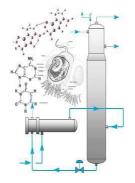
AIChE Chicago Section

December Newsletter

Chicago Section December 2008





AIChE Holiday Wine Tasting

In Fine Spirits, 5418 N. Clark, Chicago

Sponsored by the Young Professionals Advisory Board

Wednesday, December 17th 7-10pm

Price: \$25/person (cash or check accepted at the event)

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Please send questions and RSVP to

Jessica Swary at jessicaswary@msn.com
no later than Saturday, Dec. 13.

For directions and more information visit:

http://www.infinespirits.com/contact.asp

All members, non-members, spouses and significant others 21 and over are invited to join in the holiday festivities.

Chair's Corner,

HOLIDAYS

The end of the year is traditionally a time to slow down the hectic pace of our lives and review the accomplishments of the last year and plan for the coming year. This is every bit as true for our professional lives as it is for our private lives. And, it is also appropriate for professional organizations such as ours.



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The American Institute of Chemical Engineers celebrated its 100th anniversary this year. Chemical engineering is a mature, well-respected profession. We have continued to make valuable contributions to our employers and to society through good times and bad. One goal of the National organization is to increase services to more engineers as the universe of chemical engineering activities broadens into more non-traditional areas. In the future, more engineers will find themselves working in diverse settings unknown to us older practitioners. With fewer company-provided resources, individual engineers will be able to get support from the National AICHE for needs such as insurance, financial planning, etc.

Your AICHE Chicago Section has, with help from AICHE National, successfully organized a bigger and better Fall Regional Symposium this year. We have seen an increase in the number of members who are willing to volunteer their time to work on Section activities. We have continued to recruit speakers from diverse industrial backgrounds for the monthly meeting programs. And we have attempted to attract more young professionals into our ranks.

For the coming year, the Section will strive to re-establish links with universities, research centers, operating companies and engineering houses which employee chemical engineers. These links will help all of us become aware of new technologies which continually come to the marketplace bringing new opportunities for chemical engineers to grow. The Section will also continue to attract young professionals who are the link to the future for the

AICHE.

It is apparent from President-elect Obama's campaign statements that updating America's energy policy is on the short list for next year. Chemical engineers are well-positioned to support the coming development and implementation of alternate energy sources. It is incumbent on us to be aware of the technologies and promote them when we can. It seems to me that the demand for our services can only increase over the next five to ten years. Any activity which will strengthen your capability to advance this effort surely will be well-rewarded.

I encourage you to take a few minutes in a quiet place and list your successes and shortcomings for 2008. Then use this assessment to plan your career path for next year and maybe the one after that.

I wish you the happiest, healthiest and safest of holiday seasons and I hope that your 2009 is an even better year than your 2008. See you in January.

Pat Shannon

Middough, Inc



AIChE Holiday Wine Tasting Menu

Hors d'oeuvres Menu

date, prosciutto & gorgonzola skewers artisan cheese platter

a trio of premium artisan cheese with french bread and seasonal fruit accompaniments olives and bread

olives marinated in coriander, lemon & olive oil. served with french bread

Wine Tasting Menu

Gimenez Tiili 2005 Torrontes Mendoza, Argentina

Quinta de Cabriz 2007 Encruzado

Dao, Portugal

Decero 2006 Remelinos Vinyard Malbec

Mendoza, Argentina

Job Opportunity

"Chicago Chem Consultants is looking to fill the following positions. If you qualify, please contact Dr. Jeff Perl via e-mail <u>info@chichem.com</u>, and submit your resume in the body of the email.

 Part-time contract associates with 10+ years of experience in chemical project engineering assignments. Work on project basis or permanent can develop.

Please see <u>www.chichem.com</u> for more information regarding CCC projects.

An overview of January 2009 meeting

Biomass Conversion

Thursday - January 22, 2009

William Roe – President and CEO of Coskata

European Crystal Banquet & Conference Center in Arlington Heights

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

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.



AIChE's 100th Birthday Party

These are my personal reflections on attending the annual AIChE meeting in Philadelphia. Being the 100th anniversary of AIChE, it was billed as a special event - and it was. Since I took national office, I have attended the last 10 meetings. To be honest, the technical sessions at the November meeting are generally too academic for my tastes; I prefer the Spring meetings. But this meeting was different. There was a flavor to the programming that I have never



seen before. A whole series of symposia were held on "The Past, Present, and Future of ...". All the talks were invited, and the speakers were the giants in the field that could truly provide perspective on how far we have come in catalysis, modeling, controls, reaction engineering ... It gave even an old fogy like me, who got through school with a slide rule, a chance to step back and see how far things have come and how fast they continue to move.

The highlight, for me, was the Institute lecture, by Mark Davis. He, in very clear terms, explained how he has worked from a systems engineering point of view, using all the resources of chemical engineering, and designed a self-assembling polymer complex that encapsulates cancer drugs, permeates cancer cell membranes, and releases the cancer drug slowly over time. This delivery method enables much more effective treatment, at much lower doses, increasing the quality of life of the patient. His obvious dedication, pride, and zeal (not to mention his genius) was better understood after he explained the original motivation for his work – his wife suffering from the brutal current cancer drug regimen that is currently available. I saw chemical engineering skills and techniques in a totally different light. The pride he showed in the photos standing with patients currently undergoing human Stage 1 and 2 testing with his drug was infectious. With all the hype about bio-chemical engineering, I never quite understood before what it was all about, and how it really was built on our skill set. It seems obvious to me now.

As usual, most of my time was spent outside of the seminar rooms. I won't bore you with the Institute business – you can check out aiche.org to find out about the new officers, new strategic plan, or very successful student initiative, ScaleUp (UOP and BP are two of the eight sponsors of this program).



But, I can tell you about a few things that should make all of us proud. Thanks to the ScaleUp program there were over 1600 students attending the conference – attending seminars, socializing with representatives of the AIChE Young Professionals group, and generally finding their way in to our profession. Second, I was very impressed with the quality of the student posters and their authors.

I only had the time to speak with a few of the presenters, but I learned about laying down thin layers of TiO on silicon wafers, an improvement over the Ziegler-Nichols tuning methods, the pros and cons of various biofuels, and improved policies for managing the electricity system in Illinois (by our own, award winning, Beth Carter). Third, a team of chemical engineers from long-in-the-tooth types like me, younger practicing professionals, university professors and about 10 university students invaded an elementary school in Philadelphia.

We took over every classroom and ran hands on projects that engaged the students and showed them what engineering was all about. It's hard to say whether the making of a sticky polymer that they could roll up and bounce off the table (or at each other) or ice cream (now they really understand freezing point depression) was th8e most popular project. All, especially the engineers, had a good time and learned something.

What about the technical stuff? Well, I am still trying to wrap my head around the concept of modeling a catalyst surface with quantum physics at the atomic level, and being able to calculate energies of adsorption / reaction and kinetic constants. Not to mention that the predicted values match experiment. Calculating what effect surface shape and specific placement of metals on the lattice have on reaction rates was impressive, but demonstrating it with a movie showing the actual reactions and deformations of the surface blew me away. So much for slide rules.

I will leave you with one more thought. Have you ever considered how we can address the problems of catalyst design by considering how reactions on a catalyst surface are like a shark feeding in the ocean? Happy birthday to AIChE.

Alan Zagoria,

Engineering Fellow, UOP



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 <u>March 01</u>, 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

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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 AlChE 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 AlChE 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	Academic (non-AICHE)		Company		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					

- 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.

