Dear Alumni

This year, my tenth at Ohio State, is an appropriate time to look back on the directions our programs have taken, and to look forward to new challenges. At a time when The Ohio State University is receiving increasing national recognition, our department continues its stress on excellence.

The core of our undergraduate curriculum, developed in the 70's, has continued to emphasize fundamentals while at the same time including new applications from modern technology. Students have been using our VAX 11/780 computer extensively in the past seven years. A new VAX 8500 has replaced the 11/780 and it will be upgraded to a VAX 8550 as soon as the upgrade is available. The technical elective offerings in chemical engineering have been broadened. New courses in coal preparation and characterization, coal liquefaction and coal gasification, catalysis, two in biochemical engineering, two in process modelling and simulation, as well as special courses in fluidization, thermodynamics and novel separations are offered every year or every other year. In addition we continue to offer courses in chemical engineering processes, polymer processing and rheology, experimental design, optimization, process control, and petroleum reservoir engineering. Students can also select technical electives from other departments or do work on research projects to meet the requirements. Thus, there is a rich menu of technical electives for students who wish to specialize in one or two areas, or for those who wish to "test the waters" in a number of areas.

A number of new coop programs have been offered in the College in recent years, and we have wanted to provide this option to our students. Our efforts have always founded on the sequences of three organic and three physical chemistry lecture courses, each offered only once per year. This year the Department of Chemistry is proposing to combine two levels of organic chemistry sequences and offer each of the new sequence courses two or three times each year. This allowed us to develop an (unconventional) coop program which is now on the books. A number of sophomore students are interested, and we expect several to begin work periods in the next six months.

Undergraduate enrollments have continued their sinusoidal pattern. In 1977, 33 B.S. students graduated; in 1983 the number peaked at 89; and this year we expect about 50 B.S. graduates. The rise and fall in job opportunities (always out of phase with enrollment) is probably the major cause of these fluctuations. Nevertheless, we continue to attract very good students, arguably the best in the University. Last year, for example, Stephanie Sung graduated with a 4.00 grade point average, the only 4.00 chemical engineering student any of our faculty can remember. At a recent Women in Engineering Awards Banquet, two of the top three awards for women freshmen went to chemical engineering students. We are, of course, concerned that if the present job market for chemical engineers continues, some very good students may be discouraged from enrolling. We must take steps to ensure that these high quality entering students continue to select chemical engineering.

The broadened offerings of technical electives are also available to graduate students. Here, the number of students has gradually increased in the past ten years. It is plateauing at about 70 students (in the autumn quarter). Our plan is to have 8-12 Ph.D. and about 20 M.S. students finish each year.

Here too quality, particularly among the Ph.D. students, has been very high. For example, this year four of our Ph.D. students received Presidential Fellowships from the Graduate School in a campus-wide competition sponsored by the Graduate School for Ph.D. students in their final year. Only about 30 of these fellowships are awarded each year. One of our Presidential Fellows, Y.S. Yang, also received the Outstanding Student Paper Award at the Society of Plastics Engineers Annual Meeting in Boston.
Eight of our present faculty joined the staff since 1978 and this has permitted us to offer many new technical electives. Support for graduate students has come from funded federal and foundation sponsored research projects the faculty have solicited and from increased industrial contributions to the Department. Last year industrial support for research (including equipment) was over $400,000. Efforts to increase this support will be intensified. In addition, we are planning to strengthen the teaching and research programs in the expanding areas of polymers and biochemical engineering by hiring new faculty in these areas.

While our curriculum and course offerings are continuously under scrutiny by the faculty, the Department will be formally reviewing our undergraduate curriculum and courses next year. The new Provost, Myles Brand, has charged all colleges to review their programs, and new guidelines on Basic Education requirements (BER's) are being prepared. Parallel to this, the Department Advisory Committee and the faculty are working on a "white paper" outlining our appraisal of our present situation and our general posture for the future.

Particularly noteworthy faculty achievements during the past year were the promotions of Jim Lee and Kent Knaebel to Associate Professor, the selection of Professor Bob Brodkey as the 3M Lectureship Awardee to the American Society for Engineering Education, and Professor Fan's election to be Chairman of the AIChE National Program Committee's Area 2G Committee on Fluidization and Fluid-Particle Systems.

The University Capital Campaign is gathering momentum and many alumni have pledged or contributed to it. If you want your contribution to go to the Department of Chemical Engineering, please specify this in your response to the OSU Development Fund. Last year contributions from alumni and friends totalled $64,000 (including matching company gifts). These funds enabled us to enrich our programs and provide a margin for excellence. The faculty, the students and I appreciate this support very much. The loyalty of our chemical engineering alumni is a source of great pride to us. The 1986 contributors to the Department are listed in this report.

As we have done in the past few years, we will be holding an Alumni Reception at the November AIChE Meeting in New York. It is tentatively scheduled for Tuesday evening, November 17, 1987. If you will be at the meeting, or if you live in the New York area, please stop in for this informal open house. Many of the faculty will be there.

We hope to see many of you on ACE Day, May 15.

Sincerely,

Jack Zakin
1916
WILLIAM L MONG

1918
WILLIARD F. TRESSEL

1921
HAROLD W BAQUE

1922
DR ROBERT F HEALD

1923
EDGAR C HENDRICKSON
GORDON H MUTERSBAUGH

1925
ROBERT O KLOTZ

1927
SAMUEL ARONOFF
JAMES L COLLINS

1929
FRANK L DURR
JULIUS L HOELSCHER
ELWOOD B LAYFIELD

1930
PARKER S DUNN
HAROLD L HAMILTON
MARION M MCADAMS
WILLIAM M TUCKER

1931
HAROLD W ALMEN
ROBERT A GLASER
DUNCAN M MACLAREN

1932
DR HARRY J GREEN JR
SAMUEL S JOHNSTON
JOHN P METZLER
DR LEE A PARKER

1933
HENRY S CURTIS
JOHN S ECKERT
BENJAMIN FINER
GEORGE E FROMM
LEON K GROVE

1934
CLARENCE N FISHER
WILLIAM D MARTIN
EDWARD SLOWTER

1935
CHARLES B COCHRAN
HARVEY J DRAKE
HAROLD C KLASSEN
NORBERT K KOEBEL
DR LINTON E SIMERL
FREDERICK L THOMAS

1936
RICHARD A MILLER
JOSEPH G MRAVEC
WILLIAM A TAYLOR

1937
ANDREW E CHUTE
JOHN D GRAHAM
DR PHILIP B KRAUS
GEORGE H SHEETS
ALBERT F SHORKEY
ROBERT T WHITAKER

1938
NORMAN C CAMMERER
FREDERICK EASTMAN
HOWARD D EVANS
EDWARD J HAVEN
ROBERT S RADOW
GEORGE S TOBIAS

1939
IRA J KAIL
LEWIS R KRIEC
RALPH E QUIGLEY
HOWARD G ROHRER

1940
CLAY H ANESHANSLEY
CHARLES H BOARDMAN III
PAUL D COOPER
ROBERT L HUFFMAN
WILLIAM R KELLER
DON E KENNEDY
ROBERT L LAMBERT
ARTHUR G MAYER
JOHN H MILLER
FRANCIS J VAN DER WERF
ROGER M WARNER

1941
LELAND W BLAZEY
JAMES R CAMERON
W LAWRENCE CAMPBELL
ROY H HOMANS
CHARLES A KELLER
JAMES R ROBINSON
DAVID THOMAS
H R UNKEL
CHARLES D YOUNG
PAUL H YOUNG
J A ZIER

1942
DR DONALD S ARNOLD
RANDAL E BAILEY
LYNN S KELLEY JR
MAURICE M LOWMAN
RICHARD R WHISTON

1943
LOUIS C BEALE
ROBERT W CASCIAI
DALTON P DRAKE
CARL P EFFLER
GLENN L GIFFORD
LEONARD A HARRIS
BRICE D INMAN
ROBERT F LANGE
DR MYRL E MILLER
HAROLD J PIERCE
JAMES R RANDALL
ROY E SCHNEIDER

1944
WALLACE L BOSTWICK
CLARENCE A HAVERLY JR
GEORGE H MONTGOMERY
DR EDWIN E SMITH
GROVER C STRICKLER JR

1946
KENNETH A BRANDSTETTER
HAROLD J OGLEVEE

1947
THURMAN L GRAVES
JOHN M KOLBAS
DONALD G SCHROETER
ALOYSIUS M SEBIAN
1948
ROBERT L BATES
JOHN A BURGBACHER
DR RICHARD E DURST
J GUILFORD GERLACH
EARL W GOODMAN
MAURICE E HATEN
MAX H HUMPHEY
HENRY B LANGE
R TED SCHARENBERG
GEORGE R SECrist

1949
GORDON G CROSS
RAYMOND D HAMMOND
THOMAS A HAVERFIELD
MAURICE R HETLER
DR JOHN B MARTIN
RICHARD N MILLER
ROLAND I SPENCER
DAVID F STEWART

1950
LT COL ROBERT E DUVAL
WILLIAM W GRIMES
DAVID W HARDESTY
RICHARD H IMMEL
JEWEL H PERKINS JR
DR GEORGE M RAMBOSEK
VERNE R RINHEART
RICHARD L SCOTT

1951
DAVID C HARING
ROBERT M KILIAN
DR DAVID A STRANG
DR F MORGAN WARZEL
ROBERT WILSON

1952
ROBERT ALDRICH
JAMES F FRONING
CARL R HEIL
ELDON J MCCUE
RICHARD E SAYLOR
CHARLES J SCHMITZ
PAUL H STEVING
DR DAVID G STEPHAN

1953
ROBERT A BATES
WILLIAM MAAG
JAMES L WILSON

1955
JAMES G FERGUSSON
JOHN H HOGE
STANLEY P HUCHRO

1956
GLENN F ALTHOUSE
WILLIAM D COE
JAMES R FARST
DR EDWIN R HAERING

1957
ARTHUR L CARTER
GARY L TRUEX

1958
DR EDWARD H BOLLINGER
SHELDON CHAPMAN
JOHN J CONNELLY
VALIDE E PETRITIS
DR WILLIAM H SEATON
RICHARD M SMITH

1959
LEE W ADDIE
CHARLES E DRUM
DR RONALD M KOVACH
JAMES H LAUGHLIN
DR GERALD A WILCOX

1960
VIRGIL L ANDERSON
EDGAR W FASIG

1961
DAVID A FICHTNER
DR JAMES E MCMIKING
DAVID A PARKER
JOHN N RAPACH
LAWRENCE E WOODWORTH

1962
CHARLES D OSBUN
MICHAEL D WINFIELD

1963
ROBERT P KASPER
FRED A SHAFFSTALL
WILBUR H SIDNER

1964
MICHAEL B CULTIP
GIRISH D PARAUK

1965
DR EDWARD R CORINO
JOHN P GEGNER
FREDERICK J RERKO
EUGENE N WHEELER

1966
DR DAVID E BIDSTRUP
THOMAS E FITZ
WILLIAM C LOWRIE

1967
JOHN W BRADSHAW
KELLY A DUNNING
JOHN FUNDERSOL
FRANK W HAUSCHILDT JR
DENNIS W HURLEY
GRAHAM F PAINTER
DONALD E SAUNDERS
JOHN M YACHER

1968
DR DOUGLAS W HISSONG
JOHN M SALLADAY
JAMES W SEBERT

1969
JOHN W TOUSSANT
DR KIU HEE LEE

1970
GEORGE E CRESSMAN
DAVID R GROVE
MICHAEL S LERCH
MICHAEL L NEVIN
JOHN D RENSEL
RICHARD B STRAIT

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JULIET D BALMER
DR ERIC A BRULKE
KAREN L HENDRICKS
JOHN W MERRIDETH
DR ARTHUR H MORT
ARMEN TERGEOVRKIAN

1972
DR JEROME F BEEKMAN
NORMAN F LUCAS
DAVID G MCMULLEN

1973
JOHN S BIERSTEKER
JOHN A DOUGLAS
ERIC J LINAK

1974
STEPHEN M IRWIN
JOHN E MYERS
MICHAEL A PATTERSON
WILLIAM M PEKMAN
1975
JOHN T ERIKSON
DR WAYNE R FONTAINE

1976
DEBRA G BILLMAN
LAWRENCE R LATAA

1977
DOUGLAS J HALLenburg

1978
DANIEL M COOMBS
DONALD L MCDOWELL
BRANKO P MITEVSKI
DAVID W SASS
RAD V SCOTT
STEPHEN B TRAIcoFF
THOMAS E WINKLER

1979
DEAN J KEREKES
GARY S PHILLIPS
TAD K WILLIAMS

1980
FREDERICK T CLARK
MATTHEW J GALOSI
MARIYN E GEORGE
MARK A GEORGE
DR DAVID G VUTETAKIS

1981
DAVID D CHANG
MARK E FRENQ
R INGRID WARREN
HARRY C WOLF

1982
ROY W ANDERSON
DEBRA W DENIO
MIKE A GREENE
DAN LAMBERT
VICTORIA S McCauley
JESSICA TONG
ANDREW M WEBER

1983
DR LAMONT E BEAVER
THOMAS D BURNS
MARK D DIERINGER
JAMES C FERGUSON
SAMUEL D FINK
KAY J HEROUVIS
JACK R HUGHES
THOMAS A REGRUT
DAVID L WHITE

1984
GREGORY M MASICA
SUNIL SATIJA
GEORGE R WALTERS
PAUL D WOOSLEY

1985
KEITH H DRISCOLL
ROGER E FACER
SHARYN A STEVENSON

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ROBERT J CONTOLINI
MARGARET F DAVENPORT
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DR UNIT OZKAN
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DOW CHEMICAL COMPANY FOUNDATION  SHEREX CHEMICAL
DOW CORNING CORPORATION  STANDARD OIL COMPANY (SOHIO)
ECO POWER, INC  SULZER
E I DUPONT DE NEMOURS  TEXACO FOUNDATION
EXXON EDUCATION FOUNDATION  UNION CARBIDE CORPORATION
GENERAL ELECTRIC FOUNDATION  UNOCAL CORPORATION
GENERAL MOTORS FOUNDATION  UNIVERSAL OIL PRODUCTS
HUNTSMAN  WEYERHAEUSER
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- E.R. Haering
- H.C. Hershey
- W.B. Kay (Emer.)
- R.E. Lynn (Emer.)
- W.D. Sheets (Emer.)
- D.R. Skidmore
- H.C. Slider (Emer.)
- E.E. Smith
- T.L. Sweeney
- A. Syverson (Emer.)
- J.L. Zakin

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- K.S. Knaebel
- L.J. Lee
- K. Svanks (Emer.)

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- J. Davis
- W.K. Lee
- U.S. Ozkan
- S.T. Yang

## Adjunct Professor
- J.A. Brothers
- C. Scaccia

## Visiting Professor
- R.F. Hajjar

## Post Doctoral Research Assoc.
- Y.-M. Chen
- K. Kitano
- T. Miyahara

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- F. Li

## Administrative Associate
- J. F. Teeple

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- S. Newsom
- P. Osborn

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## Instrument Maker
- R.R. Renshaw

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- H. Chang
- L. Economikos
- R. Gill (Chemistry)
- S. Jagannadh (Math)
- T. Hess
- S. Lee
- A. Maurer
- J. McDowell (Eng. Graphics)
- E. Motesama
- J. Oren
- A. Ozkan (Chemistry)
- T. Ramesh (Eng. Graphics)
- R. Rao
- S. Senger
- G.C. Shen
- S. Shum
- S. White
- C. Yussen (Chemistry)

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- D. Littlefield

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- L. Chou
- J.D. Fan
- S. Pink
- Y.J. Huang
- R. Jean
- K. Kolliopoulos
- J. Kayser
- B. Kreischer
- M. Magiliotou
- M. Matz
- J. Qi
- R. Rao
- S. Shin
- G.H. Song
- K. Tsuchiya
- K.J. Wang
- Y.S. Yang

## M^2 R^2 Trainees
- M. Baich
- C.Y. Chen
- W. Tang

## Fellowships
- P. Wiley

## Dow Chemical
- R.L. Bates
- R. Gorowara

## Amoco
- D. Arters

## Exxon
- M. Brown
- R. Hernandez

## Arno C. Fieldner
- G. Cawthon

## General Electric
- B. Smith

## General Motors
- T.C. Hsu
- L. Kiae
- B. Yang

## Huntsman
- Y.S. Yang

## Koffolt
- D. Rollins

## Monsanto
- G. Cawthon

## National Science Fdn.
- D. Myers

## Owens Corning
- T.J. Green

## Plaskolite
- Y.J. Huang
### Fellowships (cont.)

- **Proctor & Gamble**  
  J. Merkle

- **Presidential Fellowship**  
  Y.J. Huang  
  Y.M. Lee  
  K. Wisecarver  
  B. Yang

- **Rohm & Haas**  
  K. Russ

- **Shell**  
  S. Fink

- **Sohio**  
  C. Shoemaker

- **Union Carbide**  
  J. Kayser  
  S. Lee  
  C. Tritt

- **Unocal**  
  B. Saadevandi

- **University Fellowship**  
  M. Brown  
  E. Figueroa  
  M. Gandikota  
  D. Murray

- **Weyerhauser**  
  T.J. Green

### Scholarships (cont.)

- **Goodyear**  
  M. Formica

- **Allan I. Gordon**  
  D. Gibbs  
  R. Shields  
  T. Sweeney  
  R. Tatterson

- **Raymond D. Hammond**  
  L. Broadbelt  
  C. Diaz  
  D. Fullenkamp  
  J. Grashel  
  J. Kelby  
  S. Matz  
  M. Mendicino  
  R. Phillips  
  R. Proctor  
  J. Sawyer  
  S. Sech  
  S. Williams

- **John H. Hoge**  
  C. Bothe  
  M. Grady  
  D. Parker  
  M. Vandewalle

- **Webster B. Kay**  
  D. Monnin

- **Lubrizol**  
  D. Johnson  
  D. Noe

- **Monsanto**  
  K. Eftimoff  
  J. Craig

- **Porthouse**  
  D. Nastoff

- **Union**  
  R. Gorowara  
  M. Klaasse  
  M. Legg  
  M. McClain  
  M. Patacca

- **Whirl**  
  S. Barnicki  
  A. Brough

### Scholarships (cont.)

- **Withrow**  
  J. Adams  
  J. Baker  
  A. Sandhu  
  J. Sarna  
  K. Srail

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**Jack Zakin Greetings**

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**A.B. Stiles, H.W. Almen**  
Class of 1931
Faculty Activities

Professor Bob Brodkey continued his new venture into image analysis and processing for which he recently received an NSF Grant. He again received an important recognition award - the 3M Chemical Engineering Lectureship Award of the American Society for Engineering Education. As the 3M lecturer, he presented a lecture at the June 1986 ASEE Meeting in Cincinnati and also gave invited lectures at Northwestern, Iowa State and the University of Nebraska. He was also invited to present seminars at DuPont, the University of Iowa, the University of Rochester and the University of Arizona. Bob was Chairman of the American Physical Society - Division of Fluid Mechanics 1986 Annual Meeting held at the Fawcett Center in November. With an Organizing Committee made up almost entirely of fluid mechanicians from the College of Engineering, the meeting had a record attendance of nearly 700. He also served on the international organizing or scientific advisory committees of the Tenth Symposium on Turbulence (University of Missouri-Rolla, September 1986), the Fifth Beér-Sheva Seminar on MHD and Turbulence (Jerusalem, March 1987) and Transport Phenomena in Turbulent Flows (Tokyo, October 1987) and organized two sessions on Turbulence and Mixing at the Miami Beach AIChe Meeting last November. The textbook that he and Harry Hershey have written should be published by McGraw-Hill in late 1987.

Professor Jim Davis has expanded his studies of artificial intelligence. He was invited to give a seminar on expert systems in the Department of Chemical Engineering at Nagoya University in Nagoya, Japan. He was on the Organizing Committee of a Workshop on Expert Systems held at Columbia University in March and is on another for the Undergraduate Programs in Computer-Aided Engineering Design and Manufacturing Conference (UPCAEM) to be held at OSU in June. He is also participating in a CACHE Task Force to study Expert Systems in Education. Jim has consulted for Westvaco. He is offering a new technical elective in thermodynamics this quarter and taught a refresher session on heat transfer for the PE exam.

Professor L. S. Fan is Vice Chairman of the AIChe National Program Committee’s Area 2G Committee on Fluidization and Fluid-Particle Systems and will become Chairman later this year. He is Co-Chairman of the Fluidization Session to be held at the AIChe Meeting in New York in November 1987 and served as Co-Chairman of the Environmental Session of the III World Congress in Chemical Engineering in Tokyo in 1986. He is also on the Board of Electors of the OSU Sigma Xi Chapter and was an external Ph.D. dissertation examiner for Western Ontario University. L.S. was selected to be the Leader of the Solid-Fluid Multiphase Research Institute by the Midwest Universities Consortium. He presented invited seminars at the University of Pittsburgh, Western Ontario University, Sizuka University (Japan), Korean Advanced Institute of Science and Technology and at Idemitsu Kosan, Inc. He taught a refresher session in chemical engineering economics for the PE exam. During the last year he has had research support for his fluidization research from Amoco Oil, Office of Geological Survey, U.S. Department of Interior and NSF (three grants). Drs. K. Kitano, T. Miyahara, and Y-M Chen worked as post docs with him. He has consulted for Nippon K.K., Inc., Idemitsu Kosan, Inc., Texaco, Amoco Oil and Battelle.

Emeritus Professor Christie Geankoplis is teaching part-time at the University of Minnesota and is consulting.

Professor Ed Haering is developing plans to update data acquisition techniques in the Unit Ops Lab and also to add new experiments. He served as an expert technical witness in a number of national liability suits. He is a consultant for Sherex Chemical and an advisor in their Process Development studies at OSU. Ed stepped down as Chairman of the Department Graduate Studies Committee after many
years in that position. He is active in faculty government and is a member of the University Senate and the Faculty Compensation and Benefits Committee as well as the Chairman of the OSU Golf Course Green Committee.

Professor Harry Hershey is advisor to the Student Chapter of AIChE and taught refresher courses on thermodynamics and fluid mechanics for the PE Exam. He and Professor Brodkey are preparing the solutions manual for their textbook, Transport Phenomena: A Unified Approach, which should be published this fall as part of the McGraw-Hill Chemical Engineering Series.

Emeritus Professor Web Kay has begun to retire. Web no longer comes to work 5 days a week; lately we've only seen him 2 or 3 days a week. The first undergraduate scholarship from the Webster B. Kay scholarship Fund was awarded this year.

Professor Kent Knaebel was promoted to Associate Professor last fall. During the past year he has had support for his research in pressure swing adsorption from the Air Force Office of Scientific Research and from NSF on temperature swing adsorption. Kent serves on the Industrial and Engineering Chemistry Division of ACS Subdivision on Separation, on the AIChE Committee on Adsorption and Ion Exchange and on the Executive Committee of the Central Ohio Section of AIChE. He gave the 1986 Distinguished Engineering Alumni Lecture at the University of Kentucky and an invited talk at the Gordon Research Conference on Separation and Purification. He also taught PE refresher sessions in process design and mass transfer and consulted for Ashland Chemical and Battelle. Kent authored a patent, Power Generating Cycle, in 1986.

Professor Jim Lee was promoted to Associate Professor last fall. His polymer processing research program (extrusion, RIM, SMC and related areas) is expanding. One of his students, Y. S. Yang, received the best student paper award at the 1986 Annual Technical Meeting of the Society of Plastic Engineers. Jim is one of the investigators associated with the College of Engineering's new NSF Engineering Research Center for Net Shape Manufacturing. He was also invited to participate in a NSF sponsored workshop on polymer processing at Akron, Ohio and headed the discussion of the polymeric composite group. His 1986 research was supported by the ERC, General Motors and Owens Corning Fiberglas. He has recently received two State of Ohio Thomas Edison Program Grants (with Huntsman Chemical and Plaskolite). He presented invited seminars to IBM and at the Mid-America Chinese Joint Annual Convention. He consulted for Ashland Chemical and Union Carbide Corporation.

Professor Won-Kyoo Lee received the College of Engineering Charles E. MacQuigg Award for Excellence in Teaching at ACE Day last May. He is a member of the Executive Committee of the Central Ohio Section of AIChE. Won-Kyoo presented an invited seminar at the Korean Advanced Institute for Science and Technology in September. In October he chaired a plenary session on Adaptive Process Control Concepts for Plastics Processing Units for the 6th International IFAC/IFIP/IMEKO Conference on Instrumentation and Automation for the Paper, Rubber, Plastics and Polymerization Industries in Akron.

Emeritus Professor R. Emerson Lynn and his wife continue to enjoy their retirement. They are now year-round Floridians.

Professor Umit Ozkan received support for her research on catalysis from the Amax Foundation and from the Petroleum Research Fund. Umit offered a new technical elective in catalysis last spring and is Chairman of the Central Ohio section of AIChE Committee on Professional Development.
Professor Duane Skidmore received one of the Ohio Coal Development Office research awards for "Reduction of Sulfur and Nitrogen Contents in Coal by Microbial Processing." He presented a seminar on his work to General Motors and is on the Organizing Committee of the 2nd International Conference for Utilization of High Sulfur Coal. Duane has taken up the responsibilities of Graduate Studies Chairman.

Emeritus Professor Slip Slider will again be teaching two courses in petroleum reservoir engineering during Spring Quarter. Slip gave invited talks at the American Gas Association Meeting in Chicago and at a Society of Petroleum Engineers Reservoir Engineering Study Group in Houston during the past year. He conducted four five-day seminar-workshops, for Texaco Angola in Luanda, Angola (Africa), for Champlin Petroleum in Denver, for Texaco in Houston, and one open course in Houston attended by representatives from thirteen companies from across the US. Slip has also been doing considerable consulting work in the analysis of gas migration from land fill operations. He continues to be a member of the Research Committee of the Interstate Oil Compact Commission and has been assisting the Ohio Oil and Gas Association with their water disposal problems with the Ohio EPA and the federal EPA. He is also preparing a problem solution booklet for his text, Worldwide Practical Petroleum Reservoir Engineering Methods, which will be published in 1987.

Professor Ed Smith was called down to Puerto Rico to serve as an expert witness soon after the fire at the DuPont Plaza Hotel. He is a member of the National Fire Protection Association Committee on the Toxicity of Products of Combustion, the Editorial Advisory Committee of the Journal of Fire Sciences, the Advisory Committee of the Annual Conference on Fire Safety and a member of the National Foundation for Applied Combustion Toxicology. Ed has been Chairman of the Task Force on Release Rate Test of ASTM Committee E.05.21.30 for a number of years and received the ASTM Certificate of Appreciation from that Committee at the ASTM Winter Meeting in New Orleans in December. He also chaired the Session on Fire Testing of the 12th International Symposium on Fire Safety in San Francisco, January 1987 and presented invited lectures at the National Bureau of Standards, DuPont, Society of Fire Protection Engineers and Airframe Manufacturers.

Emeritus Professor Al Syverson continues to serve on the Department Advisory Committee. He and his wife live in Worthington.

Emeritus Professor Karlis Svanks is still active in water research on Lake Erie.

Professor Tom Sweeney continues to serve as Associate Vice President for Research and Graduate Studies. Tom serves on the Ohio Hazardous Waste Facility Approval Board.


Professor Jack Zakin was Chairman of the Scientific Manpower and Resources Committee of the Council for Chemical Research and was elected to the Board of Governors in 1986. He was Co-Chairman of the Tenth Turbulence Symposium held in Rolla, Missouri in September, Treasurer of the Organizing Committee of the American Physical Society - Division of Fluid Mechanics Meeting at OSU in November, and
member of the Organizing Committee of the Fifth Beer Sheva Seminar on MHD Flows and Turbulence held in Jerusalem, March 1987. His research on transport of viscous crudes as concentrated oil-in-water emulsions is supported by Unocal and his collaboration on this project with Dr. D. H. Fruman of ENSTA (near Paris) by NATO. His studies on drag reduction using surfactant additives for application in district heating systems is supported by DOE. Jack gave invited lectures at ARCO, Lubrizol and Monsanto and was an invited visitor to the Prague Technical University in June. He will be ACS Tour Speaker in the Chisholm District (Oklahoma) in October 1987.

E.D. Neunherz, F.E. Culp, R.A. Ewing, D.A. Truesdell, P. Sharr
Class of 1936

Class of 1961
Publications and Presentations


---

**Theses**

**Ph.D. Theses**

Baich, Mark A., B.S. (University of Illinois); M.S. (Ohio State Univ.); "Transient Adsorption and Reaction of Carbon Monoxide and Hydrogen Over a Nickel Catalyst," (Advisor: D. Skidmore).


Heeb, Thomas Gregory, B.Ch.E. (University of Dayton); M.S. (Ohio State University); "Examination of Turbulent Mixing With Multiple Second Order Chemical Reactions By The Statistical Analysis Technique," (Advisor: R. Brodkey).

Lee, Yein-Ming L., B.S. (National Taiwan Univ. Taipei); M.S. (Ohio State Univ.); "Fundamental Studies in Reactive Processing of Polyurethane Based Polymers," (Advisor: L.J. Lee).


Yang, Bing, B.S. (National Taiwan Univ.); M.S. (Ohio State Univ.); "Non-Isothermal Flow of Polymer Melt and On-line Computer Control of Profile Extrusion," (Advisor: L.J. Lee).

**Master's Theses**

Giordano, James Peter, B.S. (State University of New York at Buffalo); "A Study of Crude Oil-In-Water Emulsions," (Advisor: J.L. Zakin).


Master's Theses (cont.)

Matz, Michael James, B.S. (University of Toledo); "Pressure Swing Adsorption: Temperature Front Sensing for Controlling the Adsorption Step in a PSA Cycle," (Advisor: K.S. Knaebel).


Shum, Sik-Kwan, B.S.Ch.E. (Pennsylvania State University); "A Knowledge-Based System Approach to Malfunction Diagnosis In Chemical Plants," (Advisor: J. Davis).

Tong, Chao-Chi, B.S. (National Taiwan University); "Concentration Multiplicity in A Draft Tube Fluidized Bed Bioreactor Involving Two Limiting Substrates," (Advisor: L.S. Fan).


Placement of

Chemical Engineering Graduates

June 1986

Master of Science
J.P. Giordano, Navy Shipyard, VA
K.J. Johanns, Battelle Memorial Inst., Columbus, OH
J.B. Lents, Amoco Chemical, Naperville, IL
M.J. Matz, Graduate School, OSU
S.-K. Shum, Graduate School, OSU
C.-C. Tong, Graduate School, Auburn Univ., Auburn, AL
K.W. Yam, Returned to Hong Kong

Bachelor of Science
M.D. Abel, Westvaco, Covington, VA
T.M. Allen, Owens Corning Fiberglas, Newark, OH
J.E. Baker, Catalytic, Inc., Ironton, OH
S.P. Belding
T. Bentley, Ludlow Flexible Packaging, Mount Vernon, OH
C.J. Bishop
R. Chaudhari, Ohio EPA, Columbus, OH
D.L. Gardell
M.L. Gilles
S.P. Green, Tremco, Barberville, KY
E.M. Grodecki
J.L. Hempfling, Dow Corning, Midland, MI
T.B. Henry
R.R. Hill, Jr., Graduate School, OSU
D.J. Hoffmann, Harshaw/Filtrol, Cleveland, OH
M.A. Hulburt, Armed Forces
B.S. Jindal, Ohio EPA, Columbus, OH
K.H. Keuchel, Graduate School, Univ. of Akron, Akron, OH
D.E. Kneir, Union Carbide, Danbury, CT
S.L. Kowaleski, Ashland Chemical, Columbus, OH
D.J. Littlefield, Graduate School, OSU
J.A. Lytle, Burgess & Niple, LTD., Columbus, OH
B.L. Molloy, Graduate School, Univ. of Wisconsin, Madison, WI
K.M. Murphy, Borg Warner Chemical Co., Ottawa, IL
T.J. Paquin, Cleveland Elec. Illuminating Co., Ashtabula, OH
D.E. Pritts, Unich EMA Chemicide, Chicago, IL
B.P. Rice, Univ of Dayton Research Inst., Dayton,OH
I.A. Robinson III, Ohio EPA, Columbus, OH
S.E. Roddy, Procter & Gamble, Cincinnati, OH
J.P. Sage, Borg Warner Chemical, Inc., Parkersburg, W.V.
M.L. Schell, Duracel, Cleveland, TN
A.J. Sherman, Graduate School, OSU
D.E. Smith, Centerville High School, OH
R.J. Stadtlander
L.A. Stefel, Graduate School, Medicine
T. Talbert
K.S. Troy, Science Applications Intl. Corp., Columbus OH
D.P. Vance, Goodyear Tire & Rubber, Akron, OH
R.D. Worthington
B.A. Yanok, Harshaw/Filtrol, Beechwood, OH

Stephanie Sung receiving the AICHE Outstanding Senior Award
Presented by Kent Knaebel

Web Kay, Class of 1922
August 1986

Doctor of Philosophy

No degrees granted

Master of Science

T.S. Ramesh, Graduate School, OSU
B. Weinstein, Procter & Gamble, Cincinnati, OH
F.S. Wiley, Union Carbide, SC

Bachelor of Science

A.B. Ballog
D.W. Caldwell, Betz Industries, Detroit, MI
D.R. Daley
M.M. Mansour, Continuing Education, OSU
J.N. Nehal, Industrial Risk Insurers, Columbus, OH
A.M. Wescott, Prito Lay, Beloit, WI

December 1986

Doctor of Philosophy

M.A. Baich, E.I. DuPont, Savannah Riverworks, Aiken, SC
C.-Y. Chen, Ohio State Univ., Columbus, OH
Y.M. Lee, Gencorp, Akron, OH
B. Yang, Raychem, San Jose, CA

Master of Science

S. Khabiri, Battelle Memorial Inst., Columbus, OH
J.K. McDowell, Graduate School, OSU

Bachelor of Science

E. Bochenek
R.L. Corowara, Graduate School, OSU
N.M. Powell
S.G. Vickery, Westvaco, Covington, VA
J.F. Walden

March 1987

Doctor of Philosophy

K. Wisecarver, Univ. of Tulsa, Tulsa, OK

Master of Science

J.E. Merkle, Jr., E.I. Du Pont de Nemours, Washington, WV

Bachelor of Science

M.J. Klaasse, Procter & Gamble, Cincinnati, OH
C.E. Malspeis
S.A. Putman
T.A. Rash
K.E. Reilley
A. Velalis

J.A. Zier, Class of 1941

Denise Davis receiving the AIChE Outstanding Junior Award
Presented by Kent Knaebel

BACHELOR OF SCIENCE
Median Salary $29,500

MASTER OF SCIENCE
Median Salary $33,600
Class of 1986

ROW 1  John Sage, Norman Powell, Isaac Robinson, Amy Ballog, Beth Molloy, David Vance, Karen Troy.

ROW 2  Thomas Henry, Bipender Jindal, Mike Gilles, Ritu Chaudhari, Anahat Sandhu, Won Kyoo Lee, Sherry McDonald, Jim McDowell.

ROW 3  Andrew Sherman, Dr. Robert Brodkey, Daniel Pritts, Leila Arna, Kathy Murphy, Stephanie Sung, Kevin Reilly, Dr. Harry Hershey.

ROW 4  Don Kneir, Cynthia Bishop, Brian Yanok, Melinda Thompson, Rajeev Gorowara.

ROW 5  Mitzi Schell, Jeff Baker, Kunihiro Kitano, Steve Belding, Chuck Malspeis.

ROW 6  Doug Smith, Mark Mansour, Jeff Nehal, Tim Allen, T.J. Paquin.

ROW 7  Sandra Kowaleski, John Lytle, Tim Bentley, Shixley Newsom, Dr. Jacques Zakin, Slip Slider, Dan Caldwell.

ROW 8  Paula Wiley, T.J. Green, Steve Green, Dr. Ed Smith, Dr. Jim Lee, Dr. L.S. Fan, Mike Klaasse.

ROW 9  Ed Boheneck, Dave Turner, Ken Keuchel, Glen Maxwell, Dr. Kent Knaebel, Dr. Duane Skidmore, Dr. Jim Davis, Bob Stadlander, Ed Chun, Don Hoffman, Steve Putman, Jeff Hempflying, Dennis Daley, Rich Worthington, Brian Rice.
Benjamin G. Lamme Medal
William R. Harris

William R. Harris is Senior Vice President, International, for PPG Industries, Pittsburgh. A native of Martins Ferry, Ohio, he attended Ohio State University and received the Bachelor of Science degree in Chemical Engineering in 1944. While a student, he belonged to Tower Club and the student chapter of the American Institute of Chemical Engineers. He also achieved membership in the national engineering honorary, Tau Beta Pi. After graduating, he joined PPG at the Barberton location. He was promoted to Assistant Works Manager in 1961, and to Plant Manager in 1962. In 1969 he advanced to Vice President and General Manager of the Houston Chemical Company, a PPG subsidiary, and also assumed the duties of Manager of the Manufacturing & Industrial Chemical unit.

In 1973 he was named Vice President and General Manager of the Chemical Division's Organic Chemical unit and in 1976 was promoted to Vice President and General Manager of the Industrial Chemical Department. Another promotion in 1977 made Harris Vice President and General Manager for the U.S. Industrial Chemicals Division.

In 1983 he advanced to Group Vice President of Chemicals and was then tapped to fill a newly-created position as Senior Vice President, International, to guide a plan to increase the firm's international sales threefold. He is responsible for "globalizing" his company's business lines: glass, chemicals, and coatings, and under his direction, PPG has recently built or purchased plants and facilities in Taiwan, mainland China, England, Germany, and Italy.

He maintains close ties with his home department and was a founding member of the Advisory Committee when it began in 1978. He has served also as co-chairman of the department's Capital Campaign Fund drive. Harris was named to receive the College of Engineering Distinguished Alumnus Award in 1980. He is a member of professional organizations such as the American Institute of Chemical Engineers, the National Petroleum Refiners Association, and the Chlorine Institute. He also is a director of such companies as Asahi–Penn Chemical, Arkansas Chemical, PPG Industries Pacific, and Fiberglas Canada.
Distinguished Alumnus
Phillip L. Fondy

Phillip L. Fondy is Executive Vice President of Clevepak Corporation. He graduated from Ohio State University in 1957 with both Bachelor and Master of Science degrees in Chemical Engineering. He took a position out of college with Chemineer, Inc., Dayton, then a five-year-old fluid agitation company, founded by fellow OSU alumnus, Robert Bates. He carried out a number of theoretical and experimental studies in fluid agitation, which dealt with power consumption of fluid agitators and shear characteristics of agitator impellers, and co-authored several technical papers describing these studies.

He progressed during his career from solely technical activities to an increasing involvement and responsibility in the management of Chemineer. He was the primary architect of the technical and marketing strategy that moved Chemineer from a minor supplier of equipment to a position as the second largest fluid agitation company in the world. In 1971 he was named General Manager of the Agitator Division of Chemineer. The company grew and, in 1981, he was named Executive Vice President and Chief Operating Officer of Chemineer, Inc.

In 1983, after the company was acquired by Interpace Corporation, he was promoted to President of the Chemineer Division of Interpace. After Interpace was, in turn, acquired by Clevepak, he was promoted to Executive Vice President of Clevepak with responsibilities for a number of Clevepak's operating divisions. He has acquired a reputation for dealing with troubled businesses and developing strategies for turning them around.

Given the job of restoring the ailing Pulsafeeder Division of Clevepak, which manufactures metering pumps and related equipment, he consolidated pump lines and redirected manufacturing strategy to return the $20 million per year division to profitability. He accomplished a similar result with another Clevepak acquisition, Ward Foundry, returning the $30 million sales per year operation to a healthy business condition.
Michael D. Winfield is Vice President of Process Services for Universal Oil Products Inc. of Des Plaines, Illinois. He graduated from Ohio State University in 1962 with a Bachelor of Science degree in Chemical Engineering, and joined UOP as a Junior Chemical Engineer. In 1967, he was transferred and promoted to a position in the Field Operating Services Group in the Technical Service Department, where he was involved in plant start-up assignments in several areas of the company's operations. Universal Oil Products provides design, cost estimating, project management start-up, and process feasibility services to the chemical and petroleum industries.

In 1972, he was promoted to Coordinator in the Technical Service Department office staff and, in 1974, he became Manager of New Refinery Products. In 1976 he became Assistant Director of District Services and later of Operating Services. While working full-time in the 1970's, he attended the University of Chicago Business School at night. He earned his Master of Business Administration degree in 1978, graduating first in his class despite the demands of managing the start-up of the one-half billion dollar Sassolburg refinery in South Africa.

He was appointed Director of Business Development in 1981. In this position he led development of modular units, helping the firm in such areas as isomerization, separations, and gas recovery. He was assigned to process troubleshooting at new plants the company was building overseas.

The following year, he transferred to the position of Executive Director of Hydrocracking, where his work led to an appointment as Vice President of the Technical Service Department and, in 1982, to Vice President of Process Service. In his current senior position, he is responsible for technical service, engineering, and customer systems and service departments of UOP and is supervising 450 employees. He is also responsible for design and supervision of construction and start-up of UOP's $2 billion per year business in nearly 100 refineries and chemical plants.
Texnikoi Award
John M. Salladay

John M. Salladay is Project Director for Market Development, Specialty Plastics, for the Dow Chemical Company at the firm's Granville, Ohio, Research Center. A native of Portsmouth, he attended Ohio State University and in 1968 received both Bachelor of Science and Master of Science degrees in Chemical Engineering. As a student, he held a General Motors Scholarship and played intramural softball and basketball. Following graduation, he joined Dow as an Engineer in the Special Assignments Program at the Midland, Michigan, location. In 1969 he was named Engineer in the Catalysts Technical Service and Development group and worked with licensing and sales of Dow products and technology for hydrocarbon processing.

In 1971 he advanced to Development Engineer in Ion Exchange Resins for use in corn syrup processing, and in 1973 was named Senior Development Engineer for that group. Salladay was promoted in 1974 to Project Leader for residential applications of the Dow product, styrofoam, and the next year became Group Leader. In 1977 he was chosen as styrofoam Product Management Team Chairman and the next year was named Senior Group Leader.

Transferring to the Films and Coated Metals group at the Research Center in 1981, he served as Senior Development Manager and then was named Laboratory Director for this group in 1984. In 1985 he was promoted to his present position as Project Director. Salladay is active in several packaging oriented professional groups, is an elder in his Presbyterian Church, and maintains an interest in swimming and photography.

For several years, he has been Dow's primary contact with and in charge of recruiting at Ohio State's department of chemical engineering. He is supervisor of his company's Dow Outstanding Junior Award made to an Ohio State student each year. He is also a member of the Advisory Committee for his home department and has been invited speaker at a chemical engineering professional development class where he talked about careers in research and development stressing case histories, personal traits, abilities and motivations of successful people in various branches of research and development.
1917
Wallace Kennedy

1922
Warren J. Baker
*Clyber B. Cooke
*Kiarch A. Cover
*Anthony George
Robert F. Heald
Webster B. Kay
*En-Fou Lee-Toma
*Harry K. Linzell
*John D. McBurney
*Victor R. Morris
*Richard D. Gogerichian
*Chang Yuen Pang
*Robert H. Schmidt
Irvine C. Staebule
George H. Vanderborogh

1927
Sam Arnoff
Edward A. Beidler
*Donal B. Brooks
*Cheong Ying Chu
James L. Collins
*Lone E. Grimmer
Wen-Wei Huang
Milton F. Lindsay, Jr.
Dwight S. Masters
*Harry J. Miller
William Stroback
George H. Vanderborogh

1932
William B. Abele
Robert A. Fisher
Homer R. Gill
Harry J. Green, Jr.
Samuel S. Johnston
LeFever M. Lee
Carl W. Lundgren
John C. March
John P. Metzler
Frederick L. Mueller
Ivan A. Planck
Cyril R. Porthouse
Walter D. Sheets
Roy E. Smith
Clair O. Throne
Hyman H. Weinberg

1937
William D. Albright
John B. Armstrong
Edward A. Beidler
Carl H. Bishop
*Hsi C. Cheng
Andrew E. Chute
*Benjamin F. Coffman, Jr.
Chester B. Cross
Robert A. Ewing
Nicholas Fatica
Charles W. Gaylord
Aaron Gordon
John D. Graham
Harvey H. Grice
Elton B. Gunyou
John P. Haughton
Philip B. Kraus
Paul W. Laughrey
Harvey C. Lisle
Gerald A. McFarren
Donald C. Miller
James O. Pence
Frederick R. Pullen
John W. Rickey
Edmond J. Ritter
*James T. Robson
Leland F. Roy
Louis E. Ruidish
Lawrence H. Seabright
Philip E. Sharr
George H. Sheets
Albert F. Shorkey
Willard C. Smith
Charles E. Stoopse
Robert T. Whitaker
*Arthur A. Wuest

1942
Donald S. Arnold
Randall E. Bailey
Dale B. Baker
Fred Barrett
Henry Caldwell
Ralph Darby
Edmund Duplaga
Doyle O. Etter
Walter W. Forbes
Stanley P. Greenfield
Frederick T. Hall
Harold R. Hall
Frederick L. Hanson

1942 (cont.)
Donald L. Henthorn
James J. Higgins
Jean M. Hoff
Frederic E. Hoffmanns
Charles H. Hore
William E. House
*Jerry R. Hudnall, Jr.
John J. Hur
Forrest R. Hurley
Eric M. Jacobsen
David E. James, Jr.
John F. Janousek
Clyde H. Kearns, Jr.
Lynn S. Kelley
Germaine J. Lambillotte
Arthur R. Lieverman
Donal E. Lintala
Maurice M. Lowman
George W. Luckey
James C. Malavazo
*Charles Marshall
R. Richard Midlam
F. D. Peterseim
John Rex
Samuel A. Riccardi
*Ellsworth H. Shriver
Charles Sindlinger
Edward C. Staeling
Emery L. Stewart
Paul J. Stuber
Dunbar G. Terry
Kenneth J. Van Arnump
William H. Van Arnump
Richard R. Whiston
Ernest T. White
Raymond R. Williams
Edwin G. Willing
Glenn E. Wintemute

1947
Willard F. Andrews
Fred Applegath
Donald S. Arnold
Thomas R. Atwood
Richard N. Ballard
*Wallace W. Beaver
*Andrew A. Beeson
Clair W. Bemiss
Victor Betts
David G. Black
James W. Byerly
Robert P. Cahn
1947 (cont.)

Felice J. Celli
*Charles Clifford
John C. Cobb
Alvin G. Cooper
Arthur S. Covert
Dalton F. Drake
Kurt M. Dubowski
Leroy A. Dunbar
Dallas D. Dupre
L. A. Eddy
Fred W. Elliott
William K. Fell
Harold E. Fife
Dennis D. Foley
Howard M. Galloway
Raymond W. Garris
Howard W. Goard
V. S. Gopal
Ernest C. Grabill
Thurman L. Graves
John A. Gurklis
Charles R. Hall
James G. Hanlin
*W. T. Harbeson
Roe Hawkey
*Robert H. Hill
Jack E. Hoskins
Lewis C. Hullinger
Walter D. Hunter
J. James Hur
Thomas M. Hutt
Harry M. Iwata
Keith S. Jacobs
*William J. Kalmbach
Robert M. Kell
*Vahab Khamneizadeh
Charles M. Kincaid
Frank S. Kirkman
*Harold C. Klassen
William G. Knapp
Harold E. Knoultor
John M. Kolbas
Louis A. Kovreg
*Hubert G. Krane
Myron Kratzer
Arthur H. Kuhlman
Billy L. Larcamp
Hugh R. Lehman
Leland J. Lutz
Boyd L. Mahan
*Charles Marshall
John B. Martin
Herbert C. McKee

1947 (cont.)

Bryce H. McMullen
Elwood Mead
Myron E. Merry
Alexander K. Mikulski
Chester F. Milewski
Richard D. Mitchell
Clinton A. Mohler
Clifford F. Mohr
L. J. Paolletti
Lewis E. Parker
Richard W. Parkinson
Ehud Pascal
J. K. Petry
Frank C. Price
Roy F. Quinn
R. J. Rath
Samuel A. Riccardi
John D. Rogers, Jr.
Edward J. R. Romay
Phillip Rose
*Jorge F. Rosenthal
Robert M. Rownd
Roy E. Schneider
D. G. Schroeter
Alloysius M. Sebian
Thomas Shimrock
Allan L. Sluizer
Daniel Simon
Edwin E. Smith
Donald F. Stauffer
Robert W. Stevenson
Leroy P. Streett
Herman L. Sturza
Maxwell P. Sweeney
Luis E. Talisa
David G. Thomas
Lowell E. Thompson
Samuel R. Thrush
Carl E. Trexler
Raymond F. Uber
George A. Uhle
George H. Whipple
Marion P. Want
Wade Wolfe, Jr.

1952 (cont.)

Bill Bottenfield
Medro Brodeur
John Cheney
Amarendra P. R. Choudhury
Ramon DeCenzo
Donald Farrar
Clayton S. Fetter
James Froning
William Glancy
James Gough
James Haehn
Richard Hang
Paul Hatfield
Donald Haupt
Richard Hazelton
Allan Heidenreich
C. Richard Heil
Gary Higginbotham
*Robert H. Hill
Dwight Jeffrey
*William Kaiser
Wilbur Knapp
Vance Koerner
Eldon McCue
Ralph E. Morningstar
William Mueller
Steven Orfandes
John Palkovic
Leland Patterson
Jack Ramsthaler
Frank Rummel
Alfred Ruscelli
Richard Satava
Richard Saylor
Charles Schmitz
Paul Schramm
Carl J. Setzer, Jr.
Paul Sieving
Richard A. Slyker
David Stephan
Richard Sudak
Gordon Taylor
Clara Temple
Fred Vandaveer
Harvey Vogt
Philip Walden
George Zeitzers
Farjallah Zind

1952

M. O. Abdullah
*Hamid Al-Ahman
Robert Aldrich
*Jerry R. Baker
Seward Bazler
Ed Bohnslav

1957

Walter R. Andrews, Jr.
Eugene Bak
<table>
<thead>
<tr>
<th>1957 (cont.)</th>
<th>1962 (Cont.)</th>
<th>1967 (Cont.)</th>
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<tbody>
<tr>
<td>Arthur L. Carter</td>
<td>William H. Kirby</td>
<td>Bruce E. Poling</td>
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<tr>
<td>*Clifford N. Click</td>
<td>Jerome Kosmider, Jr.</td>
<td>Mark S. Prichard</td>
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<td>Roger W. Cox</td>
<td>Jon H. Lee</td>
<td>Robert R. Richards</td>
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<td>Walter A. Flack</td>
<td>William J. Mead</td>
<td>Harvey S. Rosenberg</td>
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<td>Philip L. Pondy</td>
<td>James C. Opatrny</td>
<td>Keith A. Robinson</td>
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<td>*Lillian L. Golub</td>
<td>Charles D. Osbun</td>
<td>Bernard R. Sacks</td>
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<td>Robert C. Green</td>
<td>Jon A. Oxley</td>
<td>Anthony Santavicca</td>
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<td>Galen A. Grimm, Jr.</td>
<td>Phillip F. Pflaumer</td>
<td>Donald E. Saunders</td>
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<td>Jon D. Helms</td>
<td>John D. Porthouse</td>
<td>Robert R. Shaefer</td>
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<td>Sung Ho Hong</td>
<td>Jerry T. Reed</td>
<td>Richard D. Stolk</td>
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<td>Peter K. Huester</td>
<td>*William P. Rozon</td>
<td>*Bruce A. Van Boskirk</td>
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<td>Richard E. Ingersoll</td>
<td>Donald E. Schwaderer</td>
<td>Lawrence C. Wagner</td>
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<td>Allan E. Jones</td>
<td>Kent L. Shepherd</td>
<td>Peter H. Wendisch</td>
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<td>Lawrence W. Jordan</td>
<td>Dean Snider</td>
<td>John B. Wood</td>
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<td>Paul J. Kienholz</td>
<td>Michael J. Sorocak</td>
<td>John M. Yacher</td>
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<td>Loren K. Kreager</td>
<td>Edward P. Stahel</td>
<td>Alan E. Zengel</td>
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<td>Phasook Kullavanijaya</td>
<td>Lawrence R. Steele</td>
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<tr>
<td>David P. Macarus</td>
<td>James E. Williamson</td>
<td>1972</td>
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<tr>
<td>Robert D. Maddox</td>
<td>Michael D. Winfield</td>
<td>Benjamin Adu-Amankwa</td>
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<td>Melvin L. McClellan</td>
<td>*Bernard T. Wolfson</td>
<td>Joseph I. Arar</td>
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<td>Richard E. Ody</td>
<td>*Edward T. Woodruff</td>
<td>David H. Armstrong</td>
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<td>Allen J. Raymond</td>
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<td>John H. Becker</td>
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<td>Ronald P. Rowand</td>
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<td>Jerome F. Beekman</td>
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<td>Thomas F. Sashihara</td>
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<td>David R. Boodey</td>
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<td>Hugh J. Savage</td>
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<td>Jon A. Branson</td>
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<td>Edward J. Scharf</td>
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<td>Mark E. Buffington</td>
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<td>Richard J. Seifert</td>
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<td>Gerald A. Bullano</td>
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<td>David E. Burroughs</td>
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<td>Robert D. Throckmorton</td>
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<td>Gary W. Buttwin</td>
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<td>Lawrence G. Carns</td>
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<td>Frank W. Vetter</td>
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<td>Curtis Y. Chow</td>
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<td>James F. Wise</td>
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<td>Harold N. Conkle</td>
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<td>*Gustavo A. Correa</td>
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<tr>
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<td></td>
<td>Richard A. Cree</td>
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<tr>
<td></td>
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<td>Thomas P. Cribs III</td>
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<td>Linda O. Curran</td>
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<td>Michael A. Curran</td>
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<td>1962</td>
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<td>Charles B. Ernst</td>
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<td>James D. Flesham</td>
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<td>*James R. Glendon</td>
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<td>Donald J. Goldhardt</td>
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<td>Aaron L. Goodman</td>
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<td>Philip T. Hines, Jr.</td>
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<td>Gary E. Hoam</td>
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<td>Howard J. Johnson</td>
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<td>William E. Johnson</td>
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<td>Charles S. Joublanc</td>
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<td>Michael J. Katila</td>
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<td>Edwin P. Kawasaki II</td>
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*No current information available. If you know their address, please send it to us.*
1972 (cont.)

Donald T. Kiefer
Edward K. King
*David M. Koenig
Eddie S. K. Kwan
Benny C. Kwong
*William C. Leipold
Hubert M. Litt
Gary L. Lukat
Gregory W. Marsh
David G. McCluskey
Robert L. Mills
Edilberto Mogollon-Fernandez
Donald J. Murphy
Michael A. Neibler
Stavros G. Nychos
James A. Nycz
Martin R. Okos
Ananda K. Praturi
John R. Raabe
*Ronald B. Ransom
Ronald R. Remick
Thomas E. Rochford
Thomas J. Rusnak
James P. Russell
Marvin E. Schmehl
David M. Sliva
Yoon Soo Song
John P. Sponseller
Dean C. Stambolis
*Stanley M. Straker
Dennis D. Terry
John A. Thomas
Samuel C. Tsen
Kenneth E. Waller
Donald L. Weaver
Mark D. Westbrook
*Joe D. Wornstaff
William D. Zeek

1977

Jack D. Alvis
Robert C. Armstrong
Robert J. Arnold
Keith E. Bowers
Raymond T. Collins
Robert L. Collins
Ann M. Dorlay
Michael Durilla
Richard L. Duwelius
Steven J. Egnaczyk
John S. Evans
Timothy A. Falken

1977 (cont.)

David M. Faust
William M. Fugel
Thomas R. George, Jr.
Dale C. Gyure
Thomas B. Hackett
Douglas J. Hallenburg
Thomas C. Houk
Steven C. Howe
Thomas M. Jones
Herbert R. Lander
Steven P. Lankton
William P. Lesko
Brian R. Levers
David M. Muller
Winston R. Nickerson
James Pappas
*William R. Ramakka
Mark C. Reasoner
*Patrick A. Reynard
Philip M. Rose
Jakinimum T. Shah
Linnea A. Sheppard
*Choon Kok Tan
Gary B. Tattersson
David L. Thamon
*Annette Tinkovicz
Richard J. Torchia, Jr.
David H. Wells, Jr.
Robert C. Wright
Thomas E. Wylie
Kenneth A. Yunker

1982

*Mary Abel
*Steven D. Alley
Roy W. Anderson
Kathleen A. Applegate
David W. Arnold
*Keith A. Artman
Douglas H. Baughman
Rosanne M. Blubaugh
Robert A. Bollinger
David B. Boyle
*Edmundo Brito
Douglas J. Bryan
Tai-Wai D. Chan
Song-Hsing T. Chern
Karen L. Christensen
Jeffrey L. Cline
Philip A. Dalton
Debra W. Denio
Kenneth N. Dike

1982 (cont.)

Chi-Thien Doan
Diana L. Dudash
Mark J. Dusenberry
Debra A. Edwards
Jeffrey C. Ellis
*John R. Gayler
James J. Givens
Mike A. Greene
Mark J. Gruber
William P. Haressly
*Charles G. Hardy
Jeffrey A. Harwood
*Hamid R. Hashemi
Jeffrey H. Hegedus
Richard W. Hendricks
Sanjeewa M. Kanth
Alex W. Kawczak
*Mohd Salleh Kayat
*Michael L. Kochersperger
Donna M. Kronz
Dan Lambert
Chih-kuo W. Lee
Amir H. Managhani
Asaye Mamo
Thomas E. Mantkowski
Deborah M. Marek
Frank T. Marriott
Ronald S. May
James J. Mazza
Anthony Mazzola
Victoria S. McCauley
James R. McDermott
James J. McNeely
Brian J. Michael
Gregory A. Michaels
Jeffrey N. Molnar
Laurealee A. Montgomery
Julie G. Murphy
*Gary D. Parsons
John W. Poore
Kimberly A. Powell
Deborah H. Purdum
*Robert E. Rabbat
Michael P. Reardon
Theodore E. Riffle
Debra W. Russell
Sumner M. Saeks
Richard P. Schmidt, Jr.
Christina S. Sistrunk
Brian D. Smith
Ronald J. Stapleton
*Cynthia L. Stoops
Richard M. Sturgeon

29
1982 (cont.)

*Janet L. Tait
Annette H. Taylor
Heng-Sheng J. Torng
James J. Toth
Charles S. Tritt
Elizabeth K. Trowbridge
James M. Trowbridge
John D. Underwood
Joyce A. Wagner
Eric A. Warren
Andrew M. Weber
Kathleen M. Wilkins
Peter D. Wilkens
Steve A. Witters
Lawrence E. Yanaros
Jeffrey H. Yanof
Richard A. Yarborough
James B. Young

Brian Noe receiving
AIChE National Award
Presented by Harry Hershey

Beth Molloy receiving the
American Institute of Chemists Award
Presented by Umit Ozkan

*No current information available. If you know their address, please send it to us.
T.R. Boch, D.P. Rice
Class of 1951

E.L. Jarrett, G.L. McKee, E.R. Haering
Class of 1966
P.J. Meves, J.W. Meredith
Class of 1971

D.R. Weber, D.G. Billman, L.R. Latta
Class of 1976