Dear Alumni,

There is much news to report on developments in the department. Our plans for a renovated or rebuilt Koffolt Laboratories have solidified around rebuilding on a site slightly west from our current location. This decision resulted in part from our Building Feasibility Study which was completed last September and its impact on the Capital Budget Request that the Department has to submit every two years to the campus regarding the project. The Capital Budget Request (our third so far) was submitted in March and was endorsed as a number one College priority by Dean Baeslack. The preferred site for a new Koffolt Laboratories is on the site currently occupied by the Boyd, Johnston and Aviation buildings which would be razed as the project begins. The cost is projected to approach $85M with the Department expected to raise $20M of that total. The timetable for proceeding may be known later this summer when the capital budget request compiled by the Space Facilities Committee, Provost’s Office and Vice President for Business and Finance Office is made public. We are optimistic that detailed planning can begin soon thereafter. Construction may begin in 2011 if most of our $20M private gift goal is either pledged and/or given.

As you know we intend to retain “Koffolt” in the name of our new home. There will be, however, numerous opportunities for donors to have laboratories, classrooms, student areas, etc. named in recognition of their private support for the building. The specifics on these won’t be known until late 2008 after the architects are selected and their plans approved. Please let us know in the meantime if you are interested in naming a place in the new Koffolt. The Department has established a Koffolt New Building Fund, #310614, and we thank a number of alumni for their early contributions to this fund.
We have a new faculty member, our 17th in Andre Palmer, whose profile was featured in our Annual Report. If you have not received a copy of the Annual Report and would like one, please phone, write or visit our website where it is available online. Other good news is that employment opportunities for our graduates have markedly improved and undergraduate freshman enrollment in the past two years has increased dramatically. Our freshman numbers are comparable to Computer Science and Electrical Engineering and somewhat less than Mechanical Engineering. We will cap enrollment into our first Chemical Engineering Materials and Energy Balance Course at about 120 students/year, which will eventually result in graduation numbers approaching 100. This will put a serious strain on our laboratory courses especially our Unit Operations Lab. This is a good problem to have and our somewhat larger faculty team is looking forward to providing our students with quality experiences in all of our offerings.

Regarding other news we just had an outside Academic Program Review of both our undergraduate and graduate programs. The review team consisted of Ron Rousseau of Georgia Tech (Chair), Don Paul of the University of Texas and Dan Hammer of the University of Pennsylvania. We just received their report and they made very astute observations and recommendations on how we can improve several aspects of our academic program. One other valuable piece of advice was us to focus some of our future hires in the energy area building on the core strength in energy research we have in the persons of L. S. Fan, Winston Ho and Umit Ozkan.

In closing we are pleased to send you this newsletter and would certainly like to hear back from you. Best wishes to all.

Preferred site of new Chemical Engineering Laboratories, currently occupied by the Boyd, Johnston and Aviation buildings.
Phone (614) 292-6591
Fax (614) 247-8323
E-mail che@osu.edu
http://www.chbmeng.ohio-state.edu/che/

Department of Chemical and Biomolecular Engineering
The Ohio State University
140 W. 19th Avenue
Columbus, OH 43210-1180

Chair
Stuart Cooper 292-7907

Faculty
Bhavik Bakshi 292-4904
Jeffrey Chalmers 292-2727
L.S. Fan 688-3262
Martin Feinberg 688-4883
Winston Ho 292-9970
Kurt Koelling 292-2256
Isamu Kusaka 688-8302
James Lee 292-2408
Umit Ozkan 292-6623
Andre Palmer 292-6033
Michael Paulaitis 247-8847
James Rathman 292-3760
David Tomasko 292-4249
Jessica Winter 247-7668
Barbara Wyslouzil 688-3583
S.T. Yang 292-6611

Instructor
John Corn 688-8254

Emeritus Faculty
Robert Brodkey 292-2609
Ed Haering (419) 798-4619
Harry Hershey 292-6610
H.C. "Slip" Slider 292-2698
Edwin Smith 292-6033
Tom Sweeney 436-9099
Jack Zakin 688-4113

Staff
David Cade 292-2728
Mike Davis 292-6928
Stacy Doepker 292-9599
Leigh Evrard 292-2780
Lynn Flanagan 688-3309
Paul Green 292-2718
Lois Holliday 247-2449
Mary Hoy 292-6986
Geoffrey Hulse 292-3589
Angela Jones 292-9076
Dave Jones 271-6718
Martha Leming 688-5640
Paula Stevenson 292-5120
Sherry Stoneman 292-7907
Susan Tesfai 292-5086

Sherry D. Stoneman, Alumni Liaison,
Newsletter Editor
(W) 614-292-7907
stoneman.3@osu.edu

Photography and page layout by Geoffrey Hulse
Lecture I: Metabolic Engineering: Engineering Microbes for Overproduction of Fuels and Chemicals

Metabolic engineering is a young field, just over 15 years old. During this period, it has developed a well-defined methodology and a focused research portfolio of rich intellectual content and particular relevance to biotechnology and biological engineering. Its goal is to harness the immense potential of microorganisms for the production of useful products, in particular from renewable resources. This it does by engineering the cellular metabolism such as to favor product-forming pathways while maintaining normal cellular functions.

In this talk Stephanopoulos reviewed how metabolic engineering, as a field, helped crystallize these concepts along with the main challenges in aligning metabolic engineering with the goals and mind-frame of the new biology. New concepts of importance in the post-genomic era were presented that allow the engineering of cells to elicit multigenic properties, a task difficult to achieve following the usual single gene paradigm. These ideas were illustrated with examples from applications of Metabolic Engineering to the production of chemical products and biofuels from renewable resources.

Lecture II: Chemical and Biological Engineering: A New Dimension to a Successful Paradigm

In this presentation, Stephanopoulos conveyed some of the excitement of modern biology, its impact on chemical engineering, present and future, and fundamental contributions in constructing a rigorous framework for systems biology.
UMIT OZKAN GETS A NEW DOE AWARD

The US Department of Energy has just announced the 2007 awards in H₂-energy-related research in Basic Energy Sciences. Out of over 500 pre-proposals and 230 full proposals submitted by universities and national laboratories, 13 were chosen for Basic Energy Sciences awards. Professor Ozkan’s project on "Investigation of the Nature of Active Sites on Heteroatom-containing Carbon Nano-structures for Oxygen Reduction Reaction in PEM Fuel Cells" was one of them. Two years ago, she received another major DOE award ($1.14M for four years) for a project on “Investigation of Reaction Networks and Active Sites in Bio-ethanol Steam Reforming over Co-based Catalysts.” That project has gone through a review in May and has received very positive evaluations.

NEW TECHNOLOGIES FOR MEASURING CELL GROWTH

Professor S.T. Yang and his colleagues in the Department have developed two new technologies for measuring cell growth in the laboratory. The first patent-pending technology provides a way for researchers to easily tell if cancer cells in the laboratory are responding to an anti-cancer drug. The second, because it tests several sets of cells at once, allows for the simultaneous testing of different dosages, or the effect of a single drug on different kinds of cells taken from the body. For more than a decade Yang’s team has been developing three-dimensional methods for growing cells for laboratory testing.

APPLYING COMPUTATIONAL MODELS TO CELLULAR RESPONSES

Michael Paulaitis, Ohio Eminent Scholar, has adopted an integrative biology approach in applying chemical engineering analytical and computational skills to what has become one of the most challenging problems in molecular biology and biotechnology: the organization and interpretation of vast amounts of basic data being generated in the field today, from genome sequencing to protein structure determination to the determination of cellular and intercellular processing networks. These computational methods directed specifically to advancing cell microarray technology can lead to the characterization of a wide array of complex cellular responses. The research holds promise for applications in biotechnology, vaccine development and the detection of potential agents of bioterrorism.

FACULTY MEMBER PROMOTED TO ASSOCIATE PROFESSOR

Assistant Professor Isamu Kusaka was promoted to the rank of Associate Professor in 2007. A major theme in his research is to apply principles of thermodynamics and statistical mechanics to problems of interest in the chemical engineering discipline. Current research topics include molecular level studies, both analytical and computational, of nucleation (bubble and crystal nucleation in particular) and glass transition in polymer thin films.

WONDERS OF OUR WORLD: W.O.W.

David Tomasko, along with other science colleagues, received a grant from Battelle Endowment for Technology and Human Affairs (BETHA) to finance “Expanding the Research of the Wonders of Our World Program (WOW)2. Now in its 8th year of operation, the Wonders of Our World: W.O.W. Program was designed to improve elementary school science programs. W.O.W. teaches basic science concepts through hands-on, elementary level experiments. At least six professional development workshops, for which the teachers receive CEU credit, are presented during the year. After the workshops, teachers choose the experiments they would like W.O.W. to bring into their classrooms.

As a result of the W.O.W. program, student scores on Ohio Science Proficiency Test Scores have improved
by 30-40% on average, though some schools have had improvements of more than 300%. Nearly all teachers agreed that W.O.W. gave them ideas on how to effectively present science concepts to their students, improved their understanding of science concepts, and increased their use of inquiry learning.

**ENROLLMENT**

The Department currently has a self-imposed enrollment cap of 100 students per year. In the 2006-2007 academic year the Department admitted 15 students above the limit. Projections for 2007-2008 indicate about 110-120 new majors.

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007 *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined (Majors + Premajors)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>299</td>
<td>286</td>
<td>294</td>
<td>305</td>
<td>336</td>
<td>428</td>
</tr>
<tr>
<td>Women</td>
<td>106</td>
<td>93</td>
<td>95</td>
<td>86</td>
<td>94</td>
<td>112</td>
</tr>
<tr>
<td>Ethnic Min</td>
<td>29</td>
<td>22</td>
<td>30</td>
<td>29</td>
<td>23</td>
<td>38</td>
</tr>
</tbody>
</table>

Undergraduate Enrollment in the Department since 2002

* 2007 Numbers Projected – Based on Wi07 enrollment levels

**Undergraduate Research**

There are a number of opportunities for undergraduates to participate in research in the Department. Indeed, research projects by CBE undergraduates have led to significant accomplishments. Students have had their work published in technical journals, attended and presented their work at national conferences, and presented their research at Ohio State’s annual Denman Undergraduate Research Forum. In 2004 a CBE undergraduate took first place; in 2005, three of the top four places in the engineering category went to CBE undergraduates. The department also had a recent Goldwater Scholar. Students with university honors designation (cumulative GPA of 3.4 or higher) have the option of completing an honors research thesis. Completing a thesis project requires students to prepare a written thesis and oral presentation on their research to Department faculty. Before beginning the project, students have the option of writing a research proposal. The College of Engineering evaluates these proposals and a significant number of applicants receive scholarship awards. Students who successfully defend their thesis and complete their coursework graduate “with distinction”. The left hand bar in the graph below shows the number of students graduating with distinction over the past five years.

The number of total undergraduate researchers has increased fairly dramatically over the past five years, from 26 to 45 as shown in the graph below.

**RESEARCH**

**Denman Undergraduate Research Forum**

Each spring, undergraduate students are invited to present their research accomplishments to the campus community and the public at this exciting, nationally known forum.

**Chemical & Biomolecular Engineering Participants:**

Laura Ensign (Senior), Advisor: Dr. David Tomasko
Insulin Particle Formation for Pulmonary Delivery
Future Plans: PhD, Johns Hopkins, Chemical Engineering

Erika Houtz (Senior), Advisors: Dr. Linda Weaver and Dr. Yu-Ping Chin (Civil, Environmental Engineering & Geodetic Sciences and Earth Sciences)
Hydroxyl Radical Production in Old Woman Creek National Estuarine Reserve
Future Plans: PhD, Environmental Engineering

Hyung Rae Kim (Senior), Advisor: Dr. L.S. Fan
ASPEN Simulation of Chemical Looping Process; Production of Hydrogen from Coal

Future Plans: MS, Ohio State, Chemical Engineering
Theresa Vonder Haar (Senior), Advisor: Dr. L.S. Fan
1. Utilization of Engineered Eggshells for Hydrogen Production, Carbon Dioxide Capture, and for a Collagen Source
2. Assessment of the Drinking Water System and Water Quality at Montana De Luz and Nuevo Esparanza in Honduras (Advisor: Dr. Harold Walker, Civil Engineering)

Future Plans: PhD, University of Illinois, Environmental Engineering
Arup Mallik (Junior), Advisor: Dr. Jeffrey Chalmers
Cell Damage Due to Shear Stress in Bioreactors

Interested parties can read full abstracts at:
http://denman.osu.edu/a_abstracts.aspx?ca=Engineering

U.S. NEWS & WORLD REPORT PROGRAM RANKINGS

The latest U.S. News & World Report rankings of graduate programs in engineering became available in early April. We are pleased to report that our Department moved up from a ranking of 32 to 26. The College of Engineering was also ranked at 26th in the nation. While the college rankings are based in good part on objective measures such as undergraduate graduation rates, research funding, number of PhD graduates, number of publications, etc., the departmental rankings are based on subjective surveys of deans of engineering and industrial executives.

EXPLORING CAREERS ON SPRING BREAK

Nineteen students and one faculty member from the College of Engineering attended an Engineering Camp over Spring Break 2007 (March 18 – 23). The expenses for the week-long experience were largely covered by a grant from Shell Exploration & Production Company. The distribution of the nineteen students participating was: Chemical and Biomolecular Engineering - 12 students; Mechanical Engineering - 5 students; Electrical and Computer Engineering - 2 students. Faculty member attending was John Corn from the Department of Chemical and Biomolecular Engineering.

The event was both an educational experience for the students and a recruiting event by Shell E&P (Exploration & Production). The five day camp provided an overview of Oil Exploration, Drilling, Oil Production, and Safety Issues related to energy source discovery and production. The focus was on the technologies used to capture off-shore hydrocarbon assets (oil and gas). A half-day event at One Shell Square in New Orleans and a walking tour of the French Quarter capped the successful five-day Training Camp. The camp included a mix of engineering students from The Ohio State University, the University of Illinois, and Cornell University. The interaction among the students within each University and between Universities was an important benefit in building both cross campus camaraderie and friendly competition to excel in group participation.

The Shell E&P Camp exposed the students to the varied Shell businesses with a focus on the front-end processes to harvest energy assets. The students were immersed in the Shell business culture. At one point the students were able to interact with both long-term and newly hired Shell employees on an informal one-to-one basis to explore a career in Oil Discovery and Production.

This was an experience that the students will fondly
remember. If any of these students target a career in Energy Exploration and Production, Shell will be considered a likely employer.

It is anticipated that the Camp will be offered during the 2008 Spring Break (March 23 - March 28, 2008).

**CHEM-E CAR TEAM**

The Chem-E Car Team did the Department proud at the San Francisco National AIChE Meeting. Out of 31 competitors, our team recorded a 7th place finish.

The "traveling squad" for the Chem-E Car Team was:

Adam Peter (Team President)
Chad Bernard
Sandra Abraham
John Daulton
Liz Curry (Safety Coordinator)

The team took the "red-eye" flight back to Columbus on Sunday night so they would not miss any classes on Monday.

A special thanks to Dow Chemical for the financial support in covering the air and lodging travel expenses.

**CBE STUDENTS HOMEBREW**

Orin Hemminger and Brian Henslee were chosen as 1 of 7 finalists in the Barley's Homebrew Competition. They brewed the Champion Wheat Beer, and took runner up for the best of show for all beer styles. They will be entering their homebrew at the state fair coming up for judging on July 20th.

**MUD TUG TOURNAMENT**

The junior class this year participated in the Alpha Phi sorority Mud Tug Tournament. The team, dubbed the Motor Boaters, included CBE students Chris Potts, Andrew Williams, Mike Owens, Justin Goode, Scott Franks, Dan Lamone, and Laura Werner, and was coached by Alpha Phi member Allyson Senefeld-Naber. They placed third in the competition. In the attached picture, students still standing and tugging are (from l to r): Dan Lamone, Scott Franks (back to camera), Chris Potts, Justin Goode, and Mike Owens (behind Justin). Students on the ground are non-CBE friends.
1939
Dillard W. Kullman, BChE, is an Engineer and Owner of Treated Wood Products. He and his wife live in Florida.

1944
Edward W. Bailey, BChE, is an Engineer with Lockheed Martin in the Energy Department. He lives in Tennessee.

1947
James G. Hanlin, BChE, is the Production Superintendent in the Bakersfield Plant of The Goodyear Tire & Rubber Company. He was a member of TBDBITL (Buckeye Marching Band) in 1940-1942. He and his wife reside in California.

1967
John Guy, BS, retired as a Chemical Engineer in 2005. He received his MS from Ohio State in 1973. He is currently doing part-time consulting work and enjoys woodworking, gardening and travel. He and his wife live in Delaware.

1970
Richard B. Strait, BS, is a Technology Director for Asia-Pacific. He received his MBA from the University of Tulsa in 1978. He lives in Singapore.

1972
David H. Armstrong, BS, is an entrepreneur. He received his MBA from Rutgers in Marketing in 1985. He and his wife reside in Ohio.

1974
John Myers, BS, is a Senior Research Associate with BP. He received his MS from Ohio State in 1975. He lives in Wyoming.

1976
Darlene Hinerman McCalmont, BS, is Owner and Co-Founder with her husband of REgrid Power, Inc., which designs and installs solar electric systems. She received her MBA from Ohio State in Business in 1981. Their company now employs over 30 people and will install about 1 megawatt of clean power this year. They live in California.

1977
Robert L. Collins, BS, is in Environmental Health & Safety at Stark State College of Technology. He lives in Ohio.

1978
Daniel M. Coombs, BS, is Plant Manager with Chevron Phillips Chemical Company. He received his MS from the University of Tulsa in 1984 and his MBA from Texas A&M in 2004. He lives in Texas.

1980
Mark C. Oliver, BS, is in Sales of Specialty Chemicals with The Dow Chemical Company. He and his wife live in Georgia.

1981
William J. Dawson, BS, is cofounder and President/CEO of NexTech Materials, Ltd. He received his MBA from the University of Dayton. He managed the growth of NexTech from two employees to its current staff of over thirty. In addition, Mr. Dawson is responsible for commercialization of NexTech’s fuel cell related products and services. He was honored with the 1998 Ohio Emerging Technology Award, the 2002 Worthington Small Business Person of the Year Award, and as a finalist of the EYI Entrepreneur of the Year Award in 2003 and 2004.

Dan Harriman, BS, is Financial Advisor for Capital Choice Financial Services. He had the extreme pleasure of sitting on the 50 yard line with University of Texas faculty during the Buckeyes 24-7 win. He lives with his wife in Texas.

1987
Paul J. Erdy, BS, is Plant Manager with Freightliner LLC. He received his MBA from the University of Washington in 1992. He resides with his wife in Washington.

Tim Rash, BS, is Vice-President and Market Manager for Ryan Homes. He was promoted to Market Manager
of three divisions in 2006. He lives in Ohio with his wife.

**1988**

**Garrett Cawthon**, PhD, is self-employed and living in Kentucky with his wife. In October he participated in the Hawaiian Ironman Triathlon.

**1990**

**Craig Kehres**, BS, is in Applications Development with the 3M Company. He lives with his wife in Ohio.

**1993**

**Cora Chu Towle**, BS, is Senior Manager R&D for the H.J. Heinz Company. She lives in Pennsylvania with her husband.

**2000**

**Rhonda M. Laughman**, BS, is a Production Manager with Cargill. She lives in Ohio.

**2001**

**Martin Telko**, BS, is a Graduate Student at the University of North Carolina, Chapel Hill in the Pharmaceutical Sciences Department. He is also studying for an ME in Engineering Management at Duke University.

**2004**

**Alaina Fenton**, BS, is a student at the UCLA School of Dentistry. She lives with her husband in California.

**IN MEMORIAM**

**Natalie Lenora Pausch**, daughter of Jerry (BChE, 1961) and Lenora Pausch, died in her sleep on January 2, 2007 in Studio City, California. She graduated cum laude in Biochemistry from Ohio State and completed two years at OSU Medical School. At OSU she received a Denman Undergraduate Research Award, two scholar-athlete awards and the “most improved” gymnast award on the women’s gymnastic team. After college, she danced professionally in Cleveland and Los Angeles and then focused on an entertainment career which led to establishing Bliss Productions, Inc. and producing music videos, TV pilots, two documentaries, and a feature film. She was 29 years old.

**Frederick R. Pullen**, BS, 1937, passed away on August 16, 2006, at Memorial Medical Center. After graduation he joined Bethlehem Steel Corp.’s Loop Management Training Program and was assigned to the Fuel Department at the Sparrows Point Plant. In January, 1949, he was named Fuel Department Superintendent of Bethlehem’s Johnstown plant. He retired from Bethlehem Steel in 1978 as an Assistant General Manager of the Johnstown plant. He was a principal party in the federal lawsuit that ultimately resulted in the pension reform legislation impacting more than 44 million Americans.

**Robert W. Stevenson**, BChE, 1947, passed away on February 4, 2007 at his home in Lancaster, Pennsylvania. He graduated as one of Joe Koffolt’s “Boys” and was a member of Tau Beta Pi. He went on to be an employee of Armstrong World Industries for 40 years.

**J.R. BOOTEH SCHOLARSHIP CREATED**

The Jaret Rae Boothe scholarship was created by classmates of his in the classes of 2003 and 2004, upon reflecting on all of his positive qualities. J.R, as he was known, was killed in an automobile accident during Spring Break in 2004 – two quarters before he intended to graduate. He was awarded a posthumous degree during Spring Quarter.

(L to R): Nzinga Turner, J.R. Boothe, Mary Ellen Hewitt (Shea), Erica Jones, Sylena Smith, Gary Koenig, Heath Litt, Scott Burdine, and Zak Schank at the 2003 AIChE conference.

The award will be made annually as an academic and need-based scholarship, and will preferably go to a Chemical Engineering student who aspires to go on to medical school, as J.R. would have done. The first scholarship was awarded this year to an outstanding CBE Junior, Kimberly Hoang, who is part of the Early Admission Pathway Program to OSU Medical School.
1934
Edward E. Slowter

1936
Joseph G. Mravec

1937
Nicholas Fatica

1939
Dillard W. Kuhlman

1940
Charles Boardman III
Loren F. Grandey

1941
George L. Meyers, Jr.
David Thomas

1942
Donald S. Arnold
Randal E. Bailey
R. Richard Midlam
Richard R. Whiston

1943
Halvor S. Christianson
Dalton F. Drake
Glenn L. Gifford
R. Richard Midlam
James R. Randall
Roy E. Schneider
Carlyle E. Shoemaker
James C. Wynd
Hong Ton Yee

1944
Wallace L. Bostwick
Clarence A. Haverly, Jr.
Edward W. Powell
Grover C. Strickler, Jr.

1945
Robert S. Atkinson

1946
Kenneth A. Brandstetter
Haskell H. McGriff, Jr.

1947
William K. Fell
Lewis C. Hullinger
Robert M. Kell
John M. Kolbas
J. Bruce Martin
Bryce H. McMullen
Donald F. Stauffer

1948
Richard A. Arnold
Lee B. Fosdick
Donald E. Garrett
Earl W. Goodman
Manuel Ramos
Douglas O. Robinette
R. Ted Scharenberg
George R. Secrist
Jack C. Stewart
Robert M. Tarr
Fred M. Warzel

1949
Paul E. Bates
Gordon G. Cross
Bruce E. Hill
Theodore M. Jenney
J. Howard Kerstetter, Jr.
Frederick A. MacDougall
Donald R. Roberts
Glen D. Schaaf
Roland I. Spencer

1950
Walter E. Donham
Walter T. George
Verne R. Rinehart
Jean Maurer Scharenberg
Richard L. Scott
Ralph E. Sieber
Robert E. Thompson
David W. Wilson

1951
Charles E. Breithaupt
Richard N. Eilerman
Rob R. MacGregor, Jr.
John R. Parkinson
David B. Speed
David A. Strang
Robert B. Weiser
Bruce W. Wilkinson
Robert M. Yarrington

1952
James F. Froning
Donald E. Haupt
M. Frank Rummel
Charles J. Schmitz
David G. Stephan
Frederie F. Zind

1953
Robert A. Bates
Graydon C. Bazell
Roger L. Briggs
Louis O. Elsaesser
Donald E. Findlay
Robert T. Hewitt
Wilfrid C. Ling
Harold L. Stelzer, Jr.
Kenneth E. Whitehead
James L. Wilson
William H. Wiseman

1954
Norval P. Davis
Peter A. Minderman
1955
W.B. Hammond, Jr.
Phillip J. McAteer

1956
Robert A. Cody
Herbert H. Fanning

1957
Walter R. Andrews, Jr.
A. Leo Carter
Walter A. Flack
Jon D. Helms
Paul J. Kienholz

1958
Edward H. Bollinger
John J. Connelly
James R. Facer
Dan M. Hayes, Jr.
Albert W. Krock
Werner S. Lichtenstein
Frank J. Nagy
Valdis E. Petritis
Richard M. Smith
Harold A. Sorgenti
James W. Stark
Lawrence R. Steele

1959
Lee W. Adie
James O. Albery
James R. Godwin
Ronald M. Kovach
James H. Laughlin
Darryl J. Von Lehmden
Gerald A. Wilcox

1960
Virgil L. Anderson
Carl Brooks, Jr.
Don R. Clay
Guy A. Crossley
John H. Davis
Edgar W. Fasig, Jr.
Orville W. Grubmeyer, Jr.
Gordon R. Howard
Marion H. Marshall

1961
Warren E. McAdams
Irwin Weinstock
Russell L. Wilt

1962
Paul R. Bigley
Richard B. Cooper
Edward R. Corino
Ron Follmer
Jack A. Hammond
Ted Hanson
Ronald D. Harris
James H. McMicking
Larry E. Woodworth

1963
David E. Bidstrup
James R. Opatrny
C. David Osbun
Dean Snider
Michael J. Sorocak
Michael D. Winfield

1964
Nelson W. Barnhill
Gary L. Beeler
Myers G. Hammond
Robert P. Kasper
Fred A. Shaffstall
Kay Logan Snider

1965
Wayne O. Betz
Alkis Constantinides
William R. Ferris
James B. Sapp

1966
James G. Arnold
William F. Deerhake
Thomas E. Fitz
William G. Lowrie
Glenn L. McKee
Jack R. Reese II

1967
John W. Bradshaw
F. William Hauschildt
Dennis W. Hurley
Wilma Diskant Jancuk
Martin R. Okos
Graham Painter, Jr.
Bruce E. Poling

1968
John M. Salladay

1969
Smith E. Howland
Robert D. Litt
Geoffrey A. Prentice
M. Anandha Rao
John W. Toussant

1970
David R. Grove
Rosa Uy
Harry Heh Nien Yieh

1971
Wayne R. Fontaine
Kerry G. Hertenstein
Jeffrey L. Kosch
William E. Pritchard

1972
Michael J. Clark

1973
John C. Bost
David A. Dargan
Norman F. Lucas, Jr.
Johnny O. Wright
<table>
<thead>
<tr>
<th>Year</th>
<th>List of Names</th>
</tr>
</thead>
</table>
| 1974 | Steve Irwin  
George L. Ott  
Michael A. Patterson  
Michael J. Pederson |
| 1975 | John T. Erikson |
| 1976 | Donald Buchanan, Jr. |
| 1977 | Robert L. Collins  
Douglas J. Hallenberg  
Linnea A. Sheppard  
Kenneth A. Yunker |
| 1978 | Michael P. Moore  
Rad V. Scott III  
Elizabeth Ann Stuber  
Neil P. Stuber  
Paul W. Vance, Jr.  
Thomas E. Winkler |
| 1979 | Darice Ann Davis  
John F. Kreinbrink  
David J. Wasela  
Tad K. Williams |
| 1980 | Frederick T. Clark  
Carol Bur Ehrman  
Fred D. Ehrman  
Matthew J. Galosi  
Mark A. George  
Gary R. Prok  
Pankaj P. Shah  
Tim Strickler |
| 1981 | Nancy Coultrip Dawes  
James A. Telljohann  
H. Charlie Wolf |
| 1982 | Steven D. Alley  
Debra Denio Funderberg  
James J. Givens |
| 1983 | Cheryl Kennedy Alfieri  
Michael B. Begland  
Tracy Flora Begland  
Thomas D. Burns  
Mark D. Dieringer  
Edward Flinn  
Carolyn Marie Lin  
Jeffrey W. Patterson  
Clark B. Wade |
| 1984 | Mark S. Bitto  
John A. Bohlmann  
Randall Lonsbrough  
Gregory M. Masica  
George W. Miller  
Jagannadh V. Satyavolu |
| 1985 | Roger G. Facer  
Timothy A. Johnson  
David J. Moonay |
| 1986 | Rajeev Gorowara  
Bipender S. Jindal |
| 1987 | Jeffrey D. Adams  
Karen S. Johnson  
Martin D. Legg  
D. Brian Noe  
Timothy A. Rash  
Maureen McClain Visneski |
| 1988 | Amy Schmitt Doty  
M. Alison Jabbour  
Craig L. Shoemaker |
| 1989 | Stuart F. Doty |
| 1990 | Ping Cai  
Craig M. Kehres  
Frank J. Kizlik  
James V. Lombardi  
Kara Bernadette Long  
Timothy F. Matheis |
| 1991 | Greg E. Grotke  
Kristan Kissell Latham |
| 1992 | Christina Marie Ellis |
| 1993 | Samir Kumar  
Clement Opoku  
Frank E. Seipel |
| 1994 | Denise Cromes Curry |
| 1996 | Beth Gibson  
Jack R. Reese II  
Liping Zhang |
| 1997 | Theresa Ann Dziewatkoski |
| 1998 | Michael T. Timko |
| 2000 | Regis P. Geisler III  
Justin Mackender  
Jennifer Kay McKown |
| 2001 | Christopher A. Marshall  
Jason R. Vititoe |
| 2002 | Ningning Ma |
| 2003 | Derrick A. Butler |
Alumni Notes

Ron Stapleton, Class of 1982, has prepared a 25th anniversary newsletter. Ron called people from his class and interviewed them about where they are and what they are doing. He assembled all the information into a newsletter, complete with pictures people sent him, and sent out individual copies to class members. If you are a member of the Class of 1982 and have not received a copy, please contact him at 734-737-9998 or ronstapleton@ameritech.net.

Halvor Christianson, Class of 1943, relayed the humorous antidote of Dr. Withrow saying that Dr. Koffolt did not need a telephone in his second floor office. When a call came in for Dr. Koffolt, Mrs. Robb (Dr. Withrow’s secretary) would go in the hall and open the door to the stairway and call for him, and he would come running down the stairs for the phone call.

Bruce Hill, Class of 1951, recalls “I filled in one evening teaching thermodynamics to students just out of high school rather than the veterans we were used to. After class I was walking down the hall and ran into Joe. ‘How’s it going?’ asked Joe. ‘I’m back to simple arithmetic and they don’t know that.’ ‘God save the student from the young professor’ Joe said as he walked away.”

William D. Coe received the “50 Years of Membership in AIChE” recognition and had this to say about his membership. “During my five-year stay at OSU, the Chemical Engineering Department was chaired by Mr. Joseph Koffolt. He is well established in the field of chemical engineering. Although I do not know if anyone currently at AIChE headquarters still remembers him, he was very active with the organization. He drummed into our heads from day one of our curriculum, that his ‘Jewels’ from Ohio State should (in fact, would) support their professional organization! It is with respect for him that I have remained a member for so long.”
As you know, the Chemical and Biomolecular Engineering Alumni Society has been formed and every graduate of the department is a member. However, the board of governors has voted to create a special category of membership, called the **JEWELS CLUB**, comprised of members who contribute $50 or more annually to the general development fund of the department. If you are already a donor to the Department, that is very much appreciated and we hope that you will continue with your support. If you are in this category, we will count the first $50 of your gift as membership in the **JEWELS CLUB**.

All of us receive several requests annually to give to The Ohio State University, the College of Engineering and other OSU organizations. However, the Chemical and Biomolecular Engineering Department has not done this. As a result, the department often benefits only indirectly from alumni generosity. By contributing directly to the Department, however, it is possible not only to help your alma mater, but also to focus your giving on the area of higher education that provided you with your degree.

Your giving can help make a difference. With state support declining, sometimes the only difference between an excellent Chemical and Biomolecular Engineering Department and a superior one are the extra funds that come from individuals and corporations. Hence, you have this opportunity to invest in the value of your degree.

We agreed that we had no idea regarding the amount that might be donated. However, there was no uncertainty about possible use of the funds. The Chemical and Biomolecular Engineering Department needs scholarship funds, seed money to help attract new faculty, continual upgrades of the unit operations lab, and seed money for new research projects. In addition, Koffolt Lab is aging and there currently is no really suitable meeting room for visitors from industry and others to use. When we see what funds members of the **JEWELS CLUB** contribute, we can be sure that the Department will put them to good use.

---

**Jewels Club Membership**

Name___________________________________________________________Degree and Year_____________

Address____________________________________________________________________________________

City/State/Zip_______________________________________________________________________________

Jewels Club Contribution___________$50_________Other

**Make Check Payable to:** The Ohio State University
Department of Chemical and Biomolecular Engineering
121A Koffolt Laboratory
140 West 19th Avenue
Columbus, OH 43210 (and on the memo line - Fund # 310335)
ROBERTO LEYVA-RAMOS RECEIVES THE DISTINGUISHED ALUMNI AWARD

The Distinguished Alumni Awards were established by the faculty of the College of Engineering to recognize distinguished achievement on the part of alumni in the field of engineering or architecture by reason of significant inventions, important research or design, administrative leadership, or genius in production. Nominations are judged by the College Committee on Honorary Degrees and Honors on behalf of the College faculty.

Roberto Leyva-Ramos received his PhD in Chemical Engineering in 1981. He is a full-time professor of chemical engineering at the Autonomous University of San Luis Potosi in Mexico; he has been with this university for 30 years. During his academic career he has received awards including the university Award for Scientific and Technological Research (2001), Best Technical Paper Award in the annual meeting of the Mexican Institute of Chemical Engineers (1990) and recognition for his status as a senior scientist. Leyva-Ramos has had three book chapters published, 78 refereed papers and has authored 167 conference proceedings.

HARRY C. WOLF, JR. RECEIVES ALUMNI ASSOCIATION CITIZENSHIP AWARD

This Citizenship Award is presented to alumni who have distinguished themselves in service to humanity and who have best exemplified the University's motto, "Education for Citizenship," by having performed significant voluntary service to their community beyond the call of business or professional duty.

Harry Charles “Charlie” Wolf, Jr., BS, 1981, learned in June 2002 that he had an aggressive and deadly type of brain tumor. He was given six months to live. Four years later, Wolf is not only alive, but he has inspired those suffering from similar diseases. Wolf has written two books, Damn the Statistics, I Have a Life to Live! and Alive and Fighting: Coping with a Brain Tumor and a Bone Marrow Transplant. “Charlie could have spent his time with his family trying to recover. Instead, he decided that he was going to help others,” said Amber Cain, Wolf’s nominator for this award. “To do this, he wrote books so that people can understand what it was like to deal with brain cancer.”

DEPARTMENT RECEIVES MINORITY AWARD

In April, the Minority Engineering Program held its 28th annual awards banquet. The theme was “Developing our Youth: Enriching, Expanding and Empowering the Minds of Tomorrow.” The department is very proud to have won the Departmental Award at the banquet. This award is given annually to the engineering department that has been the most prolific and proficient in developing activities to improve the academic performance, recruitment and retention of minority students.

Blake Washington, a senior in CBE won the Upperclassmen Award. This award is given to a junior or senior who has shown unusual effort and enthusiasm for helping other students and the community. A plaque and cash award is given to the recipient.

Lindsay Roberts, a first year pre-Chemical and Biomolecular Engineering student was awarded the Eddie Ector, Jr. Award. This award is given to a participant in the current PREFACE (Pre-Freshman and Cooperative Education) group in memory of Eddie Ector, Jr., a participant of the 1990 PREFACE program. He was involved in a fatal automobile accident during the Christmas break of his freshman year.

L.S. FAN RECEIVES FLUIDIZATION AWARD

Professor L.S. Fan was presented with the International Fluidization Award of Achievement at the 12th International Fluidization Conference in Harrison Hot Springs, British Columbia, on May 17, 2007. Professor Fan was cited for his innovative research and development in various aspects of fluidization and fluid particle systems, including gas-liquid-solid fluidization, gas-solid circulating fluidized bed, computational fluid dynamics, electrical capacitance tomography, and other areas of fluidization. This award is the highest given internationally in the field of fluidization. The field of
fluidization has significant fundamental applications that impact academia and industry. There are nine recipients of this award in the history of this field over the last 60 years. Fan was noted for dedication to excellence, commitment to education, persistence at research and service to the profession.

WINSTON HO RECIEVES AWARD

Professor W.S. Winston Ho has been selected as the recipient of the 2006 Institute Award for Excellence in Industrial Gases Technology by the American Institute of Chemical Engineers (AIChE). Professor Ho is recognized for his pioneering and sustained contributions to novel gas separations, gas treating invention and commercialization, new membranes and their novel applications for gases. The presentation of this award took place at the Institute’s Honors Ceremony on November 12, 2006 at the AIChE Annual Meeting in San Francisco. This award is sponsored by Praxair, Inc., and it consists of a plaque and $3,000, plus a $500 travel allowance.

LUMLEY RESEARCH AWARD

Professor S.T. Yang was awarded the College of Engineering Lumley Research Award. The Lumley Award is presented to a select group of outstanding researchers who have shown exceptional activity and success in pursuing new knowledge of a fundamental or applied nature. This $1,500 award is in honor of John H. Lumley, a 1927 graduate of ceramic engineering.

DISTINGUISHED MENTOR NOMINATION

Professor David Tomasko was nominated by one of his students for the Distinguished Undergraduate Research Mentor of the Year Award from the Undergraduate Research Office. The award is designed to recognize and honor individual faculty members who have performed exceptional service as research mentors for undergraduate students.

FELLOWS - AMERICAN INSTITUTE FOR MEDICAL AND BIOLOGICAL ENGINEERING

Professors L. James Lee and S.T. Yang have been named Fellows of the American Institute for Medical and Biological Engineering (AIMBE). AIMBE was founded in 1991 to establish a clear and comprehensive identity for the field of medical and biological engineering - which is the bridge between the principles of engineering science and practice, and the problems and issues of biological and medical science and practice. Based in Washington, DC, AIMBE promotes awareness of the field and its contributions to society in terms of new technologies that improve medical care. Other initiatives involve working with lawmakers, government agencies and other professional groups to promote public policies that further advancements in the field, and striving to improve intersociety relations and cooperation within the field. Fellows in AIMBE are leaders in the field who have distinguished themselves through their contributions in research, industrial practice, and/or education.

MISSOURI-ROLLA ACADEMY OF CHEMICAL ENGINEERS

Jacques L. Zakin, the Helen C. Kurtz Professor Emeritus, was inducted into the University of Missouri-Rolla Academy of Chemical Engineers during the academy's induction ceremony Thursday, April 19, 2007. The academy honors chemical engineers for their contributions to the profession, leadership and involvement with UMR. The academy also serves as an advisory group to the UMR Chemical Engineering Department.

RHODES SCHOLARSHIP

Laura Ensign received a 2006 Rhodes Scholarship. The Rhodes Trust selects outstanding scholars each year on the basis of academic excellence, commitment to public service, moral character and leadership ability. Rhodes Scholars are selected for 2 years of study at the University of Oxford.

THREE CBE STUDENTS RECOGNIZED BY NATIONAL SCIENCE FOUNDATION

The National Science Foundation has honored Laura Ensign, Thomas Malott, and Theresa Vonder Haar with Graduate Research Fellowships. The Graduate Research Fellowship provides three years of support for students who are at the early stages of study in
preparation for research-based master's or doctoral degrees. Laura, Thomas and Theresa will pursue graduate study at Johns Hopkins, The University of Wisconsin and The University of Illinois, respectively.

**PRESIDENTIAL SCHOLARSHIPS**

Freshmen students Kelly Ramos and Michael Smith were each awarded a Presidential Scholarship which entitles them to full in-state cost of education at Ohio State University.

**HE BAI RECEIVES TWO HONORS**

He Bai, whose PhD research is supervised by Winston Ho, has been awarded an OSU Presidential Fellowship this year. This fellowship recognizes the outstanding scholarly accomplishments and potential of graduate students entering the final phase of their dissertation research or terminal degree project. Recipients of this award receive financial support for one full year.

He Bai won the Elias Klein Founders' Travel Award from the North American Membrane Society (NAMS). He was selected out of a large group of highly qualified students, post-docs, and young faculty. His award will be used for travel to the Orlando NAMS Meeting.

**VIKAS KHANNA RECEIVES TWO HONORS**


Vikas also was awarded the Christine Mirzayan Science and Technology Policy Graduate Fellowship at the National Academies for Summer 2007.

**2007 PARTICLE TECHNOLOGY FORUM PhD THESIS AWARD**

Mahesh Iyer, PhD 2006, has been nominated for Best PhD in Particle Technology Award sponsored by AIChE’s Particle Technology Forum. His dissertation focused on three processes which involve novel bio-nano granular particle synthesis and application of particulate reaction engineering and design for addressing global issues of carbon dioxide capture, hydrogen production.

**ALUMNI GRANT**

Wu Ge received recognition from the Graduate School with the Alumni Grant for Graduate Research and Scholarship. Grants of up to $2,000 are awarded to support dissertation research by doctoral or MFA candidates.

**PREPARING FUTURE FACULTY**

John Kuhn, a graduate student working with Umit Ozkan, was recognized by the Graduate School with The Preparing Future Faculty Program. Preparing Future Faculty (PFF) is a collaborative program between the Graduate School and leading liberal arts colleges and universities in Ohio. Ohio State graduate students work closely with leading faculty, who serve as their mentors for two academic quarters. This selective program offers an opportunity for Ohio State graduate students to experience first-hand the unique challenges and rewards of an academic career at non-research institutions.

**WHITNEY RESEARCH AWARD**

Lixin Lang, a graduate student in Statistics, who is co-advised by Professor Bhavik Bakshi, won the Statistics Department’s Whitney Research Award for this year’s best dissertation work on “Parameter Estimation with Sequential Monte Carlo.” His research involves the development and use of advanced statistical methods for solving problems related to chemical engineering.
J.R. BOOTHE SCHOLARSHIP WINNER

Kimberly Hoang was the first recipient of the J.R. Boothe Scholarship for 2007-2008. She will be a senior next year and is part of the “Early Admission Pathway Program,” which means she essentially has already been accepted to the OSU Medical School. She was also the recipient of the Dow Outstanding Junior Award.

WOMEN IN ENGINEERING RECOGNITIONS

The 27th Annual Women in Engineering (WIE) Recognition Banquet was held February 22, 2007 at the Blackwell Hotel. Elizabeth Johnson was awarded the Wildah Turnbull-Walkup Scholarship. Theresa Vonder Haar was awarded the WIE Leadership Award. The following individuals received Outstanding Academic Awards: Stephanie Depalma, Laura Ensign, Christine Harrison, Erika Houtz, Amanda Jensen, Jennifer Kovach, Halle Murray, Alana Pevets, Allyson Senefeld-Naber, Carol Udoh, Brittany Valentine, Lindsay Volpenhein, Theresa Vonder Haar, and Laura Werner.

LOWRIE BANQUET AWARDS

AMERICAN INSTITUTE OF CHEMISTS FOUNDATION AWARDS

- **Outstanding Undergraduate Student Award**
  - Brittany Valentine

- **Outstanding Graduate Student Award**
  - He Bai

- **Outstanding Postdoctoral Award**
  - Yubing Xie

DOW CHEMICAL

- **Dow Outstanding Junior Award**
  - Kimberly Hoang

AIChE STUDENT AWARD

- **AIChE Central Ohio Section Outstanding Student Award**
  - Sandra Abraham

- **Donald F. Othmer AIChE Sophomore Academic Excellence Award**
  - Craig Buckley

DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING AWARDS

Co-Op Award
- Andrea Breitenbach

Outstanding Undergraduate Award for Research Excellence
- Jessica Huber
- Allison Senefeld-Naber
- Laura Ensign

Outstanding Graduate Award for Academic Achievement
- Hongshu Chen
- Wu Ge
- Robin Ng
- Somnath Sinha
- Hua Song
- Luis Velazquez-Vargas
- Yuan Wen
- Danny Wong
- Yun Wu
- An Zhang

Outstanding Post-Doc Award for Research Excellence
- Jingjiao Guan
- Song-Geng Li
- Shengnian Wang
- Yubing Xie
Lowrie Banquet Award recipients, arranged from top to bottom, left to right

Stuart Cooper and He Bai, Kimberly Hoang, Kurt Koelling and Luis Velazquez-Vargas, Brittany Valentine
Bhavik Bakshi and Sandy Abraham, Craig Buckley, Jack Zakin and Wu Ge, Jessica Huber
Dave Tomasko and Allison Senefeld-Naber, Laura Ensign, Kurt Koelling and Robin Ng, Yubing Xie
Kurt Koelling and An Zhang, Somnath Sinha, Dave Tomasko and Andrea Breitenbach, Shengnian Wang
<table>
<thead>
<tr>
<th>PERSONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name____________________________________________________ Spouse__________________________________________</td>
</tr>
<tr>
<td>Address________________________________________________________________________________________</td>
</tr>
<tr>
<td>City____________________________ State_______________________ Zip___________________</td>
</tr>
<tr>
<td>Children_______________________________________________________________________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COLLEGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree__________________________ Major________________ Month/Year_________________</td>
</tr>
<tr>
<td>Degree__________________________ Major________________ Month/Year_________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROFESSIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation________________________________________________________</td>
</tr>
<tr>
<td>Most Recent Employer______________________________________________</td>
</tr>
<tr>
<td>Department_______________________________________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>News and information to share with fellow alumni and friends in Chemical Engineering. Work related, outside activities, achievements, honors, family news, etc.</td>
</tr>
</tbody>
</table>

____________________________________________________________________ |
____________________________________________________________________ |
____________________________________________________________________ |
____________________________________________________________________ |
____________________________________________________________________ |
____________________________________________________________________ |
____________________________________________________________________ |
____________________________________________________________________ |
What is going on here? This picture appears to have been taken in the old Chemical Engineering building, when it was part of McPherson labs. The exact date and participants are unknown. If you can supply any pertinent information regarding this photo or would care to contribute something of your own, please send email to Geoff Hulse, hulse.1@osu.edu. Many of the photos will eventually be posted on-line where they can be reviewed by Alumni, similar to the archive of recent departmental activities, such as banquets, picnics and Unit Ops.