



The South Texan

VOLUME 101 NUMBER 2

OCTOBER 2000

OCTOBER MEETING THURSDAY • OCTOBER 5, 2000



Speaker: Michael J. Economides
Professor of Chemical Engineering
University of Houston

Focus: "The Color of Oil"

Michael J. Economides, is University Professor of Chemical Engineering at the University of Houston. Until the summer of 1998, he was the Samuel R. Noble Professor of Petroleum Engineering at Texas A&M University and served as Chief Scientist of the Global Petroleum Research Institute (GPRI). The GPRI is the first, large-scale petroleum research organization based at a university.

Prior to joining the faculty at Texas A&M University, Professor Economides was the Director of the Institute of Drilling and Production at the Leoben Mining Institute in Austria (1989-1993).

From 1984 to 1989, Dr. Economides worked in a variety of senior technical and managerial positions with the Schlumberger companies, including Europe Region Reservoir Engineering and Stimulation Manager (1984-86) and Dowell Schlumberger Senior Staff Engineer, North America (1987-1989).

More about our Speaker see page 3

Meeting Location

**RADISSON
ASTRODOME HOTEL**
(Kirby at South Loop)

WORKSHOPS

(NO FEES - NO RSVP) 5:30-6:30 p.m.

EXECUTIVE COMMITTEE 5:30-6:30 p.m.

SOCIAL PERIOD 6:00-7:00 p.m.

DINNER 7:00-7:45 p.m.

PRICE \$ 20.00 with reservation
22.00 without reservation

Students and Unemployed 1/2 price

MEETING / SPEAKER 7:30-8:30 p.m.

AUTO - R.S.V.P.

By 4:00 p.m Tuesday, October 3rd

Call (713) 295-4947

WORKSHOPS

CAST

Topic: "The Application of Residue Curve Maps to the Design of Heterogeneous Azeotropic Distillation Systems,"

Speaker: Nathan Massey, Chemstations, Inc., Houston, TX

Focus: Heterogeneous azeotropic distillation is a widely practiced process for the dehydration of a wide range of materials including acetic acid, chloroform, ethanol, and many higher alcohols. The technique involves separating close boiling components by adding a third component, called an entrainer, to form a minimum boiling, normally ternary azeotrope which carries the water overhead and leaves dry product in the bottom.

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Wayne Fischer, M. D. Anderson
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PROFESSIONAL DEVELOPMENT

Topic: "Career Enhancements in the New Millennium"

Facilitator: Marcela Olivares-Sooley

713-461-4228 • maos@dnv.com

We would like you to come and share your thoughts regarding the areas you would like to enhance your career in for the varied market we are faced with. Topics discussed may further develop into short seminars, if resources are available.

PROCESS ENGINEERING PLANT OPERATIONS

Topic: "An Introduction to High Capacity Trays"

Speaker: Mr. Paul Nuttall, Sales Manager
Koch-Glitsch

Focus: This presentation will introduce the audience to the technology of High Capacity Trays, with particular reference to

Continued on page 3

Contact: Jim Morris • 281-358-7986 • ejmorriss@vonl.com

GOVERNMENT INTERACTION & PROFESSIONAL DEVELOPMENT

Topic: "Workshop on Professional Engineering Firm Registration"

Focus: For its October meeting, the Government Interaction Committee will be developing a resolution and a budget for the STS-AIChE Executive Committee authorizing future action on registration of engineering firms and licensing of Professional Engineers. Because the resolution and budget need to be presented that afternoon to the Executive committee, the GIC will meet only from 5:30 PM to 6:00 PM.

Please check the room assignments in the hotel lobby and feel free to join us.

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The Purpose of the Section, a nonprofit scientific, educational and charitable organization, are the furtherance of the aims and purposes of the American Institute of Chemical Engineers, and the advancement of the science of chemical engineering and of related sciences through (i) the education of members and non-members in the sciences (ii) career guidance and financial assistance to students of the sciences and (iii) encouragement of research in the sciences.

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From the Chair



You should have recently received your ballot for the 2001 set of officers for National AIChE. Within the next few weeks, you should also receive your ballot for local section officers for 2001. It is critical that you turn in both ballots. Remember, the two ballots are for separate elections. There are critical issues facing the profession that need to be addressed. Would you rather see more

emphasis on professional development services, financial services, lobbying, portable benefits, or employment services. The individuals you select will determine the relative priority of these and other issues and consequently, the course of the professional organization for the near future.

Also within the next few weeks, National AIChE will be mailing out membership renewals. We encourage you to renew your membership. As you do so, remember that the local section is managed and financed separately from the national section. A contribution to local section dues is an optional separate line item on your invoice. We would appreciate your contribution to the local section dues. It allows us to provide the free newsletter, free monthly workshops, free monthly regional meetings, free employment services, college scholarships, and other local services. The annual cost is \$12, a dollar a month.

Last year, the Texas Legislature passed HB1544. This law has significant new implications regarding professional registration for individuals and firms. The professional development and government interaction committees held a workshop at our last monthly meeting to review the issues raised by this new law. Amongst other things, this law requires firms that provide engineering services to register with the Board of Professional Engineers, and sole practitioners to register as firms. This change, which generates more revenue for the state, obviously places additional burdens on individual consultants and small engineering firms. I urge you to contact the professional development committee to learn more about this law.

In early August the executive committee held its summer planning meeting. The planning meeting is where the leadership of the section sets a course for the near future.

Highlights of issues discussed were

- The web site. How do we utilize this tool to better inform and serve the membership? How do we streamline the process of assembling contributions to the newsletter and coordinate workshop topics and activities using the power of the Internet? Paul Temme is leading this effort. A key action item is to get some professional help to assist with this effort. Contact Paul with any suggestions you might have.
- Professional development. How do we generate more interest in the activities of this committee? How do we attract more volunteers to help with the activities of this committee.

Continued on page 3

Chair (Continued)

- ‘Red book’ project. These books are intended to provide a blueprint for the routine activities of the section so that new executive committees have ready access to historical activities and do not have to re-invent or relearn how the section is run. Secretarial help has been secured to start converting old records to electronic format.
 - Storage. After much debate over the years, the section has now secured a facility to store section records and the display booth. If you are a past officer and still have section documents in your garage, contact me to have the material relocated to our storage facility.
- Let’s hear from you concerning these activities.

Chris Tagoe

WORKSHOPS

CAST (Continued from page 1)

The overhead is condensed to two liquid phases; the organic, “entrainer-rich” phase being refluxed while the aqueous phase is decanted. Given the non-idealities, the phase splitting, the distillation boundaries present, and the possible existence of multiple steady states in such a system, columns like these can be extremely difficult to simulate and to operate. A use of residue curve maps provides the engineer with a systematic method for solving these problems. This paper describes the construction of residue curve maps and their application to the simulation of heterogeneous azeotropic distillation systems.

PROCESS ENGINEERING PLANT PERATIONS (Continued from page 1)

those supplied by Koch-Glitsch. The five types are the Bi-FRAC*, MAX-FRAC*, NYE*, SUPERFRAC*, and ULTRA-FRAC*, TRAYS. We will include brief descriptions of each tray with an overview of their relative capacities and applicability. In addition, an introduction to Koch-Glitsch High Capacity Structured Packing FLEXIPAC HC* will presented to complete the Mass Transfer offerings from Koch-Glitsch.

*registered trademarks

JOIN AIChE
South Texas Section
Today!

Speaker (Continued from page 1)

Publications include authoring or co-authoring of 7 textbooks and more than 150 journal papers and articles. Economides’ texts are used in almost all academic Petroleum Engineering departments in the United States, several overseas universities, and in the training programs of most of the major companies in the petroleum industry.

Economides does a wide range of industrial consulting, including major retainers by the Halliburton Companies, PDVSA (Venezuela) and PDO (Oman). He is the founder and a major shareholder in OTEK (Australia), a petroleum service and consulting firm with offices in five Australian cities. He is also a partner in a Canadian Independent producer of oil and gas.

Complementing his command of the academic, technical and commercial dimensions of the global energy industry, Michael Economides is also the author of the Pulitzer Prize nominated bestseller “The Color of Oil: The History, the Money and the Politics of the World’s Biggest Business.” He writes regularly for newspapers and other mass media outlets.

Abstract:

The Color Of Oil

Michael Economides

Ronald Oligney

Oil is not just black... it affects all shades of life and industry. In fact it colors everything.

The first color of oil is **green**. The greenback, both literally and figuratively, has defined the value of oil. Today the petroleum industry is the world’s biggest business, and hydrocarbons (including coal) account for over 90 percent of all energy needs. The Energy Wealth and Poverty of Nations is the prevailing indicator at the turn of the millennium. Oil is **black**, and this, in contrast to the crystalline transparency of water, contributes to the great mystery often associated with finding and producing oil. Oil is **red, white and blue** with roots in northwest Pennsylvania and with the giant ghost and modern manifestations of John D. Rockefeller, no industry better exemplifies certain traits that define the American character. **Red** is also the color of oil—as red as the blood of the millions who died in two great world wars and many other conflicts in this century. Central to the causes and prosecution of the wars was access to oil.

The **primary colors** of oil today are money (lots of it), technology (basic but demanding) and people (special ones). The **colors of the rainbow** can be seen in the 100+ oil producing countries. There are a dozen large petroleum producing and exporting countries. Yet most have little in their history that links them to wealth, technology and management. Corruption among the elite and governments, mismanagement and the squandering of the petroleum wealth are endemic. Culture is everything, and no other human endeavor makes this as pointedly obvious as the world of petroleum.

Government, willingly, by default or unwittingly, can turn oil from some of its more constructive colors to a tawdry **yellow**. Governments have infringed by regulation, neglected critical research needs and failed to take strategic and enabling actions. Environmentalism and the **new green**, couched in difficult-to-combat superficial imagery has taken a sinister turn, highly politicized and with gross disregard for the impact that the energy industry has on the world economy. Using moralistic yet blatantly dishonest slogans and pseudo-science, the environmental movement has digressed dangerously and has replaced some of the most radical movements for social experimentation of the century. One of the most fundamental truths rarely surfaces among the movement: there is no credible alternative to hydrocarbons in both the near and far foreseeable futures.

The petroleum industry is here to stay and prosper in the third millennium. Energy demand will increase, and the use of petroleum will be emphasized and expanded. This is the **color purple**.

4th ANNUAL

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EVENT TICKETS

(All Inclusive)

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Come for a cool, late afternoon of family fun and engineer fellowship. View live races from the infield. In case of rain, activities will be moved inside to the Track Clubhouse.

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TICKET DEADLINE:

Friday, October 27

Corporate Sponsorships available and include free tickets for your employees or customers.

Benefiting student activities of all hosting societies.

CAST

We started our 2000-2001 season with **Mr. Osvaldo Bascur** who gave an interesting talk on using the power of the internet for data processing in process industries.

Next month's speaker is Mr. Nathan Massey, he is the President of Chemstations, Inc., a chemical engineering software provider. He graduated from the University of Texas with a Masters degree in Chemical Engineering in 1976. He has worked for Brown & Root, Mitchell Energy and AAA Technology. Additionally he has worked in the field of process simulation and engineering software for 21 years.

The CAST division of the AIChE covers all areas of computing and systems technology as applied to chemical process industries. We are still looking to fill our 2000-2001 schedule. Please contact either Wayne or myself if you or anyone you know would be interested in making a presentation to the CAST audience. Also, feel free to contact us if you have any suggestions or ideas to improve the workshop or increase its value to the CAST group. We are very interested in hearing from you.

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The Editor Speaks

Have you noticed what's happening in the engineering job market? Demand for skilled workers and engineers is skyrocketing upwards. Last month the *Houston Chronicle* reported that over 62,000 new jobs were created in our South Texas area. This is good news for all of us.

Many companies are now sourcing employees from England, Canada, Mexico, Saudi Arabia, and other countries because they cannot find skilled workers. And these same companies have many mega-projects on their agendas. Many of these projects are in Third World countries such as Chad, Angola, and Nigeria while others are in Sakhalin Island, China, and Russia. Turkmenistan has become a household word in Houston. My sincere hope is that this prosperity continues. Many of us have been downsized, laid off, or whatever you call it. But, it always meant the same--you didn't have a job. And many of us were told that we were "overqualified" when we interviewed. Now, many companies are bringing older workers back since our younger engineers haven't been there and done that." As an example, the engineering project I am working on has over 100 persons and the average engineer is 55 years old.

Lets hope our good times continue to roll. And let's bring in new members this year!

Gary Congram

We're looking forward to seeing you at Engineers' Family FEST 2000! Enclosed are your tickets. As a reminder, please be advised of the following:

- EFAD 2000 begins at 4:00 p.m. Live thoroughbred racing begins around 5:30 p.m. The last race should be run and the event over by 9:30 p.m.
- Food will be served from 4:30 p.m. – 6:30 p.m. only.
- Parking is \$2.
- Upon arrival please tell the parking attendant you are attending Engineers' Family FEST so that he may direct you to the appropriate parking area.
- Door prizes will be drawn throughout the evening. Must be present to win.
- U.S. F.I.R.S.T. Robotics Team will be on-site with this year's robot.
- The Breeders' Cup will be simulcast beginning around noon. Your EFAD ticket will entitle you to enter the clubhouse if you are interested in watching the simulcast racing.

This is your receipt for _____ Adult tickets @ \$10.00/person = \$ _____

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