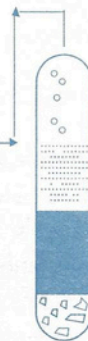


# Chicago Columns

section

Chicago Section  
American Institute of Chemical Engineers  
[www.aiche-chicago.org](http://www.aiche-chicago.org)



## February Meeting Notice

Wednesday, February 18, 2004  
Wellington at Arlington  
2121 S. Arlington Heights Road  
Arlington Heights, IL 60005

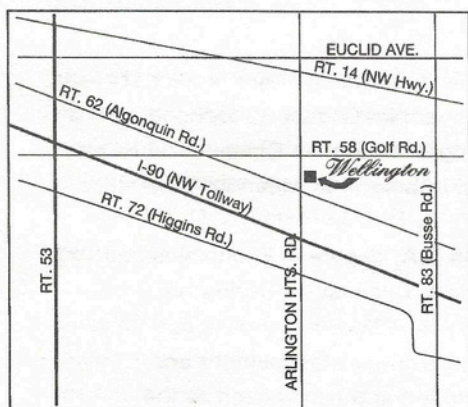
### Agenda

Cash Bar.....5:00 pm  
Dinner.....6:00 pm  
Presentation.....7:00 pm

### Directions

From Chicago: Take Interstate 90 (Northwest Tollway) west to Arlington Heights Road exit. Proceed north to the restaurant.

From the southwest: Take 355 north to Route 53 north and exit at Algonquin Road east. Go to Arlington Heights Road. Turn left (north) and proceed to the restaurant.



### Cost

\$25 for members  
\$28 for non-members  
No charge for AIChE student chapter members (see your advisor).

### Menu

Choice of London broil, broiled whitefish or vegetarian entrée. Meal comes with double baked potato and chocolate mousse.

### Reservations

Make your reservations by calling the AIChE Reservation Hotline at 847-588-3323 or emailing [evalopez@teianalytical.com](mailto:evalopez@teianalytical.com). Or register online at [www.aiche-chicago.org](http://www.aiche-chicago.org). Deadline is noon February 13, 2004.

### Topic and Speaker

THE COMPLEXITY TRAP  
George Elliott, Chief Executive Officer  
Elliott-Luepker and Associates

Complexity is defined as the total of activities that add less value and return than the resources and efforts they consume. Unfortunately for many organizations, between 50 and 80 percent of their customers and products fit this description. Complexity is an insidious trap that can be uncovered throughout an organization, from the executive suite to the laboratory.

Continued on page 2.

Continued from page 1.

Attendees will learn to identify the warning signs of complexity within their own organizations and discover how some of the most successful companies have extricated themselves from the complexity trap. Participants will learn how to translate the success of other organizations into their own companies and leave the session with strategies and techniques that can be immediately put into practice.

George Elliott is Chief Executive Officer of Elliott-Luepker & Associates. The firm specializes in organization cost restructuring and the establishment of a High Performance Involvement Culture.

Over the fourteen years at John Deere, Mr. Elliott's career ranged in position from production foreman, factory purchasing and materials manager to production superintendent at Deere's largest implement factory.

In 1978 he was appointed Works Manager for Deere's Consumer Products Division. During this assignment, he guided a high involvement implementation of a "Lean - JIT" manufacturing system and disciplined process control. These efforts spurred a dramatic profit and productivity turnaround for the division resulting in record profits and double-digit reductions in actual cost.

Mr. Elliott joined International Harvester in 1981. As Vice President World Wide Transportation and later as Vice President World Wide Procurement, Mr. Elliott led these areas of the company's 1980's restructuring through transportation's deregulation and the centralization of International Harvester's \$2.9 billion procurement function. In late 1983, Mr. Elliott became Senior Vice President of Sales and Marketing. Throughout this period, he was deeply involved in the organization's complex restructuring effort.

In 1985 Mr. Elliott accepted the position of Group Vice President and General Manager of TRW, Inc.'s Aircraft Components Group. He was a corporate officer and member of TRW's executive management team. The Aircraft Components Group

was made up of four manufacturing and one research division. Located in factories across the US East Coast, TRW's Aircraft Components Group manufactured jet engine compressor and fan blades, fuel pumps, nuclear control housings and rods, aircraft propellers and other defense hardware.

Over the past 13 years Mr. Elliott has been in high demand as a consultant working in the area of productivity improvement, complexity reduction, organizational cost-restructuring and leading the implementation of what he calls a "High Performance, Involvement Culture." Mr. Elliott is a process zealot and a strong proponent of the importance of the individual and daily discipline in an organization's quest for excellence. He has been on the leading edge of manufacturing excellence, performance-based involvement, and improved quality through a full commitment to process capability, daily process discipline and variation reduction.

During the middle years of the 1990s, George worked almost exclusively with the non-fiber optic side of Corning Glass where he and his team facilitated and supported truly significant and long-term structural performance change. During the last five years he has worked extensively with all of BHP Steel's (Australian based minerals company now part of Billiton, Inc.) units throughout the world (US, Australia, Indonesia, Thailand, Singapore, Malaysia). During the mid 1990s he also worked with several smaller companies and counted Harley-Davidson as one of his most important clients.

Currently, Mr. Elliott is leading major project at 5000 person shipyard in Singapore, working with a division of Corning in Shanghai, China, and has just started a significant project at Moen Incorporated.

Mr. Elliott holds a B.A. degree in Economics and M.B.A. from Indiana University. During his consulting career, Mr. Elliott has published numerous articles on Cost Management and Complexity Reduction and has spoken at the Conference Board and various trade associations.

## Olive Oil

J. Peter Clark

This is the third in a series of short articles on foods in which chemical engineering principles have a role. The others are sausage, soup and bread.

Olive oil and olives are ancient food products intricately bound with human history. The olive tree grows in the Mediterranean region and California. There are many varieties, as one can see quickly in a good food market, where varieties from Spain, North Africa, Greece and France might be found.

As it grows, the olive fruit is inedible because of a bitter principle. How ancient people learned to process it for food is a marvel. Olives now are processed with salt, soda ash, by fermentation, and by holding in oil. Probably the first discovered process involved wood ash, which has some sodium carbonate.

Olives have a high oil content and have been crushed for that use for many centuries. Olive oil has been burned for illumination, used for cosmetic purposes and for cooking. Olives are mentioned often in the Bible and to this day are a major crop in Palestine and Israel.

The olive tree is very long-lived and should be tended. It sends out numerous shoots, which, if left alone, quickly sap the vigor of the tree. Tending an olive orchard can be challenging, because rigorous pruning is required, which seems to go against natural instincts.

However, olive wood is good fuel and is useful for carving and making furniture. An olive branch is the traditional sign of peace. Olive trees can live for hundreds, maybe even thousands of years, and are hard to kill. Destruction of them, therefore, is a serious loss.

Olive oil is a staple of the Mediterranean diet, widely considered a model of healthy eating. One reason is that the oil contains a high fraction of oleic acid, an 18 carbon fatty acid with one double bond. Fats and oils in general are triglycerides, that is esters of glycerin with various fatty acids. Certain

fatty acids are essential nutrients, but others contribute to the synthesis of cholesterol. All fats are high in caloric value (9 kilocalories per gram vs. 4 kilocalories per gram for protein and carbohydrates) but diets rich in the mono and poly unsaturated fatty acids in some fats are associated with lower rates of heart disease than diets with higher contents of saturated fats.

Olive oil is made by crushing the ripe fruit and then pressing the pulp. The first result is cold pressed or virgin olive oil. The press cake can be re-crushed and re-pressed to yield a second run of oil which has higher free fatty acid content, because during processing, natural enzymes and heat hydrolyze the triglycerides to create free fatty acids and glycerin. The free acids harm the flavor and stability of the oil. A third source of oil is to extract with solvents the press cake. This usually has a high free fatty acid content and is used only for industrial purposes, such as soap making or blending with other oils.

A source of confusion to the consumer is the fact that olive oil quality is judged by chemical analysis of the free fatty acid content, which can be, and often is, reduced by chemical treatment with alkali. This treatment may allow an oil legally to be considered virgin, when it is actually the result of second pressing and even solvent extraction.

For many cooking purposes, lower cost and lower quality olive oil is fine, as when sautéing or adding to cooked recipes. For dipping or for salad dressing, the best, cold pressed olive oil should be used - the flavors from various parts of the world and from various varieties are distinctive. It is fun to try them and to learn to appreciate the differences.

## Chair's Corner

Dennis O'Brien  
Chair 2003-04  
Chicago Section AIChE

### Local Member News

Three local members were elected AIChE Fellows by the Board of Directors in November. They are Dr. Prabir Basu, Dr. Hamid Arastoopour, and Dennis O'Brien. Congratulations!

Alan Zagoria has been appointed to the Career & Education Operating Council (CEOC) of National AIChE. One of the primary functions of this Council is to support the efforts and needs of the Local Sections, so please contact Alan if there is anything you would like to discuss.

Dr. Mike Schultz of UOP, one of the local members who is active at the Spring national meeting, is a co-author of a paper in the February CEP. The paper is on distillation design.

### WEB changes

The website has been revived. Several improvements have or will be made, including the following:

#### What's been done

##### Student outreach:

Alan Zagoria has revamped this section. It now contains up-to-date news and coming events, and link to our speaker's kit, career information, and University AIChE chapters.

##### Bios:

This page has been re-done with the help of Jeff Thorp.

##### Board list:

This page was updated to reflect new email addresses and the departure of Rebecca Abshire from the Chicago area. Note that Rebecca Patrick is still in the Chicago area.

##### Job listing:

This has been modernized. Jerry will be assisting in the maintenance of this section. Stale entries will be removed periodically.

##### Resume listing:

This has been changed from a form listing.

#### What's left to be done

##### Registration Form:

Work is continuing on the registration form.

##### Finance:

The treasurer will provide local section finance updates periodically.

##### Local Honors:

Please submit nominees for local awards and special recognition. The local section can nominate individuals for special recognition by AIChE National. This may be useful to members in justifying the work that they do for the organization. In addition, the Chair would be happy to write a letter of appreciation for any of our volunteers.

##### National Honors:

National awards will be noted on the web site soon after we get notification.

Links to member's recommended sites: Several members have already submitted sites for posting. As more are nominated, they will be added. If the site is not obvious, please provide a description for our members.

##### Links to major employers' sites:

Links to the major employers of ChE's in the Chicago area are listed on the site. Please notify Dennis O'Brien of others that should be added.

### What's coming March to July

#### March

At press time, the final details for this meeting were not available, except that it will be on March 10.

#### April

Student awards. Poster awards and the students nominated by the University liaisons of IIT, NU, and UIC will be honored.

#### May

Elections. This year we should have elections in May, not September. We need nominees for offices. The Chair position is by succession, but the rest are by election.

#### June

Process Development Symposium in Oakbrook. This has been organized by Annette Johnston. We are seeking volunteers!

#### Summertime

Evening at Ravinia

#### July

Planning. There should be a planning meeting by the Board for meetings in 2004-2005. Any interested members are welcome to attend and contribute. Please see future newsletters and/or the web for more information.

### Volunteers Needed for Process Development Division Symposium

Look for the Process Development Division Symposium in your newsletter. This meeting, which is sponsored by the Process Development Division of AIChE, will be here in the Chicago area in June 2004. The Chicago Section is cosponsoring this event. As with an Annual Meeting, the AIChE National Office will provide support for Registration and Hotel Arrangements. The rest is up to the Symposium Committees and the Local Section.

The Symposium Steering Committee has nearly finalized the program. Visit the [pddiv.aiche.org](http://pddiv.aiche.org) website for more details as they become available. Local Section help will be needed for the following activities:

**PUBLICITY** - Spread the word beyond AIChE to all engineers that might be interested in registering worldwide.

**ROAD TRIP** - Set up a trip to downtown Chicago for participants during one of the free afternoons.

**GIFT BAG** - Purchase a suitable bag, and collect giveaways from local businesses and Table Top vendors for a gift for participants.

Please contact Annette Johnston at [Annette.Johnston@abbott.com](mailto:Annette.Johnston@abbott.com) with questions or to volunteer. Most meetings will be held via teleconference at regular intervals beginning in January. Time during the day will be needed to coordinate the Road Trips during the meeting and to fill the gift bags before the meeting.

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The objectives of the AIChE are to advance chemical engineering in theory and practice, to maintain a high professional standard among its members and to serve society, particularly where chemical engineering can contribute to the public interest. If you have any questions, comments or suggestions regarding the newsletter, please contact the editor at [polarbear4x@yahoo.com](mailto:polarbear4x@yahoo.com).

Chicago Section Columns is published eight times a year by the Chicago Section AIChE. Opinions expressed herein are those of the authors and are not necessarily those of the officers of the Chicago Section. Articles for inclusion in the next Chicago Section Columns must be received no later than January 23, 2004. Dang. It really does work.

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## Job Postings

### Seeking Position

S-0035 SENIOR PRODUCT/PROCESS DEVELOPMENT MANAGER 20+ years of effective capital project and R&D management. B.S. ChE, Biology and MBA - Finance (University of Chicago). Experience includes mfg. cost reduction through process modifications, low cost process development, and product development. Have managed diversified technical groups up to 30. For further information, contact Paul DuCharme @ (708) 724-5631 or e-mail [ducharmePE@aol.com](mailto:ducharmePE@aol.com)

S-0036 Chemical Engineer. Young ChE with recent experience in food and pharmaceutical industries. Demonstrated knowledge of Good Manufacturing Practice (GMP), Chemical Information Management System (ChIM), Standard Operating Procedures (SOP) and Good Laboratory Practice (GLP). Performed basic trouble shooting and drug batch production of pilot plant process. Seeking engineering position that draws on chemical engineering knowledge in addressing economic and environmental issues. For further information, contact David Wishnick @ (847) 920-9336

S-0037 EXPERIENCED BS AND MS CHEMICAL ENGINEER WITH OVER 17 YEARS EXPERIENCE IN MANUFACTURING PROCESS, OPERATIONS AND UTILITIES ENGINEERING. Skilled researcher analyst and strong communicator who works well individually and within a team environment. The past 11 years experience with a global chemical industry leader in value-added intermediates and plastics. Certified Class K wastewater treatment operator and ISO 9001-2000 Internal Auditor. For further information or a copy of a detailed resume, contact: Hope A. Luebeck at (815)426-2331.

### Job Available

A-0047 OPERATIONS MANAGER Far North Suburban chemical manufacturer seeking chemical or manufacturing engineer with extensive experience in plant and production management in the coatings industry. Candidate will be expected to develop and implement a Manufacturing and Supply Strategy to deliver the volume of quality products on-time at minimum cost and in compliance with regulatory standards. Position encompasses Operations, Supply and Demand, Capital Expenditures, and Technology. For further information, contact recruiter: K. Sam Kovacevic, Barrett Partners at (312)443-8877.

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### AIChE Students Need Your Help!

The Illinois Institute of Technology AIChE student chapter will host the 2004 North Central Student Conference from April 1 - 3. Current needs for this event include:

- ◆ Corporate Sponsorship
- ◆ Career Fair Participants
- ◆ Workshop Speakers
- ◆ Plant Tours
- ◆ Competition Judges

For more information on how you can help, please visit our website at: [www.iit.edu/~aiche](http://www.iit.edu/~aiche).

### National Engineers Week - Volunteers Needed

The AIChE Chicago Section will be hosting a booth for National Engineers Week on February 28th at IIT Wheaton. If you are interested in volunteering, please contact either Bryan Egolf at [Bryan.Egolf@uop.com](mailto:Bryan.Egolf@uop.com) or Alan Zagoria at [Alan.Zagoria@uop.com](mailto:Alan.Zagoria@uop.com).

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**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, 2004.

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: simnicjj@bp.com

**AIChE Chicago Officers and Board Contacts**

Position	Individual	Company	Phone	Email
Chair	Dennis O'Brien	UOP	847-391-2802	dennis.obrien@uop.com
Chair-Elect	Rebecca Patrick	Cognis	215-628-1363	Rebecca.Patrick@cognis-us.com
Vice-Chair Program	Annette Johnston	Abbott Labs	847-935-5120	Annette.Johnston@abbott.com
Treasurer	Brian Gahan	GTI	847-768-0931	brian.gahan@gastechnology.org
Secretary	Howard Sachs	Abbott Labs	947-937- 6919	Howard.Sachs@abbott.com
Past Chair	Alan Levine	Pioneer Engineering & Environmental Services, Inc.	312-587-1021	alevine@pioneerenvironmental.com
Directors at Large	Suzette Wick	Dedert Corporation	708-747-7000	suzettew@dedert.com
	Allan Fluharty	Greely and Hanson	708-358-0680	allanfluharty@comcast.net
Academic Liaisons	Vassily Hatzimanikatis	Northwestern University	847-491-5357	vassily@northwestern.edu
	G.A. Moonsori	UIC	312-996-5592	
	Donald Chmielewski	IIT	312-567-3537	chmielewski@iit.edu
Awards & Nominations	Clint Butcher	UOP	847-391-2396	clint.butcher@uop.com
Constitution & By-Laws	Shannon Brown	Raymond Professional Group	630-369-8145	Sbrown5403@aol.com
Continuing Education	Raja Venateswar	Middough Associates, Inc.		Varuag@aol.com
Government Interaction	Bill Palm		847-581-1749	
House	George Jarvi	Ambitech	630-963-5800	gjarvi@ambitech.com
IL Engineering Council	Bill Sandstrom	US EPA	312-886-6028	sandstrom.william@epamail.epa.gov
	Shannon Brown	Raymond Professional Group	630-369-8145	Sbrown5403@aol.com
	Dan Reuben	Chicago Oakbrook Financial Group	847-392-9082	dreuben106@aol.com
Industrial Liaisons	Craig Christofidis	Motorola		
Job Posting	Gerald Bard	Matthew, Benjamin & Bard	262-279-6394	mattbenbard@charter.net
Meeting Programs	Eric Townsend			
Membership	Clint Butcher	UOP	847-391-2396	clint.butcher@uop.com
Publicity	Don Nell	W.R. Grace	773-838-3195	Don.Nell@Grace.com
Student Outreach	Alan Zagoria	UOP	847-375-7335	Alan.Zagoria@uop.com
Sponsorship	N. Sankaran	UOP	847-375-7893	Narayanan.Sankaran@uop.com
Seminar Committee Chair				
Thiele Award	James Simnick	BP	630-420-5936	simnicjj@bp.com
Webmaster	Ben Geres	Middough Consultants	630-734-7055	geresbc@middough.com

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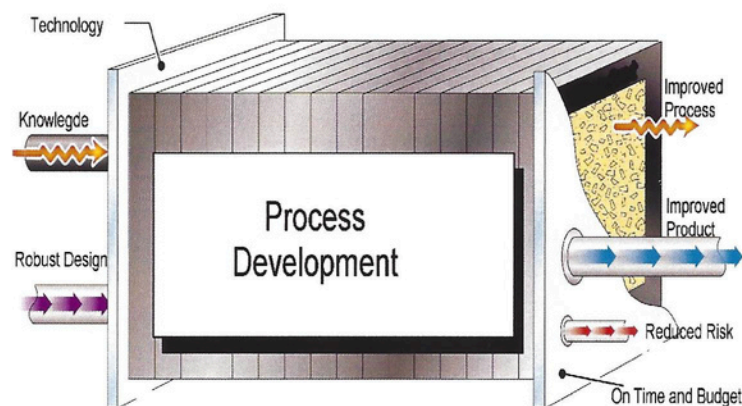


# AIChE 2<sup>nd</sup> PROCESS DEVELOPMENT SYMPOSIUM

## **Working Right on the Right Thing**

June 20 – 23, 2004  
Oak Brook Hills Resort  
Oak Brook, IL

- Technology And Knowledge
- Pilot Plants
- Modeling And Optimization As A Tool For Effective Process Development
- Laboratory Tools For Effective Process Development
- Working Right For The Future



\*\*\*Visit the Table Top Vendor Show – Tools for Modeling and Knowledge Management, Laboratory Equipment, Pilot Plants\*\*\*

*Afternoons Free for Fun and Networking • Build on Your Knowledge of Process Development • Explore the City of Chicago*

*Want to help with the symposium?*

Volunteers are needed for Table Top Show, Publicity, and Proceedings committees.

This program follows a successful inaugural 2003 symposium. For more details see 2004 symposium at:  
[www.aiche.org/conferences/processdev](http://www.aiche.org/conferences/processdev)  
Check for venue at:  
[oakbrookhills-chicagohotel.com/](http://oakbrookhills-chicagohotel.com/)

If you are interested, please contact:  
Annette Johnston  
Abbott Laboratories  
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**Sponsored By: Process Development Division and AIChE Chicago Section**