

## people to know...

An engineering degree is the ticket to a wide variety of career choices. These OU alumni are among countless others who took their educational experience to the highest professional level.

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## harrison wins award...



**roger harrison**, associate professor in CBME, was awarded the 2006 American Society for Engineering Education's (ASEE) Meriam/Wiley Distinguished Author Award in recognition of his textbook, *Bioseparations Science and Engineering*. The award recognizes the top textbook of the year among all engineering disciplines.

Harrison was the lead author of the textbook along with three co-authors, Paul Todd, Scott R. Rudge and Demetri P. Petride. The book was published by Oxford University Press.

Bioseparations, which involves the separation and purification of compounds of biological origin, has developed as a significant discipline within the general field of biochemical engineering. The purpose in writing this book was to provide the most comprehensive and authoritative text on the science and engineering of bioseparations.

The text is designed for juniors, seniors and graduate students, and is also intended to be useful for practitioners in industry.

To date, a total of 50 universities around the world have adopted the book for teaching. The U.S. universities adopting it include Princeton, Cornell, Carnegie-Mellon, Texas A&M, UCLA, and Northwestern. Universities outside the U.S. include Imperial College, London; India Institute of Technology-Bombay; Munich University of Technology; and Engineering College of Aarhus in Denmark.

Harrison and his coauthors have started planning the second edition of the book.

## david schmidtke wins career award...



In 2006, associate professor **david schmidtke** was awarded the National Science Foundation's prestigious Career Award. Schmidtke received \$400,000 in funding for a span of five years for his research on single-walled carbon nanotube based biosensors.

Each year, the National Science Foundation solicits proposals from a variety of disciplines, looking for creative plans that effectively integrate research and education.

Schmidtke's proposal was titled "Biosensors Based on Carbon Nanotube-Redox Polymer Composites." The emphasis of the research is to develop more advanced and smaller biosensors that can be used in a variety of applications, such as medical diagnostics, remote sensors in environmental monitoring and as online sensors in the food and pharmaceutical industries.

Schmidtke joined the OU faculty in 2000.

## CBME distinguished grad serves as president of AIChE...



**larry evans**, who graduated with a chemical engineering degree from OU in 1956, is currently serving as President of AIChE. He is the Founder and formerly Chairman of Aspen Technology, Inc. - a leader in supplying process engineering, manufacturing and supply chain solutions to the process manufacturing industries. Aspen has grown from eight employees at its start to more than 1,800 employees today.

In addition to serving as AIChE president, Evans is the current chair of the OkChE Board and serves on the College of Engineering Board of Visitors.

Evans received his master's degree from the University of Michigan and a Ph.D. in chemical engineering from the University of Michigan. He was a professor of chemical engineering at the Massachusetts Institute of Technology from 1962 to 1990, where he was the principal investigator on the ASPEN Project, which led to the founding of Aspen Technology.

He and his wife, Beverley, currently live in the Boston area.

# GREETINGS FROM CBME AND OU!



I hope this communication finds you doing well, and with a bit of spare time to look through the newsletter to catch up on some of the latest chemical engineering-related happenings at OU. This newsletter format is something we're trying for the first time. We hope that the shorter format will enable us to communicate in a more timely and frequent manner with alumni and

friends. As you will see from these articles, the School of Chemical, Biological and Materials Engineering at OU is doing very well. Its faculty are university leaders building groundbreaking new research programs in nanotechnology, bioengineering, and renewable energy, while maintaining top programs in surfactant technology, polymer processing, process systems engineering, and others; we'll let you know about the recognition garnered by those faculty and programs. CBME's graduate and undergraduate students are outstanding (as always!) and we'll be reporting noteworthy events as they happen. And we'll tell you about some of the significant accomplishments of you, our alumni. We hope that by keeping you better informed, you will be better able to tell the CBME story to others, be they

potential undergrad or grad students, potential employers of our graduates, or even potential research sponsors or investors.

We'll also use the newsletter to tell you of any program needs. One of those needs is undergraduate scholarship funding. Many of you were Program of Excellence scholarship recipients, or had PoE undergraduate research scholarships at OU. The Program of Excellence is over 30 years old and is still the only departmental scholarship program in the college and perhaps in the university which promises continuous support until graduation. We use these scholarships to help attract the brightest students into chemical engineering, and we will soon launch an appeal to build up the PoE endowment. Right now we are working on details of a matching program -- look for the announcement this fall.

I'd like to hear from you – email [llobban@ou.edu](mailto:llobban@ou.edu) with any news you'd care to share. Hope you enjoy the newsletter.

Best,

*Lance*

Lance Lobban, Director  
Francis W. Winn Chair

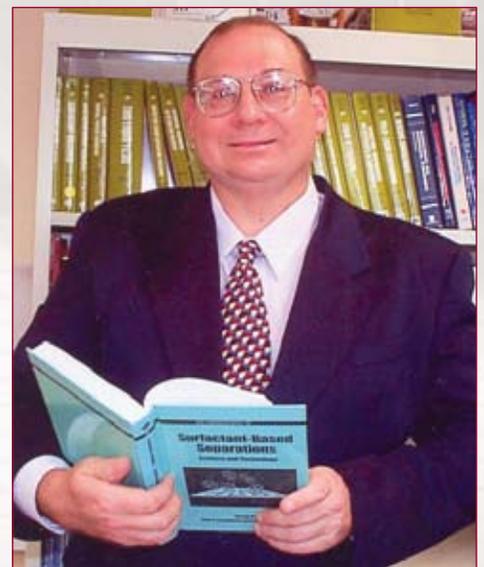
## SCAMEHORN TO RETIRE

After 25 years of teaching, 178 journal articles, millions of dollars in research grants, 5 books and 18 patents, John Scamehorn, Asahi Glass Chair and George Lynn Cross Research Professor, is retiring in July.

Scamehorn received his B.S. and M.S. from the University of Nebraska in 1973 and 1974 and his Ph.D. from the University of Texas in 1980. Before

coming to OU, he spent time in industry as a research engineer for Conoco Inc. and Shell Development Company. He has been the co-founder and director for the Institute for Applied Surfactant Research since 1986.

Scamehorn will remain active in his research, but plans to spend more time scuba diving, traveling and playing tennis.



# TECH TRANSFER NEWS

SOUTHWEST NANOTECHNOLOGIES (SWeNT), the spin-off company started by CBME Professor Daniel Resasco, is in the process of a multi-million dollar scale up to kilogram-per-day production of single wall carbon nanotubes. With spectacular electronic and physical characteristics, SWeNT's nanotubes are being considered for applications ranging from flexible flat screen displays to ultra-light, ultra-strong



composites to cancer therapeutics. SWeNT's production facility is located in Norman and the company now has a staff of 17 full-time employees. Recently SWeNT ([www.swnano.com](http://www.swnano.com)) was named Oklahoma Innovator of the Year for 2007. Daniel holds the Doug and Hilda Bourne Chair in Chemical Engineering and a George Lynn Cross Research Professorship.

SURBEC, LLC, which recently celebrated its 10<sup>th</sup> birthday, was founded by CBME Professor Jeff Harwell and colleagues at OU to commercialize surfactant-based remediation technologies they had invented. Surbec ([www.surbec.com](http://www.surbec.com)) is a leader in *in-situ* remediation of groundwater and soil (as Jeff puts it, they wash dirt) and has grown

to 31 employees, including four engineers, two geologists, a chemist, a microbiologist, and a geochemist.

Surbec is on track to do \$6 million in business in 2007, with recent or current projects in Oklahoma, Arkansas, Iowa, and Vermont. In December 2006, Surbec received the National Ground Water Association Award for an Outstanding Ground Water Remediation Project. Jeff is the Conoco/DuPont Professor of Chemical Engineering and a George Lynn Cross Research Professor.



## ALBERTO STRIOLO



In July 2005, CBME welcomed Alberto Striolo to the faculty as an assistant professor.

Dr. Striolo was a research associate at Vanderbilt University prior to coming to the University of Oklahoma.

Striolo graduated with a B.S. in Chemical Engineering from the University of Padova-Italy in 1998, and earned his Ph.D. from the same university in 2002.

Striolo teaches Process Control for undergraduate students and is developing an elective course on porous materials and their applications.

Some of Striolo's research projects include Adsorption of Polymers, Nano-Colloidal Systems, Molecular Lubricants and Carbon Nanotubes.

In addition to conducting numerous research projects, Striolo has written articles for publications such as the Journal of Chemical Physics and the Biophysical Journal.

## AICHE GROUP PLACES IN MID-AMERICA REGIONAL CONFERENCE

Two teams from OU's AIChE group placed at the Mid-America Conference March 30-April 1 in Rolla, Missouri. The Mid-America region comprises thirteen schools in the several-state area. CBME brought two chem car teams to the conference. The teams were lead by senior Matt Behring and junior Dan Dobesh.

Matt's team won first place in the performance competition and Dan's team won third place in the same category. In the performance competition, cars are to travel an exact distance carrying a variable weight. The teams are given the distance and weight one hour before the competition, and must adjust the car's fuel and/or timing system accordingly. Behring's team traveled to within 9 inches of the specified distance. Dan's team also took first place in the chem car poster competition and received an award for most creative drive system. Each team received plaques as awards, and Matt's team automatically advances to the national competition.



Additionally, CBME senior Sarah Shobe placed third in the research paper contest. Sarah's research was supervised by Professor John Scamehorn.