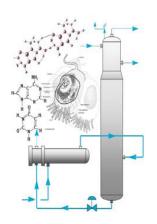
AIChE Chicago Section

SEPTEMBER Newsletter

Chicago Section

www.aiche-chicago.org

September 2009



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AIChE Chicago September 2009 Meeting Notice

Biorenewables Conversion to Fuels & Chemicals

Jack Lewnard

Vice President and Chief Technology Officer, Gas Technology Institute

Date: Tuesday, September 15, 2009

Location: Goose Island Brewpub

1800 N. Clybourn Ave

Chicago, IL 60614, (312) 915-0071

Cost: Members - \$30 Unemployed Members - \$15

Non-Members - \$35 Students - \$5

To Register Click Below or go to www.aiche-chicago.org

http://guest.cvent.com/EVENTS/Info/Summary.aspx?i=9d71e129-2586-469a-9487-770912665542

NOTE: Professional Engineers can earn PDH credits by attending these presentations.

Agenda

5:00 - 6:00 PM First Brewery Tour (Limited to 15 People, \$5 Additional Cost)

5:30 - 6:30 PM Registration

5:45 - 7:45 PM Appetizers

6:00 - 7:00 PM Second Brewery Tour (Limited to 15

People, \$5 Additional Cost)

6:30 - 7:45 PM Dinner

7:45 - 8:00 PM Business Meeting

8:00 - 9:00 PM Technical Presentation



Chair's Corner

I want to start the first issue of this year's Chicago section newsletter by welcoming every-body back. I hope that everybody had a good summer and you are all ready for the year ahead. My name is Reza Mostofi and I will be serving as the section chairman this year. I got involved with AIChE in the national level about 12 years ago. As a student at IIT in Chicago attending the AIChE annual meetings was always a great opportunity for me to meet new people, demonstrate my work and see what is going on in the rest of the world. My local section contribution started 5 years ago when one of my co-workers who was a very active member just asked me if I want to help with the local section. It is a great pleasure to be a part of this organization and play an active role as much as I can and I should thank Sank for inviting me 5 years ago to get more involved. One thing I have seen during these years is that it's all about people and their dedication. I hope with the help of these people and all the members I can fulfill my duties and move the local section one level up. I think what Pat set up as our section goals (September 2008) last year could be used as our general guidelines to improve our society.

To get some help in writing this month's chair's corner, which is my first, I looked up our previous year's as well as some other AIChE and other organizations local section newsletters. The fact that many of us have and use a variety of tools at this information age that was not available two decades ago is quite amazing. The internet makes it possible to go beyond time and space and advance our communication mechanisms.

The information technology has provided us with so many wonders that have no limits. I want to turn around this discussion and emphasize on the word "us". On both sides of information transfer are people and the flow is not in one direction anymore. In fact it is in multiple directions. A wrong entry in the famous online encyclopedia "Wikipedia" is corrected at an average response time of four minutes. As chemical engineers, we can call this "information transfer" which can happen in many ways and through different media. Unfortunately, there is no chapter on this subject in our "transport phenomena" textbook and I am not aware of any differential equation to describe its rate!

How does all these relate to us? I think organizations like ours are all based on the same concepts. They exist to provide and facilitate as many ways as possible to transfer knowledge and information. Can we call it the Local Section Web? Like WWW, our LSW is a mixture of technical, social and even personal contents and can help us, the users in many ways. I think the chemistry is there and the section is just the catalyst! Our monthly meetings are the main interaction process and for the past several years we had the annual symposium in fall successfully organized and executed. During summer we have added many young engineers to our team and I am sure that many new ideas will be generated.

All of us can play an active role by sharing our concerns, ideas and comments as often as possible by email, phone, surveys or in person. Think about the internet with no users; I think that is a very good example of a user driven technology and its success is really caused by that. Let's try and make this year another successful year for our local

section.

Reza Mostofi UOP

Speaker's Biography, September Meeting

John (Jack) Lewnard joined the Gas Technology Institute (GTI) as Vice President and Chief Technology Officer in July 2007. He leads GTI's Office of Technology and Innovation, which is responsible for development and implementation of GTI's long-term technical strategy and vision, supporting quality across the organization, and ensuring the IT and physical infrastructure evolve to meet GTI's emerging RD&D opportunities. He also provides support to the R&D organization regarding new energy technologies, issues, and stakeholders.

Lewnard has over 20 years experience in diverse engineering roles, include R&D, commercial development, process and project engineering, and intellectual property management. Prior



joining GTI, he served as Vice President, Process Development at GreenFuel Technologies, Inc., a venture-capital backed start-up company focused on producing biofuels from large-scale algae cultivation. As an R&D Manager for Millipore Corporation, he worked on several membrane programs in the BioPharm Division. He also spent 17 years at Air Products and Chemicals, Inc., where he was involved in alternative fuels, advanced power generation processes, and gas separation systems for nitrogen and hydrogen.

He earned a B.S. degree in chemical engineering from the University of Cincinnati and a Ph.D. in chemical engineering from the University of California, Berkeley. He has ten patents and over 60 technical publications and presentations.

Abstract of the September Meeting

Biorenewables Conversion to Fuels & Chemicals

GTI (the Gas Technology Institute) is actively involved in conversion of biomass (wood, corn stover and algae) to methane and to gasoline and diesel and has a long history of research and development in the conversion of biomass using anaerobic digestion, pyrolysis and gasification. GTI is currently doing studies on the addition of biomethane to pipelines and for vehicles. In partnership with UPM and Carbona, GTI is doing extensive research on gasification of biomass (using our 40t/d gasifier) to make synthesis gas which can then be converted via Fischer Tropsh to diesel. GTI is also investigating integrated hydropyrolysis and hydroconversion technology which is an alternative technology for direct conversion of biomass to gasoline and diesel. Additionally GTI has a program to look at preconditioning of biomass to produce improved gasifier feedstock.

September Meeting Sponsor Thank you

A mighty Thank you to our September meeting Sponsor,





2009 AIChE Midwest Regional Conference October 5 - 6, 2009 University of Illinois at Chicago (UIC), Chicago, IL

The <u>American Institute of Chemical Engineers (AIChE)</u>, and the <u>College of Engineering</u> at UIC in conjunction with the <u>IEEE Chicago</u>, <u>AIChE Chicago Local Section</u> and the <u>Department of Chemical Engineering at the University of Illinois at Chicago (UIC)</u>, is holding the 2009 Midwest Regional Conference on **ENERGY and SUSTAINABILITY** from October 5 - 6.

This **two-day symposium** features programming in the following topics:

Monday:

- Illinois Institute of Technology Research
- University of Illinois, Urbana-Champaign Research
- EPA Initiatives in Sustainability
- DOE Initiatives in Sustainability
- Solar Cells (EE)
- Future Electrical System (EE)

Tuesday:

- Gas Technology Institute Biomass energy
- University of Illinois Chicago Research
- Alternative Fuels
- Northwestern University Research
- Medical Imaging Adv. (IIT EE)
- LED Lighting (EE)

These sessions will feature invited presentations by leading Governmental and academic professionals and promise to focus on the challenges and the opportunities in energy and sustainability.

Enhancing the symposia is a **high school student outreach program** for local schools. The featured speaker is **Dr. Al Sacco** — **Professor at Northeastern University and former NASA astronaut.**

Other highlights include:

- Opening Remarks for Symposium: Dr. Sohail Murad, UIC Chemical Engineering Department
- Monday Keynote Speaker: Dr. Walter W. Kovalick, USEPA
- YPAB sponsored resume workshop and practice interviews
- A monthly meeting for the AIChE Chicago Section will be held on Monday evening.
 Marcus Tennant will be the meeting speaker on Automation of Batch and Procedural Control.

You benefit from learning about the new areas of research, development & new applications while networking with leading authorities in these areas. You will also earn **Professional Development Hours** for attendance, which can be used to keep **P.E.** and other licenses current.

Registration Form - 2009 AIChE Midwest Regional Conference

Online Registration is also available at

http://www.aiche-chicago.org/Symposium/2009.html

October 5 – 6, 2009 at the University of Illinois at Chicago, Chicago, IL (Please Print Clearly)

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Parking is available for	\$12/day in the UIC lo	t at the no	rtheast co	orner of	Tavlor	and Ha	lsted (enter o	ı Tavlor).



2009 AIChE Midwest Regional Conference

Organizing Committee Members

If you would like more information on the symposium or would like to inquire about company sponsorship opportunities, please contact <u>azita.ad@gmail.com</u>.

Meeting Program Chair

Dennis O'Brien, Jacobs Consultancy

Meeting Program Co-Chairs

Shannon Brown, Ambitech

Jeff Perl, Chicago Chem Consultants

AICHE Staff Contact

Kristine Chin, AIChE

Chair Future Electrical Energy System

Kevin Taylor, Detroit AlChE, IEEE

Chair Alternate Fuels

Patrick Shannon, Middough Consulting

Chair UIC EE – LED Lighting

Robert Becker, UIC -EE

Chair GTI Biomass Energy

Terry Marker, Gas Technology Institute

Chair DOE Initiatives in Sustainability

George Crabtree, Argonne National Lab

High School Outreach Program

Ludwig Nitsche, UIC ChE

Alan Zagoria, UOP

Richard K. Isherwood, UOP

James T. Muench, UIC College of Eng.

Chair UIC Research Program

Randall Meyer, University of Illinois - Chicago

Chair UIC - EE Solar Cells

Sidhartha Ghosh, UIC EE

Chair IIT- ChE Research Program

Don Chmielewski, IIT ChE

Chair IIT- EE Medical Imaging

Don Chmielewski, IIT ChE

Chair UIUC-ChE Research Program

Charles M. Schroeder, University of IL - Champaign

Chair NWU Research Program

Justin Notestein, Northwestern University

Chair EPA Initiatives in Sustainability

Jim Van der Kloot, USEPA

Finance

Azita Ahmadzadeh, SimuTech Group

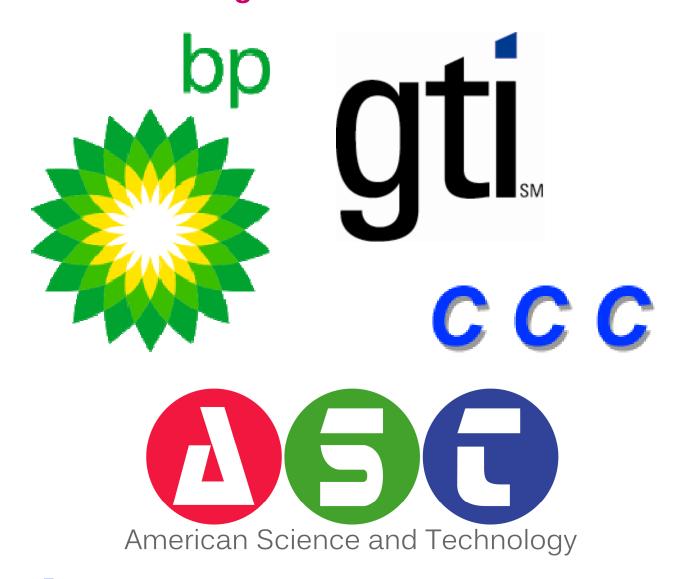
Advisory Committee

Don Chmielewski, IIT ChE

Annette Johnston, Abbott Labs

Jeff Perl, Chicago Chem Consultants

Thanks to our Sponsors of 2009 AIChE Midwest Regional Conference







UIC College of Engineering

How To Write a Perfect Cover Letter

Your cover letter has only one job. It is meant to entice the reader to open and read your resume. Sounds simple, but job seekers often stress as much over their cover letter as they do the resume. If this sounds like you, relax, there is a simple approach to cover letters that will streamline your application process and give you confidence every time you send out your resume. Just keep these three cover letter tips in mind and you'll never stress over writing them again.

1. Keep it short.

More often than not you'll send your cover letter via email or some other electronic system. Your reader won't be looking at a piece of paper, but at their computer screen. Ever notice how short your reading attention span is when you're reading text on your computer? That's why online articles are typically shorter than print articles. The same holds true for email messages. If you've got 60 messages in your inbox you don't have the patience for lengthy text. Now imagine you're a recruiter or resume screener and you must get through a couple hundred resumes in a day. If you want your cover letter read keep it short, concise and to the point.

2. Focus on qualifications.

Most job seekers freeze up when writing cover letter because they don't know what information recruiters want to see. The first person in an organization to read your resume is a recruiter or HR professional who acts as a screener. They are interested only in identifying candidates who match their set of qualifications. The better the match the higher the interest. Don't worry about explaining why you are interested in the position, the screener probably doesn't care. He/she only want to know if you qualify as a viable candidate. Use the job posting as a guide to know exactly what qualifications to mention in your cover letter.

3. Don't try to get fancy.

Job seekers get frustrated writing cover letters because they try to make it into a creative writing exercise. That's not necessary. It's much more important that you keep your ideas clear and easily understood. When writing about your qualifications do use the same verbiage to describe your skills as the job posting. You'll make the resume screener's work much easier and they will recognize you as a perfect candidate match much quicker.

Using this simple approach will allow you to take a customized approach with each cover letter you send. Generic cover letters usually sound canned no matter how much time was spent writing them. Worse, a one-size-fits all cover letter looks like it was borrowed off the page of a sample cover letter book. Would you take the time to read a mass-produced letter?

I'm often asked if cover letters are still relevant in today's fast-paced job market. While the form has changed from paper to electronic they are still a vital part of your job-search marketing materials. Cover letters provide your first opportunity to make a good impression on your potential new employer. It pays to write them with clarity and simplicity.

Deborah Walker

http://www.AlphaAdvantage.com

Upcoming Meetings and Events

September 13-19, 2009 54th Annual Safety in Ammonia Plants and Related Facilities Symposium

Calgary, AB, Canada

September 15, 2009 Biorenewables Conversion to Fuels & Chemicals

Goose Island, Chicago, IL

September 16-18, 2009 2009 International Conference on Thermochemical Biomass Conversion

Chicago, IL

October 1-2, 2009 2009 AICHE Regional Process Technology Conference

Galveston, TX

October 5, 2009 Automation of Batch and Procedural Control

UIC, Chicago, IL

October 5-6, 2009 2009 AICHE Midwest Regional Conference

UIC, Chicago, IL

November 10, 2009 InDeck, Tour of boiler supplier/manufacturer

Wheeling, IL

November 8-13, 2009 2009 AICHE Annual Meeting

Nashville, TN

November 17, 2009 AICHE Day at the Chem Show

New York, NY

January 12, 2010 Abbott Park

February 9, 2010 Nanoclusters for H2 and CO2 Storage

March 9, 2010 EPA lab tour

Chicago, IL

April 13, 2010 Hybrid Vehicles

May 11, 2010 Project Design for risk Management

News From YPAB

AIChE's Young Professionals Advisory Board (YPAB) is your connection to local YPs and college students just like yourself! Thanks to the hard work of Janet Chu and Bill Glogowski, the YPAB website has undergone several recent updates. Check out www.aiche-chicago.org/ypab often for more information on:

- Future YPAB activities
- Quarterly YP Spotlight
- Photos of past YPAB events
- Other local events of interest to YPs

NOMINATIONS REQUESTED FOR

THE ERNEST W. THIELE AWARD

The Ernest W. Thiele award is sponsored by BP and recognizes the outstanding contributions to our profession by a Midwest region chemical engineer. This award was established by the AICHE Chicago Section and is presented annually to a Midwest region AICHE member. This internationally recognized award consists of an engraved plague and \$1000 honorarium presented at our sectional meeting.

Nomination forms and additional information can be obtained from the Thiele Committee Chair. Completed nominations are due to the committee chair no later than March 30, *2010.*

One of the highest honors a distinguished chemical engineer can receive is our Chicago Section Thiele award. Please consider nominating a deserving engineer for this prestigious award.

Jim Simnick

BP Amoco Complex, J-8 150 W. Warrenville Road Naperville, IL 60566 Ph 630-420-5936 fax 630-420-4832

email: james.simnick@bp.com

ChemE on Demand

As AIChE's President for 2009, one of the initiatives that excites me most is the Institute's ongoing expansion of member services via the Internet. As part of this initiative, I am pleased to announce the introduction of new career resources and technical information for practicing engineers in an online resource center that we are referring to as "ChemE on Demand" -- a combination of Netflix[®] and YouTube[®] for Chemical Engineers!

I am also pleased to announce that professional members of AIChE are entitled to 6 FREE ChemE on Demand credits each year, good for all webinars (live and archived) as well as other content. And student members are entitled to unlimited free archives. That makes membership even more valuable. (Non-members pay \$179 for each webinar.)

ChemE on Demand functions as a multimedia library and training center, containing archived materials, recorded sessions, and information exchange opportunities for engineers at all stages of their careers. Currently ChemE on Demand resources include lectures from AIChE's Annual meeting, and live web sessions (webinars). Over the course of 2009, 50 hours of meeting content, 30 new webinars, and shared content from other sites will debut on the site. In addition AIChE will archive searchable "How to..." articles from CEP and other publications.

By developing over time a full library of materials relevant to engineers, AIChE hopes that ChemE on Demand will become a primary resource for AIChE members and all chemical engineers.

Content from Other Online Sources Original Meeting Webinars from AIChE Recordings ChemE on Demand Advice Training Modules* and Information Blog Local Section and Division Content from CEP' Webcasts

* In development

A key to this initiative's success will be increasing the variety of content, including webinars. A Webinar Advisory Committee has been formed to identify worthwhile topics and establish standards for presentation. The committee will be surveying Institute members and company leaders to gather suggestions. You will hear more about how you can help guide us through the rest of 2009.

As AIChE looks to the future, we envision licensed sites for live webcast presentations, training courses with online testing for content delivery, streaming content from AIChE presentations, virtual meetings, interest group discussions and blogs. I hope that you will help set the stage for the growth and development of these new venues by <u>clicking here</u> to enter ChemE on Demand.

H. Scott Fogler2009 AIChE President

Upcoming Live Webinars from AIChE National:

Chemical Product Design

Presented by Dr. Warren Seider and Dr. Soemantri Widagdo

Wednesday, September 9, 2009

How much do you know about Chemical Product Design? How familiar are you with up-to-the-minute modern approaches? Here is your chance to learn from the experts, Dr. Warren Seider and Dr. Soemantri Widagdo.

Fundamentals of Fire and Fire Control

Presented by Dr. J. Reed Welker

Wednesday, September 16, 2009

K-12 Outreach: Unique Contributions Through AIChE and How YOU Can Get Involved!

Presented by Dr. Katherine S. Ziemer

September 23, 2009

Model Predictive Control: An Overview and Selected Applications

Presented by Dr. B. Wayne Bequette

September 30, 2009

Effective Communication-Driven Leadership Skills in a Dynamic Global Market

Presented by Dr. Syamal K. Poddar

Wednesday, October 7, 2009

A "Virtuous" Approach to Ethics in Engineering

Presented by Dr. Edmund G. Seebauer

Wednesday, October 14, 2009

<u>The Project Success Method: Project Success through Practical Hands on Tools, Applications and Methodology</u>

Presented by Clinton M. Padgett

Wednesday, October 21, 2009

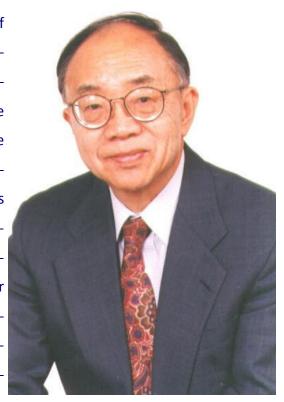
TRIZ: Patterns of Invention and Resolving Engineering Contradictions

Presented by Jack Hipple

Wednesday, October 28, 2009

2009 Darsh T. Wasan Lecture @ IIT

The Illinois Institute of Technology's (IIT) Department of Chemical and Biological Engineering (ChBE) is honored to welcome *Dr. Norman Li* to present the 2009 Darsh T. Wasan Lectureship, hosted Wednesday, September 30 at 4:00 pm at the university's Main Campus. Li's lecture is titled "Membrane Technology for a Thirsty Century – from an Industrial Perspective of Energy, Sustainability, and Globalization." Among his many accomplishments, Li is a member of the National Academy of Engineering, as well as the Chinese Academy of Sciences and the Academia Sinica in Taiwan. He is best known for his research in membrane science and technology, and his invention of liquid-facilitated transport membranes. Li is currently president of NL Chemical Technology, Inc., headquartered in Mount Prospect, Ill.



The Wasan Lecture was established in 2008 from the generous contributions of former students, faculty and friends of Darsh Wasan, currently Motorola Chair Professor of Chemical Engineering and Vice President for International Affairs, to honor his many contributions to IIT and the advancement of the chemical engineering profession. The lecture seeks to bring internationally recognized leaders to IIT to discuss global issues facing today's society.

Additional information is available at:

http://www.iit.edu/engineering/chbe/about/history/wasan lecture.shtml.

All members of AIChE Chicago are invited to attend this free event. To RSVP, please contact cbeisel@iit.edu.

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American Institute of Chemical Engineers

Chicago Section 13964 Doral Lane Homer Glen, IL 60491 aichechicago@gmail.com

We are on the web www.aiche-chicago.org

We want you for AIChE-Chicago!

We need your help!

How many opportunities can you find to learn project management, delegation and leadership skills for free? Becoming an officer in the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your local network grows. Just about all of us are either undergoing a career change, contemplating a career change, or are wondering if our career will be changed for us. Volunteering with AIChE is a way to add skills and accomplishments to your resume.

aichechicago@gmail.com

http://www.aiche-chicago.org/Section Info/Volunteer.html

Submitting Articles to AIChE Columns

We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider job postings, announcements of for-fee training courses, expositions, conferences as commercial. Categorization of announcements is at the sole discretion of the Chicago AIChE Board of Directors. Chicago AIChE may publicize activities of interest to our members by cooperating professional societies and other non-profits without charge.

Please submit your material to aichechicago@gmail.com with "newsletter article" as a subject line.

AICHE Publicity Committee	Academic (non-AICHE)		Con	npany	Recruiters	
Fees	Per Month	Per Year	Per Month	Per Year	Per Month	Per Year
Advertisements (3X3)	100	450	150	675	N/A	N/A
Half-Page (~7"x 4.5")	280	1260	420	1890	N/A	N/A
Job Posting (Size?)	50	225	100	450	250	N/A
Special Sizing	Contact Publicity Committee aichechicago@gmail.com					

For the purchase of a year ad, customers have the option of changing ads/jobs month to month.

Student and AICHE Member Related Postings are Free.

