

# AIChE®

## Chicago Columns

Chicago Section e-newsletter

October 2006

**YOUNG PROFESSIONALS ADVISORY BOARD OF CHICAGO:  
A MISSION TO BUILD AND SUSTAIN THE COMMUNITY  
WITHIN THE CHICAGO LOCAL SECTION**

### Upcoming Events:

#### October 9-10:

**Refinery Processing and In-Plant Energy Conservation and Optimization, AIChE-Chicago Symposium 2006**

#### October 10:

**Challenging Crudes: CITGO Lemont Refinery Overview— Bob Kent, Lemont Refinery Manager**

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At the Leadership Development Conference in 2002, the Young Professionals Advisory Board (YPAB) was created to target the decline of young members in AIChE. With the YPAB, the National Section hoped to gain and maintain young professionals' interest in AIChE and to ensure that students and young professionals retain their involvement through their transition into the work force. To accomplish this, the AIChE National Board assists the integration of chemical engineers within 5-10 years of receiving their undergraduate degree into the profession and into AIChE, and helps define programs and services tailored for young chemical engineers. In addition, the YPAB advises the national section of events that are of interest to young professionals.

In the local section, The Young Professionals Advisory Board of Chicago, YPAB – Chicago, was formed in 2005 by David Wishnick (chair), D Sujan, Nathan Pace, Orok Duke, Thomas King, and Michael Behr. Our focus was to build a new network of young chemical engineers at a local level. Our goal was to have events every quarter of the calendar year that were cost effective to allow students to participate as well as attractive to young professionals.

For the 2006-07 year, YPAB – Chicago plans to improve involvement of young professional chemical engineers in the Chicago Local Section. To

do this we plan to enact three strategic aims of (1) offering events of interest to young professionals, (2) interacting with local universities, and (3) fostering relationships between young and experienced chemical engineers. From our 2005-06 initiatives, the Chicago Section membership list has increased from 1746 to 2194 members. This is since our inception in February 2005 (18 months).

For our first aim, we plan to maintain our focus of half technical half social in event planning. We feel that this will make the events attractive to young professionals while maintaining the technical integrity of AIChE. We will have technical events that are geared toward educating young professionals, introducing them to the ideals and benefits of AIChE – Chicago, and social events where young professionals can have fun and interact.

The second aim engages YPAB – Chicago in aiding local university AIChE chapters. We feel that this will educate students into the benefits of the Chicago section, introduce them into our strong network of Chicago Chemical Engineers, and promote relationships with future chemical engineers. We feel it is our duties to help the younger engineers smoothly make the transition from the university to professional setting. In doing so, we plan to reach out to student chapters and introduce them to our community

of young professionals as well as the larger community of AIChE – Chicago.

Our third and final aim is intended toward forming relationships between young and experienced chemical engineers. We will offer the opportunity for this by inviting Chicago local section members to our events as well as inviting young professionals to AIChE – Chicago Events. We believe YPAB – Chicago represents much more than a young professionals group within the Chicago Section. We believe YPAB – Chicago is the future of the Chicago Section. The AIChE – Chicago Local Section represents a strong community of chemical engineers willing to educate, carry out, and foster the relationships of fellow engineers from diverse technical backgrounds. The YPAB will strive to build and maintain this strong community by introducing young engineers into the many benefits of AIChE membership.

- S. Thomas King, D Sujan, David Wishnick, Orok Duke, Nélide Flores, Michael Behr, and Christopher Greco

Please visit our website:  
<http://www.aiche-chicago.org/YPAB>



# AIChE – Chicago Symposium 2006

## Refinery Processing and In-Plant Energy Conservation and Optimization

October 9-10, 2006, Illinois Institute of Technology, Chicago IL

<http://www.iche-chicago.org/symposium>

Register NOW at <http://www.iche-chicago.org/symposium/registration.htm>

Online Registration will close Sunday, October 8, 2006 Onsite Registration is available.

This event will focus on real world applications & technical advances in energy improvements of interest to the chemical processing industry and on advances in refining technology. Full abstracts, speaker bios, and presentation slides can be found at <http://www.iche-chicago.org/symposium>

### Monday, October 9, 2006: In-Plant Energy Conservation and Optimization

**8:00AM - 8:30AM: Registration and Breakfast**

**8:30AM - 9:00AM: Plenary Lecture and Welcome**

Speaker: Hamid Arastoopour, Dean of the Armour College of Engineering, Illinois Institute of Technology  
Title: "Energy and Sustainability - A Challenge to the Engineering Community"

**9:00AM to 11:45 AM: Trends and Opportunities in the Energy Industry**

Chair: Michael J. Chimack, UIC – USDOE Industrial Assessment Center  
Co-Chair: Kurt Thompson, Rhodia, Inc.

Session Description: This session will present case studies and proven techniques for in-plant energy savings.

**11:45AM - 1:45 PM: Lunch Break featuring the Energy Technology Poster Session and Vendor Expo**

Session Description: Energy focused posters from industry, academia and equipment vendors will be presented. Co-Located Buffet lunch will be served.

**Track 1: 1:45PM - 5:15PM: Process Support Systems**

Chair: Todd Thornburg, ComEd/ Exelon Energy & Marketing Services,  
Co-Chair: Peter Brown, Energy Planning Associates

Session Description: This session will provide in-plant personnel with new ideas for energy upgrade projects. The session will also highlight suggested strategies and available resources for energy focused projects.

**Track 2: 1:45PM - 5:15PM:**

Research Opportunities in Stationary Power Generation and New Energy Carriers

Chair: Dr. Ronald H. Carty, Illinois Clean Coal Institute, [ronc@icci.org](mailto:ronc@icci.org) (618) 985-3500

Session Description: This session will highlight current challenges and research opportunities in alternative power and energy systems. Topics include; clean coal technology, biodiesel and nuclear sourced hydrogen.

**5:30PM - 8:00PM: Off-Site Dinner**

Session Description: Suggestions for local area and downtown restaurants will be provided, from which attendees may self-organize into dinner groups. Reservation phone numbers and directions will be provided to all attendees.



# AIChE – Chicago Symposium 2006

## Refinery Processing and In-Plant Energy Conservation and Optimization

### Tuesday, October 9, 2006: Refinery Processing

**7:45AM - 8:15AM: Registration and Breakfast**

**8:15AM - 9:00 AM: Plenary Speech**

Speaker: Mr. Ed Arnold, Group Manager, Jacobs Consultancy, Chicago IL, USA  
Session Description: Trends in Refinery Feed Stocks and Processing

**9:00AM - 12:00PM: Refinery Operations, Maintenance, and Reliability I**

Session Chair: Dr. Irv Wiehe, Soluble Solutions,

Session Description: This session has papers and presentations on problems and solutions in refinery processing of advantaged crudes. Operation strategies, maintenance issues and methods to improve equipment and process reliability will be covered.

**9:00AM - 12:00PM: Refinery Processing I**

Session Chair: Dr. Ganesh Venimadhaven, Honeywell,

Session Description: This session will include papers and presentations on process and catalyst improvements that have been recently developed. The focus will be on conversion units which can process heavier, more difficult feed stocks.

**12:00PM - 1:30PM: Lunch and Poster Session**

**1:00PM - 3:00PM: Refinery Operations, Maintenance, and Reliability II**

Session Chair: Mr. Pat Shannon, Middough

Session Description: This session will continue the presentations on solutions to refinery problems in operations, maintenance, and reliability.

**1:30PM - 3:00PM: Refinery Processing II**

Session Chair: Laura Leonard, UOP LLC

Session Description: This session will continue the presentations on new refinery processes and catalysts.

**3:00PM - 4:00PM: Lessons from Texas City: A Case History**

Session Chair: Michael P. Broadribb, Senior Consultant, Process Safety, BP America Production Company

Session Description: On March 23, 2005 a series of explosions occurred at the BP Texas City oil refinery during the startup of an isomerization process unit.

**4:00PM - 5:30PM: Refinery Technology Poster Session**

Session Chair: Mike Shultz, UOP LLC,

Session Description: Refining focused posters from industry, academia and equipment vendors will be presented. Refreshments will be served.

**5:30PM - 9:00PM: AIChE Local Section Dinner and Presentation**

Organizer: Ms. Aydra R. Kalynchuk, Student, Illinois Institute of Technology

Dinner Speaker: Bob Kent, CITGO Lemont Refinery Manager



**OCTOBER MEETING ANNOUNCEMENT:  
BOB KENT, CITGO LEMONT REFINERY MANAGER  
"CHALLENGING CRUDES: CITGO LEMONT REFINERY  
OVERVIEW"**



**Location:** Hermann Union Building at IIT (3241 South Federal Street, Chicago IL 60616)

5:30pm–9:30pm

Please Register at <http://www.aiche-chicago.org>

**Speaker Bio:**

Robert Kent graduated from the University of Wisconsin with BS in chemical engineering in 1979. He joined Chevron Research and Development, and worked on fired heater projects and naphtha reformers. Then in 1980 he began working for Koch Industries (now part of Flint Hills Resources LLC). While working at Koch, he studied business at the University of Minnesota (night school), and he received a MBA degree in 1983. His assignments at Koch involved working at the St. Paul and Corpus Christi refineries. He also worked on projects at Koch headquarters in Wichita. His work included process engineering, economics/planning, strategic planning, trading, and process operations. Bob joined CITGO in 1999 at the Corpus Christi Refinery as the General Manager of Technology and Administration. He later moved to the CITGO Houston office to work on projects pertaining to the lubricants business, and this year he was appointed Vice President and Refinery Manager at CITGO's Lemont refinery.

This event will immediately follow the Symposium to be held on October 9-10 at Illinois Institute of Technology

<p><b>THE PECK LECTURE SERIES 2006</b></p>	
<p><b>Experiments and Multiscale Simulations on Electrochemical Systems: Shape Evolution during Electrodeposition with Additives</b></p>	<p>To be presented by <b>Richard C. Alkire</b> University of Illinois at Urbana-Champaign <b>4:00 PM</b> <b>October 27, 2006</b> <b>Perlstein Hall Auditorium</b> <b>IIT Main Campus</b></p>
<p><b>ILLINOIS INSTITUTE OF TECHNOLOGY</b> Department of Chemical and Environmental Engineering <a href="http://www.chee.iit.edu">www.chee.iit.edu</a>   312.567.3040   <a href="mailto:ivy@iit.edu">ivy@iit.edu</a></p>	

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**SEPTEMBER 2006 MEETING: "HOW TO START, DEVELOP AND IMPROVE YOUR CAREER", SEPTEMBER 12, 2006  
A STUDENT'S PERSPECTIVE BY FUTURE ENGINEER KEVIN ARNOLD**

As a sophomore undergraduate student studying chemical engineering, at IIT I didn't know what to expect when I attended my first AIChE local section meeting. I knew it would be a great opportunity to meet chemical engineers, and hopefully I would get a chance to invite people to speak at my college's student meetings. One of the things that surprised me about the meeting was how enthusiastic and positive everyone was towards me and the other students at the meeting. Part of the evening was spent doing a speed meet, and the bits of wisdom and experiences I had the opportunity to hear were invaluable. They helped me understand more about what it meant to be a

chemical engineer, and what I have to look forward to in the future. The speed meet also helped me meet chemical engineers in a variety of positions. I heard what each individual did during their days at work, and it helped me narrow down what branch of chemical engineering would be best for me. The speed meet, and the section meeting were great, and I can't wait for the next opportunity I get to attend.

- Kevin Arnold, Sophomore at IIT



**YPAB - CHICAGO FALL MEETING: "CHANGES TO THE PATENT SYSTEM BEING CONSIDERED BY CONGRESS AND THEIR IMPACT ON ENGINEERS"  
- ROGER MASSON, PE JD,**

On September 24th, the Young Professionals Advisory Board of Chicago (YPAB - Chicago) had its first technical event for this year. Intellectual property lawyer and chemical engineer Roger Masson advised young engineers of how the patent process works and what changes have been implemented by congress. The patentable subject matter has increased over the recent years to include microbes and genetic sequences, computer algorithms, and business methods. In order for an invention to be patentable, it must be novel, non-obvious, and useful. The US patent system is governed under first-to-invent whereas most overseas countries are governed under first-to-file. He advised the engineers that their patent application must enable one who is of ordinary skill in the art to reproduce the invention without undue experimentation.

Followed by Roger's very informative seminar on the patent process, he led a discussion to advise the young



engineers on how to best secure the rights of their work. As young engineers transition into the workforce, they will develop new technology. His insight on how young engineers can best implement protection for their work was invaluable.





## We want you for AIChE-Chicago!

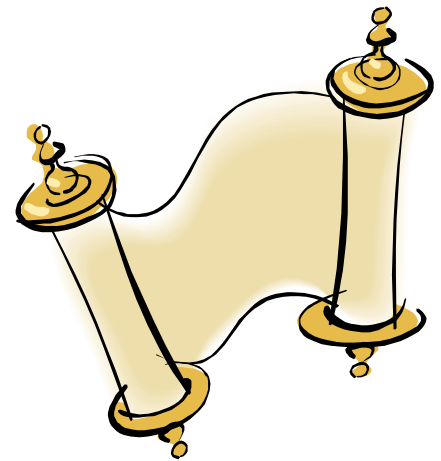
### We need your help!

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. [aichechicom@aiche-chicago.org](mailto:aichechicom@aiche-chicago.org)

<http://www.aiche-chicago.org/volunteerrequest.htm>

### SUBMITTING ARTICLES TO AICHE COLUMNS

We are now initiation 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. To submit material e-mail your material to [aichechicom@aiche-chicago.org](mailto:aichechicom@aiche-chicago.org) with "newsletter article request" as a subject heading.



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[www.aiche-chicago.org](http://www.aiche-chicago.org)

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