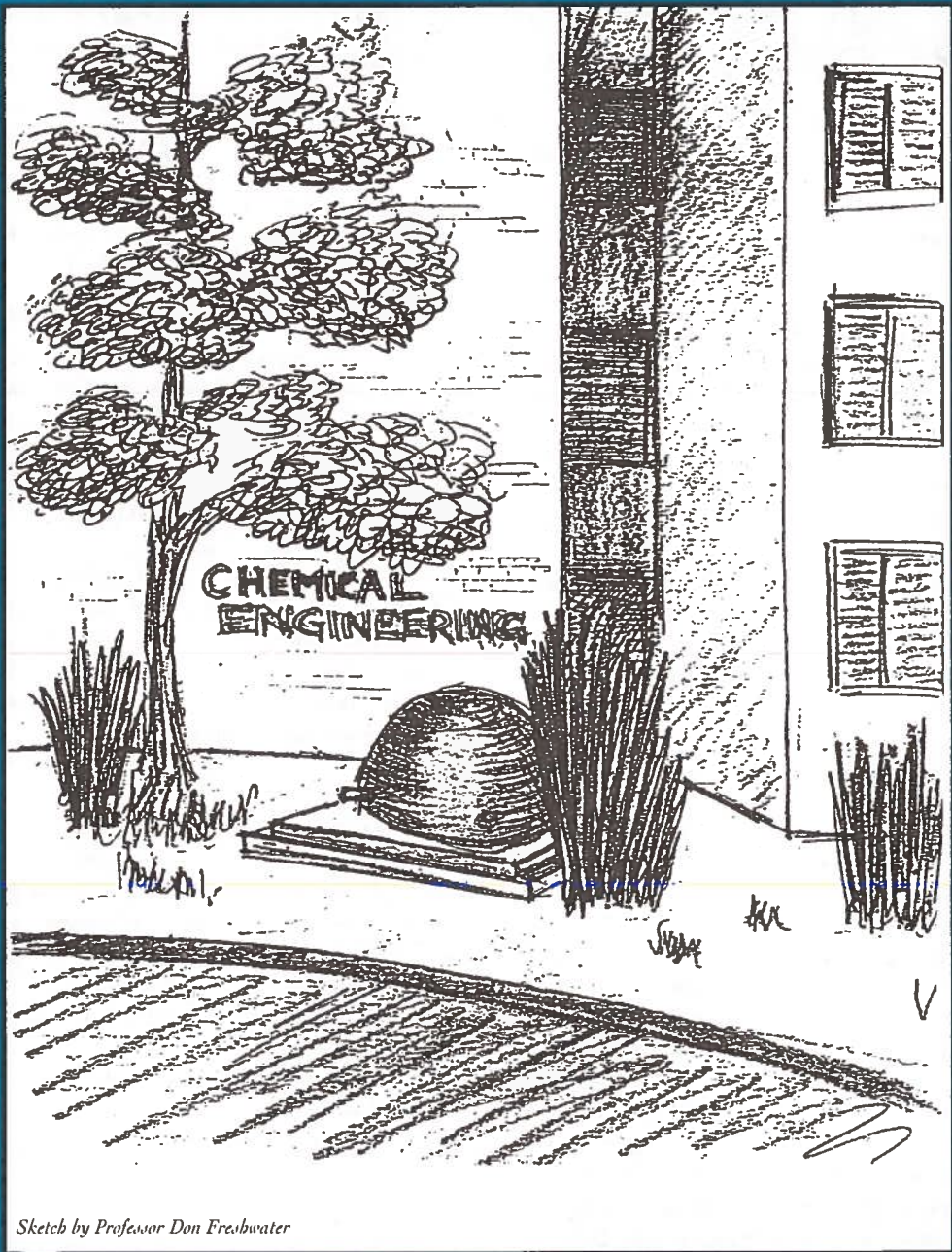


CHEMICAL ENGINEERING

Volume 10

ALUMNI NEWSLETTER

Fall 1998



Sketch by Professor Don Freshwater

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A LETTER FROM THE CHAIRMAN



Gordon Cain and his wife, Mary, pictured at the ceremony awarding an honorary doctorate to Cain.

Dear Alumni and Friends:

This has been an excellent year for our department, our faculty, and our students. A great deal has happened since the Spring 1998 newsletter; the most exciting, however, is the \$10 million donation by alumnus Gordon Cain and his wife Mary. This endowment will be used to enhance our existing research programs in materials research, process control, design and optimization, and to embellish our environmental research by the addition of new, national standing faculty to chaired professorship positions. In addition, a new focus area in industrial and chemical plant safety will be established.

This substantial support will deliver our already strong department to a level parallel to the top departments of chemical engineering in the nation. The most recent National Science Foundation Survey of Research Spending shows our department ranked 20th out of more than 150 chemical engineering departments. Dean Ted Bourgoyne recently agreed to move the Hazardous Substance Research Center into chemical engineering which will certainly aid in this already flourishing reputation. Danny Reible is the director of this center and a large percentage of the research is conducted in our building. The expected funding associated with this center along with the benefits gained from the Gordon and Mary Cain Endowment will surely propel us closer to that coveted position of top 10 research departments in the nation.

While the research efforts of the department help with its national level visibility, our most important mission remains the training of chemical engineers for Louisiana at the baccalaureate level. Chemical engineers from LSU are already in very high demand. I have visited a number of companies in Louisiana and spoken to virtually every recruiter visiting campus; all of which are aspiring for increased hires from LSU. This, no doubt, is a result of our outstanding faculty and their instructional efforts. The teaching and research efforts of the professors in our department have culminated with the awarding of eight titled professorships and three Cross-Holloway Awards this year.

These titled professorships have come from the generous support of industry and a number of our most successful

graduates. However, only a portion of the interest can be spent on these endowed professorships, and falling interest rates over the past few years have reduced the spending power significantly. If possible, the department would like to ask the donors of the titled professorships to consider moving the endowments to the next level, that of distinguished professorships. These professorships truly help us retain faculty who have done so much to maintain and amplify the current reputation.

The many devoted professors and the strong demand for chemical engineers have enticed more and more students to join the department. Undergraduate enrollment taxes our limited resources from the state which supplies little other than basic salary support for faculty and staff. And, while student numbers are high, University support for our department, just as for other departments, does not keep pace. This year for

example, we will again have to rely on donations from industry and alumni, as in the past, to simply "keep the doors open."

Despite our financial burden and the heavy reliance on donations, the department remains perpetually committed to modernization. We believe this is the key to an enduring demand for our students. Current efforts, led by Kerry Dooley, center on modernizing the undergraduate laboratories with the addition of computer data acquisition and control. To date, we have received \$60,000 from the Student Technology Transfer Fee, \$40,000 from alumni working at Dow Chemical, and \$40,000 from donations from Shell, Mobil, Union Carbide, as well as many individual contributions. The department hopes that in the future other companies will be willing to donate money or equipment to help with our worthy effort of modernization and that those of you in appropriate positions will encourage your companies to join this effort.

With the Gordon and Mary Cain Endowment and the strong likelihood of a new building for chemical engineering, we need your support to help with infrastructure and equipment modernization to bring our department into the top 10 chemical engineering departments. I will provide additional details of the impact of the Gordon and Mary Cain Endowment and our potential new building in the spring 1999 newsletter. When you visit Baton Rouge, please don't hesitate to stop by the department—the faculty and I, would love to hear from you.

This newsletter is also available at the department website, www.che.lsu.edu.

Sincerely,

F. Carl Knopf

Anding Professor and Chairman

Dedications

The Department of Chemical Engineering would like to dedicate the fall 1998 newsletter to several alumni who tragically and mysteriously lost their lives. The faculty and staff as well as many others mourn these untimely deaths.

Karen Domingue, a 1983 LSU graduate, was on board the doomed Swiss Air Flight 111 flying en route from New York to Geneva. The plane crashed into the Atlantic Ocean off Nova Scotia on September 2, 1997, killing all 229 passengers and crew on board.

Experienced husband and wife scuba diving team **Thomas** and **Eileen Lonergan** were reported missing in January 1998, two days after a scuba trip off the Great Barrier Reef near Brisbane, Australia. Their disappearance sparked a week-long massive air and sea search; sadly, however, they were never found.

Thomas was a 1988 chemical engineering graduate.

GENERAL DEPARTMENT NEWS

•The LSU Department of Chemical Engineering is currently ranked 24 in a national survey of schools that allocate the most funding for research and development, according to the October 19, 1998, edition of *Chemical & Engineering News*. This is a tremendous jump from a ranking of 44 in 1995.

•Professors **Danny Reible** and **Kalliat T. Valsaraj** were asked to provide advice to the Department of Natural Resources on oilfield waste testing. They will be investigating the results of the testing to assist in the defining of new oilfield waste handling rules. In the past, oilfield wastes have had a blanket exemption from the rules governing hazardous wastes. After recent publicity stemming from Grand Bois, community concerns and lawsuits have led to a revisiting of this issue. Following the analysis of the results, these professors will provide further assistance by helping to revise the regulations with respect to the required handling and treatment of oil field wastes.

•Last March, Professor Thibodeaux's sailboat, the *Sea Hawk*, won its category and came in third overall in the 1998 Louisiana Leukemia Regatta Cup. The crew for the two-day regatta consisted of Professors **Thibodeaux** (skipper), **Reible** (first mate), and **Corripio**. **Bob Perkins**, **Daren Launey**, and graduate students **Beth Pederson**, **Darlene Lambert**, **Karl**

Duckworth, and **Guilhem DeSeze** also joined the crew for their two-day tour.

•On September 11, 1998, **Maciej Radosz** presented "Macromolecular Thermodynamics," an inaugural lecture for his recent appointment as M. F. Gautreaux-Ethyl Corporation Chair of Chemical Engineering. In contrast to the traditional Flory and Huggins polymer solution theories, this lecture focused primarily on equations of state, especially that of the statistical associating fluid theory (SAFT). This theory accounts for fluid compressibility which can dramatically influence the quality of one's empirical awareness.

•Professor **Donald R. Paul** visited LSU on behalf of Materials Science for the Distinguished Lecture Series. "Polymer-Polymer Interactions and Interfaces" compared experimentally measured interfacial characteristics with those predicted by theory. The predictions used separately determined interaction energies assessed by experimental phase behavior observations and was then interpreted by various theories. Paul holds the Melvin H. Gertz Regents Chair in Chemical Engineering at The University of Texas at Austin and has served an eight-year term as chairman of the department. He is also director of the Texas Materials Institute.

HELP WANTED! CHE LABORATORIES

Thanks to some recent industrial donations and a \$60,000 grant from the LSU Student Technology Fee program, our efforts to modernize the equipment and computer facilities in the undergraduate labs have been nurtured. However, even with these philanthropic contributions, it is difficult still for us to modernize our analytical facilities. Therefore we ask those of you in the industrial sector to be on the lookout for analytical equipment your company may have in surplus. Much of ours has been exhausted for over 10 years with some items even nearing the prehistoric 20-year mark. If your surplus items are in good condition and of more recent vintage, consider a possible donation to LSU. We could especially use a gas chromatograph, a UV/VIS spectrophotometer, and a liquid chromatograph—but, any donation would be appreciated. Contact Kerry Dooley at 225/388-3063 or dooley@che.lsu.edu.

GIFTS TO THE DEPARTMENT

We greatly appreciate the generous contributions the following alumni and corporations have made to the department. We would also like to acknowledge Professors Armando Corripio, John Collier, Frank Groves, and Michael Henson for their additional financial support. Without such charity, the pursuit of knowledge and the advancement of technology would be greatly thwarted.

ALUMNI

Henry Abbott (B.S., '49)
 Edwin L. Anderson (M.S., '62)
 Robert J. Bujol (B.S., '43)
 Joseph P. Cagnolatti ('56; M.S., '62)
 N. Y. Chen (M.S., '54)
 Paul J. D'Amico (B.S., '92)
 Galen M. Dino (B.S., '74)
 Robert W. Dupree, Jr. (B.S., '60)
 Rafael Feo (M.S., '73)
 Roy D. Gerard (M.S., '58)
 Thomas F. Guidry (B.S., '74)
 Mr. & Mrs. J. R. Hopper (Ph.D., '69)
 Robert & Sylvia Jeansonne (B.S., '48)
 Scott A. Mattisondas (B.S., '75)
 Edmund F. Metz (B.S., '49)
 Mr. & Mrs. John M. Olive (B.S., '72)
 Howell B. Payne, Jr. (B.S., '56)
 Michael J. Richard (Ph.D., '89)
 Russell & Elizabeth Sellen (B.S., '75)
 Richard J. Spies (B.S., '75)

Jeffrey W. Alfolter, Jr. (B.S., '71)
 Robert D. Anding (M.S., '48)
 Joseph Butterworth, Jr. (B.S., '49)
 Mr. & Mrs. John H. Cartwright
 Adrian D. Cox, Sr. (B.S., '40)
 Roy P. Daniels (B.S., '26)
 A. N. Duplantis (B.S., '69)
 Clarence M. Eidt, Jr. (M.S., '62)
 Richard E. Fuchs (Ph.D., '64)
 Thomas Granberry (M.S., '54)
 Lynn F. Guidry (B.S., '71)
 Howard E. Huckins, Jr. (M.S., '48)
 Eugene A. Luc (B.S., '76)
 William A. McElhannon, Jr. (Ph.D., '78)
 Mr. & Mrs. Stephen Melsheimer (B.S., '65)
 Biraya B. Paul (Ph.D., '60)
 William G. Reymond (B.S., '48)
 Mr. & Mrs. Murray W. Rosenthal (B.S., '49)
 David Smith (B.S., '75)
 R. Woodrow Wilson, Jr. (M.S., '60)

CORPORATIONS

Air Products
 Alcoa
 Allied Chemical
 Amoco
 ARCO
 BASF Wyandotte
 CCR
 Chevron USA
 Copolymer
 Dow
 DuPont
 Exxon
 Marathon
 Mobil
 Paxon
 PPG
 Shell
 Texaco
 Union Carbide
 Vulcan

1998-99

DEPARTMENTAL SEMINAR SERIES

The Department of Chemical Engineering was proud to host 10 very enlightening speakers for the 1998-99 Seminar Series. There was a wide range of issues addressed by some of the nation's most innovative and advanced researchers.

•On September 4, **Mitchell C. Brown**, chemistry librarian at Louisiana State University, presented "On-Line Chemical Engineering Information at LSU," a topic dealing with the large variety of research tools and databases now available for students.

•On September 18, 1998, **S. Ted Oyama** of Virginia Polytechnic Institute delivered a stimulating study titled "The Mechanisms of Catalytic Reactions on Oxides by In Situ Laser Raman Spectroscopy." He obtained his doctorate from Stanford and is especially

engrossed in the cleanup of petroleum feedstock.

•On October 2, **Jack R. Hopper** presented a seminar explaining classifications, theories, design models, numerical methods, and solution algorithms for ReaCat—the design and analysis tool for multiphase catalytic reactors. Hopper is professor and chairman of the Chemical Engineering Department at Lamar University, director of the Texas Hazardous Waste Research Center, and director of the Gulf Coast Hazardous Substance Research Center.

•On October 16, **Francis J. Doyle**, associate professor at the University of Delaware, presented "Computational Issues in the Application of Model-Based Control to the Pulp and Paper Industry" which introduced model reduction methodologies and algorithm engineering methods for the management of large scale optimization and control problems.

•On October 23, **William Russell** introduced "Rheology of Latex Dispersions Containing Associative Triblock Copolymers," an innovative

study suggesting the importance of different mechanisms than expected by the conventional reversible network model. Russell is a A.W. Marks Professor of Chemical Engineering at Princeton University and was fortunate enough to have one of his experiments on the space shuttle in September 1995. He is also a member of the National Academy of Engineering.

•On December 4, **Keith Gubbins**, the H.W. Clark Chair of Chemical Engineering at North Carolina State University at Raleigh, presented "Phase Separation in Nano-Porous Materials." This topic, with an emphasis on molecular simulation, reviewed the phenomena for gas-liquid and liquid-liquid phase equilibria in addition to freezing in narrow pores. His research is geared toward prediction of the properties of fluids and fluid mixtures at the molecular level. Such methods are important in the design of industrial chemical plants, the study of planetary atmospheres, and in the fields of geophysics, biomedicine, and anesthesiology.

EIGHT HONORED AT TITLED PROFESSORSHIP DINNER



Arthur Sterling and Gregory Griffin cheerfully display their awards to their wives.



Phil Greeson and Lorenzo Howard present the BASF Corporation Endowed Professorship to Kerry Dooley.



Armando Corripio turns to thank Jerry Affolter.



Arthur Sterling accepts a plaque from William G. Reymond, Jr.



Bill Schumacher awards the Chevron Endowed Professorship to Danny Reible.



John Collier receiving the Ike East Professorship plaque from East.



Julie and George Nusloch, Jr., congratulate Gregory Griffin on his success.

On May 7, 1998, the department hosted a dinner in honor of eight chemical engineering faculty members. The awards for the endowed professorships were presented by representatives for the varying contributors including: Robert and Nenie Bujol for *Ike East*, Jerry Affolter and Marjorie Thompson for *Jay Affolter*, Phil Greeson and Lorenzo Howard of *BASF*, George H. Nusloch, Jr., and Julie Nusloch for *George H. Nusloch II*, Bill and Carla Schumacher for *Chevron*, and Betty and William Reymond, Jr. for *William G. Reymond*. LSU Chancellor William Jenkins along with Dean of Engineering Ted Bourgoyne and retired Dean of Engineering Ed McLaughlin also joined in the celebration of this superior professional performance. Those honored were:

John R. Collier-
The Ike East Professorship in Chemical Engineering

Armando Corripio-
Jay Affolter Endowed Professorship

Kerry M. Dooley-
BASF Corporation Endowed Professorship

Martin A. Hjortso-
George H. Nusloch II Endowed Professorship #1

Gregory L. Griffin-
George H. Nusloch II Endowed Professorship #2

Geoffrey L. Price-
Department of Chemical Engineering Robert Hughes Harvey Endowed Professorship

Danny D. Reible-
Chevron Endowed Professorship of Engineering

Arthur M. Sterling-
Department Chemical Engineering William G. Reymond Endowed Professorship

PROFILES OF NEW FACULTY

Michael A. Henson joined the department as assistant professor in 1994 after an assignment as visiting research scientist from 1992-93 in the DuPont Advanced Process Control Group in Wilmington, Delaware. Henson acquired a M.S. from the University of Texas in 1988 and a Ph.D. in 1992 from the University of California, Santa Barbara. He received a Career Development Award from the National Science Foundation in 1995 and the Cross-Holloway Award for Excellence in Research and Service in 1998. His research in process control is funded by NSF, DuPont, Exxon Chemical, Praxair, and Aigis Systems. He served as co-editor for the book *Nonlinear Process Control* published by Prentice-Hall in 1997. He has published three book chapters, 34 papers, and presented 21 talks since joining LSU. He has also been an active member of the process control community by chairing sessions at technical meetings, reviewing papers and proposals, and serving as a consultant to industry. In addition to acting as the coordinator for the Departmental Seminar Series and Graduate Student Recruiting, Henson has worked closely with students as an undergraduate adviser.

Elizabeth (Lisa) Podlaha joined the department as assistant professor in 1998 after her postdoctoral research at Ecole Polytechnique Federale de Lausanne, Switzerland, from 1992-97. Podlaha worked as a research and teaching assistant at both Columbia University and the University of Connecticut where she received her Ph.D. and M.S./ B.S. respectively. She worked as a research assistant for the Electrodeposition Division of IBM Corporation in New York, and later received the IBM Manufacturing Graduate Fellowship of 1991-92. That same year, she won the Student Research Award of the Battery Division for the Electrochemical Society. She has recently published a study related to the anomalous codeposition of binary iron-group alloys in the *Journal of Applied Electrochemistry* as well as several others dealing with nanocomposite thin films and induced codeposition in the *Journal of the Electrochemical Society*. In June 1998, Podlaha received a grant totaling \$3,000 from the American Electroplaters and Metal Finishers Society for her research in electroplating of nanocomposite thin films using pulse-reverse plating. In addition, she was awarded \$800 by the Board of Regents and the National Science Foundation for faculty travel funding. Currently, she is directing two Ph.D. and two M.S. candidates in their dissertations/theses, teaching a new class examining the numerous principles of electrochemical engineering (ChE 4410), and awaiting a future collaboration with the Center for Advanced Microstructures and Devices.

Karsten E. Thompson joined the department as assistant professor in 1996 shortly after receiving his M.S. and Ph.D. from the University of Michigan, Ann Arbor, during which he also worked at Halliburton Services Research Center and consulted for Chevron Oil Field Research Company. The 1996-97 Cross Holloway Award for Excellence in Research and Teaching and the LSU Engineering Council Professor of the Year Award for 1997-98 are true indicators of his service and

commitment to both research and students. Grants totaling over \$280,000 from the Louisiana Board of Regents, the Louisiana Energy Enhancement Program, and the Kimberly-Clark Corporation have been awarded for research dealing with transport and reaction in porous media, primarily applicable to petroleum production and subsurface contaminant transport. Included in this program are studies dealing with enhanced oil recovery, predictive pore-scale modeling, computational fluid mechanics in disordered media, and remediation of organic contaminants in ground water. The more fundamental aspects of this modeling have led to spin-off collaborations with Kimberly-Clark to study flow in fibrous materials. Thompson is currently working with his graduate student research group and teaching Advanced Fluid Mechanics and a lab in Unit Operations (ChE 7532, 4162). He is also a faculty adviser to the student chapter of AIChE.

INDIVIDUAL FACULTY PROFILES

John R. Collier recently achieved the Ike East Professorship in Chemical Engineering. His areas of research include polymer and textile processing and properties, fluid flow, and conversion of agricultural wastes to value added products. Collier is involved in a number of active and externally supported projects such as polymer elongational rheology, cellulosic manufactured fibers, micro machining, and recycled plastics. By converting the residue from sugar cane processing into cross-section controlled fiber bundles, Collier has developed, successfully field tested, and patented erosion control mats for highway and other construction sites. In cooperation with a local company, he used resin transfer molding with specific textile preforms to produce and improve pipe fittings.

Armàndo B. Corripio has pursued research in the application of computers for designing, controlling, and operating chemical processes. He teaches both graduate and undergraduate courses in automatic process control theory, computer integrated manufacturing, and computer-aided process design. In August, Corripio spent two weeks in Colombia, South America, teaching a short course at Ecopetrol, the Colombian petroleum company. In addition to receiving Dean Bourgoynne's Book Award for *Design and Application of Process Control Systems*, he received a gold watch from Chancellor Jenkins for 30 distinguished years of service at LSU.

Kerry M. Dooley is presently working on the development and characterization of post-transition metal-modified zeolites. In collaboration with F.C. Knopf and R.P. Gambrell, Dooley's research group was the first to determine that supercritical fluids could be used to extract priority pollutants from contaminated soils and to demonstrate that small quantities of certain low molecular weight co-solvents could enhance these rates of extraction. His other research is devoted to artificial reef applications by improving the strength properties of cements. At the Southwest Catalysis Society meeting held in New Orleans in October, he presented a paper on "Comparison of Zeolite-Supported alloy Dehydrogenation

FACULTY NEWS

Catalysts." He also chaired the session "Greenhouse Gases and Related Topics" in the topical conference on environmental Reaction Engineering at the AIChE Annual Meeting in November.

Gregory L. Griffin attained the honor of becoming a George H. Nusloch II Endowed Professor. He is actively occupied with undergraduate student advising in addition to supervising departmental efforts in curriculum development. Currently, he is working on chemical vapor deposition of copper thin films for microelectronic applications—an NSF-funded research program. He is also the Co-PI on an NSF-funded equipment grant for a transmission electron microscope.

Douglas P. Harrison was chosen to serve as a peer review panelist on the EPA Environmental Engineering Program. His research group is busy with two projects sponsored by the DOE; one deals with high temperature gas desulfurization and the other is concerned with the discovery of an alternate process for producing hydrogen from natural gas. He is also the co-editor and author of two chapters of a book titled *Desulfurization of Hot Coal Gas* which reports on the content of a NATO Advanced Studies Institute meeting held in Kusadasi, Turkey, in 1996.

Martin A. Hjortso is currently working on projects dealing with the design of reactors for cultivation of plant roots in addition to model investigations of autonomous oscillations in continuous cultures of baker's yeast. Part of the root culture research is directed toward discovering innovative, biologically active compounds in local plant species. Other potential uses include pharmaceuticals or environmentally benign pesticides. Additional hopes for dynamic optimization of fermentation processes fuel his study of oscillating cultures. Hjortso was recently named George H. Nusloch II Professor of Chemical Engineering and is an active member of the American Association for the Advancement of Science, the American Chemical Society, and the American Institute of Chemical Engineers.

In addition to serving as department chairman, **F. Carl Knopf** is continuing his research in the areas of pH-neutral cements, thermoeconomic optimization, and improved spray combustors. In collaboration with Kerry Dooley, R.P. Gambrell, and research associate Bronson Guilbeau, a DOE sponsored project is underway using supercritical carbon dioxide to produce cement-based pH-neutral artificial reefs. The manufactured reefs are especially tailored for microalgae attachment with the attached microalgae showing carbon dioxide fixation 20 times greater than their unattached counterparts. A second DOE-sponsored project involves thermoeconomic optimization with special emphasis on heat exchanger networks and cogeneration systems. In collaboration with S. Acharya and graduate assistant V. Sunthanam, Knopf has constructed a planar laser induced fluorescence (PLIF) system. NASA sponsored this project to study the effect of synchronized liquid fuel injection into combustion zones within excited air vortices. Interestingly, the study revealed that the PLIF system allows detailed and instantaneous determination of OH radical concentration and efficiency in the combustion zone.

In January 1997, **Ralph Pike** was named co-editor-in-

chief of *Waste Management*, an international journal devoted to prevention, control, detoxification, and disposition of hazardous, radioactive, and industrial wastes. He was also instrumental in the development of an interactive windows program for pollution prevention in chemical plants and petroleum refineries that integrates flowcharting, on-line optimization, and chemical reactor analysis. This analysis and pollution index is used in graduate courses and is available through the department's web site.

Geoffrey L. Price is quite active in both academia and the community. His research interests are primarily in chemical and petrochemical operations utilizing zeolites and zeolite catalysis. Along with several co-workers, Price was the first to identify and describe an important solid-state ion-exchange process that takes place between gallium and zeolitic protons. On May 7, 1998, he was awarded the Department of Chemical Engineering Robert Hughes Harvey Endowed Professorship. He is also the chemical engineering computer administrator, a member of both the LSU Radiation Safety Committee and the CAMD Promotion Committee, and coordinator for the Chemical Engineering Shop for five consecutive years. His commitment to the community is equally impressive. For five years, he has been on the High School for Engineering Professions Advisory Committee for Scotlandville High School; and, he is currently president of the non-profit organization Recycled Computers for Kids, Inc.

Maciej Radosz joined the department as a professor in March 1995 after receiving his Ph.D. in 1977 from Cracow University of Technology, Poland. On September 11, 1998, Radosz presented "Macromolecular Thermodynamics," an inaugural lecture for his recent appointment as chair of chemical engineering. He is the editor of an international journal on *Fluid Phase Equilibria* and a member of the editorial board of the *Journal of Chemical and Engineering Data*. In addition, he hosts a number of visiting researchers.

Danny D. Reible recently received Chevron Endowed Professorship award. He presides as the south and southwest director of the Hazardous Substance Research Center composed of LSU, Rice University, and Georgia Tech. In addition, he served as chair for the Bioavailability Workshop for the American Academy of Environmental Engineers and as an adjunct faculty member with the University of Colorado for the Department of Civil, Environmental, and Architectural Engineering. After sojourning down-under at the University of Sydney, Reible attended the Society of Environmental Toxicology and Chemistry conference held in Bordeaux, France, along with the National Research Council Symposium on Contaminated Sediment in Washington, DC. His main area of research interests focuses on transport phenomena and its applications to environmental mechanics of which he supervises experiments ranging from laboratory simulations of density currents to state of the art turbulence models. An active member of the St. George Church, Reible spends much of his free time as an adult leader for Lifegivers Catholic Youth Group.

Arthur M. Sterling, a William G. Raymond Endowed Professor, is exceedingly interested in the fields of fluid mechanics and the experimental and theoretical investigations

of combustion phenomena. Currently, his research is focused on enhancing the understanding of the fundamental processes involved in rotary kiln incineration and the associated air pollution equipment. In hopes of developing ways to operate more efficiently and economically, Sterling conducts experiments on both full-scale incinerators at local chemical plants and at the newly installed, two million BTU pilot-scale incinerator at LSU.

On August 24, 1998, **Louis J. Thibodeaux** was appointed to the National Research Council Committee on Risk-Based Criteria for Non-RCRA Hazardous Waste. The task of the committee is to review the scientific and technical aspects of the California Environmental Protection Agency's proposed approach for the classification of hazardous wastes into three categories and to identify any potential improvements in the proposed system. In July, Thibodeaux attended "Criteria for Persistence and Long-Range Transport of Chemicals in the Environment," a 50-participant limited-attendance workshop hosting experts from Canada, Italy, Netherlands, United Kingdom, Belgium, Switzerland, Japan, Germany, and Sweden. The magnitude and urgency of the workshop centered around the appearance of persistent organic pollutants in the Arctic, the Great Lakes, and oceanic streams, therefore, reaping support of UNEP, NAFTA, UNECE, LRTAP, and SETAC. He served as chair of the group focused on quantitative determination of intermedia partitioning and transport.

Kalliat T. Valsaraj was appointed to the Science Advisory Committee of the Integrated Petroleum Environmental Consortium, a research center funded by the U.S. EPA. The consortium consists of four member universities: the University of Oklahoma, the University of Tulsa, Oklahoma State University, and the University of Arkansas. He has been fortunate to see his research idea dealing with solvent sublimation go from laboratory curiosity to the pilot-plant at Borden Chemicals and Plastics in Geismar, Louisiana. His research work on air emissions from contaminated sediments is currently receiving funding from the U.S. Army Waterways Experiments Station and the U.S. EPA through the Hazardous Substance Research Center. He and Professor Pardue of the Civil and Environmental Engineering Department have received a two-year grant from the U.S. Department of Energy to study the factors effecting the air emissions of hydrogen sulfide from oil field waste treating facilities. He also received the Cross-Holloway Award for Excellence in Research and Service in 1998.

David M. Wetzel is an associate professor of chemical engineering as well as an F.J. Haydel, Jr. or Kaiser Aluminum Professor. Currently, he is working with faculty members as well as students in the LSU School of Forestry, Wildlife, and Fisheries on the modeling of wood drying processes. His other areas of research interests include wet-air oxidation and cross-flow stripping.

VISITING RESEARCHERS

•In June 1998, Professor Reible hosted **Jose Azcue**, of the National Civil Engineering Lab in Portugal, to enrich his research pertaining to the management of contaminated sediments.

•**Bronson P. Guilbeau** began his research on supercritical pressure-assisted molding and carbonation of cementitious materials with Professors Dooley and Knopf in June 1998. Assisted by Robert Gambrell (a biochemist at LSU), he is also analyzing algae attachments to determine the best cement for artificial reef applications at the Louisiana University Marine Consortium in Cocodrie.

•**Paal Hemmingsen**, a Ph.D. candidate from the Norwegian University of Science and Technology located in Trondheim, Norway, was hosted by Professor Radosz for a four-month thermodynamic investigation of solid-liquid equilibria in polymer solutions. His modeling using the SAFT equation of state was sponsored by the Research Council of Norway.

•Hosted by Professor Harrison, **Suleyman Kaytakoglu** of Anadolua University, Turkey, spent one year working on a DOE grant relating to hydrogen production.

•**Marek Luszczuk** from the Institute of Physical Chemistry at the Polish Academy of Sciences in Warsaw, Poland, was hosted under Professor Radosz for experimental thermodynamics research with an emphasis on liquid-liquid equilibria measurements for binary and ternary nonelectrolyte mixtures such as high-pressure polyolefin phase equilibria. He served as professor invitee at Universite de Metz, France, from 1996-98.

•From Virginia Polytechnic University, **Heng (Rose) Shi** was hosted by Professor Radosz for one year characterizing the crystallizability of polyolefins—a project sponsored by the United States Department of Energy.

•**Stephan Wolynec**, the chairman of the Department of Metallurgy and Materials Science at the Polytechnic School of the University of Sao Paulo, Brazil, was hosted by Professor Podlaha on June 3, 1998.

FACULTY AND STAFF AWARDS

Eugene Hadlock

Cross-Holloway Award for Excellence in Instruction

Michael A. Henson

Cross-Holloway Award for Excellence in Research and Service

Karsten E. Thompson

*Cross-Holloway Award for Excellence in Research and Teaching
LSU Engineering Council Professor of the Year Award*

Kalliat T. Valsaraj

Cross-Holloway Award for Excellence in Research and Service.

BACHELOR'S DEGREES AWARDED

Summer 1997

Hugh B. Brian
 Ryan J. Clausen
 John A. Durnin III
 Christopher D. Martin
 Christopher E. Rowzee

David M. Dauterive
 Jeremy C. Ford
 Venu Vinodh Gedela
 Bronson P. Guilbeau
 James T. Higginbotham
 Michael L. Hollis
 Savita Iyer
 Sandra M. Jones
 Nathaniel B. Klumb
 Hooi Hong Kuan
 Leonard D. LeJeune
 Lesley E. Lewis
 Paul D. Libbers
 Michael Kuo-Tsun Liu
 Kahlee Loo
 Benjamin L. Marshall
 Melissa A. McCutcheon
 Susie M. McMullan
 Don A. Melerine
 Brent R. Ozenne
 Rebekah F. Phillips
 Justin O. Reeves
 Hannelore R. Rietschier
 Robert S. Rikhoff
 Brian P. Robert
 James R. Sakovich, Jr.
 Don M. Scott
 Robert D. Seaman
 Chad R. Thomas
 Charles E. Varnado, Jr.
 Robert H. Wegener III
 Allain D. White
 Steve Williams, Jr.

Fall 1997

Christopher M. Agostinelli
 John R. Aiton
 Tracy K. Allen
 Michael L. Betbeze
 Steven M. Gardner
 William C. Guidry
 Taryn D. Hess
 Benjamin C. Hill
 Trisha M. Legaux
 Todd P. Peltier
 Connie E. Perrin
 Jonathan C. Picard
 Jeffrey A. Price
 Fabian M. Rizo
 Michael G. Shelby
 Denise V. Spiers
 Corey E. Sullivan
 Dung A. Tran
 Cheryl L. Tucker
 Stacy Weidner
 Todd G. Winterton

Spring 1998

Clint J. Acosta
 Stephen C. Barrow
 Joey C. Blanchard
 Kelly V. Boutreis
 Diane W. Braselman
 Jennifer J. Brumfield
 Barry J. Creppel, Jr.

Summer 1998

Jess C. Frey
 Joel D. LeBlanc

UNDERGRADUATE STUDENT AWARD WINNERS

At the May 1998 Commencement, three outstanding chemical engineering students received both the **University Medal** and the **McLaughlin Medal** for maintaining a perfect 4.0 average at the time of graduation. The Department of Chemical Engineering would like to salute **Melinda McCutcheon**, **Chad Thomas**, and **Allain White** for their remarkable performance and achievement.

Also, the design team of **Savita Iyer**, **Barry Creppel, Jr.**, and **Michael Hollis** were selected for preparing the best design of a p-Xylene plant. The judges for this contest included several stringent process engineers from Exxon Chemical, including 1994 LSU graduate Tricia Comeaux Delaney.

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS

Karsten Thompson served as faculty adviser to the LSU Chapter of AIChE. Leading the chapter into its projected goals, the following undergraduate students presided as officers for the 1998-99 chapter:

President Jane Byerly
 Vice President Priti Joshi
 Secretary Scott Crowell
 Treasurer Martin Tate
 Social Director Clarence Garlepied
 Publicity Scott Strikmiller
 Web Master Gaetano "Chip" Aloisio
 Engineering Council Reps. . . Teresa Taylor, Oscar Flores
 Senior Representative Raymond Husser
 Junior Rep Warren J. Hachet
 Sophomore Rep Allison White
 Freshman Rep Rex McMullan
 Publicity Chair Lanny Smith

ALPHA OMEGA

Armàndo Corripio served as faculty adviser to the 1998-99 chapter of the Louisiana State University affiliate of Alpha Omega. Undergraduate students must have at least a 3.25 overall GPA with a 3.0 in chemical engineering courses while graduate students must have a 3.5. Because of their academic excellence, these students serve as peer mentors by tutoring their fellow classmates. The following students were elected officers for this year's chapter:

President Steven P. Reynolds
 Vice President Katherine C. Toney
 Treasurer David S. Stafford
 Secretary Molly Soulier

THE SOCIETY OF HISPANIC PROFESSIONAL ENGINEERS

Oscar Flores, a junior in chemical engineering, reigned as president of this organization for the 1998-99 term. This organization is not limited to chemical engineers; in fact, it encompasses all disciplines of the engineering field. They usually attend several national conventions throughout the year including the October meeting held in Houston, Texas, and another in February held near the beautiful beaches of Orlando, Florida.

GRADUATE STUDENT NEWS

• **Amy Breaux** has had a very rewarding and dynamic year. She won the IBM Scholarship, the LSU Board of Supervisors Scholarship, and the American Electroplaters and Surface Finishers Summer Fellowship. In addition to these outstanding accomplishments, she served as the 1998-99 president for the LSU student chapter of the National Association of Corrosion Engineers and the 1996-97 president for the LSU student chapter of the Louisiana Engineering Society.

• In April 1998, **Guilhem de Seze** presented "Sediment-air equilibrium partitioning of hydrophobic organic compounds" in conjunction with Professors Valsaraj, Reible, and Thibodeaux at the eighth annual meeting of the SETAC-Europe held in stunning Bordeaux, France.

• Currently working full-time at BASF in Geismar, **Stephen W. Horstkamp** received the spring 1996 AIChE Outstanding Paper Award for "Liquid Storage of Methane via Solubilization in Natural Gas Constituents." He also serves as public relations chair for the Baton Rouge section of AIChE.

• Relishing in the recent status of new father, **Yiding "Neil" Zeng** was awarded a dissertation fellowship by the graduate school and presented "High Temperature Gas Desulfurization with Elemental Sulfur Production" in conjunction with **Sen Zhang** and several faculty members at the 15th International Symposium on Chemical Reaction Engineering held at Newport Beach, California, in September.

• A former president of the Graduate Student Organization, **Alan Ka Chun Chan** presented a paper dealing with bubble, dew, and solid-liquid phase transitions at the AIChE spring 1998 national meeting.



MASTER'S DEGREES AWARDED

SUMMER 1997

Indhu Muthukrishnan
Antwane Lamar Shephard
Valery Temyanko
Yiding Zeng
Sen Zhang

FALL 1997

Gang Guo
Christopher L. Porter

SPRING 1998

Mircea S. Despa
Vaughan I. Hart
Cheng Pan

SUMMER 1998

Deepak Kumar Saha

DOCTORAL DEGREES AWARDED

SUMMER 1997

Santosh G. Bhagwath
"Optimization and Scale-up of Thiarubrine
A Production from Hairy Root Cultures of *Ambrosia
artemisiifolia*" advised by Professor Hjortso

Mohammad Fahrurrozi
"Cellulose Reinforces Composites and SRIM and RTM
Modeling" advised by Professor Collier

FALL 1997

Narendra Shamkant Borgharkar
"Chemical Vapor Deposition of Copper Films"
advised by Professor Griffin

Michael James Kurtz
"Feedback Linearizing Control Strategies for Chemical
Engineering Applications" advised by Professor Henson

SPRING 1998

Xueyu Chen
"The Optimal Implementation of On-Line
Optimization for Chemical and Refinery Processes"
advised by Professor Ralph W. Pike, Jr.

NEWS OF ALUMNI & FRIENDS

1940S

Earnest D. Campbell (B.S., '49) is retired from Dow Chemical and living in Baton Rouge, Louisiana.

Paul A. McKim (B.S., '43; M.S., '47; Ph.D., '49), although retired, still frequently engages in occasional assignments as a management consultant in areas of mergers, acquisitions, divestitures, strategic planning, and business development in Houston, Texas.

1950S

Thomas S. Allen (B.S., '52) retired from Ethyl Corporation in 1990 after more than 37 years. He keeps busy racing sailboats and serving as president of a small company that manages family and private real estate investments in New Orleans, Louisiana.

Horacio Baena (B.S., '57) is the president of Ingenieria Quimica Colombiana LTDA, a consulting engineering firm for small paper mills in the Cali, Colombia, area. He has been married for 62 years and has six children and three grandchildren.

Gilberto G. Benitez (M.S., '57) lives in Cali, Colombia, and was promoted to general manager for Unipapel S.A.

James Breaux (B.S., '56) retired from Bowater Corporation in Cleveland, Tennessee, and is now a member of the Dean of Engineering's Advisory Council there.

Jerry G. Moffett, Jr., (M.S., '55) retired from Shell Chemical Company in 1991 and now lives in Houston, Texas.

George G. Nelson (B.S., '52) moved to Fairhope, Alabama, in 1993 after "retiring" from International Paper of Natchez, Mississippi. He works for IP as an independent contractor and serves as secretary of the Engineering Division of the Technical Association of the Pulp and Paper Industry.

Ben D. Park (B.S., '50) is a Korea and WWII Navy veteran who recently retired from Oryx Energy Company and now volunteers as a computer consultant for Crown Ministries in California.

Wilbert (Jack) Savoy (B.S., '50) is retired and living in Lake Charles, Louisiana.

Magnus (Mike) Tassin, Jr., (B.S., '58) was recently elected District 6 Metro Councilman of East Baton Rouge Parish and will serve until December 31, 2000.

1960S

Bobby Hebert, Sr., (B.S., '61) retired from the Louisiana Department of Transportation after 33 years. In addition to directing a bank for 28 years, he is the proud father of NFL quarterback Bobby Hebert, Jr., of the Saints and Atlanta Falcons.

Richard W. Hicks (B.S., '62) retired after 34 years with Chemineer and Monsanto Chemical Company. He has since established his own chemical engineering consulting business in Dayton, Ohio.

Henry C. Insua (B.S., '61) is an environmental engineer for the water division of the Arkansas Department of Pollution Control and Ecology.

Jack O. Phillely (B.S., '68) has been working as a process safety consultant for over 10 years and is currently the principal engineer for DNV Risk & Reliability of Houston, Texas. He is both a certified safety professional and the principal author for CCPS Guidelines for Investigating Process Safety Incidents.

Alan M. Raymond (B.S., '68) is the president for Shell Energy Services Company, L.L.C., an affiliate of Shell Oil Company in Houston, Texas.

1970S

Anand J. Apte (M.S., '72) teaches in Pune, India, at the Maharashtra Institute of Technology. As a head of the petrochemical engineering department, Apte serves as an adviser to many students in the area of energy and synthetic fuels.

Eng Hong Chua (B.S., '77) is the engineering director for Bay Engineering Corporation in Malaysia.

Gary H. Johnson (B.S., '70) is vice president of business development and

strategic planning for Valero Energy Corporation in Houston, Texas.

John F. Kress (B.S., '73) is the vice president of refining for American International Petroleum in Willis, Texas.

Ronald E. LeTard (B.S., '72) received his MEChE in 1982 from Tulane and served as a past president of the Gulf South Compression Conference. He is now employed by Conoco Inc. in Lafayette, Louisiana, as a rotating equipment engineer.

Kyle L. Preston (M.S., '70) works as an independent consultant and presides as president of Practical Process Solutions located in Port Arthur, Texas.

1980S

Tanvirally A. Adamjee (B.S., '85) is the general manager for the Dry Cleaning & Steam Laundry, LTD in Port Louis, Mauritius.

Anne Martin Balinsky (B.S., '85) is process support engineer in the polyethylene division of Chevron Chemical Company of Kingwood, Texas. She is also extremely busy raising her two teenage boys.

James Dautenhahn (B.S., '89) received his M.S. degree from North Carolina State University in 1994 and is currently a process engineer for Imes Engineering at CONDEA Vista's Lake Charles, Louisiana, facility. There, he and his wife, Pam (who is an assistant professor of chemical engineering at McNeese) raise their two-year-old daughter, Emily.

Kathleen Franklin (B.S., '82) lives in Arlington, Virginia, and investigates chemical accidents at industrial facilities for the Chemical Emergency Preparedness and Prevention Office, a division of the U.S. Environmental Protection Agency located in Washington, D.C.

Marcus E. Ledoux (B.S., '85) lives in Baton Rouge and is the operations manager at Fina-Cosmar Styrene JV of Carville, Louisiana.

Ann Dartez Schober (B.S., '86) was employed by the U.S. Environmental Protection Agency as a project manager unit January 1998. She now lives

NEWS OF ALUMNI & FRIENDS

in Dallas, Texas, raising her two sons, Andrew and Avery.

Darrell Rivers (B.S., '86) is the founder and managing member of Computer Science Group, LLC. Located in the Baton Rouge area, Rivers develops and markets environmental management software.

Kevin G. Waguespack (B.S., '84) is a principal consultant for Downstream Energy Price Waterhouse—Management Consulting Services in Houston, Texas.

1990s

Michael Burcham (B.S., '93) is a technical section supervisor for Exxon Co. USA.

Alan K. Chan (B.S., '95) is currently a graduate student at Louisiana State University.

John C. Coker, Jr. (B.S., '91) is a hydroprocessing engineer at the Exxon Baton Rouge Refinery.

Erick J. Comeaux (B.S., '97) is employed as a compound development engineer by Georgia Gulf of Plaquemine, Louisiana.

John S. Gordon (B.S., '96) is a high-density polyethylene product engineer at Chevron Chemical Company in Orange, Texas.

Melanie Hebert (B.S., '93) is a process engineer for ELF International, Lacq, France Site.

Susan D. Jackson (B.S., '94) lives in Baton Rouge, Louisiana, and is the environmental, health, safety and process safety coordinator for the Ethylene Oxide/Ethylene Glycol Unit at BASF Corporation.

Ann Williams Jordan (B.S., '94) is a process engineer for Brown & Root Engineering and Construction in Mobile, Alabama.

Andrea Hailey Klein (B.S., '94) is an environmental specialist, managing hazardous waste and Community Right-To-Know Issues for BP Exploration & Oil Incorporation of Cleveland, Ohio.

William Koonce (B.S., '97) is a research engineer for the Polyurethane New Business Development Research division of Dow Chemical in Freeport, Texas.

Stephen Lassard (B.S., '92) is a senior process engineer for Castrol North America, Inc. and lives in Denham Springs, Louisiana.

Amy MacEwen (B.S., '96) is a carbon monoxide production engineer at Dow Chemical in Freeport, Texas.

Sanat Mohanty (M.S., '97) is a Ph.D. candidate in chemical engineering at the University of Minnesota.

Yvette Morgan (B.S., '96) is a process technology engineer at Albemarle Corporation's Process Development Center in Baton Rouge, Louisiana.

Indhu Muthukrishnan (M.S., '97) is currently attending the University of Delaware and working as a graduate research assistant in the Department of Environmental Engineering.

Christopher Porter (B.S., '92) recently moved to Baltimore, Maryland, as a simulation engineer with GSE Systems after working for Formosa Plastics and Georgia Gulf.

Monica P. Astete Ramirez (B.S., '97) is a process design engineer with Amoco Corporation at the Texas City Refinery, Texas.

Matt Schumacher (B.S., '93) is a VCM2 production manager for Formosa Plastics Corporation in Baton Rouge, Louisiana.

Mark Seymour (B.S., '95) works in the Acrylic Acid Unit of Union Carbide and resides in Kenner, Louisiana.

Ronald L. Snell (B.S., '94) is located in Baton Rouge, Louisiana, and employed by Vulcan Chemical as an Operational Excellence/Production Engineer.

LOST ALUMNI

1914

Henry M. Giordani

1915

Y. Ryan Emilio
Cyrus T. Hel
Glynn H. Ledbetter
John R. Mays

1922

Leonard M. Levy
Ramchandra G. Padhye
Norman G. Platts

1924

Ernest E. McCollough

1926

Clement A. Barrere

1927

Rudolph F. Duelfer

1931

Robert E. Schexnaider

1933

Russell N. Lay
Lawrence O. Lord

1934

Phillip J. Bertin
Reginald N. Blaize
Samuel R. Fitzgerald
James E. Lindsay
Ellsworth N. Smith

1935

Henry P. Broussard
Mary L. Digirolamo
Charles E. Gill
Hamilton M. Johnson
Richard A. Pratt
M.R.S. Rao
Frank w. Valls
Guy G. Vanderpool

1936

Lealand A. Enberg
Louise T. Kennedy
James Hardie McGee
Francisco Pepito Pilapil
Alvin D. Rolufs

1937

John Lucious Burt

Delma McCabe Cointment

Angel Alberto Colon
Eugene E. Ellis, Sr.
Richard L. Hodges
Edwin Liebert

Morris Leonard Perlman
William Everitt Rowbotham
Robert Boyd Stewart
M. R. Subra
William Owen Switzer

1938

James Camille Aucoin
Charles Edwin Going
Walter Hudson Johnson
Gangadhar Dinker Kane
Otis Bernard Rowland
Herman Siegel

1939

George Timothy Mercier
Sidney Schulder
David Connell Walsh

1940

Henry Blanchet
James Wilson Bridges
Edward Stirling Johnson
Y. Ebra Jose
James V. Senese

1941

Harry Clair Cole
Charles Arthur Overstreet
Willis Wilcox Williams

1942

William Fowler Daniels
Gilbert Fletcher Moore
James Stanton Patterson
James David Wall

1943

Ora C. Day
Robert Emmett O'Connor
George Albert Speir

1944

Manuel Mestre
Jack William Racine

1945

Armando Alonso
Juan Castresana
Karl Albert Muller
Charles Bernard Richard

1947

George Charles Conrad
Thomas Harper Goodgame

1948

William B. Chancellor
Guillermo A. Dominguez
William Alfred Dominguez
Harold L. Keaton
Edward O'Donnell
Charles Joseph Perilloux
Dwaraknath Reddy
Richard Weldon Waldsmith
Stephen A. Winborn

1949

Maurice Gordon Baxter
Richard Cameron Berry
Thomas Fulton Burke
Edmund Pettus Davis

Billy Joe Grady
Thomas Moody Logan
John Rurick Major
Pablo Navarrete Vaillant
Bruce Eugene White
Ben Allen Willard

1950

Harish Chandra Anand
Earl Paul Babin
Raul Victor Capote
Vincente Carreto de la Mora
Albert Lacy Fourmy
Gene Armond Freiss
Juan Ignacio Gabilondo
Prasanna C. Goswami
Boyce Nunnally
Clarence Earl Phillips
Robert Denton Platt
Wilson Clyde Pullig
Theodore Russell Ray
Osvaldo R. Rodriguez
Jose Sales
Claude Joe Stiles
Manuel Fausto Villapol

1951

Basil Wayne Andrews
Martinez Ricardo Felix
Ruble Landis Huff
Lonnie Zach Mallory
Jimmy Edgar Middleton
Pramod Lal Sarma
Arthur Wellington Sellers
Elvin Andrew Stafford

1952

Omar Arape
Fernando Hoyos Bergonzoli
Frank B. Clary
Eugene E. Ellis, Jr.
Raymond Raffray
Andre Edward Rouillard
John Dempsey Stokes

1953

Mansour Ghadar
Riyad Abdallah Khalaf

1954

Philip Earl Brubaker
Robert W. Duhl
John B. Fontenot
Kenneth Odell Halbrook
Gene Addison Johnson
Humberto Pinheiro Machado
Jose Antonio Moncada
Mario Posada
Kenneth L. White

1955

Zevada M. Avalos
Albert Kennedy DeFrance
Wiley B. Fisackerly
George Mathieu Guidroz
Stanley Dison Hanesworth
Raymond Calvin Hatfield
Guy Clifton McCombs
Wilhelmus Melis
Patrick Gerald Simms
Ezra Jasper Westbrook
George W. Wright

1956

Thomas W. Howard
Kenneth Hoy
Robert Pole

1957

Yeganeh A. Amir
Jose A. Chapman
Rafael Jorge Garcia
Norwood William Matherne
John William Maurin
Felix Fortune Planche
Walter James Porter
Silva Joaquin Sanchez
Regulo Atilio Sardi
Harold Alfred Simms
Luis Alberto Wallis
Ignacio Warner

1958

Joseph M.P.H. Adam
Augustine Joseph Corona
Harry Alonzo Edwards
Robert L. Evans
Bernard J. Goussault
Paul Joseph Gravel
Franklin Murry Ingram
Mohan Singh Kothari
Ferdinand Louis Larue
Euclide Howard Leleux
Jean Pierre Mariani
William Claborn Meek
Bobby Morgan Miller
Maurice Khalil Nasser
Joseph Marie Pierre
Joseph T. Regard

1959

Charles Ellis Adams
James Kernon Crochet
Jai Narain Goel
Willard Milton Hanks
Thomas Charles James
Paul Richard James
Harold Douglas Jelks
Robert Harley Jines

Gerald W. Kattong
Habib Labbaud
Freddy W. Landae
John Morgan Webre

1960

Charles Edwin Beckler
Ronald G. Corley
Ronald Anthony DeJean
George Paul Distefano
Jose L. Fuertes
Sebert Albert Haynes
Charles Emory Knight
Robert W. Lacour
William Francis Lanigan
Michael Joseph Maurin
Jose Leandro Mendez
John L. Morrison
Larry Joseph Remont
Calvin Antoine
RousseCacques L. Saudy
Raphael Toufic Smayra
Shwen Ih Wang
John Wurster Wheeler
Hugh Glenn Wilson
Don Wesley Wolsefer

1961

Heraldo A. Agreda
Hector Joaquin Corella
Robert Allen Davis
Jimmy McMath Givens
Ernest Woodard Harrison
James Cleveland Holland
Y Pino Jorge
Boyd Young LeBlanc
Humberto E. Lopez
Sanchez Humberto Lopez
Jose G. Lopez-Barreda
Jorge A. Pino
Fernando Xavier W. Pires
Victor Plas

Emilio Rebull Rivera
Konchady Nagesh Shenoy
Agreda Heraldo Sifontes
William Dave Taylor
Vincent Stephen Verneuil
Glenn Lamar Wise
Gary H. Young

1962

Jeff W. Baird
Leonard M. Boudreaux
Fred Edward Causey
Edward Leroy Glass
Charles Reggie Guerin
Jack Welbur Harris
Clovis P. Legleu
Walter H. Plain
James M. Shipp

Carlos A. M. Troncoso
Henry M. Troth
James Vastine Valliant

1963

Jose Francisco Agreda
Maria Z. Aguilar
Gerald Eugene Butler
James Leston Case
Francisco C. Eala
Robert Guerra
Billy Wayne MaGee
Frank Nemours Newchurch
Jimmie Doyle Pottorff
Maria Aguilar Rodriguez
Leo Simon Sues

1964

David Gray Caddy
Ronald Calvin
Ivan E. Caro
Danilo P. Castillo
Omar J. Esmal
Herbert James Louque
James M. McCormick
Gary Martin Montgomery
Motiram Kisan Patil
Pietro K. Piralla
Denarakonda Hanumantha Rao
Juan Ramon Santa-Coloma
Robert Glenn Tripp
Jose Tito Villa

1965

Nolan Joseph Adams
James Henry Brooks
Malcolm Lafayette Dove
Mauricio A. Lopez
Madhigiri S. R. Ramesh
Richard C. Robinson
Nora Antonia Sanchez
Antonio Velidanes

1966

Gerardo Ten Brink
Richard Freeman Buckley
Orlando Felipe Cardoso
Harold Louis Hebert
James Edward Horn
David Wesley Miner
Pedro Joaquin Nogueira
Bueno Jaime Porres
Sims Louis Roy
Mario Moises Salinas
Richard Joseph St. Pierre

1967

Richard G. Beecher
Raul Cardenas

James H. Doub
Joseph Larry Edmonson
Gilbert Stevens Fox
Ronald E. Jones
Wilbert S. Mackay
Hooshang S. Moghani

1968

Michael Taylor Edgerton
Ricardo J. Gomez
Guy J. Harel
Randall John Indovina
Ronnie D. Jackson
Julio C. Padilla
Kenneth J. Parent
Robert D. Schultz

1969

Antonio D-Aurrecoh
Jose J. Aquirre
Yu-Chin Liu Chen
Alvin A. Fairburn
John Randolph Langley
Yu-Chin Liu
James Ray McClelland
Ivan A. Navarro
Juan C. Salazar

1970

Alvaro Campuzano

1971

Sain D. Anand
Michael John Atchetee
Jose F. Azouth
Leroy Joseph Cavaliere
Richard Edwin Dorris
Carl David Engel
Segundo Fernandez
Charles Goodson Guffey
Mark Austin Jeffers
James Vincent Jurasinski
Ronald Dean Miles
Danny J. Perrerr
Glen Dale Savoy
William Alden Settoon
Vinodchandra R. Shah
Marlin Rufus Vernon

1972

Juan F. Ardila
Robert John Camacho
Bernad C. Chan
Frank R. Cusimano
T. Augustin David
Michael Michaud
Jose Rafael Morao
Marshall Budd Nelson
Richard Wayne Nill

Sanford James Stinnett
Wing Yan Woo

1973

Denzel Allen Brown
Justin Dwight Edwards
Olivier Damianus Habibe
Hsiao-Nan Huang
Mohammad Reza Karbassian
Ronald Jules Manuel
Richard Lee McGlamery
Madhusudan Nathany
Mehmet Ozbay Ozelsel
Lokesh H. Parikh
Anan Siripong
Roger Earl Waguespack
Emilio Ramon Zarruk

1974

Jamal Al-Din Barzinji
Mohamad B. Behbehani
Galen M. Dino
Frank Darral Durringer
Aurelio B. Dutary
Hafez Hafezzadeh
Mostafa Mina
Lowery Wayne Paxton
Oscar Ivan Pinilla
Najmeh Sadighi-Nouri
Suresh Mansukhlal Vora

1975

Carlos Manuel Acevedo
Rabie Ahdoot
John Allen Alexander
Mohammad Ali Movahed
Ahmad Sharonizade
Paul Timothy Siegmund

1976

Stephen William Krajicek
Frederick Henry Pitts

1977

Patrick Joseph O'Neill
Owaraknath Reddy

1979

Manuel A. Arguello
Ender J. Ferrer
Le N. Hue
Jamaleddin Madjdpour
Carl E. Sladek
Tuan A. Tang
Beth Maria Troxler

1980

Mary E. Ahner
Villa D. Holland

Duc M. Pho
F. R. Roberts
Edward A. Thistlethwaite
Labrador Angela Vitelli
Martin K. Wiewiorowski

1981

Edgar Hernandez
Joel H. Keiffer
Gwendelyen A. Mayeux
Andrew C. Mok

1982

Patrick B. Broderick
Jean E. Carvajal
Joseph Khalk Koro
Narinder B. Lakhani
Jaime A. Pineda
Thomas Anthony Stroud

1983

Daniel Mark Brignac
Lawrence T. Fauchaux
Lily Gunawan
Randall D. Roddivek
Sharron R. Woodall

1984

Neftaly E. Rodriguez
Susan K. Snodgrass

1985

Mohamad Kheir S. Habbal
Corey A. Hay
Robert D. Moore

1986

Kigham Seropp Yeretjian

1988

David E. Cockrill

1989

Michael R. Landry
Jacob Thomas

Chemical Engineering is published by the LSU Department of Chemical Engineering for the benefit of its alumni and students. Comments and suggestions should be directed to:

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WE WANT TO HEAR FROM YOU!

We would like to hear from you. Please print or type the information requested below and return to:

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Chairman, Department of Chemical Engineering
Louisiana State University
Baton Rouge, Louisiana 70803
Fax 225/388-1476 • E-mail jarr@che.lsu.edu

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YEAR GRADUATED & DEGREE _____

ADDRESS _____

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(WORK) _____

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