AIChE ANNUAL MEETING IN NOVEMBER

After nearly a ten-year absence, AIChE's Annual Meeting is returning to the City by the Bay from November 16 to 21, and the chemical engineering community has responded enthusiastically. The event includes a record-breaking 18 topical conferences, featuring more than 550 oral sessions and 4,000 papers presented by renowned professionals from academia and industry, along with 500 to 1,000 poster papers. The meeting's focuses will be on nanotechnology, biotechnology, and sustainability. In addition to the compelling content, offering this many sessions at one location creates a unique environment where professionals across interrelated disciplines can share their insights, broaden their perspectives, and make new contacts for continued professional growth. After you've reviewed the meeting program online at <http://www.aiiche.org/annual/>, make plans to join more than 4,000 of your colleagues by registering at <http://www.aiiche.org/annual/registration.htm>.

SUSTAINABILITY SESSIONS SLATED FOR SAN FRANCISCO

AIChE's Sustainable Engineering Forum (SEF) has organized seven sessions into an Annual Meeting topical conference entitled Sustainability and Life

Cycle Assessment. Scheduled from Monday to Thursday, the sessions are cosponsored by the Research and New Technology Committee (RANTC), and the Environmental and Management divisions. A luncheon meeting on Wednesday November 26 will provide a forum to discuss the significant issues of this advancing field as it relates to science and engineering. Tickets to the luncheon can be purchased on the registration form at http://www.aiiche.org/annual/r_registration.htm.

CCPS/S&H PRODUCE SAFETY CD-ROM

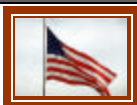
AIChE's Center for Chemical Process Safety (CCPS) and Safety and Health Division are jointly offering an updated compilation of proceedings from all of the Center's conferences and all 37 Loss Prevention Symposia, to date, on CD-ROM. Loss Prevention on CD-ROM, Second Edition, AIChE Pub# G-77 includes a word-searchable selection of papers from more than 50 conferences. Advance orders placed before October 1, 2003 will be eligible for an additional 10% discount, so reserve your copy today. Order online at <http://www.aiiche.org/pubcat> or by calling 1-800-242-4363.

PROCESS DEVELOPMENT SYMPOSIUM II FOLLOWS UP THE SUCCESS OF PDSI

AIChE is pleased to announce that its first Process Development Division Symposium "Accelerating Process Development for Growth," held in June at the Split Rock Resort in Lake Harmony, Pennsylvania, attracted almost twice as many people as originally expected. Building on this success, AIChE's Process Development Division has announced that PDS II, with the theme "Working Right on the Right Thing," will be held in June 2004 in Chicago in partnership with the AIChE Chicago Local Section. For more information on 2003 PDSI, plans for 2004 PDS II, or to obtain a CD (\$100) of the PDSI proceedings, please see <http://www.aiiche.org/conferences/processdev>.

BIO-CHEM DETECTION CONFERENCE SET FOR NEXT MONTH

AIChE is pleased to cosponsor the Federal Bio Chem Detection R&D Opportunities FY 2004 conference, to be held September 30 to October 2, 2003 in Washington, DC. This event was designed to provide detailed information to researchers and technology companies on the opportunities to participate in government funded R&D for new biological and chemical detection technologies. AIChE Members receive 10 percent off the conference fee. For more information, call Infocast at 818-888-4444 or visit



http://www.infocastinc.com/fedbiochem/fbc04_home.html.

THE 2003 McAfee Award



Pittsburgh Section Chair JoAnn Truchan (center) and National AIChE President Dianne Dorland (right) present the 2003 McAfee Award to Mr. Thomas Barnhart during the McAfee Awards Banquet at the Fox Chapel Golf Club. Congratulations, Tom!

THE 2003 MARX ISSACS AWARD



Congratulations to our Local Section, which was recognized at the 2003 AIChE Leadership Convention this summer.

National AIChE President Dianne Dorland (left) presented the 2003 Marx Issacs Award for Excellence in Newsletters to Pittsburgh Section Newsletter Editor

Mariangela Peters (right) and Section Chair JoAnn Truchan (center).

FELLOWSHIPS AVAILABLE

2004 FELLOWSHIPS AVAILABLE FROM CHF

Through the Beckman Center for the History of Chemistry, the Chemical Heritage Foundation offers six academic-year fellowships from September to May, and two summer fellowships to support scholars in residence. Visiting scholars are encouraged to use the resources of the Othmer Library at CHF's headquarters in Philadelphia, Pennsylvania, and other area resources.

Applicants must submit a letter of application, a research proposal of up to 1,000 words, a complete CV, and two letters of reference to be sent directly to CHF. For more information, see <http://www.chemheritage.org/> and click on "Fellowships and Grants." The application deadline for the 2004-2005 academic year fellowships is Jan 15, 2004, and the deadline for summer fellowships is Feb 15, 2004.

FUN FACTS

The Dog Days of Summer...

There's nothing better on a hot dog than mustard. Luckily for us, National Mustard Day was observed the first Saturday in August. The Mount Horeb Mustard Museum in Wisconsin sponsors the official Web site of National Mustard Day at <http://www.mustardweb.com/>, featuring recipes to add zest to your appetizers, main courses, and even desserts.

Happy Birthday to the PC?

Just over 22 years ago (August 12, 1981), we saw the introduction of the IBM PC, which ran on a 4.77 MHz Intel 8088 microprocessor, and came equipped with 16 kilobytes of memory, expandable to 256k. The PC came with one or two 160k floppy disk drives and an optional color monitor, and prices started at \$1,565, or about \$4,000 in today's dollars.

NEWSLETTER DEADLINE

**THE DEADLINE FOR THE OCTOBER NEWSLETTER IS
SEPTEMBER 16, 2003.**

Please submit information to:
Mariangela Peters
Bayer Polymers, LLC
100 Bayer Road



Pittsburgh, PA 15205

Phone (412) 777-4195
 mariangelapeters@stargate.net

ENGINEERING MENTORS NEEDED!

2003-2004 Annual Future Cities Competition

Across America, thousands of engineers annually volunteer to serve as mentors for students in the **National Engineers Week Future City Competition™**.

A good number of these volunteers were from Western Pennsylvania, participating in the 2003 Pittsburgh Regional Future City Competition. Many volunteers say they join in to help students get a better view of the world of engineering, to give something back to the community, or for the gratitude they receive from teachers, students and parents.

Consistently, however, the engineers who guide the students from conception to design to construction of their future cities also say that one of the finest rewards is how the students give them a better perspective of their own lives as engineers. In the competition, seventh- and eighth-graders design, first on computer and then in three-dimensional scale models, cities of tomorrow. Now entering its twelfth year, the program has become one of the most successful educational outreach programs of its kind, having already reached more than 100,000 young people.

The students, usually working in teams of three and with the help of a teacher, must devise a city that functions (using the popular *SimCity 3000* software donated to each participating school by Maxis), write an essay and abstract, and defend their city model before a panel of judges. In 2002-03, more than 30,000 students from more than 1,000 schools in 31 regions around the United States participated, including more than 115 students from 39 Pittsburgh area schools. Thirty-six regions are expected in the 2003-04 competition.

Students begin their cities at the beginning of the school year, working during and after school and

through holiday breaks. While Future City was once primarily an extracurricular activity, increasingly schools use it as part of math, science and technology courses. Regional competitions are held in January. First-place teams (including the engineer mentor) win all-expense-paid trips to Washington, D.C., for national finals during National Engineers Week, February 22-28, 2004. National Engineers Week 2004 is co-chaired by the Institute of Electrical and Electronics Engineers (IEEE) and Fluor.

Advising, cajoling, or simply serving as sounding boards along the way are engineer mentors from every walk of the profession. That participation, though, sometimes means just sitting back and letting the students work it out for themselves. The new perspective is just one of the rewards of volunteering, says Freddie Bazen, a lieutenant commander in the U.S. Navy who helped Mission Middle School in Omaha go from Nebraska to Washington in 2003 to win first place. For Bazen, a mechanical engineer, the real payback for volunteering is assisting young people. "The Navy is big on mentoring," he says, "and it was through mentoring that I was helped along. Younger folks need the same thing. I get gratification knowing that I helped them see engineering in a new way." Those new insights into engineering come at a critical time in a child's life, says Bazen. "It's super important to expose them to something that may become part of their lives and to do it before they're into their teen years."

Not only are the students directly involved in the competition influenced, he says, but also their friends and the community at large. "There's a tremendous amount of support from the community."

Engineers interested in more information can contact Keith Jensen, the Pittsburgh area Future City Volunteer Coordinator, at (412) 734-6279, via email at kjensen@ch2m.com or log onto the local Future City Web Page: <http://www.FutureCityPittsburgh.org>

National information can be obtained from Carol Rieg, National Director, at (877) 636-9578, or by visiting <http://www.futurecity.org>

**AICHE PITTSBURGH SECTION
2002-2003 OFFICERS****Executive Committee****Chair**

Nathan Peters (npeters@larocheind.com)
LaRoche Industries, Inc.
412-889-7833

Vice-Chair & Program

Dr. Jim Schneider (schneider@cmu.edu)
Carnegie Mellon University
412-268-4394

Secretary

Justin P. Filey (jfiley@ppg.com)
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724-274-3529

Treasurer

Leigh Anne M. Wacker (lamwacker@msn.com)
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724-514-3046

Counselors

John Hauser (hauserjj@prosaf.com)
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724-942-3717

Dr. Joseph McCarthy (mccarthy@engrng.pitt.edu)
University of Pittsburgh
412-624-7362

Past Chair & Nominations

JoAnn Truchan (jtruchan@achd.net)
Allegheny County Health Dept.
412-578-7981

Additional Officers and Chairs**Membership Chair**

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Newsletter Editor

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Student Outreach Chair

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Committee Chairs

Safety & Environmental: Shiao Tseng
PE Review: Carl Schwartz

Web Master

Richard Dupree (rrd@telerama.com)
Dupree & Associates
724-775-5122

2003-2004 Tentative Monthly Meeting Schedule

Date	Topic	Location
September 25, 2003	Plant Tour – Sonoco Chemical	Pittsburgh
October 2003	Technical Presentation	TBA
November 2003	Plant Tour	TBA
January 2004	Joint Meeting with AWMA	Penn Brewery
February 2004	Annual Student Night	Oakland
March 2004	Technical Presentation	TBA
April 2004	Plant Tour	TBA
May 2004	Last Meeting of the Year	TBA

***The Catalyst***

American Institute of Chemical Engineers
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Pittsburgh, PA 15222-2097



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