

Edgar to serve as department head

James Edgar, professor, assumed the role of department head of chemical engineering starting August 1, 2009. He replaced Mary Rezac, who served as department head for the previous five years. She will return to a regular faculty position in the department.

John English, dean of the College of Engineering, commented on Edgar's hire, "We are very excited that Dr. Edgar has agreed to move into this leadership position. The chemical engineering department is poised to move to a new level, and I believe Professor Edgar is the right person to serve as the champion of this effort."

Edgar has spent his entire academic career of 21 years at Kansas State University, since



Edgar

receiving his Ph.D. in chemical engineering from the University of Florida in 1987. He was promoted to associate professor in 1993 and full professor in 1997. Edgar is a well-regarded researcher in the field of wide band-gap semiconductors that use nitride compounds and has won numerous awards for his research, including the College of Engineering Research Excellence Award in 1998 and the Commerce Bank Distinguished Graduate Faculty Award in 2008. He previously served as interim department head in 2003–2004.

Edgar commented on his new role as department head, "I

welcome the opportunity to help our students, faculty, staff and friends continue to make the chemical engineering department at K-State the best it can be."

In this issue

Dept. head message . . . 2

ChE helping programs . . . 4

Schulz a ChemE 5

ChE distance ed 6

30-year reunion 11

Editor
Keith Hohn

Undergraduate students study sustainable energy at K-State

This summer, 10 undergraduate students from around the country came to K-State to participate in an NSF-funded Research Experience for Undergraduates (REU) program on sustainable energy. Keith Hohn and Larry Erickson co-directed the program.

Titled "Earth, Wind and Fire: Sustainable Energy in the 21st Century," the program seeks to provide students with both a meaningful research experience in sustainable energy and a broad understanding of the implications of sustainable energy.

Students were primarily engaged in re-

searching some topic in sustainable energy with a faculty mentor (see list of REU students, research topics and faculty mentors on page 10). However, they also attended a weekly sustainability seminar, went on three field trips, attended a seminar series related to professional development and were engaged in a group sustainability project.

Field trips included visiting the



REU students visit the Meridian Way wind farm.

Continued on page 11

Message from the department head



Dear Friends,

After five years as department head, I'll be shifting my focus to directing Kansas State University's Center for Sustainable Energy (CSE), mentoring graduate students and teaching. I accepted the role of CSE co-director in 2007, and the activities of the center have increased significantly since that time. You'll see more about our initiatives in future ChE departmental newsletters or you can get additional information at www.sustainable-energy.ksu.edu. Dr. James Edgar took over the ChE department head's position effective August 1 and I am confident that he'll prove to be an outstanding leader.

As this is my last newsletter contribution, I've taken the opportunity to reflect upon some newsworthy events over the past five years.

Faculty: Three new assistant professors joined the department: Jennifer Anthony, Krista Walton and Vikas Berry. Each has proven themselves to be an accomplished teacher and researcher. Each has received funding from the National Science Foundation to support their research, and the trio is advising a growing group of Ph.D. students and post-doctoral scholars. Unfortunately, a few months ago, Dr. Walton chose to leave KSU and to move closer to her parents. Thus, we'll miss her contributions to our program, but we wish her well in her career.

Dean's office: Dean Terry King (a member of the ChE faculty) resigned in 2007. Richard Gallagher served as interim dean, and John English assumed the post in 2008. Assistant Dean Ray Hightower retired after many years of service and was replaced by Larry Satzler.

Advisory Council: New members added were Jeffrey Bone (Chevron Phillips), Chia Chee (ExxonMobil), Scott Coatney (Intel), Maria Coleman (University of Toledo), Carl Lira (University of Michigan), Ashish Ghosh (Philips Lighting), Natalie Gosch (Cargill), Kirk Jilg (Chevron Phillips), Warren Kennedy (Burns & McDonnell), Scott Love (Conoco-Phillips), Dana Mathes (Dow), David Ott (Dow Corning) and Kurt Nuss (XL Weather & Energy).

Undergraduate student success: The past five years saw continued successes for our students. The AIChE student group has been named an "Outstanding Chapter" for each of the past 14 years. The ChemE Car team has been highly competitive at the regional and national level. Departmental displays have received awards during the annual Open House activities, with the department winning the coveted "Yellow Brick" award for the past two years. Finally, the department's educational programs were re-accredited by ABET during our last review.

Laboratories: We've taken the opportunity to upgrade experiments in the transport and unit operation labs. Students now conduct experiments relating to enzyme purification from natural sources and fuel cells, in addition to the more traditional experiments in distillation, extraction and reactor design. Additionally, students now write both formal (i.e., long) reports and memo reports. We hope that this variety of experiences will better prepare them for the challenges they are likely to encounter in their careers.

KSU Center for Sustainable Energy: Established in 2007 with seed-funding from KSU, the center attempts to provide research and educational leadership in sustainable energy topics. Currently, ChE researchers are contributing to bioenergy, solar energy and wind energy topics. A number of programs involving ChE faculty and students have been initiated and will be more widely discussed in the future. These include expansion of energy-related courses for students on and off campus; integrated research projects with partners in the Colleges of Agriculture and Arts & Sciences; and efforts to promote technology transfer. Finally, we are currently searching for additional ChE faculty members in this area and hope to be able to report our success in the next newsletter.

Research Experience for Undergraduates (REUs): "Earth, Wind and Fire: Sustainable Energy in the 21st Century," an REU focused on renewable and alternative energy, was funded by the National Science Foundation in 2009. Keith Hohn and Larry Erickson are leading the efforts for this program.

"We strive to provide an environment in which all students can meet their potential."

Honors: Faculty, students and staff have received numerous awards over the past five years. I'll not attempt to list them all here. Rather, I'll highlight just a few. Professor L.T. Fan celebrated his 50th year in the department and received a number of awards including AIChE's Particle Technology Award. Assistant Professor Krista Walton received the NSF Career Award and the Presidential Early Career Award for Scientists and Engineers (PECASE). Three departmental faculty members won KSU's Sigma Xi Research Award for Junior Scientists.

Placement: The market was clearly tighter in 2009 than it had been for the past several years. Nevertheless, the vast majority of our B.S. graduates have employment upon graduation and ChE salaries remain the highest on campus.

Enrollment: Our undergraduate population has effectively doubled over the past five years. Currently, we have nearly 200 undergraduates and 35 graduates. We expect continued growth in the next few years—especially at the graduate level.

Alumni interactions: We have attempted to improve the quality and timeliness of our communications with you. We hope that you've enjoyed these annual newsletters and that you get a chance to chat with ChE undergraduate students when they call during Telefund. Many, many of you have generously supported our programs over the past five years. The total annual philanthropic giving to the department more than tripled from our pre-2003 levels. Central to these efforts are the contributions to

the ChE Academy. This support has been critical to our ability to expand services to our growing undergraduate population and ensure that the facilities the students utilize are modern and appropriate for their learning needs.

I want to take a moment to thank each of you for your contribution to the department. Whether you provide financial support, host plant trips, hire KSU graduates or simply speak positively about KSU, these actions help the department and benefit current and future students. Many of you are concerned—as are we—about the economy and declining state support to the universities. To keep chemical engineering at Kansas State strong, we need your help now more than ever. If you'd like to learn how you might be more involved with the department, let us know. We strive to provide an environment in which all students can meet their potential. Much of what we do not only prepares students for careers in chemical engineering, but also contributes to solving societal problems in energy, health, food, materials, manufacturing and the environment.

Best wishes,



Mary Rezac

Walton to leave chemical engineering department



Walton

After three years as an assistant professor, Krista Walton has decided to leave the department to take the same position at the Georgia Institute of Technology. Walton was extremely successful in her time at K-State, receiving the Presidential Early Career Award for Scientists and Engineers (PECASE) and the National Science Foundation Faculty Early Career Development Award. She was honored for the PECASE in a White House ceremony on Dec. 19, receiving her award from President George W. Bush. At K-State, Walton taught the undergraduate transport phenomena courses and the unit operations laboratory.

Walton said of her decision to leave K-State, "The faculty here is so close and I will definitely miss that."

Faculty, staff and students in the chemical engineering department will miss Walton's contributions to the department, her positive attitude and her friendship. Everyone wishes Krista the best of luck in her future career.

by Keith Hohn

ChE faculty help with summer programs

During the summer months, things get a little quieter around Durland Hall, as most undergraduates students have left for summer internships. However, a visitor here might be surprised to see many chemical engineering laboratories abuzz with activity as young, energetic students research crystal growth, nanotechnology or biofuels. These students are participants in one of a variety of summertime activities designed to promote science and engineering for junior high and high school students. Many chemical engineering faculty volunteer their time to make these programs a success.

Two of these programs are sponsored by the Women in Engineering and Science Program (WESP). The first is Girls Exploring Our World (GROW) that invites 6th-8th grade girls to learn about science and engineering in a three-day summer

workshop. As part of this workshop, participants are engaged in hands-on activities such as crystal growth that James Edgar has run for the past two years. In this activity, some of the common features that define crystals, such as symmetry and facets, and some of the applications for crystals—computer chips and lasers in DVD players—are studied. Students also grow Borax crystals and observe how nucleation is important for precipitation.



A supersaturated Borax-water solution is prepared.

Another program is Exploring Science Technology and Engineering (EXCITE). This program is designed for 9th and 10th grade girls. These girls come to K-State for a five-day program that includes short hands-on lessons on such topics as electronics, chemistry and machining; a multi-day project in one of several “tracks” and field trips that relate to those tracks. Both Vikas Berry and Keith Hohn led tracks this summer and have in previous years.

Students in Berry’s track developed their own humidity sensors and learned about nanotechnology. On the first day, they were introduced to nanotechnology and the track activities. Sensor fabrication was performed on day two and day three. Here, the students spun polyelectrolyte fibers between gold electrodes on a pre-patterned silicon chip, followed by gold nanoparticles deposition on the fiber. This device, which works as a humidity sensor, was examined by students for response to dry nitrogen on day four. The students kept the



Girls in the GROW program rush to look at their borax crystals after a night of crystal growth.

fabricated chips as souvenirs. Berry said, “It’s fun to work in the lab with the 9th grade students as they explore science. These students are very energetic and are ever excited to learn.”

Keith Hohn led a track where students synthesized biofuels. First, they made biodiesel from used cooking oil, a process that required them to titrate free fatty acids in the vegetable oil, synthesize the strong base catalyst, react methanol with



A GROW student is surprised by how fast crystallization occurs from a supersaturated sodium acetate solution after a seed crystal is added.

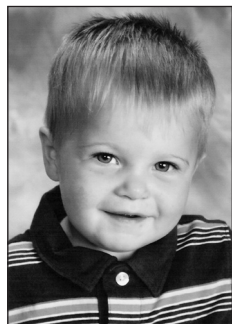
the vegetable oil in the presence of catalyst and wash the biodiesel to remove soaps. Students also attempted to hydrolyze biomass to make sugars by using acids and enzymes. Hohn commented on his experience with this program: “This is always one of the most fun times of the summer for me. The EXCITE students are always so enthusiastic and eager to learn that it makes it fun for all of us.”

Beyond these programs, many faculty also regularly

participate in the Engineering and Science Summer Institute (ESSI), leading a group of 11th and 12th grade students. The goal of this program is to lead to increased interest in science and engineering, as well as greater participation by women and under-represented minorities.

Alumni notes

- **Katie Wright (Kuhn)** (B.S. 2004) welcomed a baby boy in December 2007 – Jaxon Jonathan Wright. She is expecting another baby this October.



Jaxon Wright

- **Otto Romer** (B.S. 2002) is currently employed as development chef at The Fat Duck, outside London, England. He has found that in this position he has to combine his culinary skills with things he learned in the chemical engineering curriculum. For example, Romer has to perform flavor extraction using a small distillation column, and he uses a centrifuge to reduce sauces at low temperature to increase their flavor profile without the need for heating. He is in charge of pastry development for the restaurant and has worked on a cookbook and on three TV shows for The Fat Duck.
- **Miles C. Leverett** (B.S. 1931) was recognized in the 40 Milestones of Professional and Institute Progress by AIChE as part of their centennial celebration in 2008 for helping to start the Nuclear Engineering Division of AIChE. He served as the first chair of the division in 1954. After working at Humble

Oil (now ExxonMobil), Leverett worked on the Manhattan Project with Enrico Fermi and later on aircraft nuclear propulsion.

Obituaries

- **LeRoy Benjamin** (Ben) Patterson (B.S. 1947) died on April 5, 2008. Born in Marysville, Ben started at K-State in 1940 before being drafted into the Army for World War II. After serving in the Army, he returned to K-State to complete his chemical engineering degree. Following graduation, Ben worked at Chemical Solvents and Atlas Chemical Company before joining the Hawkeye Chemical Company in Clinton, Iowa, where he worked most of his career. He retired as production vice president in 1985. Ben is survived by his wife, Jean, and two daughters.
- **Steven R. Beck** (B.S. 1969) died Oct. 10, 2008. He received his Ph.D. from the University of Texas in Austin and was a member of the chemical engineering faculty at Texas Tech from 1977 to 1988, serving as chairman of that department before leaving academia for pharmaceutical engineering. He finished his career in that discipline at Roche Colorado Corporation where he was director of engineering. He is survived by his wife, Candace, one son, and one daughter.

New K-State president a ChemE



Schulz

Kirk Schulz was named the 13th president of Kansas State University in February 2009. This is particularly noteworthy to chemical engineering faculty, staff, students and alumni at K-State because President Schulz was trained as a chemical engineer.

President Schulz received B.S. and Ph.D. degrees in chemical engineering at Virginia Tech. His academic career began at the University of North Dakota in 1991. He moved to Michigan Tech in 1995 where he eventually became chair of the department. President Schulz moved to Mississippi State University in 2001 to become director of the

Dave C. Swaim School of Chemical Engineering. In 2005, he was selected as dean of the James Worth Bagley College of Engineering. In 2007, he was named vice president for research and economic development at Mississippi State, a position he kept until becoming president of K-State.

As a chemical engineer, President Schulz' research interests are in the areas of catalysis and reaction engineering. President Schulz has an appointment in the chemical engineering department and will be addressing the chemical engineering department in the chemical engineering assembly course in fall 2009.

ChE distance education program offers

In today's world, practicing chemical engineers must continually seek opportunities to augment their knowledge and skills. An advanced degree can be one way to gain new knowledge that can enhance one's career; however, traditional graduate degrees are generally not accessible to engineers working full time. The chemical engineering program at K-State is addressing this challenge through its distance education program; it enable students to earn an M.S. degree off campus according to their own schedule.

The distance education program in chemical engineering has been in existence for 13 year, and continues to increase in size. The program currently has 16 students—some who are just starting and some nearing completion—widely spread across the United States. The K-State program is

distinguished from other distance education programs in chemical engineering by its relatively low cost, flexibility, and close working relationship between faculty and students. This year three to four students will complete their M.S. degrees. Thirty hours are required for a degree, so it typically takes students three to four years of taking three courses per year to complete their degrees. In their capstone course, students write a detailed report on research they are interested in, either on a project associated with their work or assigned by a K-State faculty. Past projects have focused on environmental remediation, transport phenomena and semiconductor processing.

Brian Lemme commented on his experience with the chemical engineering distance program: "Starting in 2005,

CHE ACADEMY MEMBERS JU

INDIVIDUALS

Academy Associate

\$250 - \$499

David and Pamela Beardmore
Tansukhlal and Savitri Dorawala
Cyrus and Maria Elting
John and Anastasia Fimerellis
Donald and Nancy Livingston
Stephen and Dixie Long
Ross and Lise Ostenberg
David and Leah Ott
Jim and Robin Siefkin
Jeff and Jennifer Streets

Partner

\$500 - \$999

Rick and Marcia Adams
Bryan and Celia Anderson
Jack and Alberta Bailie

Tom and Denise Carlisle
Te-Yu and Shu-Chen Chen
Matthew and Lynn Dassow
Larry and Linda Glasgow
Erin Green
Robert and Betty Meyer
Randy and Julie Newcomer
Sarah Patterson
Joseph Rahija
Marc and Jody Ramsdale
Mary Rezac and Peter Pfromm
Edward and Dorothy Travnicek
Patrick and Carolyn Wilburn

Fellow

\$1000 - \$2499

Lyn and Jerri Boyer
Michael and Pamela Brown
Dick and Mary Elizabeth Corbin
Larry and Laurel Erickson
Art and Georganne Hiser

Lewis Ho
Ed and Ming Hsu
Warren and Gisela Kennedy
Tracey and Larry Lindeen
Scott and Karen Love
Dana and Liz Mathes
Dennis Rogalsky
Bob and Peggy Smith
Keith Steyer
Fred and Lois Stoller
Larry and Martha Stover

Executive Member

\$2500+

Michael and Alice Chen
L.T. and Eva Fan
Gordon and Joyce Goering
Wayne and Barbara Harms
Judith Fan and Robert Reay
Don and Barb Riedl

Founding

\$25,000+ Lifetime

Terrie and Arnold
Tom and Marilyn
Dick and Mary Elting
Larry and Laurel
Judith Fan and R
L.T. and Eva Fan
Gordon and Joyce
Charlotte Gollobi
Wayne and Barba
Art and Georganne
Bill* and Virginia
Ed and Ming Hsu
Joe and Louise H
Scott and Karen
Don and Barb Rie
Fred and Lois Sto
Tim and Sharon T
Norman and Don
Bob and Peggy S
Keith Steyer
Ken Martin
Charles Tillotson

opportunities for off-campus students

I decided to pursue my masters degree in chemical engineering after working a year for Intel Corporation in their Flash Memory R&D department. After much research on graduate schools, I finally decided on Kansas State University due to the high number of positive reviews and the emphasis on semiconductor manufacturing in the chemical engineering department. After starting distance education courses at KSU, I found that the distance education program was geared very well towards the needs of working professionals. Additionally, the professors and staff in the chemical engineering department always went out of their way to insure that I received all of the assistance I required. I never felt a disadvantage not attending class on campus. Obtaining my master's degree from Kansas State Univer-

sity was one of the best decisions I've made in my life." Jimmy Chow commented, "The MSChE distance program has been one of my most rewarding experiences. It provided me the technical training that I needed to improve my career which led me to professional growth in the last two years. Furthermore, the program really fits and it is really flexible for full-time employees with a family. It was a very nice academic experience to defend the M.S. report on campus and meet the professors in person." Anyone interested in the chemical engineering distance education program should contact Ellen Stauffer at ellen@ksu.edu for information or Professor James H. Edgar at edgarjh@ksu.edu for information on graduate studies.

JULY 1, 2008–JUNE 30, 2009

nder
Lifetime Giving
 I Allemang
 Barrett
 Elizabeth Corbin
 Erickson
 Robert Reay

 e Goering
 n
 ara Harms
 e Hiser
 a Honstead

 yler*
 Love
 edl
 ollar
 Taylor
 na Tetlow
 mith

CORPORATIONS

\$250 – \$499
 The Williams Companies Inc
 Valero Energy Corporation

Partner

\$500 – \$999
 ChevronTexaco
 Pfizer Foundation

Fellow

\$1000 – \$2499
 Cargill Inc
 Dow Corning Corporation
 Frontier Oil and Refining Company
 Lawrence S Chen Memorial Fund
 Quaker Chemical Foundation
 Shell Oil Company Foundation
 Tesoro Petroleum Corporation

Executive Member

\$2500+
 Chevron Phillips Chemical
 Company LP
 ConocoPhillips
 ExxonMobil Foundation
 II-VI Foundation
 The Dow Chemical Foundation
 The Procter & Gamble Mfg
 Company

Founder

\$25,000+ *Lifetime Giving*
 Chevron Phillips Chemical
 Company LP
 ConocoPhillips
 Cosmo Ec Co Ltd
 E I Du Pont De Nemours and
 Company
 ExxonMobil Foundation

II-VI Foundation
 KUBOTA Corporation
 Mobil Foundation Inc
 Monsanto Company
 Nisshin Flour Milling Co, Ltd
 The Dow Chemical Company
 The Dow Chemical Foundation
 The Procter & Gamble Mfg
 Company

Chemical engineering M.S. and Ph.D. graduates

May 2009

Lynette Vera Bayless – (Erickson) (MS)
Kansas Department of Health and Environ-
ment (KDHE)

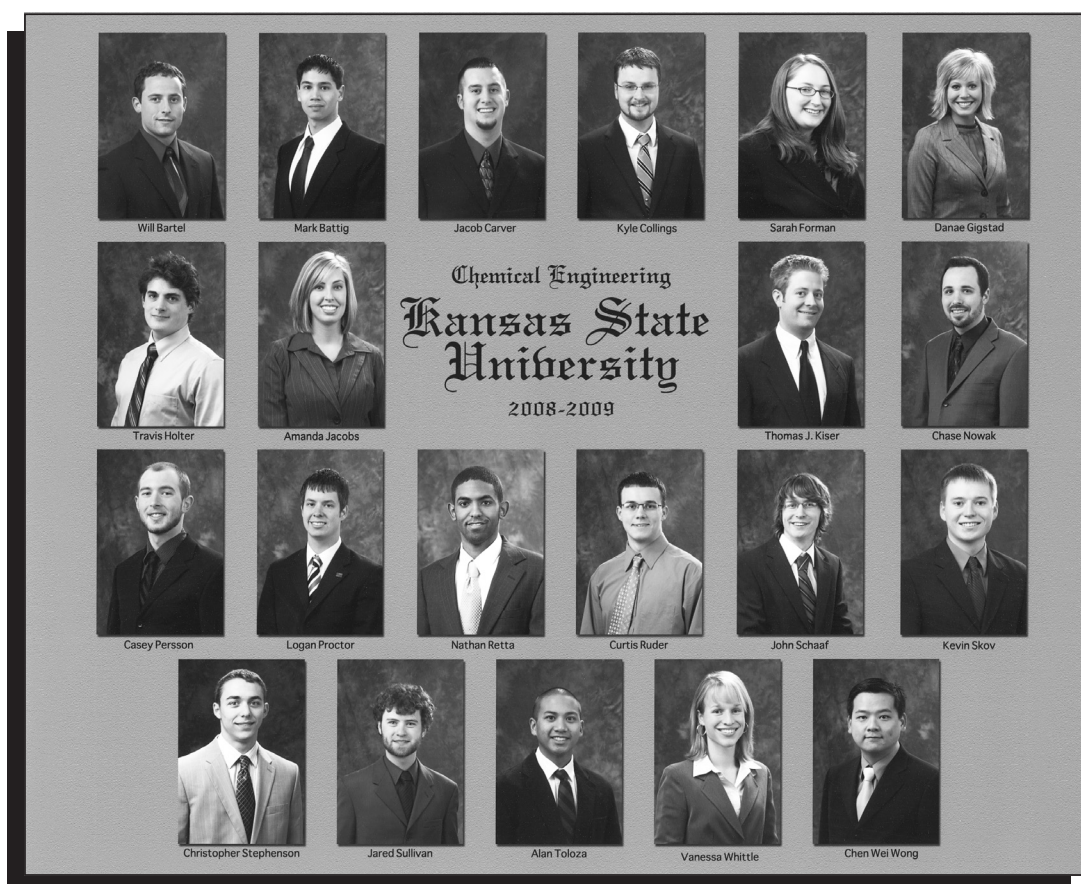
Douglas Clark – (Erickson) (Distance MS)
B & W Technical Services

August 2009

Chien-Chang Huang – (Hohn) (PhD) Post-
Doctoral Associate, National Cheng Kung
University

Devinder Singh – (Pfromm, Rezac) (PhD)
Research Associate, National Research Coun-
cil of Canada-Institute for Chemical Process
and Environmental Technology

Chemical engineering B.S. graduates



December 2008

Cherney, Phillip – seeking
Cochenour, Brette – Chevron Phillips
Gruber, Lucinda – Medical School
Hacker, Joseph R. – University of
Kansas, ChE graduate student
Martens, Eric – Medical School
Peterson, Alison – ExxonMobil
Pierzynshki, Garrison – MEMC
Semiconductors
Tryon, Benjamin -
Williamson, Lance – University of
Wisconsin, ChE graduate student

May 2009

Bartel, William – Black and Veatch
Battig, Mark – University of
Connecticut, ChE graduate student
Carver, Jacob – Nestle Purina Petcare
Collings, Kyle – ExxonMobil
Forman, Sarah – Hospira
Pharmaceutical
Jacobs, Amanda – ExxonMobil
Kiser, Thomas J. – seeking
Nowak, Chase – seeking
Proctor, Logan – Black and Veatch
Ruder, Curtis – NCRA

Schaaf, John

– Nestle
Skov, Kevin – Dow Chemical
Stephenson, Christopher – Exxon-
Mobil
Whittle, Vanessa – Dow Chemical
FilmTec
Wei Wong, Chen - seeking

Faculty and staff notes

- Cyndi Barnhardt, senior administrative assistant, has left the department of chemical Engineering to work full time at her family's business in medical supplies. Her four and one-half years of service are gratefully acknowledged.
- Lauren Muse has been hired as a senior administrative assistant. Muse spent the previous nine and one-half years in the College of Education as the secretary for the Professional Development School Partnership (PDS) Project. Her primary responsibilities in the department will be handling travel, the graduate program, processing orders and assisting with other financial tasks.
- Jennifer Anthony attended the 3rd Congress on Ionic Liquids (COIL-3) in Cairns, Australia from May 31–June 5, 2009. Her poster with co-author Xin Sun titled “Solubility of the Nanoporous Material Precursors in Ionic Liquids” was recognized with a Chemical Communications Poster Award. Anthony also attended the 32nd Annual British Zeolite Association Conference at the University of Cumbria in Ambleside, England, from August 23–28, 2009.



Muse



Anthony



Fan

- L.T. Fan attended the 19th European Symposium on Computer Aided Process Engineering (ESCAPE) in June 14–17 in Cracow, Poland. He presented four papers at this meeting on his research in P-graphs and stochastic modeling. Fan also presented two papers at the 7th International Conference on the Foundations of Computer-Aided Process Design (FOCAPD) in Breckenridge, Colo., held June 7–12, 2009.
- Dr. Ranvir Aggarwal is a visiting professor who will be teaching several undergraduate courses here next year, including ChE 570 - Chemical Engineering Systems Design I and ChE 550 - Chemical Reaction Engineering.

Student notes

- K-State chemical engineering students received the National Outstanding Chapter Award for the 14th consecutive year at the AIChE Annual Meeting held in Philadelphia, Penn.
- The K-State ChemE car team placed first for accuracy in distance, second for presentation and received the Process Safety Award at the AIChE Mid-America Regional held at the University of Missouri April 2–5, 2009. The team will attend the National AIChE meeting in November to compete against 30 teams across the country.
- Andrew Satterlee was appointed as a 2009 Stowers Scholar. This award included a \$3000 stipend to conduct research at the Stowers Institute for Medical Research in Kansas City, Mo., under the direction of Dr. Ron Yu.
- Jose Armesto, Megan Battig, Caitlin Moses, Danielle Quigley and Britni Samuelson were named Dow Scholars.
- Joshua Linn was awarded a ConocoPhillips SPIRIT Scholarship.
- Juan Cruz received a departmental award for best graduate student presentation for his presentation in the fall 2008 seminar series titled, “Immobilization of *Candida antarctica* Lipase B on Fumed Silica Nanoparticles.”

Sustainable energy at K-State

Continued from page 1



Above: REU students look inside a wind turbine.

Below: Wind turbine at Meridian Way wind farm.



Land Institute in Salina, which studies sustainable agriculture, the Meridian Way Wind Farm just south of Concordia, the Jeffries Energy Center, the nuclear reactor at K-State and local organizations involved in developing new technologies.

Keith Hohn commented on goals of the REU: “We hope that students gain both a detailed understanding of a specific area of research and a broad appreciation for the importance of sustainable energy. We hope that the students trained in the Earth, Wind and Fire REU will go on to solve many of the difficult challenges our society faces in terms of our energy supply.”

Nicholas Chisholm, junior in chemical engineering at Cornell University, has been working on developing separable acid catalysts for converting cellulose to fermentable sugars under the direction of Keith Hohn and Donghai Wang, biological and agricultural engineering. Nick commented on the reason he chose to take part in this REU: “I wanted to do research over the summer to help me decide whether graduate school was the right track



Greenhouse used to grow perennial versions of common crops at the Land Institute.

for me, and decided to apply here after reading the program description and project selections. I chose to participate in the K-State Sustainability REU because I am pursuing a career in the renewable energy sector. I saw this as an opportunity to learn about all the different areas of sustainable energy. The Earth, Wind and Fire REU has been educational and helped me decide to apply to graduate school next semester.”

Summer 2009 REU Students

Student	Project	Advisor(s)
Jose Armesto	“Optimizing Solid-State Solvation in Luminescent Solar Concentrators”	Daniel Higgins (Chemistry)
Joseph Alfaro-Stone	“Renewable Energy Grid Integration Projects”	Ruth Miller (EECE)
Nicholas Chisholm	“Heterogeneous Catalysis for Cellulose Hydrolysis”	Keith Hohn (ChE), Donghai Wang (BAE)
Clint Frye	“Hydrogen Fuel from Water Using Solar Energy”	Ken Klabunde (Chemistry)
Randi Isham	“Modeling of Time-Lapse Seismic Monitoring and Implications of Carbon and Purification Technologies in Geological Carbon Sequestration”	Raef Abdulmoneam (Geology)
Tai-Wen Ko	“Renewable Energy Grid Integration Projects”	Anil Pahwa (EECE)
Richard Reed	“Animal Waste Anaerobic Digestion”	Larry Erickson (ChE), Wayne Yuan (BAE)
Karen Snook	“Innovative production of 2,3-Butanediol and its derivatives from biomass via fermentation and chemical processing”	Praveen Vadlani (Grain Science), Keith Hohn (ChE)
Jeremiah Vue	“Nanomaterials Preparation for Solar Cell Development”	Jun Li (Chemistry)
Sean Wood	“Renewable Energy Grid Integration Projects”	Caterina Scoglio (EECE)

30-year reunion for class of 1979

by Ann Kottwitz Schaechtel ('79)

Nine classmates, more than one-third of the class, and numerous spouses gathered in Manhattan May 8–10 for a 30-year reunion. Attending were Rick and Marcia Adams, Bill and Susan Henning, Brent and Carole Burdge, Chad Strait, Tom and Sharon Cox, Helen Holm, Alan and BJ Adam, Max Shepard and Ann (Kottwitz) Schaechtel. Prior to the weekend, bios and pictures were circulated to catch up with other classmates who weren't able to attend.

A few of us found that Aggieville has changed dramatically. On a Friday evening, we could not only get into Kite's, but could sit at a table for dinner, speak in normal voices, and not be jostled at all! Most had not been to campus in years, so people took walks and bought Wildcat stuff at Varney's or the Union bookstore. "What can I buy that I will actually wear at home?" Tom showed off his non-purple purchase: the new Second Edition of Bird, Stewart, and Lightfoot. Yikes!

Dr. Erickson led a tour through Durland and the Engineering Complex. We sat at the tables in our "usual" classroom and marveled that the sliding blackboards and overhead projector were still there. Going through the labs and seeing the equipment we used brought out memories and many stories—usually of failed experiments and the creativity needed to produce the lab report.

We enjoyed glorious May weather during the Saturday afternoon baseball game against Texas Tech. Prior to the game, K-State had been ranked number ten in the national polls. Maybe it was our late 70s karma, but the Cats did not have a good game and lost 6-12. It still wasn't as bad as those OU or Nebraska football blowouts.



Front row (left to right): Helen Holm, Ann Kottwitz Schaechtel, Dr. Fan, Chad Strait, Alan Adam. **Back row (l to r):** Bill Henning, Tom Cox, Brent Burdge, Dr. Erickson, Dr. Kyle, Dr. Akins, Rick Adams, Max Shepard.

Professors joined us for dinner at Little Apple Brewing: Dr. Akins; Dr. Kyle and his wife, Marion; Dr. Erickson and his wife, Laurel; and Dr. Fan. A lot more reminiscing occurred over great beer and melt-in-your-mouth Kansas steaks. The professors especially enjoyed catching up with everyone and determining if their efforts had paid off. I think we passed.

The reunion was well worth the (not-so-big) effort to pull together and I'd encourage other classes to consider holding one. Big thank yous go to Florence Sperman in the ChemE department and Liz Townsend at the KSU Foundation who both helped tremendously.

Correction:

Please note that in our last issue, there was an error on page 4. Mike Chen and his wife, Alice, honored L.T. Fan with a \$5000 donation to the chemical engineering department.



Chemical Engineering
 Kansas State University
 1005 Durland Hall
 Manhattan, KS 66506-5102

440

Non-profit Organization
 U.S. POSTAGE
PAID
 Permit #525
 Manhattan, Kan. 66502

Phone: (785) 532-5584
 Fax: (785) 532-7372
 www.engg.ksu.edu



Notice of nondiscrimination

Kansas State University is committed to nondiscrimination on the basis of race, sex, national origin, disability, religion, age, sexual orientation, or other nonmerit reasons, in admissions, educational programs or activities and employment (including employment of disabled veterans and veterans of the Vietnam Era), as required by applicable laws and regulations. Responsibility for coordination of compliance efforts and receipt of inquiries concerning Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans With Disabilities Act of 1990, has been delegated to Clyde Howard, Director of Affirmative Action, Kansas State University, 214 Anderson Hall, Manhattan, KS 66506-0124, (Phone) 785-532-6220; (TTY) 785-532-4807. ?????-8/08-??

Let us know what you've been up to!

We would like to feature alumni in future issues of *ChemE News*. Please fill out the section below and mail it to Keith Hohn, Department of Chemical Engineering, Kansas State University, Manhattan, KS 66506-5102; e-mail to hohn@ksu.edu; or fax to 785-532-7372. Thank you.

name _____ degree/year _____

title _____ company name _____

business address _____ phone _____

home address _____ phone _____

news/accomplishments _____
