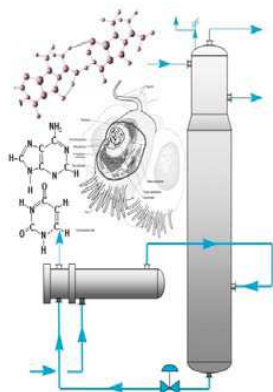


January Newsletter

Chicago Section

January 2009



AIChE Chicago January 2009 Meeting Notice

Technology of Efficient Conversion of Biomass to Fuel (Ethanol)

By: **William Roe**

President and CEO, Coskata, Inc.

Date: Thursday, January 22nd 2009

Location: *European Crystal Banquet & Conference Center*

519 W Algonquin Rd, Arlington Heights, IL 60005
(847) 437-5590

Cost: Members - \$35 Unemployed Members - \$18
Students - \$ 5 Non-Members - \$37

This is a joint meeting with ACS (American Chemical Society).

[To Register Click](#)

<https://guest.cvent.com/EVENTS/Register/IdentityConfirmation.aspx?e=7d9c625b-5c11-4026-8f86-6a0f6011b047>

Inside this issue:

Chair's Corner	2
Call for Volunteer "Symposium 2009"	3
An overview of January Meeting	4
Congratulations	5
General Principles of Sani- tary Design	6
Upcoming Events	8
YPAB December 2008 Event	9
AIChE Webinars	9

Agenda

5:30 - 6:30 PM	Social Hour
6:30 PM	Dinner
7:30 PM	General Meeting



Chair's Corner

New Years Resolutions

We begin with high hopes for the bright New Year. We can make this the best year of our lives, if we plan well and carryout our good plans.



Most of us make New Years resolutions, which are more often honored in the breach than acted upon. These resolutions may be rather mundane, such as lose weight or read a new book every month. Or, the resolutions may be more important, both to us and others, such as renewing contacts with estranged family or volunteering to help handicapped children.

I suggest that each of us include a firm resolution to continue the lifelong learning that every professional chemical engineer must do to keep current. Technology changes rapidly and if we do not make efforts to keep up with the latest developments in our specialty, we can become outdated and much less employable. So, I encourage you to resolve to take a short course, participate in internet training, return to school fulltime, or take up a professional hobby. These activities can lead to personal enjoyment, professional growth or a new career path.

Chemical engineers are sure to make significant contributions in global warming initiatives, alternate energy supply and a host of other societal issues. It appears that in the long-term our opportunities for meaningful, satisfying work will abound.

Our biggest immediate challenge may be to survive and prosper during the difficult economic times in which we find ourselves. Do not neglect your networking activities. While it appears that many companies are less eager to downsize chemical engineering talent than in the past, you still may find yourself in need of a new work address. Take advantage of personal and professional groups to further any job search you may pursue. And remember that the AICHE.org website has job search capabilities.

In stressful times we sometimes have a tendency to overlook our loved ones at home, or to take our workplace frustrations home. This mode often does not have a happy outcome. Try to lighten-up a little. Schedule an activity with family or friends which can get your mind off of problems at work.

Come to an AICHE Chicago section meeting and network, or commiserate, with your comrades. The monthly meetings are held at various venues all around the Chicago land area. Our members are always happy to catch up with old friends from school, previous employment or other professional contacts. The dinner menus are varied and the speakers are always knowledgeable and often stimulate interesting conversations about technical topics of interest to chemical engineers in many varied industries.

I wish you all the best of luck this year.

Pat Shannon

Middough, Inc

Call for Volunteer "Symposium 2009"

We are planning for the 4th annual Chicago Local Section Symposium in September 2009. Please contact Dr. Jeffery P. Perl @ 312-226-2436 or "jefferyperl@chichem.com" for possible involvement in organizing the symposium.

To get more information about the previous symposiums please check the following link:

<http://www.aiche-chicago.org/Symposium/index.html>



An overview of January 2009 meeting

Technology of Efficient Conversion of Biomass to Fuel (Ethanol)

William Roe

President and CEO of Coskata



Bio: Bill Roe joined Coskata as its President and CEO in September 2007, bringing extensive leadership experience across many critical functions of growing a global technical business, including operations management, strategy, sales and marketing, and research and development.

Prior to Coskata, Bill enjoyed a 29 year career with Nalco, the world's largest provider of industrial water-treatment chemicals and process additives. Bill was most recently the Chief Operating Officer, a position he held for six years. In that role, Bill had full P&L responsibilities for all of Nalco's business operations globally including the Industrial and Institutional Services Division (which comprises 75% of Nalco's core water treatment business), the Energy Services Division (a business line serving the petroleum and gas industry, with products for exploration and drilling, oilfield production, and downstream refining and petrochemical production), and the Paper Services Division (a business line serving the pulp and paper industry with processing additives and functional products that improve final sheet properties). Bill's responsibilities also included strategic planning, product development and commercialization, and strategic account development and management.

Prior to serving as Nalco's COO, Bill was President of Nalco's Asia Pacific Division, where he was responsible for Nalco's business operations in China, Japan, Korea, Taiwan, all of Southeast Asia, India, and Australia/New Zealand.

Bill has been a member of the American Institute of Metallurgical Engineers; the American Chemical Society; the American Chemical Council and the Sigma Xi Research Society. He holds a M.S. in Organic Chemistry from the University of Notre Dame, and a B.S. in Chemistry from Creighton University. [To Register Click](#)

<https://guest.cvent.com/EVENTS/Register/IdentityConfirmation.aspx?e=7d9c625b-5c11-4026-8f86-6a0f6011b047>

Congratulations

Shannon E. Brown, PE, was recently elected Fellow of the American Institute of Chemical Engineers.

Shannon was elected to the grade of Fellow due to her service to AIChE at both the local and national levels. Over the past 25 years, she has served the Chicago Section as Membership Committee Chair, Publicity Committee Chair, Secretary, Treasurer, Chair-Elect, Chair, Director-at-Large, Symposium Committee Co-Chair, Constitution & Bylaws Committee Chair, representative to the DuPage E-Week Planning Committee and delegate to Illinois Engineering Council. She was on the Local Section General Arrangements Committee for the last three Annual Meetings held in Chicago. She was on the committee that proposed National AIChE's Women's Initiative Committee.



Shannon is a Principal Engineer in the Process Department at Ambitech Engineering Corporation. She received a BS in Chemical Engineering from Michigan State University, an MS in Chemical Engineering from Northeastern University, and an MBA from University of Chicago. She is a licensed professional engineer (PE) in Illinois. Shannon has over 30 years experience in process design and project engineering with engineering and construction (E&C) companies. In addition to leading process and project teams, she has done pre-commissioning, start-up, operator training and validation. She has worked on projects in the petroleum, petrochemical, pharmaceutical, biotechnology, ethanol, food and gypsum processing industries.

GENERAL PRINCIPLES OF SANITARY DESIGN

The following general principles should be considered in the planning and preliminary engineering phases of new plant or plant renovation projects.

Protect Product And Process From Contamination By:

1. Bacteria and mold.
2. Rot-putrefaction, allergen or chemical contamination, or physical deterioration.
3. Rodents, birds, insects, dirt, other foreign substances.
4. Human contact and/or human error.

Protect The Process and Equipment by:

1. Equipment, piping, valve and instrument selection for the specific process or operation.
2. Equipment layout to permit smooth process flow, with space to allow ease of cleaning and maintenance.
3. Mechanical cleaning, clean-in-place (CIP) systems should be considered for liquid processes and central vacuum systems for dry processes.
4. Choice of materials of construction for:
 - a. Product contact surface
 - b. Floors, walls and ceilings.
 - c. Structural members, equipment supports and access structures.
 - d. Process support equipment-non-product contact equipment.
5. Controlling process area environment.
6. Controlling personal access and traffic.
7. Providing adequate lighting.
8. Developing cleaning, sanitation, HACCP procedures/systems, sampling points as a part of process design.
9. Separation of raw materials, finished products and packaging materials
10. Selection and location of process instrumentation
11. Design of control systems
12. Eliminating or minimizing floor attachments.

13. Providing proper drainage or receptacles for spills, wash-downs and wastes.

Protect The Plant By:

1. Site selection to minimize external environmental hazards.
2. Building Design
 - a. To house process so that it can be cleaned and maintained.
 - b. To prevent entry by dirt, dust, insects, birds, rodents, other foreign substances and optimize good housekeeping.
 - c. To withstand weather conditions.
 - d. To separate process areas from support, services and personnel areas.
 - e. Avoiding dead spots (voids, corners, pockets or ledges).
3. Eliminating unnecessary structures and equipment.
4. Designing waste disposal facilities to meet Federal, State and Local Environmental Protection Agency (EPA) requirements.
5. Landscaping and facilities layouts to prevent unwanted access by outsiders or employees.
6. Designing for operator and environmental safety.
7. Selecting proper materials of building construction.
8. Providing proper drainage and retention systems.
9. Providing adequate lighting systems.
10. Providing environmentally adequate and safe storage facilities for raw materials, packaging supplies, furnished goods, equipment, cleaning equipment and chemicals, and other supplies.
11. Providing adequate heating, ventilating and filtered conditioned air systems. Designed to provide positive pressure in process and packaging areas.
12. Providing proper instrumentation for warning when processing room environment is out of product control specifications.
13. Providing adequate, safe change rooms and support facilities for employees, contractors, and visitors. (these rooms should not have direct access to process or packaging areas)
14. Complying with FDA, USDA, 3A, EPA, OSHA, state and local code regulations and guidelines.(AMI, BISSC, NSF-14159, EHDEG, AIB, IAFP etc.)

By: Frank Ravetto

Middough, Inc.

Upcoming Meetings

- | | |
|---------------|--|
| 22-Jan | Technology of Efficient Conversion of Biomass to Fuel (Ethanol) |
| 18-Feb | GE Wind Turbines and Nuclear Power |
| 18-Mar | EPA night "USEPA Industry Support Program on Combined Heat and Power" |
| 15-Apr | Infrastructure Safety - bridges, refineries, aircraft, Jan Achenbach |
| 13-May | FDA Food Safety |

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 plaque 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 01, 2009.

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

YPAB December 2008 Event

The first annual holiday wine tasting at In Fine Spirits in Andersonville was a great success. Thankfully, holiday spirits had not been deterred by the snow storm the previous evening! The Wine Tasting was held by candlelight in the loft above the lounge recently opened in April. All enjoyed their fill of hors d'oeuvres and wine paired specifically for AIChE by In Fine Spirits.

Thanks again to Brandon Wise and the staff at In Fine Spirits (www.infinespirits.com) for providing the food, wine and beautiful atmosphere.

Please feel free to send your comments and suggestions for this or future YPAB events to Jessica Swary at jessicaswary@msn.com.

AIChE Webinars



Did you know that AIChE now offers free webinars to its members? And what's better is that if you missed one that you really wanted to attend live, you can still access the archived version on the AIChE website. The upcoming webinars are listed at <http://www.aiche.org/webinars.aspx> and the archive list can be found at <http://www.aiche.org/conferences/webinars/previous.aspx>.

Webinars are live seminars that are presented using the World Wide Web and phone where the attendees can also ask questions or send comments online. Although it is not a replacement for the face to face meetings and the topics are very general to attract more people, webinars have some advantages. One can attend a webinar from their home or office and in many cases can review the presentation later. One drawback is that sometimes it is very easy to get sidetracked and miss a part of the webinar; I can assure you!

Reza Mostofi

Chair Elect

AIChE Local Section

Officers & Contact Information

Chair	Patrick Shannon shannonph@middough.com
Chair Elect	Reza Mostofi Reza.mostofi@uop.com
V-Chair Programming	Steve Rosenblum Steve.rosenblum@uop.com
Secretary	Steve Schade sshade@ambitech.com
Treasurer	Catherine Fieber cfieber@comcast.net
Newsletter Editor	Azita Ahmadzadeh Azita.ad@gmail.com
Director at Large	Dennis O'Brien Dennis.O'Brien@jacobs.com
	Narayan Sankaran Narayan.sankaran@uop.com
	John Myler jmyler@northfieldlabs.com

AICHE CHICAGO SECTION

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 are now initiating a regular Newsletter and are welcoming people to e-mail any material they would like to appear on the newsletter. These can be job postings, advertisements for upcoming committee meetings, articles, general advertisements or anything else you may want to submit.

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

AICHE Publicity Committee Fees	Academic (non-AICHE)		Company		Recruiters	
	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					

- For the purchase of a year ad, customers have the option of changing ads/jobs month to month.
- Student and AIChE Member Re-

