



LOS ANGELES BASIN SPE SECTION NEWSLETTER February 2005

▶ A MESSAGE FROM THE CHAIR

Dear fellow SPE member,

The Los Angeles Basin Section of SPE will celebrate its 50-year anniversary on Wednesday, March 9, 2005, at the Long Beach Petroleum Club. Festivities will start with a reception at 5 p.m. and dinner at 6:30 p.m. After-dinner activities will include a brief presentation on the history of our Section by Ed Mayer. We will also recognize some of the senior most members and scholarship recipients of our Section. There will be a talk by Dr. Iraj Ershaghi, Professor of Petroleum Engineering at USC, on how upstream technology has changed over the past several decades. Finally, Mr. Richard J. Stegemeier, former Chairman of the Board and CEO of Unocal Corporation, will present a retrospective on the energy industry and comments on how this industry is likely to evolve in the future. It promises to be a most interesting evening.

The cost of this event is \$25 per person. Invitations will be mailed to all LASPE members within the next few days. I encourage you to sign up early; as you know, this helps our planning process.

I look forward to joining you on March 9 in celebrating this important milestone of our Section.

Sincerely,

Raj Upadhyay
2004-2005 LASPE Chairperson
upadhyayraj@hotmail.com

▶ SPE PETROLEUM TECHNOLOGY

LUNCHEON FORUM

Join us Tuesday, February 8, 2005, for our Monthly Petroleum Technology Forum:

DEVELOPING TECHNOLOGIES TODAY FOR THE OILFIELD TOMORROW

Presented by:

Dr. Yongchun Tang

PEER, California Institute of Technology

DATE: 02/08/05

REGISTRATION: 11:30 am

LUNCH; 12:00 pm

COST: \$15.00

Student Chapter members are our guests

**PLACE: Long Beach Petroleum Club
3636 Linden Avenue,
Long Beach, CA 90807**

Summary

In order to meet the expected demand for oil and gas production and refined products in the future, novel concepts and technologies must be developed now so that they may be implemented soon. However, in recent years the industry has generally decreased their R&D efforts due to ongoing corporate restructuring and continued pressures for favorable short-term financial results. More reliance is being placed on service companies, universities, and other research institutions to close this technology development gap.

The Power, Energy, and Environmental Research (PEER) Center at the California Institute of Technology (Caltech) offers a somewhat different approach to energy R&D. The strategy of the PEER Center is to bring the very strong fundamental

scientific research and resources of the California Institute of Technology and other universities to bear on critical issues of the energy industry.

Major oil companies and government agencies are key sponsors and participants in these projects. The PEER Center's combined energy industrial research and academic experience makes it uniquely qualified to translate breakthroughs in fundamental science to become deployable technologies.

This presentation will describe briefly several novel technologies now under development at PEER/Caltech that offer the prospect changing the oil and gas production business in the future. These examples include:

- ➔ Oil field chemicals are custom designed and optimized with the assistance of molecular dynamic simulations to derive formulation performance based on first principles. Examples include demulsifiers, surfactant EOR, and wax and corrosion inhibitors.
- ➔ Biotechnology methods to greatly improve the desired activity of microbes, such as generation of bio-surfactants for MEOR or treatment chemicals for produced fluids. Bio-generated chemicals may offer more cost-effective and "greener" chemicals for the oil field than current conventional synthetically manufactured chemicals.
- ➔ Prediction of hydrogen sulfide and carbon dioxide concentrations in produced gas even before drilling a well.
- ➔ Advanced basin-modeling techniques that predict the composition and properties of crude oils, also before drilling.
- ➔ New sensor technologies that allow low cost, accurate, unobtrusive on-line measurements of emissions (e.g. particulate matter, NO_x, and carbon dioxide).

Biography

Dr. Yongchun Tang is currently the Director of the Power, Energy, and Environmental Research (PEER) Center in the Division of Chemistry and Chemical Engineering at the California Institute of Technology.



Besides overseeing the operation of the PEER Center, with a staff of approximately twenty people, he has directed projects in several areas, including hydrocarbon generation and gas-to-

liquids conversion. Dr. Tang also is an adjunct professor with Cornell University and the Cola Research and Geochemistry Institutes in the Chinese Academy of Science.

Before joining the California Institute of Technology, Dr. Tang was a senior scientist for 13 years with Chevron Corporation where he carried out a vigorous geochemistry research program in the areas of molecular modeling, basin modeling, and coal bed methane exploration. He has extensive experience in applying molecular modeling methods to energy industry chemistry applications. Yongchun has authored/coauthored over 75 publications and has several patents in the areas of geochemistry and oil processing. Dr. Tang holds a B.S. from Shanxi University and a Ph.D. from Ohio University, both in chemistry.

For more information about this and next forums, please contact the LASPE Forum Committee:

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Brandy Fellers, 562-624-3237 brandy_fellers@oxy.com

Rick Finken 562-570-3961, richard_finken@longbeach.gov

Please contact Maryam with your ideas and suggestions for future Forum topics.

PAST BOARD MEETING AND FORUM	REPORT by R. Finken
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The regular monthly Board meeting was held January 11, 2005 starting at 10 AM at the Long Beach Petroleum Club. The highlight of the meeting is Chairperson Raj Updhyay's planning for celebrating the 50th anniversary of LASPE. Many members believe the section is much older than that beginning as a part of AIME. The bases for doubt – the fact that we have so many members who are 50-year members of SPE! None-the-less, it's a good excuse for an event. The celebration is scheduled to take place on the evening of March 9, 2005 at the Petroleum Club beginning with a no host bar at 5 PM. Speakers are being lined up and Raj made several committee assignments agreed to by the board.

In other business, Raj advised that Iraj Ershaghi and Rick Finken have been nominated for the Western Region Service Award. This will be awarded at the

March 30 – April 1, 2005 Western Regional Meeting in Irvine.

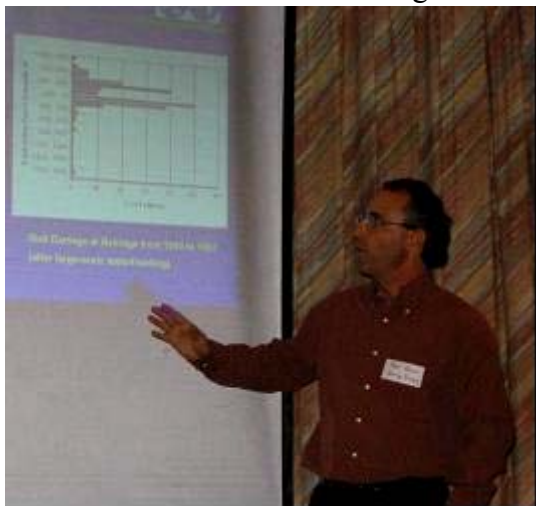
All LASPE members are welcome to participate in any future board meetings. These are always held starting at **10 AM** at the Long Beach Petroleum Club in advance of the Petroleum Technology Forum.



A scholarship award to Jimmy Quintana, a student at Cal Berkeley, preceded the Forum. Jimmy received an award as an incoming freshman two

years ago and this is a renewal in recognition of his excellent work studying engineering at Cal and his summer job involvement in the energy industry. (Jimmy is to the right of John Yu, LASPE's Scholarship Chairperson and also Vice Chairperson)

The **January Forum** featured Dr. Mike Bruno with the topic *"Analyzing Well Damage Risks and Optimum Well Designs for Compacting Reservoirs."* Mike is a member of LASPE and a Distinguished Lecturer. He



presented interesting insights on dealing with the compacting reservoirs present in the Los Angeles Basin. Mitigation techniques were

reviewed and Mike provided copies of his latest paper to attendees. Dr. Bruno is President of Terralog Technologies USA, Inc. and has more than 20 years experience in various aspects of reservoir and wellbore geomechanics, with more than 30 publications related to petroleum geomechanics.

▶ 2005

**SCHOLARSHIP
PROGRAM**

A key component of Los Angeles Basin SPE section community outreach is our program of scholarships awarded to high school graduates and university students.

The scholarships available in 2005 are:

Mei Chang Memorial Scholarship: \$500 awards are available to up to four high school graduates entering college in the fall.

Bruce Davis Memorial Scholarship: \$1,000 awards are available to up to two students pursuing graduate studies in petroleum related fields.

Undergraduate Scholarships: Four \$500 scholarships are available to up to four undergraduate college students pursuing petroleum, geology, chemical, mechanical or environmental related engineering curriculums.

Graduate Scholarships: Two \$1,000 scholarships are available to up to two college graduate students pursuing their studies or conducting research in energy and petroleum related subjects.

LASPE is pleased to make these scholarship awards to encourage careers in our industry and as an added benefit of membership. Please encourage your children, grandchildren, brothers and sisters to apply for these scholarships.

The criteria, deadlines, and applications forms for these scholarships can be found in our website www.laspe.org.

For additional information, please contact:

John Yu
SPE Scholarship Chairman,
California State Lands Commission,
200 Oceangate, 12th floor,
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▶ **SJV – SPE SECTION**

UPCOMING SHORT COURSES 📅

▶ **SPECIAL ISSUE**

We're waiting for your contributions 📅

San Joaquin Valley SPE Section is offering the following short courses:

Course Title / Cost/ Instructor / Location	Course Date	Registration Deadline
Formation Evaluation through Cased Hole \$600 Jim Smolen, Petroleum Computing Inc. Courtyard by Marriott	Feb. 21-22	Feb. 7
Water Identification & Fluid Movement in Wells (PL) \$600 Jim Smolen, Petroleum Computing Inc. Courtyard by Marriott	Feb. 23-24	Feb. 7
DOGGR Information Seminar \$70 Randy Adams, DOGGR. Chamber of Commerce (California Room), 1725 Eye ST., Bakersfield	March 3	Feb. 17
Production Gauging Principles & Methods \$450 Suzanne G. Castrup, Integrated Sciences Group. Charlie Webb, Chevron Texaco Irvine, California	April 2	March 12
Common Sense Reservoir Engineering \$450 Dr. Iraj Ershaghi, USC Irvine, California	April 3	March 12

A special newsletter issue will be dedicated to our anniversary celebration. If you have documents, flyers, or pictures that we could use for our newsletter, or if you want to contribute with it, please contact:

Thais McComb at tmccomb@socal.rr.com

Please notify SPE Headquarters directly with change of address: P.O. Box 833836, Richardson, TX 75083 Tel: (800) 456-6863 Fax: (972) 952-9435 or go to <http://www.spe.org/mbrservices/index.cfm>

If you no longer wish to receive this newsletter, please send an email to tmccomb@socal.rr.com



For more information about these courses, please contact:

Anil Mathur,
 Continuing Education Arrangements Director
 (661) 303-7713 or amathur@slb.com