

AICHE-PITTSBURGH THE CATALYST

IN THIS ISSUE

<i>March Meeting</i>	1
<i>2010-2011 Call for Nominations</i>	2
<i>Upcoming Events</i>	2
<i>Join AIChE-Pittsburgh</i>	2
<i>Chair's Letter</i>	4
<i>Shining Star Award</i>	4
<i>February Meeting Report</i>	5
<i>Contact Information</i>	6



Visit us on-line at:
www.aichepgh.org

MARCH 4, 2010 STUDENTS' NIGHT AND AWARDS BANQUET

Each year, AIChE-Pittsburgh honors an outstanding senior from each of the four regional undergraduate Chemical Engineering programs: Carnegie Mellon University, University of Pittsburgh, West Virginia University and Youngstown State University. We will present the 2010 Professional Promise Awards at the conclusion of our March Student Night program, which also features graduate and undergraduate student research posters and an invited talk by Di Gao on nanotechnology including everyday examples that are developed by chemical engineers in collaboration with other disciplines.

Superhydrophobic coatings: an example of how nano may solve big problems

Di Gao, Ph.D.

William Kepler Whiteford Faculty Fellow, Chemical and Petroleum Engineering
University of Pittsburgh & UPMC

Superhydrophobic coatings are often found on plant leaves and insect wings in nature. Water on these surfaces forms small beads and drips off rapidly. This interesting phenomenon has stimulated extensive research and commercialization effort to make artificial superhydrophobic coatings and to use them for self-cleaning, water-proof, anti-icing, anti-corrosion, anti-fouling, and drag-reduction purposes. A key challenge in making superhydrophobic coatings is to tailor the morphology of the coatings in nanometer scales, which typically involves synthesis and employment of materials at nanometer dimensions. In this talk, both the fundamental mechanism and the commercialization progress of superhydrophobic coatings will be discussed, as an example of how materials in nanometer dimensions may solve big problems.

Professor Di Gao received his dual BS degrees in Chemical Engineering and Computer Science both from Tsinghua University, Beijing, China in 1999, and his PhD degree in chemical engineering from the University of California at Berkeley in 2004. He received the Faculty Early Career Development (CAREER) Award from National Science Foundation in 2008. He was the leader of the Pitt team that received the U.S. Environmental Protection Agency P3: People, Prosperity and the Planet for Sustainability Design Competition Award in 2008 and the AIChE Youth Council on Sustainable Science and Technology Award in 2009. He received the Advanced Materials Award from the Carnegie Science Center in 2010. His research has been highlighted by media and press including Chemical & Engineering News, Chemical Engineering Progress, Nature Nanotechnology, U.S. News & World Report, Science Daily, New England Cable News Network, China Daily, and U.S. Department of State website.



(continued on page 3)

UPCOMING EVENTS

March 4: Annual Students' Night and Awards Banquet at the University of Pittsburgh Student Union

March 21-25 2010 National AIChE Spring, San Antonio, TX

Late March/Early April: Jobs Program rescheduled from weather cancellation (stay tuned for details)

April 22: AIChE-Pittsburgh April meeting featuring WVU's Charter D. Stinespring (location TBD)

**Please sign me up for the Pittsburgh
Section of AIChE**

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

Business Phone _____

Residence Phone _____

Email _____

BECOME A MEMBER OF AIChE-PITTSBURGH!

Local Section dues are \$20/year.

Mail the form with payment to:

Bob Wasileski
NOVA Chemicals, Inc.
1550 Coraopolis Heights Road
Moon Township, PA 15108

NOMINATIONS FOR 2010/2011 AIChE PITTSBURGH SECTION OFFICERS

Pittsburgh section members may now begin nominating candidates for the 2010/2011 season. Members may nominate themselves. The open positions are:

Vice Chair, responsibilities include coordinating the monthly programs for the 2010/2011 season. The Vice Chair must also commit to holding the position of Chair in the 2011/2012 season, and to lead the nominations committee in the 2012-2013 season.

Counselor, responsibilities include providing advice to the executive board concerning section business. A counselor holds office for two years. Generally counselors have been active members in the section and help to offer continuity in the section activities.

Please contact Chris Steffy at e-mail steffycd@lycos.com with cc to Jim Miller, jbmiller@andrew.cmu.edu, to nominate yourself or another candidate. Nominations will be open until the deadline for the April newsletter. Ballots will be transmitted at that time, and the results will be announced at the May meeting.

Becoming an officer or participating on a committee is a great way to get more out of your AIChE membership. It provides a venue for exercising business skills such as leadership, organizing, communications, and networking as well as developing friendships with fellow members.

MARCH MEETING ANNOUNCEMENT (FROM PAGE 1)

Dr. Gao's research focuses on the synthesis, assembly, and characterization of novel nanostructures, as well as the integration of these nanostructures into functional devices and systems for biomedical, environmental, and sustainable engineering applications. Dr. Gao's recent paper in the journal "Langmuir" is highlighted in the "Science & Technology Concentrates" section of Chemical & Engineering News (19 October, page 36). The C&EN article is titled "A Coating that Fights Ice"

When: Thursday, March 4th, 5:45 pm

Where: William Pitt Student Union,
University of Pittsburgh, Lower Lounge

Speaker: Di Gao, University of Pittsburgh

Topic: Nanotechnology – Novel anti-icing and everyday examples

Agenda: 5:45-6:30 Registration

5:45-6:30 Poster Session

6:30– Dinner, Professor Di Gao's Presentation, Professional
Promise Awards

Menu: Salad, Vegetable, Desert with choice of Entrée (pick one):

London Broil w 3 mushroom Demi Glaze,

Salmon with ginger soy sauce, or

Tuscan Polenta (Vegetarian)

Price: \$40 per person (Students, \$20)

Pay at the door is acceptable

Please make your **RSVP** by March 1st.

TO: Mr. Paul Brezovec

Phone: 814-269-2844

E-mail: brezovec@ctc.com

Or on-line at: <http://www.aichepgh.org/reg>

Your RSVP should include: **Name, Company Name, Email Address, Phone Number, and Entrée selection.**

CANCELLATIONS: If you must cancel your meeting reservation, please do so no later than 48 hours prior to the meeting, otherwise, you will be billed.

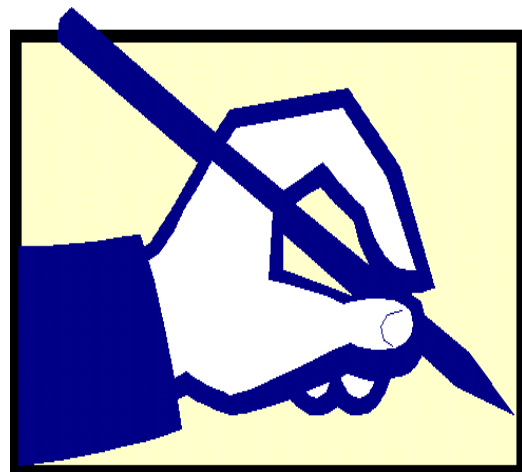
Student Night is a special event to interact quickly with regional chemical engineering students and discuss their latest research efforts. You may be pleasantly surprised how your discipline has grown in technical fields such as electronics, materials, energy, biotechnology, sustainability, coatings, and public policy. Please note that there is no parking in the driveway of the William Pitt Union (<http://www.tour.pitt.edu/tour-005.html>). It is recommended that you park at the Soldiers & Sailors underground parking garage, which is located across Fifth Avenue from the William Pitt Union, on the corner of Fifth Avenue and Bigelow Boulevard (beneath the large grassy area), with the entrance on Bigelow Boulevard. For general local parking information, please refer to the [University's parking web site](#) and the [University visitor parking map](#) (<http://www.pts.pitt.edu/parking/documents/VisitorMap.pdf>).

LETTER FROM THE CHAIR

BY PAUL BREZOVEC

Dear Local Section Members,

Our congratulations and thanks to David Balister for taking on the responsibility as our Treasurer. In the same breath, we have other great officers who are continuing to pitch-in to meet our organizational responsibilities to promote chemical engineering in your region. By the time you receive this, Julia Johnson (Flexsys) and her outreach volunteers will have wrapped another successful Engineers Week, and you can look for those results in our next newsletter.



In this issue you will see another call for nominees for Vice-Chair and Counselor. This is not a misprint. The vote earlier this month made our interim officers list official per our bylaws. The term for these nominee's positions that are announced in this issue will start on July 2010.

It has not gone unnoticed that our local section spans a geographic region that exceeds the postal zip codes of a greater Pittsburgh. However, attempts to have a local section meeting outside of Pittsburgh have not garnered much attendance. Still we need to be inclusive, and so we are looking into trying a session that will offer the technical portion of the section meeting through the web, during our April meeting by WVU's Dr. Charter Stinspring's presentation on graphene synthesis and and graphene-based sensors.

Paul Brezovec

2010 SHINING STAR - AIChE VOLUNTEER OF THE YEAR AWARD

Our Jim Miller (CMU) has won a 2010 Shining Star from the AIChE. Look for the announcement in AIChE's membership community online and in Chemical Engineering Progress (CEP). Each year, AIChE recognizes volunteers that have gone above and beyond what is needed in the leadership role. To this end, the Local Section Committee and the Career and Education Operating Council have created the Shining Star award. AIChE solicited nominations from all Local Section leaders to nominate such exemplary leaders as Jim. From all of this, Jim has been chosen as one of the 2010 Shining Stars!

Jim served as LS vice chair in '06-'07 and chair in '07-'08; he's been newsletter editor since. Jim is also faculty advisor of the AIChE student chapter at Carnegie Mellon



PHOTOS FROM FEBRUARY MEETING

We had a great turn-out – 70 attendees – at our last meeting on February 11. Kathryn Klaber, Marcellus Shale Coalition President and Executive Director, described the current state of Marcellus Shale activities and presented facts and expectations for responsible stewardship for its long-term development. She stated that the MSC is looking forward to regionally "home-grown" gas for uses other than its heat value, such as processed as a chemical feedstock and a transportation fuel. There was lively Q&A after Katie's talk.



AIChE-Pittsburgh Executive Committee 2009-2010

Chair

Paul Brezovec
(brezovec@ctc.com)
Concurrent Technologies Corp
814-269-2844

Vice-Chair and Program

Open

Secretary

Mariangela Peters
(mariangela.peters@bayerBBS.com)
Bayer Business and Technology Services, LLC
412-777-4195

Treasurer (interim)

Dave Balister
(dave.balister@bayerbms.com)
Bayer Material Science, LLC
412-777-2576

Counselors

Gary Hall
(gary.hall@sauereisen.com)
Sauereisen, Inc
412-963-0303, x 236

Dady Dadyburjor
(dady.dadyburjor@mail.wvu.edu)
West Virginia University
304-293-9337

Past chair and Nominations

Chris Steffy (steffycd@lycos.com)
Industrial Energy Engineering
412-225-0254

Visit us on-line at:
www.aichepgh.org

Committee chairs

Membership

Bob Wasileski
(wasiler@novachem.com)
U.S. Operating Center
NOVA Chemicals, Inc.
412.490.4086 (office)

Newsletter Editor (interim)

Jim Miller
(jbmiller@andrew.cmu.edu)
Carnegie Mellon University
412-268-9517

Outreach

Julia Johnson
(Julia.A.Johnson@flexsys.com)

Scholarship

Ed Moretti
(moretti@moretticonsulting.com)
412-276-2228

PE review

Carl Schwartz
(schwarcw@westinghouse.com)
412-374-3678

McAfee Award

JoAnn Truchan
(jtruchan@achd.net)
412-578-7981

Webmaster

Dick Dupree (rrd@dupreeonline.com)
724-775-5122

Young Professionals

David Missenda
(David_Missenda@URSCorp.com)