

Chemical Engineering Newsletter 2004



Letter from the Chair

Greetings from the Chemical Engineering Department. We hope this letter finds you and your families well.

Things are a mess around here. An extensive renovation of our research labs and many of the classrooms in the Clyde Building began in June. This project, costing over \$2 million, includes a general gutting of most of the labs and installation of new hoods, casework, ceilings, lighting, etc. The classrooms are being fitted with new seating, carpet, lighting, and state of the art computer and projection facilities. It will be nice when it is all done, but right now things are a mess. We anticipate completion of the project in October. For now the faculty have had to move their research into other space around campus. We appreciate the generous help from other departments.

You may be interested in an update on the department's enrollments over the past few years. In 1998 we had just under 50 in our senior class and this number steadily increased to 79 in '03. When the class of '02-'03 was admitted to the professional program (Fall of '01) we were nervous about class sizes in the junior and senior courses (especially UO lab) of around 80. What was more worrisome was the possibility that class sizes would continue to grow. For reasons we do not fully understand, class size dropped substantially after the '02-'03 class so that the graduating class for 2004 (including April, August, and estimated for December) will be 50 - right back where we were in 1998. Our expectation is that enrollments will level out here and will remain fairly constant for the next few years.

The job market remains soft, but is slowly improving. Of the students who graduated in April of this year, about 40% have jobs, 40% are going to graduate school, and 20% are still looking. The unusually high number of students pursuing graduate degrees is likely an indication of the soft market. We continue to try to find and develop employment opportunities for our graduates. Your help in this work is appreciated.

We wish you all the best over the next year. Send us a note to let us know what is happening in your life. We would love to hear from you.

W. Vincent Wilding

Grant to Study Fischer-Tropsch Synthesis

Prof. Calvin Bartholomew received an \$80,000 grant from Syntroleum, Sasol, Sasol-Chevron, and Conoco Corporations to investigate the history of the synthetic fuel industry. This study will focus on technological developments in the venerable Fischer-Tropsch synthesis originally developed by German scientists before World War II to produce diesel fuel from coal.

New Department Web Page

The home web page for the BYU Chemical Engineering Department (http://www.et.byu.edu/cheme) has been reformatted to better conform to university standards. We are looking for artwork for the home page that relates to Chemical Engineering. Please send any suggestions and photos to cheme@byu.edu.



Students from the University of Wyoming

Faculty

In January of 2003, Ron Terry became a part time assistant to the Head of Office of Planning and Assessment. In the summer of 2003, Ron took on this assignement fulltime as well as the task of aiding the Office of Planning and Assessment in their preparations for the university reaccredation. Ron is part of a team that will help prepare the university's self-study. One of his assignments is to facilitate the campus wide effort to assess student learning in order to continually improve the teaching and learning on campus.

Highlights



Dean R. Wheeler

Ron misses the interaction with students in the classroom and looks forward to returning to teaching. Dean Wheeler is pleased to return to BYU as the newest faculty member in the department. Dr. Wheeler is a native of Utah, having graduated from Granger High School in West Valley City. Following his graduation from BYU with a B.S. in 1996, he then completed a Ph.D. in Chemical Engineering at the University of California, Berkeley. He filled the position in the department vacated upon Doug Smoot's (nominal) retirement. He and his wife Zina Hall Wheeler (B.A. English, 1995) have three children. In March,

BYU Sponsored the AIChE Rocky Mountain Student Regional Conference. The conference kicked off with food and rock climbing at the Quarry. The following day was packed with workshops and the annual paper competition. In the afternnoon, attendees took a break to compete

in a miniature car competition. Students watched in anticipation as each school

started the chemical reaction which would hopfully propel their car closer to the finish line. Some cars fizzled out before getting started while others inched their way to victory. Unfortunately, BYU was not able to compete because their car blew up just days before the competition, thus allowing the University of Utah team to take first.



U of U students getting ready to race their car

Dr. Wheeler performs research in the area of electrochemical engineering, using molecularbased tools such as molecular dynamics simulations and atomic force microscopy. He is currently pursuing research projects relating to ion transport in lithium-battery electrolytes, the role of additives in copper electrodeposition, and the formation of nanoscale metal interconnects.



Drawing Crowds in Russia

Prof. Hugh Hales has been designated as a Distinguished Lecturer by the Society of Petroleum Engineers. He just completed the first of four lecture tours speaking on "Recent Advances in Reservoir Simulation" in Moscow, Russia; Tomsk, Russia; and Aktau, Kazakhstan.

More than two hundred people came to his lecture in Moscow, including BYU Chem E alumnus Tom Holst, who is living and working there as a Vice President for UNOCAL RUSSIA.

Homecoming

The 2004 Homecoming Banquet will be held on Friday, October 15, 2004. The BYU homecoming football game will be Saturday, October 16, 2004 against Wyoming.





Elder Alexander B. Morrison



Vern T. May
(class of 1964) was honored as the
Outstanding Alumnus for 2003 for his
service in the field of Chemical Engineering.

On October 10, 2003 a number of Alumni returned to their alma mater for the annual Homecoming banquet. The banquet provided alumni with a splendid feast of memories and of renewed acquaintences. Guests dined on roast beef baron and on past reflections of their old BYU days. After dinner, quests were fed spiritually by the words of Elder Alexander B. Morrison, a former member of the Quorum of the Seventy. Elder Morrison spoke of the humanitarian service provided by the church. He shared pictures and stories of those in other countries benefiting from these efforts. What gratitude and joy these people showed upon receiving a simple hygene or school kit. Elder Morrison's talk encouraged BYU alumni to live the motto "Enter to learn go forth to serve". Each BYU alumnus should ask himself, What am I doing to serve the world?

Alumni FHE

In November 2003, several BYU Alumni traveled to San Francisco to attend the annual AICHE meeting. Finding themselves away from family on Monday night, BYU alumni gathered together at a local Cuban restaurant for their own kind of "family home evening". Both the cuisine and the company were excellent, and all had an enjoyable evening swapping old stories and recent family photos.

Mini Renunion

While in San Francisco for the annual AICHE meeting, a few of our Faculty took the opportunity to treat 20 local (Bay Area) alumni and spouses to dinner at at the Helmand Restaurant. We thank Karen Hardy (class of 85) for making the arrangements. The Afgan cuisine was outstanding, and we all enjoyed a good time together.

Join Us

We anticipate holding another mini alumni reunion during the next AIChE meeting in Austin Texas, November 7-12, 2004.

BYU Chem Eng Alumni Society Formed

The BYU Chemical Engineering Alumni Society was formed in the summer of 2003. A board of 11 members was selected to serve the society. Current board members are Keith Merckley –Chair (1986 BS, 1987 MS), Vince Memmott -Vice Chair (1977 BS, 1977 MS), Joseph Smith –Secretary (1983 BS, 1984 MS, 1990 PhD), Nicole Stewart (1996 BS), Gary Pocock (1969 BS), Roger McCarty (1977 BS), Aaron Bujnowski (1995 BS, 1996 MS), Clyde Witham (1973 BS), Gary Hall (1983 BS), and Greggory Kunz (1997 MS). The current Alumni board is in the process of putting the infrastructure of the Society in place.

Learn more about the board members, view the Society by-laws, and see the development of the society on the BYU Chemical Engineering web site, www.et.byu.edu/cheme/. Information on joining and participating in the society will be forthcoming.

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The Department of Chemical Engineering exists to support the mission of BYU by preparing students for lives of scholarship and continued learning, lives of service, and lives spent contributing to society.