Chemical Engineering

Forty-Third Annual Report to the Alumni

1991
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Dear Alumni...

While change has been the hallmark of the past several years, transition and even more rapid change for the University, the College and the Department lie ahead.

In the past few months, President Gordon Gee began his tenure at Ohio State. Dean of Engineering Donald Glower was appointed Vice President for Communications and Development, and Associate Dean for Research Robert Redmond, was named Acting Dean of the College of Engineering. In the Department, Professor Duane Skidmore took early retirement on September 30, 1989, and Professor Ed Haering plans to retire on April 1. Professor "Slip" Slifer has decided to retire completely from teaching, and will not continue to offer his petroleum courses. More about our retirees later in this report.

The search for a new Dean has begun and a search for one or two new chemical engineering faculty members is also beginning. The eight young faculty members hired in the past twelve years are already by far the majority of our faculty. The Department is fortunate to have recruited this group of talented and devoted faculty members, and the contributions of their ideas and efforts will assure a bright future.

The University has revised its undergraduate curriculum requirements. The 30 credits of Basic Education Requirements and 15 credits of free electives have been dropped. For students entering in Autumn 1990, these 45 hours have been replaced by additional English, chronological overview (history), foreign language or foreign culture, humanities and a general capstone course. This will have a major impact on our students. We have also been asked to review our undergraduate core science, math, and engineering requirements, which we will be doing this year.

On October 1, 1990, Dr. Umit S. Ozkan was promoted to associate professor with tenure and Dr. L. James Lee to full professor. Umit's research program in catalysis has developed well and she has current support from the National Science Foundation, the Environmental Protection Agency, Exxon, Amoco, and the Amoco Foundation. Recently she was selected by Union Carbide in their Innovation Recognition Program and by the Columbus YMCA as a Woman of Achievement. Last spring, and again this year Dr. Ozkan was named Educator of the Year by the Franklin County chapter of the National Society of Professional Engineers and this year she will also receive the statewide award. She also received a College of Engineering MacQuigg Outstanding Teaching Award. Jim Lee's research on polymer processing is supported by NSF, Edison Welding Institute, GenCorp, Union Carbide, General Motors and Wright Patterson Air Force Base. Earlier he had received the Harrison Award for Excellence in Engineering Education and two College of Engineering research awards.

Dr. Fan had his second text, "Bubble Wake Dynamics in Liquids and Liquid-Solid Suspensions," published by Butterworth and the reviews are very complimentary. Other faculty accomplishments are noted later in this report.

Faculty and students presented 18 papers and 13 posters at the November AIChE Meeting and chaired four technical sessions. Last year, the faculty had 34 publications in refereed journals of the first rank and external research support from federal, state, foundation and industry sources continues to increase so you can see our research program is progressing well.

Our students have also distinguished themselves. Three of our students were varsity athletes; Greg Grothe is a varsity swimmer, Susan Matz is a shot putter and Paul Hyyak is on the track team. Six of the students who graduated in June and August went on to graduate studies in chemical engineering at other major universities and at Ohio State. This fall, Chris Hrenary (B.S., '89) won a coveted DuPont Ph.D. Fellowship Award.

The AIChE Student Chapter has been raising funds for the undergraduate PC Lab. Last year, their efforts resulted in contributions totalling $5,000 to help the Department purchase equipment for the PC Lab. We now have 5 Mac's with hard drives plus one without a hard drive, 2 IBM compatibles and 6 printers in Room 314. The students and Professor Harry Hershey monitor the lab and it is heavily used all year round. The Student Chapter has also organized an aluminum can recycle effort. These, in addition to their professional and social programs, are a great service to the Department and we are very appreciative. They also hold tailgate parties before the games on some football weekends each fall. So, if you are in Columbus for a game, check out the Woodruff Avenue entrance to Koffolt Labs two hours before kick-off. Students, faculty, alumni, food and liquid refreshments may all be found there.

Four new technical elective courses were offered last year on subjects of great importance to our profession. Hazardous Materials Management (Professor Ed Haering), Artificial Intelligence (Professor Jim Davis),
Colloids (Visiting NSF Professor Deborah Stutman-Brockey), and Biological Transport (Professor Mort Friedman).

The job market for our graduates continues to be good. The number of companies interviewing our students in the Engineering Placement Office and in Koffolt may set a record in the 1990-91 academic year. As I noted last year, improvement in the job market is partially due to a dip in the national supply of B.S. graduates in chemical engineering, renewed hiring in the chemical process, petroleum and related industries, and the high regard in which industry holds our graduates.

Our graduate student enrollment is about 65, almost half of whom are in the Ph.D. program. This year the number of women graduate students has increased. Last autumn, Professor Knaebel, Chair of the Graduate Studies Committee, completed a new Graduate Student Handbook which updates and expands an earlier version. Requirements and procedures for M.S. and Ph.D. candidates are described in detail.

With the retirement of Professor Haering, Professor Kent Knaebel will be teaching the unit operations laboratory this summer. Kent is planning to modernize a number of the experiments in the lab. In addition, he is constructing new experiments, to include fluidization, transient heat conduction, mixing, reaction engineering, and reverse osmosis. Contributions for this project are badly needed. If you can help, please send a donation to Professor Harry C. Hershey, 140 West 19th Avenue, Columbus, OH 43210. Make your check out to The Ohio State University. Please include a matching gift form if your company matches. Contributors to the Chemical Engineering Unit Ops Campaign will be recognized as benefactors. Those who contribute $200 or more will be listed on a special plaque to be mounted in Koffolt.

Our students, the faculty, and I appreciate the contributions many of you have made to the Department over the years. Funds we receive enable us to enrich our programs and provide a margin of excellence in the education of our students. (If you contribute to Ohio State through the Development Office, please be sure to designate Chemical Engineering or we will not receive it.)

The 1990 contributors are listed on the next pages. Of particular note is a major contribution by Bill Harris '44 which established the Doris and William Harris Scholarship Endowment Fund. The first scholarships from this fund will be awarded in 1991.

Finally, on a serious note, one of our alumni, Jack Stewart '48, on a consulting job in Iraq in August became a "human shield" for several months until released with the group which returned with John Connally in December. Whoever said "chemical engineers can do anything" probably didn't imagine how truthful the statement was.

Sincerely,

Jacques L. Zakin
Chairman

P.S. We plan to hold another reception for alumni and friends at the AIChE Annual Meeting in Los Angeles, November 18-22, 1991. We will notify you of the exact date (November 18, 19 or 20), time and place next fall. Please try to join us.
1990 Contributors

1917
Wallace Kennedy

1921
Harold W. Baque

1923
Durain C. Butts
Gordon H. Mutersbaugh

1926
Chester G. Landes

1927
James L. Collins

1928
W. Clare Barnett
Harry E. Chambers

1930
Parker S. Dunn

1931
Paul F. Ulmer

1933
John S. Eckert
Benjamin Finer
George E. Fromm

1934
Clarence N. Fisher
Olin D. Graff
Owen G. Howard
William D. Martin, Sr.
Edward E. Slowter

1935
Kenneth A. McDaniel
Albert R. Morrison
Dr. Linton E. Simerl
Frederick L. Thomas

1936
Harland C. Anderson
Robert A. Ewing
Charles E. Green
Richard A. Miller
William A. Taylor
William P. Ward

1937
Andrew E. Chute
Nicholas Fatiga
Charles W. Gaylord
John D. Graham
Dr. Philip B. Kraus
Donald C. Miller
Frederick R. Pullen
John W. Rickey
Dr. George H. Sheets
Albert F. Shorkey
Dr. Charles E. Stoops, Jr.
Robert T. Whitaker

1938
Norman C. Cammerer
Frederick Eastman
Howard D. Evans
Edward J. Haven
Robert S. Radlow
George S. Tobias

1939
Robert H. Dewart
Ira J. Kail
Dillard W. Kuhlman
Howard G. Rohrer
Dr. Charles A. Rohmann

1940
Clay H. Aneshansley
Charles H. Boardman, III
Dr. Heinz A. Boker
Frank M. Cooper
William R. Fisher
Paul A. Fodor, Jr.
William R. Keller
Don E. Kennedy
Robert L. Lambert
Arthur G. Mayer
John H. Miller
Francis J. Van Der Werf

1941
Peter P. Grebus
Stanley P. Greenfield
Dr. Harvey H. Grice
Charles A. Keller
George L. Meyers, Jr.
Harold Reuben
James R. Robinson
David Thomas
H. Richard Unkel

1942
Charles D. Young
Paul H. Young
J. Albert Zier

1943
Dale B. Baker
Edmund Duplaga
Frederick L. Hanson
Dr. Forrest R. Hurley
Clyde H. Kearns, Jr.
G. John Lambillotte
Richard R. Whiston

1944
Nicholae N. Bacaintan
Halvor S. Christianson
Walter E. Craw
Carl F. Effler
Glen L. Gifford
Leonard A. Harris
Capt. Bryce D. Inman
Robert F. Lange
Harold J. Pierce, Jr.
Raymond K. Ritzer
Roy E. Schneider
Hong T. Yee

1945
Wallace L. Bostwick
Edward A. Broestl
William R. Harris
George H. Montgomery
Clarence A. Haverly, Jr.
Grover C. Strickler, Jr.

1946
Charles R. Hall

1947
Dallas D. Dupre III
William K. Fell
Thurman L. Graves
John M. Kolbas
Donald G. Schroeter
Aloysius M. Sebian

1948
Charles C. Ballard
Robert L. Bates
Jack Berger
John A. Burgbacher
J. Guilford Gerlach
Earl W. Goodman

1949
Maurice E. Hatten
Max H. Humphrey
Henry B. Lange
Dr. F. Robert Mayforth
Dr. Myrl E. Miller
Dr. Robert N. Miller
R. Ted Scharenberg
George R. Secrist
Jack C. Stewart

1950
Dr. Donald S. Arnold
William D. Arthur
Paul E. Bates
Gordon G. Cross
Theodore M. Jenny
J. Howard Kerstetter, Jr.
Frederick A. MacDougall
Dr. John B. Martin
Morton Pollack
James R. Randall
Donald R. Roberts
Charles R. Shepherd
Dr. Edwin E. Smith
Roland L. Spencer
David F. Stewart

1951
Ltcol. Robert E. Duval
David R. Hamilton, III
Richard H. Immel
Dr. William L. Larcamp
Jewel H. Perkins Jr.
Franklin A. Rotke
Verne R. Rinehart
Leo F. Salzburg
Jean Maurer Scharenberg
Richard L. Scott
Earl C. Sumner
Paul L. Wells
David W. Wilson
Alfred E. Withrow

Norman G. Battrug
Dr. Lloyd T. Bunn
Charles L. Dornbusch
Richard N. Eilerman
Denver V. Harris
Robert M. Killian
Paul T. Santilli
David B. Speed
Dr. Kennard L. Wing
**1990 Contributors (cont.)**

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<th>Year</th>
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| 1952 | Richard F. Hazelton  
Dwight Jeffrey  
Richard E. Saylor |
| 1953 | Robert A. Bates  
Dr. Walter E. Donham  
Wilfred C. Ling  
William L. Maag  
Harold L. Stelzer, Jr.  
James L. Wilson |
| 1954 | Richard E. Dudley  
John O. Lott  
William H. Sprout  
Charles G. Thacker  
Dr. Robert B. Weiser |
| 1955 | James G. Fergusson  
Wendell B. Hammond, Jr.  
John H. Hoge  
Fred K. Lane  
Robert W. Serfass  
Dr. David G. Stephan  
Thomas J. Tiblebi |
| 1956 | Paul Alexander Jr.  
Glenn F. Althouse  
William D. Coe  
Dr. Manoj Kumar D. Sanghvi  
Dr. David A. Strang |
Paul J. Kienholz  
Ronald P. Rowland  
Gary L. Truex  
Frank W. Vetter |
| 1958 | Dr. Edward H. Bollinger  
Dr. Edward J. Freeh  
John R. Kearns  
Valda E. Petritis  
Harold A. Sorgenti  
James W. Stark |
| 1959 | Lee W. Addie  
James O. Alberty  
James H. Laughlin  
Edward R. Purves  
Darryl J. Von Lehmden |
| 1960 | Edgar W. Fasig  
Phillip J. McAttee  
Irwin B. Weinstock |
| 1961 | Paul R. Bigley  
Ronald D. Harris  
Dr. James H. McMicking  
David A. Parker |
| 1962 | Charles D. Osbun  
Dr. Lawrence R. Steele |
| 1963 | Jon E. Fletcher  
Myers G. Hammond  
Dr. John P. Henry, Jr.  
Robert P. Kasper  
Fred A. Shafilettal  
Wiltbur H. Sidner |
| 1964 | Wayne O. Belz  
Dr. Michael B. Cutlip  
Dr. Robert G. Dunn  
Girish D. Parikh |
| 1965 | Fredric C. Arnold  
Dr. Edward R. Corino  
Oliver L. Davies  
Frederick J. Rerko  
Michael C. Royer  
Eugene N. Wheeler |
| 1966 | Dr. David E. Bidstrup  
Erich L. Eggers  
William G. Lowrie |
| 1967 | John S. Dorsey  
John P. Fundesol  
Graham F. Painter, Jr.  
Robert R. Shaefer  
Dr. Peter H. Wendschuh |
| 1968 | Dr. Jerry R. Barber  
Raymond A. Fosset  
Lawrence H. Green  
Dr. Lloyd G. Jones  
Dr. Ronald M. Kovach  
David L. Lull  
James W. Sebert  
Dr. Gerald A. Wilcox |
| 1969 | Smith E. Howland  
Dr. Kiu H. Lee  
Dr. M. Anandha Rao  
John W. Toussant |
| 1970 | George E. Cressman, Jr.  
David R. Grove  
Michael S. Lerce  
Michael L. Nevin  
John D. Rensel  
Richard B. Strait  
Dr. Rosa Uy  
Dr. Harry H. Yeh |
| 1971 | Juliet Davison Baimer  
William R. Edwards  
Karen Lafferty Hendricks  
Kerry G. Hertenstein  
Richard E. Morrical |
| 1972 | Dr. Jerome F. Baekman  
Dr. Gerald A. Bullano  
Richard A. Cree  
Charles B. Ernst  
David G. McCluskey |
| 1973 | John S. Biersteker  
John R. Cameron |
| 1974 | Dr. Kenneth R. Cox  
Bruce K. Dawson  
John E. Myers  
Kenneth L. Montague |
| 1975 | Michael A. Patterson  
Dr. William M. Pekman |
| 1976 | John T. Erikson  
Dr. Martin R. Okos |
| 1977 | Mary Vercellotti Richardson |
| 1978 | Douglas J. Hailenburg  
Steven C. Howe  
Mary Etta Rose  
Philip M. Rose  
Kenneth A. Yunker |
| 1979 | David P. Steinmetz  
Paul W. Vance, Jr.  
Thomas E. Winkler  
Richard J. Yoch |
| 1980 | Dean J. Kerekes  
John F. Kreinbrink  
Karen T. Murphy  
Gary S. Phillips  
David M. Schilling  
David K. Snowden  
Jeffrey C. Spangler  
David J. Wasela  
Ted K. Williams |
| 1981 | Dr. Frederick T. Clark  
Philip A. Dalton  
Bruce R. DeBruin  
Carol Bur Ehrman  
Fred D. Ehrman  
Matthew J. Galosi  
Mark A. George  
Joseph Petrarcha, Jr. |
| 1982 | David D. Chang  
John R. Cymbell III  
Nancy Coutrup Dawes  
H. Charlie Wolf |

Victoria Suomela McCauley
Debra Worthington Russell
Dr. Andrew M. Weber

1983
Dr. Lamont E. Beaver
Thomas D. Burns
Mark D. Dieringer
David J. Grigger
Dr. Cheryl L. Kennedy
Julie Minderman Ockajik
Christopher R. Richied

1984
Harold L. Hom
Gregory M. Masica
Capt. George W. Miller
Scott R. Northrup

1985
Roger G. Facer
Timothy A. Johnson
Michael F. Li Cause
Sharyn A. Veley
Dr. David G. Vutetakis

1986
Dr. Chi-Yu Chen
Brian P. Rice
Douglas E. Smith

1987
Elizabeth Lander Califf
Dr. Samuel D. Fink
Ens. Martin D. Legg
Dr. Keith D. Wisecarver

1988
David J. Parker

1989
Catherine L. Bothe
Stuart F. Doty

Friends

Pauline H. Beckberger
Dr. Robert S. Brodkey
Charles D. Calif
Robert M. Calles
Mrs. Robert M. Calles
Alistair W. Clubb
Ruth J. Clubb
Judith Gorczyca Cressman
Dr. James F. Davis
Shirley Springer Duval
William R. Edwards
Norman E. Ernsteln
Dr. Liang-Shih Fan
Dr. Harry C. Hershey
Joann Heywood Hoge
Frances Woityra Kolbas
Michael B. Kukla
Dr. Won-Kyoo Lee
Eileen Littrell
Dean L. Morgan
Dr. Umit Ozkan
Karen Phillips
Charles F. Porter
Roy R. Renshaw
Cheryl Lynn Rice
Elva Chamberlin Rohrmann
Verle N. Schrod
Hartzel C. Slider
Dr. Thomas L. Sweeney
Eleanor M. Syverson
Patrick J. Tracy
Mary Omwake Wilson
Dr. Shang-Tian Yang
Dr. Jacques L. Zakin

Industrial Supporters

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AMAX FOUNDATION
AMOCO FOUNDATION INC.
ASHLAND CHEMICAL COMPANY
BAYER-MOBAY FOUNDATION
B.P. AMERICA
CHEMINEER
COUNCIL FOR CHEMICAL RESEARCH
DOW CHEMICAL COMPANY FOUNDATION
DOW CORNING CORPORATION
E.I. DU PONT DE NEMOURS & CO.
EXXON EDUCATION FOUNDATION
GENCORP
GENERAL MOTORS
LUBRIZOL FOUNDATION
MOBIL
PPG INDUSTRIES FOUNDATION
PROCTER & GAMBLE COMPANY
ROHM & HAAS COMPANY
SHELL COMPANIES FOUNDATION
UNION CARBIDE
UNOCAL
### Staff Members

<table>
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<tr>
<th>Professors</th>
<th>Secretaries</th>
<th>Design Engineer</th>
<th>Instrument Maker</th>
<th>Teaching Associates</th>
<th>M^2^R^2^Trainee</th>
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<td>R.S. Brockey</td>
<td>C. Camm</td>
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<td>M.H. Friedman (Biomed Eng.)</td>
<td>*S. McDonald</td>
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<td>A. Ghosh-Dastidar</td>
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<td>C.J. Gaankapis (Emer.)</td>
<td>S. Newsom</td>
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<td>R. Gooding (Chem.)</td>
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<td>NSF Visiting Professor</td>
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<td>Post Doctoral Research</td>
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<td>Associate</td>
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<td>K. Raghunathan</td>
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<td>A. Teutsumi (Grad School)</td>
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<td>Visiting Research Scholar</td>
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<td>J. Xu</td>
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<td>*Editor of Annual Report</td>
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R. Enyart
C. Hrenya
L. Mangen
P. Nelson
R. Neutzling
D. Pappa
K. Perkey
J. Vandermeer
T. Wurster

Bayer-Mobay
L. Adams
T. Cuthbert

Chemical Eng.
Freshmen
D. Collins
D. Duerr
N. Guglielmo
S. Hempfling
M. Joo
T. Knuth
L. Lalonde
J. Lohman
K. McCarney
T. Paxton
S. Sapp
L. Schwoem
C. Zuchowski

Engr. Exp. Station
R. Enyart
B. Fuller
K. Hayes
T. Howard
D. Karl
M. Macesich
T. Pajk

Dorothy & Herbert
Fenburr
S. Joehlin
S. Keyhani
K. Kissell
M. Wallace

Allan I. Gordon
L. Apel
F. Seipel
A. Lefevre
J. Trout

Raymond D. Hammond
C. Connors
L. Ferguson
A. Jaczyn
S. Johnson
J. Jones
L. Lander
J. Landis
C. Money
M. Stevens
J. Topoly

Webster B. Kay
A. Corey
J. Toth

Lubrizol
J. Schneider
T. Shell

Procter & Gamble
Incentive
J. Barnes
J. Barnett
C. Ellis
K. Hayes
J. Head
S. Nguyen

Withrow
R. Kaminski
L. Larue
Saputra

Watch the camera.

Good to the last drop.
Class of 1990

ROW 1  Dr. Liang-Shih Fan, Dr. Harry Hershey, Bernie Nutter, L. Dean Doza, Mike Caskey, Chris Kiehl
ROW 2  Suzanne Matz, Minh Tran, Jennifer Grashel, Kim Trinh, Jim Dangaran, Jackie Dusey, Darrin Lacheta, James V. Lombardi, Karen Carney
ROW 3  Patricia Bletzacker, Tammi Minella, Scott Cain, Dr. Umit Ozkan, Rebecca Mullins, Greg Glick
ROW 4  Chris Hrenya, Nicole Williams, Kara Blachowski, Paul Peck
ROW 5  Kristan Kissell, James Sawyer, Stephen Rosansky, Pam Archer, Martha Gossett, Tim Matheis
ROW 6  Dr. Won-Kyoo Lee, Bill Northup, Mike Keim, Jim McDowell, Dr. Jack Zakin, James Ryan
ROW 7  Fernando R. Tollens, Julio L. Silva, Alex C. Woravka, Jim Davis, Dr. James Davis, Dr. Duane Skidmore, Tony Maldonado
ROW 8  Craig Kehres, Charles Tritt, Daryl Westfield, Jim Schwierking, Michael Moore, John Holbert, Farshad Bavarian
Placement of Chemical Engineering Graduates

June 1990

Master of Science
M.R. Kinkelaar, Graduate School, OSU, Columbus, OH
J.C. Silva, Petrobras, BRASIL
L. Trevino, Ford Motor Co., Detroit, MI
B.E. Wilkerson, Air Force, Edwards Air Force Base, CA

Bachelor of Science
K.B. Blachowski, Ashland Chemical, Neal, WV
M.E. Caskey, Aristech Chem. Corp., Neal, WV
J.P. Dangaran, Goodyear, Akron, OH
J.A. Davis, Mead, Chillicothe, OH
L.D. Doza, Ashland Chemical, Cleveland, OH
J. Dusey, Procter & Gamble, Cincinnati, OH
G.R. Glick, No Information Available
M.A. Gossett, Cargill, Dayton, OH
J.L. Grashel, Graduate School, OSU, Columbus, OH
C. Klehl, Graduate School, University of Akron, Akron, OH
F.J. Kizlik, Occidental, Niagara Falls, NY
D.L. Lacheta, Halliburton Industrial Services, Waynesboro, GA
J.V. Lombardi, Eli Lilly, Lafayette, IN
T.F. Matheis, Westinghouse, Augusta, GA
M.Z. Md Jai, No Information Available
M.D. Moore, No Information Available
R.A. Mullins, Shell Oil, Carson, CA
P.R. Peck, Graduate School, Carnegie Mellon, Pittsburgh, PA
J.M. Ryan, Graduate School, University of Wisconsin, Madison, WI
J.H. Sawyer, Technica Inc., Columbus, OH
S.G. Sech, DuPont, Waynesboro, VA
D.M. Westfield, Goodyear, Akron, OH
S.E. Wilson, Exxon Plastics, Houston, TX
R.C. Zech, PPG, Milwaukee, WI

August 1990

Master of Science
S.D. Goldblum, Eli Lilly, Indianapolis, IN
S. Haam, Graduate School, OSU, Columbus, OH
J. Lyau, New Jersey Inst. of Technology, Newark, NJ
J.-Y. Nieh, Graduate School, OSU, Columbus, OH
M.J. Perry, Graduate School, OSU, Columbus, OH

Bachelor of Science
P.A. Bletzacher, DuPont, Circleville, OH
S.J. Cain, Graduate School, Univ. of California, San Diego, CA
C.M. Kehres, Murfin, Div. of Menasha, Columbus, OH
T.S. Minella, Eli Lilly, Clinton, IN
W.B. Northup, Central Soya, Bellevue, OH
S.H. Rosansky, Goodyear Tire and Rubber, Akron, OH
K.K. Trinh, Graduate School, OSU, Columbus, OH
A.C. Woravka, Shell Oil, Norco, LA

March 1991

Doctor of Philosophy
Keith Russ, Adjunct Asst. Prof., OSU, Columbus, OH

Master of Science
V.P. Lewis, Brahmauer Chemicals Pvt. Ltd., INDIA

Bachelor of Science
P.J. Braun, Lewhon and Associates, Worthington, OH
M.J. Holbert, No Information Available
K.E. Kissell, Graduate School
J.E. Schwierking, Jr., Shell Oil, New Orleans, LA
S.N. Williams, Procter and Gamble, Cincinnati, OH

December 1990

Doctor of Philosophy
F. Bavarian, Post-Doc, Texas A&M Univ., College Station, TX
D.R. Myers, UOP, Des Plaines, IL
D.K. Rollins, Iowa State University, College Station, IA

Master of Science
S.V. Muzumdar, Graduate School, OSU, Columbus, OH
V.C. Tirumalai, University of Wisconsin, Madison, WI

Bachelor of Science
K.J. Borsody, No Information Available
K.P. Fenton, Union Carbide, Cleveland, OH
M.-T. Tran, No Information Available
Student Awards

Christine M. Hrenya
The American Institute of Chemists Award
Presented by Dr. Umit Ozkan

Tylyn Weickert receiving
The Dow Outstanding Junior Award
Presented by Kim Lauzau

CENTRAL OHIO SECTION AIChE AWARDS
Sophomore: James E. Trout, Salomeh Keyhani
Junior: Kirsten Perkey (not pictured), Timothy J. Shell (not pictured)
Senior: Christine M. Hrenya
Presented by Dr. Harry Hershey
Alumni Honors

DR. RONALD R. REMICK is Manager of Compensation and Benefits for ARCO Corporation, Long Beach Center, California. He received the Bachelor of Science degree in Chemical Engineering from Ohio State University in 1967. He went on to earn both the Master of Science and the Doctorate degrees in Chemical Engineering, also from Ohio State, in 1968 and 1972 respectively.

After receiving his doctorate, he joined ARCO Products Company, where he held a variety of increasingly responsible supervisory and management positions in the area of petroleum processing research and development. He is credited with developing a method to reduce sulfur dioxide emissions from cracking units. In 1980, he was named manager of technical coordination, and in 1982, he became head of long-range planning.

Rapid promotions to manager of volume coordination of ARCO Products Company in 1986 and to vice president of finance and administration followed in 1987. In mid-1989, he was again promoted to his present position, where he has responsibility for the design and implementation of compensation systems, benefit plans, and policies throughout the company.

In his new position, he has evaluated the feasibility of a corporate-wide incentive compensation plan to improve morale and employee retention and implemented a new exempt employee compensation program for professional employees. He also introduced a broader-based program for incentive stock options for top management personnel and completed a study to develop improved executive benefits.

Dr. Remick is charged with the responsibility for developing a total compensation philosophy for the corporation acceptable to top management, a task of critical importance to future personnel relations at ARCO.

DOUGLAS E. SMITH is Manager of the Industry Marketing Petrochemical Group at the Digital Equipment Corporation, Slow, Massachusetts. He received the Bachelor of Science degree in Chemical Engineering from Ohio State University in 1968, as well as the Master of Science degree in Chemical Engineering in 1969, also from Ohio State.

He began his career with PPG Industries, joining the Houston Chemical Division in Beaumont, Texas. His first assignments were in plant production. Then in the early 1970's, he introduced computer-based production scheduling and plant modeling to the Texas facility.

In mid-1973, he moved into marketing and began to develop his knowledge of product management, strategic planning, and sales management. He became strategic business unit manager for PPG's ethylene-based products. In 1980, he headed the marketing efforts for PPG's recently acquired Specialty Products Unit in Chicago. His experience with PPG covered a wide array of chemical products.

In 1984, Mr. Smith made the shift to the computer industry and became regional manager for ComputerVision. He managed the midwest sales and marketing efforts for ComputerVision, providing computer design to the oil, chemical, and food industries. Throughout the 1980's, he has been a regular lecturer on careers in marketing in the chemical engineering professional development course at Ohio State, where he has advised many undergraduate students interested in marketing careers.

In the past year, Mr. Smith has taken the leadership role in raising funds from alumni for the Aldrich Syverson Memorial Scholarship. Mr. Smith is a member of Phi Eta Sigma and Tau Beta Pi and was president of the student chapter of the American Institute of Chemical Engineers.
Faculty Activities

Professor Bob Brodkey was keynote speaker on his research on image analysis and processing techniques at the CHISA Meeting in Prague last August. He also chaired the Scientific Committee of the XI National Congress on Theoretical and Applied Mechanics at Tucson last May, and he was a member of the Organizing Committee of the Eleventh Biennial Symposium on Turbulence at the University of Missouri-Rolla last September and of the 6th Beer Sheva Seminar on MHD Flows and Turbulence in Israel last March. He continues to serve on the AIChE Fluid Mechanics Program Committee and on the ABET/AIChE Accreditation Panel. He and Dr. Fan have received an NSF-Czeck Technical University Collaborative Research Grant for studies of multiphase flow.

Professor Jeff Chalmer's paper on the mechanism(s) of shear effects on cells was well-received at the November Annual AIChE Meeting in Chicago. He has since been invited to present seminars on this work by Eli Lilly and by Amgen. He also chaired two sessions at Chicago. Jeff has been heavily involved in organizing our graduate seminars.

Professor Jim Davis organized a short course on artificial intelligence in Philadelphia last Spring. It was well attended and well-received and he will give another short course in Houston in 1991. He also lectured in short courses at MIT and the University of Maryland. He was reelected to a 3-year term on the Board of Trustees of CACHE Corporation. Jim is chairing a committee which is developing plans for the future of computing in the college. Last year again, he was one of the stalwarts of our softball team.

Professor L.S. Fan is on professional leave. He received one of the few engineering Fulbrights to the United Kingdom granted this year and will spend four months at Cambridge University this Spring and Summer. He also received a Senior Visiting Science Award from the Japan Society for the Promotion of Science. He continues as a member of the Ohio University Coal Consortium and as Technical Leader of the Solid-Fluid Multiphase Research Program of the Midwest Universities Energy Consortium. He chaired 6 technical sessions at national and international meetings in the past year. He is also a member of the Editorial Board for Separations Technology for Butterworth, and is U.S. Editor of Powder Technology. In AIChE he is a member of the Multiphase Flow (Area 7C) and Contacting and Separations, Operations and Processes (Group 3) and the Fluidization and Fluid-Particulate System (Area 3B) program committees.

Professor Ed Haering is retiring on April 1, 1991. For many years, Ed has been heavily involved in our Unit Operations Lab (as some of you may recall). He has had complete teaching responsibility for it for more than 20 years. He has held the positions of Vice Chairman and Acting Chairman of the Department and has served on virtually every Department Committee and many College and University Committees including President of the Faculty Club. A serious golfer, he has been Chairman of the OSU Golf Course Green Committee. In the past year he developed a new course, "Hazardous Materials Management," co-chaired a Symposium on Safety for Undergraduates at the AIChE Annual Meeting in Chicago and consulted for Jaycor on the Chemical Weapons Discriminant Treaty.

Professor Harry Hershey is advisor to our AIChE Chapter and is spearheading the drive to raise funds for the Unit Ops Lab. He has been chair of the Department Curriculum Committee for many years. The text on transport phenomena that he and Bob Brodkey wrote is being used by U.S. and overseas universities. Harry, a serious tennis player and skier, is also a leading member of our summer softball team.

Professor Kent Knaebel has enlisted 14 seniors in a special projects course to aid in the design and construction of new Unit Ops experiments. This year Kent is Chair of the Graduate Studies Committee. Kent organized the International Adsorption Society and is editor of Adsorption News, its quarterly newsletter. He is also an editorial board member of Separation Science and Technology.

Professor Jim Lee continues to serve as Polymer Thrust Leader of the College of Engineering's Engineering Research Center for Net Shape Manufacturing. He organized and chaired the Symposium on Reactive Processing and Functional Polymers at the International IUPAC Symposia on Macromolecules in Montreal and chairs the Technical Program Committee of the Engineering Properties and Structure Division of the Society of Plastics Engineers.

Professor Won-Kyoo Lee is our representative on the College Committee on Academic Affairs which is dealing with proposals for curriculum changes. Won-Kyoo organized and chaired a session on Adaptive Process Control at the American Control Conference in San Diego last May.

Professor Umit Ozkan is a member of the Search Committee for the new Dean of Engineering. She was a member of an NSF site visit team last summer and continues to hold the positions of Trustee for Education of the Franklin County Chapter of the National Society of Professional Engineers and Chair of the Professional Development and Career Guidance Committee of the Central Ohio Section of AIChE.
Professor Slip Slider joined the faculty in 1955 and retired in 1985. Until this year he continued to teach petroleum reservoir engineering courses in the Spring Quarter. Slip taught 6 short courses for engineers in industry this year including a course for the China National Petroleum Corporation in the Peoples Republic of China and one in Jakarta.

Professor Duane Skidmore retired on October 1, 1990. Duane joined our faculty in 1978 and developed 3 technical electives on coal properties and processing and a research program on coal conversion and desulfurization. Recently, the Board of Trustees approved Emeritus Professor status for Duane.

Emeritus Professor Ed Smith continues his work on fire testing. He is often called as an expert witness in cases involving major fires. Ed is a member of the Editorial Advisory Committee of the Journal of Fire Sciences.

Professor Tom Sweeney is Acting Vice President for Research, a position of considerable responsibility in a University whose research funding is $145 million per year. When he is able to, Tom participates in Department meetings.

Professor S.T. Yang was Treasurer of the Central Ohio Section of AIChE. He also organized and chaired a session on Novel Biological Processes for Production of Food Ingredients at the AIChE Annual Meeting in Chicago in November. S.T. has received quite a bit of regional and national publicity for his research on producing calcium magnesium acetate (CMA) from cheese whey. CMA is being promoted as a less corrosive and less environmentally damaging substitute for salt for deicing roads and bridges. The process would also help to reduce the problem of disposing of cheese whey.

Professor Jack Zakin was co-chair and also a session chair of the Eleventh Biennial Symposium on Turbulence at the University of Missouri-Rolla and was on the Organizing Committee of the 6th Beer Sheva Seminar on MHD Flows and Turbulence. He is a member of the Editorial board of Chemical Engineering Research Compendium and serves on the ABET/AIChE Chemical Engineering Accreditation Panel. Last summer he spent two weeks in Prague to develop a collaborative research proposal with colleagues at the Czech Technical University and the Czech Academy of Science sponsored by a National Academy of Science Project Development Grant. He was a sometime participant on the Department softball team.
Publications and Presentations

BOOKS AND BOOK CHAPTERS:


REFEREED PAPERS:


Publications and Presentations (cont.)


PROCEEDINGS PUBLICATIONS:


**TECHNICAL REPORTS**


**OTHER SCHOLARLY/CREATIVE CONTRIBUTIONS:**

**A. Invited Lectures, Seminars and Short Courses**

Brodkey, R.S., "Image Processing and Analysis in Chemical Engineering Research" Plenary Lecture, CHISA Congress, Prague, Czechoslovakia, August 1990.


Brodkey, R.S., "Image Processing and Analysis", Purdue University, March, 1990.


Fan, L.S., "Three-Phase Fluidization," 4-day short course co-sponsored by Chinese Institute of Chemical Engineers and Union Laboratory Taipeh, Taiwan, February 14-17 (1990).


Fan, L.S., Course Lecturer, a 4-day short course on "Three-Phase Fluidization-Fundamentals and Applications," organized by Chinese Institute of Chemical Engineers and Union Laboratory, Taipeh, Taiwan, Feb. 14-17 (1990).


Ozkan, U.S., "Recent Developments in Selective Oxidation Catalysis Research," Middle East Technical University, Department of Chemical Engineering, Ankara, Turkey, June 1990.


Sluder, H.C., Conducted 5-day Gas Reservoir Engineering seminar/workshops in Houston, Calgary (Canada), and London (England); for Texaco in New Orleans and Denver; and for P.T. Loka Datamas Indah in Jakarta, Indonesia.

Sluder, S., Conducted 5-day Reservoir Fluid Flow and Its Practical Applications course for the China National Petroleum Corporation at Lang Fang City, P.R. China.

Sluder, S., Lectured on Gas Reservoir Engineering at the Xi'an Petroleum Institute in Si'an, P.R. China.


Yang, S.T., "Calcium Magnesium Acetate Production from Whey," Ohio Department of Transportation, Columbus, Ohio, November 30, 1990.


B. Additional Paper Presentations


Theses

Ph.D. Theses

Farshad Bevarian - B.S. (Ohio State University); M.S. (Ohio State University); Coal Cleaning by Microbial Desulfurization and Selective Flocculation. (Fan)

Douglas R. Myers - B.S. (Ohio State University); M.S. (Ohio State University); A Knowledge-Based Approach for Diagnosis of Discrete Processes Involving Programmable Logic Controllers. (Davis)

Derrick K. Rollins - B.S. (University of Kansas); M.S. (Ohio State University); Unbiased Estimates of Process Variables When Measurement Biases and Process Leaks are Present. (Davis)

Keith Mitchell Russ - B.S. (Ohio University); M.S. (Ohio State University); Visual Data Acquisition and Computer Interpretation. (Brockley)

Master's Theses

Madhur Prabhu Dayal - B.S. (Institute of Technology, Banaras Hindu University); Selection of Fermentation Processes for Utilization of Food Processing Wastes: An Expert System Approach. (Yang)

Seth Daniel Goldblum - B.S. (University of California - San Diego); Characterization of the Protective Effects of Methylcellulose and Other Polymers on Insect Cells Subjected to Laminar Shear Stress. (Chalmers)

Seungjoo Haam - B.S. (Yonsei University); Local Heat Transfer in a Mixing Vessel Using Heat Flux Sensors. (Brockley)

Mark Richard Kinkelaar - B.S. (Ohio State University); Diliometry of Low Shrink Unsaturated Polyester Resins and Its Relation to Reaction, Rheological Change and Microstructure Formation. (L.J. Lee)

Vivian Philip Lewis - B.S. (Indian Institute of Technology - Bombay); A Novel Extractive Fermentation Process for Propionic Acid Production From Lactose Using an Immobilized Cell Bioreactor. (Yang)

Jyunda Lyau - B.S. (National Central University); Viscosities of Highly Interacting Organic Solutions. (Herrera)

S.V. Muzumdar - B.S. (University of Baroda); Rheological and Kinetic Changes of Unsaturated Polyester Resins; Mechanistic and Statistical Analyses. (L.J. Lee)

Jann-Yeu Nieh - B.S. (National Cheng-Kung University); Role of the Bubble Wake in Fine Particle Production in Bubble Column System. (Fan)

Mark J. Perry - B.S. (University of Dayton); On-Line Cure Monitoring of Graphite/Epoxy Composites Using A Scaling Analysis and A Dual Heat Flux Sensor. (L.J. Lee)

J.C. Silva - B.S. (Universidad Fed. Do Parana Curitiba); A Comparison of Stochastic and On-Line Statistical Process Control Methods for the Control of a Simulated Continuous Reactor. (W.K. Lee)

V. C. Tirumalai - B.S. (Osmania University); Characterization of Polystyrenes in the Vicinity of Hot Plate Welded Joints. (L.J. Lee)

Lisandro Trevino - B.S. (Universidad De Nuevo Leon); Mold Filling Analysis of Structural Reaction Injection Molding and Resin Transfer Molding. (L.J. Lee)

Bernard E. Wilkerson - B.S. (Brigham Young University); Adsorption of Argon and Oxygen on Silver Mordenite. (Knaebel)

This is how I did it.
# Anniversary Classes

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<tr>
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| 1916  | William T. Maidens  
*Harry Mitzenhander  
Clarence J. Strobel |
| 1921  | Edwin H. Adkins  
Harold W. Baque  
Chester H. Case  
Fred A. Ford  
Clarence J. Hassler  
*Kao Shen  
George J. Wasman |
| 1926  | *Ford C. Davis  
Willard H. DeBruin  
*Ike Y. East  
Robert S. Graetz  
Chester G. Landes  
Vincent A. Lauderman  
Toh Liu  
*Samuel Shunker  
*James A. Thompson  
*Cho Wu |
| 1931  | William B. Abele  
Harold W. Almen  
Frank E. Cook  
Howard G. Cooper  
*Yun-Hao Feng  
Ned S. Fox  
Robert A. Glaser  
John H. Koenig  
Max M. Levine  
*Dwight D. McKinney  
Warren E. Mehnert  
Harry S. Olsen  
Yi Ou-Yang  
Ivan A. Planck  
Robert W. Rothrock  
Alvin B. Stiles  
Paul F. Ulmer  
Ray A. Witschey |
| 1936  | Napoleon A. Agapetus  
Harland C. Anderson  
George S. Bonn  
Joseph W. Catron  
Joseph P. Creagh  
John L. Dum  
Robert A. Ewing  
Charles E. Green  
Delwin Kaufman |
| 1941  | John H. Koenig  
Walter C. Lorenz  
Harold A. Meyer  
Harry V. Miles, Jr.  
Richard A. Miller  
Robert N. Miller  
Albert R. Morrison  
Joseph G. Mravec  
Byron W. Nelson  
D. Ellis Neunherz  
Clyde C. Phillips  
John E. Plumer  
Leland F. Roy  
Richard C. Ruffer  
Frank J. Sercej  
Robert F. Snider  
William A. Taylor  
Dan A. Truedell  
Joseph Vaslosky  
*Norbert A. Voss  
William P. Ward  
*Arthur A. Wuest |
| 1946  | Heinz A. Boker  
Kenneth A. Brandtstetter  
Edward A. Broestl  
*William Fowler  
Howard W. Goard  
Ernest C. Grabill  
Charles R. Hall  
Richard I. Hang  
G. John Lambillotte  
George W. Luckey  
Haskell H. McGriff, Jr.  
Ben C. Michener  
Robert T. Milligan  
*Richard E. Morris  
Harold J. Oglevee  
Phillip E. Rose  
Lloyd D. Treleaven  
John W. Walter  
Hong T. Yee |
| 1951  | George E. Abderhalden  
Thomas R. Atwood  
John E. Barker  
Norman G. Bartrug  
*R.C. Beckett  
Robert P. Bernhard  
James A. Bierlein  
Thomas R. Boch  
Joseph P. Boyer  
Charles E. Breithaupt  
Lloyd T. Bunn  
Paul R. Caris  
Robert F. Carroll  
Bert A. Chandler  
Myron A. Chernin  
George P. Chipman  
James H. Clark  
Richard J. Coffey  
Merrill D. Colmey  
Robert H. Congelie  
Joseph N. Craver, Jr.  
Loren A. Detamore  
Charles L. Dornbusch  
Richard N. Ellerman  
Benjamin Entwisle, Jr.  
Herbert A. Fisch  
Richard A. Fitz  
William J. Garmus  
David C. Haring  
Denver V. Harris  
Richard C. Harshman  
Abdul M. Hassan  
Bruce E. Hill  
James H. Hoorman  
Gerald Houghton  
Paul W. Izant  
Harold D. Jorgensen  
Robert M. Kilian  
Charles H. Klimowicz  
John S. Koegle  
Richard M. Kreager  
Frank W. Kroetz  
John J. Lavin  
Rai T. Lee  
Richard L. Leslie  
George R. Lewis  
John T. Lindsay  
Leland L. Lutz  
Rob R. MacGregor  
Donald E. Maple  
George Marli, Jr.  
Bernard L. Martin  
Arthur N. Masse  
Louis V. McIntire  
A. Louis Medin  
William L. Mengert  
En T. Ming  
Andrew P. Mizisin  
Richard H. Narwald  
James R. Nelson  
*Charles Newton  
William L. Norris  
Richard E. Ody  
John R. Parkinson  
James W. Peters  
Dean T. Pournaras  
Clyde Reeder, Jr.  
*Norbert F. Reinert  
Donn P. Rice |
Anniversary Classes (cont.)

Verne R. Rinehart
Merle H. Ruff
Paul T. Santilli
Edward J. Scharf
John J. Schlosser
David L. Sharp
James P. Slattery
Robert D. Spade
Paul W. Speirte
David B. Speed
David A. Strang
Clarence J. Svoboda
Ohn Tin
Foo Heng Tse
Norman D. VanHyning
Yerram Venkatesham
Henry A. Voelkerding
Richard E. Warner
Fred M. Warzel
Robert B. Weiser
Bruce W. Wilkinson
Robert Wilson
Kennard L. Wing
Wade Wolfe, Jr.
Robert M. Young

1961
Richard D. Albrecht
*Dwight M. Armiage
Paul R. Bigley
Lynn G. Borchert
Paul G. Bork
James W. Bowers
Donald A. Brauer
Thomas E. Cattarin
Richard B. Cooper
Edward R. Corino
*James W. Cox
Dale A. Deny
*Rodrigo Donoso Hederra
*Dale C. Edwards
David A. Fichtner
*Clude W. Foik
Ronald L. Follmer
Phillip H. Gifford II
Chester G. Haines
Jack A. Hammond
Theodore J. Hanson
Ronald D. Harris
David E. Hazlebeck
Gordon R. Howard
Donald L. King
Robert A. Krakowski
Francis T. Kremlas, Jr.
*Alvaro I. Lopez
Kenneth D. McDaniel
James H. McMicking
Harciel W. McMillan
Thomas M. Mercer, Jr.
*Kenneth D. Negley
Soon Ng
David A. Parker
Jerry B. Pausch
John N. Rapach
*Jesse E. Rupert
Kent L. Shepherd
Bernard L. Shriver
Jerry J. Simpson
Harland E. Taylor
James C. Thomas
Howard H. Warye
*Richard J. Wethern
Larry E. Wing
Lawrence E. Woodworth
Suey T. Yee

1966
Frederic C. Arnold
James G. Arnold
Jerome E. Balkenhol
David E. Bidstrup
*James V. Braun
*Henry C. Castilow
Robert H. Cherry, Jr.
Ralph S. Cunningham
William F. Deerhake
Dale A. Denny
Frank J. Dobscha, Jr.
Erich L. Eggers
Thomas E. Fitz
Richard H. Furlow
*James A. Gossney
Jeffrey E. Haas
Edwin R. Haering
Rudolph D. Hoffman
Eugene L. Jarrett
Linda L. Jarrett
Edward F. Jefferis III
Ralph B. Jutte, Jr.
Heung T. Kim
James S. Knox
Michael G. Konicek
Phasook Kullavanijaya
William G. Lowrie
*Stephen W. Marlow
Lawrence D. Mathew
Glenn L. McKee
John H. Miller
John W. Mitchell
Donald J. Modell
Jerry R. Morton
Gary W. Moyle
James O. Nye
Gilbert E. Raines
Albert R. Shuki, Jr.
Shashikant K. Sonawala
Karlis Svanks
David W. Walter
Donald P. Whitman
Hugh J. Zeller

1971
Leonard C. Angello
Richard L. Baker
Juliet D. Balmer
Anthony H.K. Chan
Hyun Sam Cho
Darryl R. Conner
John W. Connor
Michael A. Curran
Marc M. Daiga
Dale A. Draudt
Joseph J. Fair
Wayne R. Fontaine
*James R. Glendon
Paul M. Greenberger
Eric A. Grulke
*Donald C. Haberkost
Edward C. Hauswald
Karen L. Hendricks
Karen G. Herenstein
William A. Hodge, Jr.
John D. Hoover, Jr.
Paul D. Jachimiak
*Thomas J. Jere
Charles S. Joubian
Donald T. Kiefer
Charles A. Klingensmith
Philip G. Knowles
Michael W. Kosakowski
Jeffrey L. Kosch
David O. Kutscher
Michael S. Lench
Carl R. Lieberman
Robert M. Loar
Thomas Lombardo
John W. Meredith
Philip J. Meves
*David R. Miller
Robert L. Mills
*Raymond Mok
Richard E. Morrical
Arthur H. Mor
David K. Ni
*Sung Chung Pak
William E. Pritchard
Dean H. Reber
James F. Roff
Michael C. Rominger
Robert E. Rosensteel
Francois Song
Paul W. Springer
James N. Stambolis
Harrison L. Stebbins
Charles L. Steel
Richard D. Stolik
Paul R. Swartz
Joeseph L. Taraba
Armen Tergevorkian
David P. Turtle
Edward T. Whalen
Roy S. Yang
Stephen Zakarycz

1976
Sasha Abraham
Dale F. Arnold
Gregory Bellopatick
Debra G. Billman
*Richard A. Bouton
Darlene H. Brown
Donald W. Buchanan
Harold N. Conkle
James M. Delabar
Marie C. Gill
Carol P. Glassburn
Kenneth E. Hansen
Robert R. Hollbrook
Daniel T. Horn
Philip C. Hursh
Eugene E. Imbrogno
*Peter J. Karalis
James J. Keenan, Jr.
Frederick C. Knopf
Robert R. Konanz
Lawrence R. Latta
Robert M. Linek
Michael Maciejewski
Mark S. Matosky
Daniel H. Millisor
Gaynor L. Nash
Ananda K. Praturi
*Gregory E. Prill
*Stephen A. Repp
John L. Rhode
Mary V. Richardson
Michael W. Ryder
Russell A. Schilling
*David J. Serbin
Richard D. Smith
Luanne P. Stickley
John R. Stout
Ronald E. Strawser
Jeffrey J. Thomas
Dana K. Thompson
*Panagiotis K. Tsibouris
Lawrence M. Vloek
David R. Weber
James H. Wood
Larry D. Zeagler

Carl A. Bixel
James C. Blubaugh
Christine P. Brown
*Helen H. Brown
James L. Buchwalter
David D.-W. Chang
Donald A. Chudanov
Edward W. Claugus
Jerri B. Comer
Roy L. Comer, Jr.
John R. Cromb III
George C. Dagnall
Nancy C. Dawes
William J. Dawson
Norren G. Detwiler
Richard G. DeWitt
Anne H. Edwards
Richard A. Eichhorn
Charles E. Engelhardt
Alan J. Fletcher
Mark E. Frena
Ronald A. Gibson
D. Roy Goldberry
William J. Grodecki
Michael A. Groh
Kenneth A. Haley
*Mark T. Harmon
Daniel R. Harriman
Bennie E. Hill II
Warren R. Hoffman
Larry L. Holt
Thomas E. Hornish
Nancy H. Ingham
Robert E. Jackson
*C. Laohavichitra
Kimberly A. Lauzau
James G. Lawrence
Douglas V. Lenz
Roberto Leyva Ramos
*Cheng-Yen Lin
Louise E. Manis
Thomas P. Mark
Brent D. Massmann
Gregory N. McDaniel
Anthony J. Nadratowski
William E. Naseman
Juana M. Ortega
Michael H. Peters
William B. Peters
Michael J. Politz
Lewis M. Popplewell
Thomas J. Reed
William J. Richards
Randolph F. Richardson
Edward J. Riesterberg
Raymond J. Rolley, Jr.
Sunil Satija
*Richard A. Sesco
Craig W. Sherban
Pamela R. Simpkins
Jong-Mei J. Song
Bruce M. Spencer
Licia Spina
Anthony R. Suever
James A. Telljohann
Edwin S. Tittle
Jeffrey J. Tokarsky
Luong Thien Tran
*Jesus M. Urdaneta
Amy L. Vangeloff
James R. Vangeloff
David G. Vutetakis
Renata I. Warren
Suzanne M. Wiegleb
Harry C. Wolf, Jr.

1986
Mark D. Abel
Timothy M. Allen
Mark A. Baich
Jeffrey E. Baker
Amy B. Ballog
Steven P. Belding
Timothy S. Bentley
Cynthia G. Bishop
Edward Bochenek
Charles M. Butrey
Daniel W. Caldwell
Robert M. Canright
Ritu Chaudhari
Chi-Yu Chen
Dennis R. Daley
Deborah W. Gardell
Michael L. Giles
James P. Giordano
Rajeev L. Gorowara
Stephen P. Green
Edward M. Grodecki
Thomas G. Heeb
Jeffrey L. Hempfling
Thomas B. Henry
Ronald R. Hill, Jr.
Donald J. Hoffmann
Bipender S. Jindal
Keith J. Johanns
Gregory K. Johnson
Kenneth H. Keuchel
Shahriar Khabiri
Sandra K. Klaasen
Donald E. Kneir

Krishnan Lakshmanan
Caren S. Layer
Yein-Ming L. Lee
James B. Lents
Daniel J. Littlefield
John A. Lytle
Mark M. Mansour
Michael J. Matz
James K. McDowell
Michael L. McCormick
Kathleen M. Murphy
*Jeffrey N. Nehal
Robert J. Nolan
Thomas J. Paquin
*Norman M. Powell
Daniel E. Pritts
Jian Qi
Tharuvai S. Ramesh
Brian P. Rice
Isaac A. Robinson III
John P. Sage
Mitzi L. Schell
Andrew J. Sherman
Sik K. Shum
Douglas E. Smith
Robert J. Stadtlander
Lori A. Stiefel
Stephanie L. Sung
Thomas Talbert
Sherry R. Talkington
Chao-Chi Tong
*Karen Troy
David P. Vance
Scott G. Vickery
James F. Walden
Ben Weinstein
Andrew M. Wescott
Beth M. Wescott
Paula Ann Wiley
Rick D. Worthington
*Klit Wai Yarn
Bing Yang
Brian A. Yanok
Raymond M. Yurick
Bryan J. Zehner
Melissa H. Zeligson

*No current information available. If you know their address, please send it to us.
Web Kay
Class of 1922

Charles B. Cochran
Class of 1935

Clay H. Aneshansley, Robert F. McKibben, Loren F. Grandey, Paul D. Cooper
Heinz A. Boker, Winston H. Duckworth, Robert L. Lambert, Clifford B. Kemp
Charles H. Boardman III, Charles B. Cochran
The Class of 1940
John T. Erikson  
Class of 1975

David G. Vutetakis  
Class of 1980 and 1985

Jim Davis, President of AIChE Student Chapter, Presents check for Undergraduate PC Lab

You'all come back.