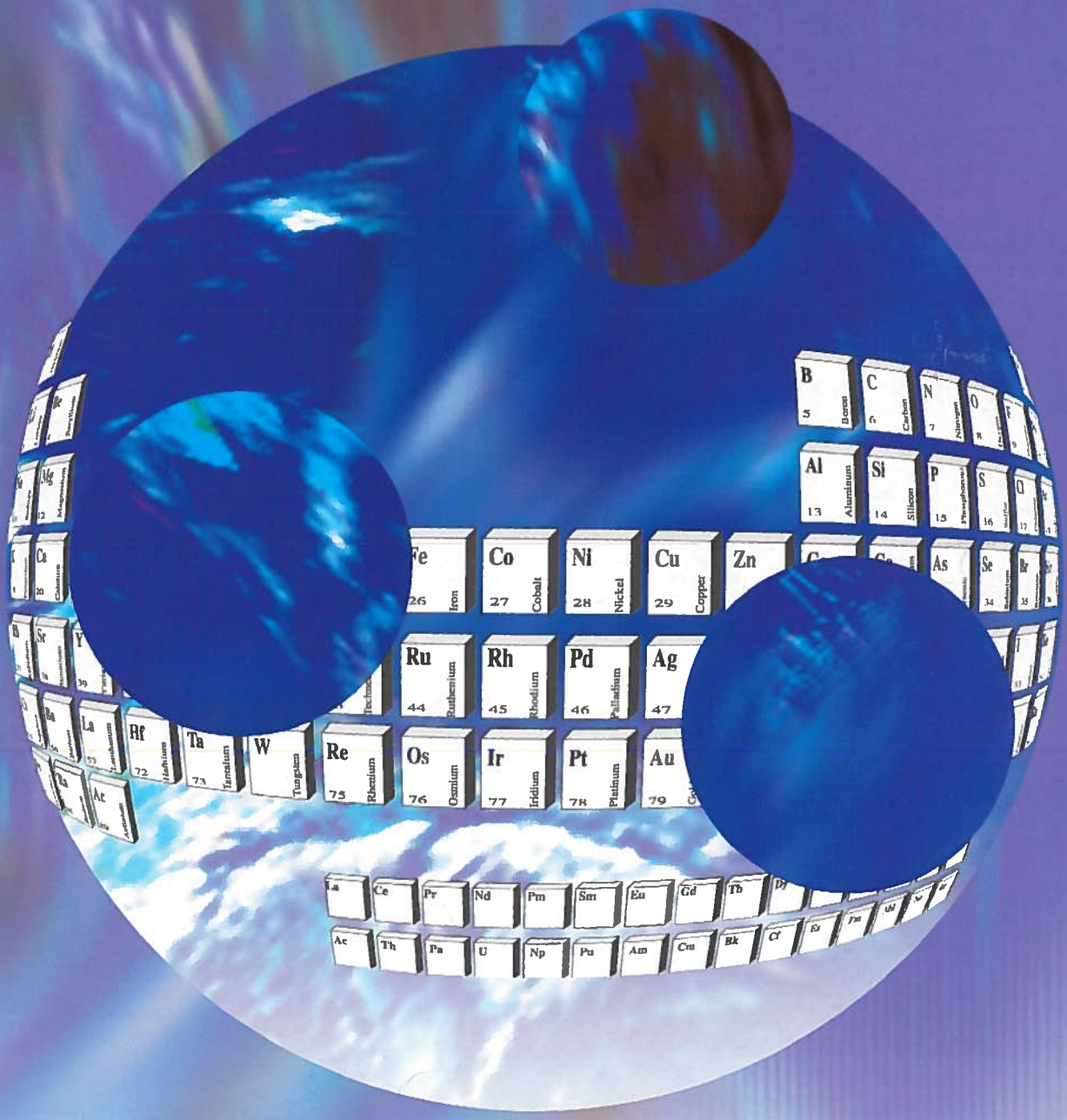
ChEmical Engineering

VOLUME 14 FALL 2000



GORDON A. AND MARY CAIN
DEPARTMENT OF CHEMICAL ENGINEERING
Alumni Newsletter
LOUISIANA STATE UNIVERSITY

Letter from the Chairman

Dear Alumni and Friends,

We have completed another semester, with many changes and plans being made. I am pleased to report that planning money has been allocated for a new Chemical Engineering building. Our Industrial Advisory Committee and LSU Administration worked together to make this possible. I want to particularly acknowledge the efforts of Alden Andre, co-chair of our Industrial Advisory Committee. A new building will be a key step in maintaining our reputation as a quality program. A top quality facility will help us attract Cain Endowed Chairs as well as other high-caliber faculty and students.

My 3-year term as Chairman ended December 31, 2000. During the past three years, I have had the good fortune of an excellent faculty and staff, along with a very loyal alumni base, helping me to improve the department. Together we have:

- *Revamped the undergraduate curriculum*
  - *Added 5 new elective courses, and removed outdated courses*
  - *Integrated computer aided design software into our 4th year courses*
  - *Converted one of our classrooms to a multi-media classroom*
  - *Added 60 new computers to departmental computer labs*
  - *Established nearly 40 additional undergraduate scholarships*
- *Updated the undergraduate laboratories*
  - *Constructed a National Instruments-based control and data acquisition system for 6 experiments*
  - *Honeywell and Exxon Mobil donated a state-of-the-art TDC3000 system, which is now controlling a large distillation column*
  - *John H. Carter Company and Fisher-Rosemount donated a Delta-V system to allow control of a batch polymerization experiment*
- *Strengthened industrial ties with the formation of the Industrial Advisory Committee*
- *Re-established the Alumni newsletter and created a departmental webpage*
- *Completed significant renovations to the existing Chemical Engineering building*

Chemical Engineering was selected as one of twelve priority departments in the University. This designation is due to importance of Chemical Engineering to the State's economy and recognition of the talents of the faculty. With this recognition, additional University funding may be provided to Chemical Engineering to help us take the next step up in national recognition.

And, of course, the generous donation of alumnus Gordon A. Cain and his wife, Mary, will be a major factor in continuing advances in the Chemical Engineering department, for years to come.

We've recently welcomed Dr. Thomas Cleij from Utrecht University of the Netherlands into our department, as an Assistant Professor. He will be a great addition, both as an educator and as a researcher. His research on polymer engineering is the kind of cutting-edge technology that LSU is known for encouraging, and some of his work is detailed in this newsletter.

The search continues for the first Cain Scholar, and a replacement for the M.F. Gautreaux/Ethyl Corporation Chair. We are actively seeking candidates at the top of their fields. We are also continuing to interview candidates, all of whom hold remarkable qualifications, for our Assistant Professor position.

Regardless of my future position, I will continue to help the department remain competitive with other top Chemical Engineering departments across the country. As always, if you have any questions or comments regarding our program and the direction in which we're headed, please do not hesitate to stop by the department. The faculty and I would be most interested in speaking with you.

Sincerely,

F. Carl Knopf

F. Carl Knopf
Anding Professor

A Word of Thanks to Our 2000 Contributors

Although financial support has been impressive, departmental expenses continue to escalate and further renovations are essential in remaining parallel to our competitive counterparts. We would like to thank the following corporations and individuals for their role in maintaining the outstanding reputation that LSU has achieved throughout the years.

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If you would like to know more about contributing, please contact Carl Knopf at 225/578-1426 or send an e-mail to broussard@che.lsu.edu

CHEMICAL ENGINEERING is published for the benefit of the department's alumni and students. Comments and suggestions should be directed to:

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Newsletter Highlight

Gordon A. and Mary Cain Department of Chemical Engineering welcomes Dr. Thomas Cleij

LSU prides itself on being on the cutting edge of many areas of research, and the newest faculty member of the chemical engineering department plans on adding to that reputation. Dr. Thomas Cleij arrived on campus over the summer, with his ideas for research in polymeric materials science and engineering, primarily in the development of hybrid organic-inorganic polymers.

DR. THOMAS CLEIJ

Dr. Cleij comes to LSU from U-Cat, B.V., a company closely affiliated with the University of Utrecht, where he has been working on applied catalysis and polymer technology. He received his Ph.D. in 1999 and M.S. in 1995, both in Physical Organic Chemistry, from Utrecht University. He has published nearly 20 papers in the past five years, and is a member of the Royal Dutch Chemical Society (KNCV) and the American Chemical Society (ACS). Among other honors, Dr. Cleij was awarded a grant in 1995 for chemistry research at the University of Central Florida, focusing on laser spectroscopy of perylene complexes involving small atmospheric species.

Within the field of polymeric materials science and engineering, Dr. Cleij's research interests include: the design and preparation of advanced materials for electronics and information technology; novel polymers for adhesion, micro-lithography, and for their conversion to ceramic materials for membranes, fuel cells, and coatings; development of novel synthetic methods and advanced spectrographic techniques; and computational chemistry of organic and hybrid materials. He began his research with undergraduate study of the electrochemistry of semiconductors, focusing on the electro-and chemiluminescence of porous silicon in acetonitrile. He continued with his Master's studies, compiled in his thesis: "Synthesis and properties of silicon based 1- and 2-dimensional polymers." and culminated with his Ph.D. studies of "Molecular architecture, structure-property relationships: Theory, design and preparation of F-conjugated silicon-based materials."

Dr. Cleij's complex type of research requires that he stay at one location for a while. He says, "I hope to design polymers and do something with them," unlike the practice of most process engineers buying polymers to work with. Dr. Cleij feels that this method offers more control over the process of polymer construction. His belief is that an understanding of the properties of polymers, the relationships between materials, and resulting structures is essential to creating and using polymers in the most efficient way. According to Dr. Cleij, patents practically always result from this kind of research, especially when there are only a small number of people working on this particular kind of research. Dr. Cleij has bolstered this understanding with studies of novel synthetic methods towards organometallic compounds, evaluation of structure-property relationships of polysilanes and polysilynes, and spectroscopy and electrochemistry of F- and B-conjugated molecules and polymers. The primary reason that Dr. Cleij came to LSU is for the opportunity to conduct his particular field of polymer research. He says that LSU offers a good infrastructure for polymer research and he is looking forward to the challenge of teaching.

Dr. Cleij's major interest in polymeric materials lies in the design of new functional polymers and applications for them. He hopes to develop inorganic-organic hybrid polymers, primarily for use in electronics and in ceramics. According to Dr. Cleij, several silicon-based representatives can be used as conductive polymers with possible applications in light-emitting diodes, solar cells and other electronic devices. There has yet to be a breakthrough in this field, with only a handful of people — 5 Ph.D.s in the entire world — working on developing this type of conductive polymer. Dr. Cleij maintains that there will be a demand for silicon-based conductive polymers, once they are created; however, it is currently too difficult to create these polymers in an applicable form and in sufficient quantities.

Dr. Cleij's second area of interest is polymer-derived ceramics. The method he plans to use is to "paralyze" the organic portion of the polymer to create an inorganic ceramic. He says the relatively low production cost of such a ceramic compound would make it useful in many fields, and "the minute I put a jar of a suitable pre-ceramic polymer on the table, 100,000 people will ask 'can I do something with it?'." Polymer-derived ceramic membranes can be used in fuel cells and related fuel processors, making these systems suitable to operate at high temperatures. Another advantage of polymer-derived ceramic membranes would be an increased recovery of compounds such as hydrogen and methane from waste gas streams, ultimately bringing down fuel prices. Dr. Cleij's knowledge of catalytic science and research into converting polymers and ceramic materials into an inorganic ceramic is part of the Chemical Engineering's efforts to bring top quality educators and researchers into the department and university, and to continuously improve the department's reputation in the national and international research community.

Dr. Cleij's wife, Jennifer, is a chemist and American citizen originally from California. She is spending much of her time refurbishing the 150-year-old house the couple purchased in St. Francisville, Louisiana. In addition to Dr. Cleij's research requirements, the Cleijs themselves were looking for a place to settle down for a while. They say that Louisiana is in a nice area of the country, and they find it culturally interesting, especially the food. However, they found the move from the Netherlands to Louisiana to be much more involved than anticipated. They had to purchase all new appliances for their house, both as part of the renovation and also because of the difference in electrical current between U.S. and Europe. In addition to the differences in food, climate, and culture, Dr. Cleij has another adjustment to make to life in Louisiana. While living in Utrecht, he usually walked or bicycled to the University; now he has to get a driver's license for the first time in his life.

▲ DR. CLEIJ AND HIS WIFE, JENNIFER

FALL 2000 DEPARTMENTAL DISTINGUISHED SEMINAR SERIES

JAMES FENTON

Composite Membranes for Fuel Cell Operation at High Temperature

September 22, 2000

A professor of Chemical Engineering at the University of Connecticut, Dr. Fenton is currently conducting a study to develop fuel cell membranes that will be conducive to high temperatures while retaining fuel integrity and keeping costs down. The applicability of this particular kind of fuel cell would reduce the release of carbon monoxide, and therefore, cut down on air pollution. Dr. Fenton's visit was hosted by Dr. Elizabeth Podlaha.

DAVID VENERUS

Anisotropic Thermal Conductivity in Deforming Polymers

October 13, 2000

Dr. Venerus and his colleagues at the Illinois Institute of Technology are looking at the lesser-known thermal properties of polymers at rest and during deformation. Using methods analogous to optic techniques, such as Forced Rayleigh Scattering, they have developed a method to measure the thermal diffusivity in deforming polymers. Dr. Venerus' visit was hosted by Dr. Carl Knopf.

RONALD KANDER

Materials-Related Challenges in Fuel Cell Research

October 26, 2000

In the search for new energy sources, proton exchange membrane (PEM) fuel cells are being developed for use in cars and buses, and even in block-type thermal power stations. Dr. Kander and others at Virginia Tech University are looking at four challenges in PEM fuel cell research: long-term environmental durability of PEMs, the development of sensors to monitor PEM aging, and improvment of power-to-weight efficiency and corrosion resistance of fuel cell assemblies. Dr. Kander's visit was hosted by Dr. Kerry Dooley.

ERICH MÜLLER

Phase equilibria of multicomponent systems using molecular dynamics

November 3, 2000

The head of the applied thermodynamics group at Simon Bolivar University in Caracas, Venezuela, Dr. Müller presented a novel algorithm for evaluating phase equilibria of multicomponent systems, using simple isotonic potential functions. He says that the low-cost availability of parallel computers and simplified intermolecular potentials allow for quantitative prediction of phase equilibria for industrially relevant systems. Dr. Müller's visit was hosted by Dr. Carl Knopf.

WILMA SUBRA

Education and Empowerment of Community Members which Result in Policy Changes

November 10, 2000

President of Subra Company, Inc., Ms. Subra represents the interests and concerns of the grassroots environmental community at the local, state, and national levels. Ms. Subra spoke about efforts in communities in Louisiana and Texas, to educate the citizens and organizations about analyzing pollution data. She says that these efforts have brought about increase inspections and surveillance of the polluting industries in those communities. Ms. Subra's visit was hosted by Dr. Ralph Pike.

JOHN WALZ

Depletion Interactions in Charged Collodial Systems

December 1, 2000

Dr. Walz described a force-balance model that he and fellow researchers at Yale University developed, to determine the effect of nonadsorbing polyelectrolytes on the stability of a dispersion of like-charged colloidal particles. This research is looking extensively into the effects of a nonadsorbing charged species; about which very little is known, but its significance as a system involving such interparticle interaction is both found in nature and used in industry.

Dr. Walz' visit was hosted by Dr. Carl Knopf.

Faculty members offer expert testimony on environmental dredging

Research in the Department and in the Hazardous Substance Research Center/South and Southwest (HSRC-S/SW) has been focusing on the effectiveness of environmental dredging. Back hoe-type mechanical dredges or suction-type cutterhead dredges have seen limited application for extracting chemically contaminated bed-sediment from streams, lakes, and estuaries. Chemical process-based experiments and models are being used to qualify the amount of sediments "lost" during the extraction process; in other words, the pollutants that enter other phases or remain in the aquatic environment. A recent effort led by the State of Louisiana,

DREDGING EFFORTS NEAR BAYOU BONFOUCA, LOUISIANA.

at Bayou Bonfouca near Slidell, Louisiana, to dredge creosote waste illustrated some of the problems of traditional dredging methods. This particular project required the leftover waste to be "capped" (clean sediment spread over contaminated mud), highlighting the ineffectiveness of dredging in certain situations. The most significant problem is that during dredging, as seen in Figure 1, sediment contaminants are stirred up, some settle back into the sediment,

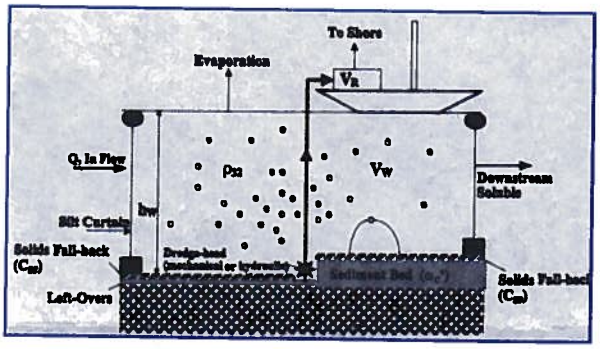
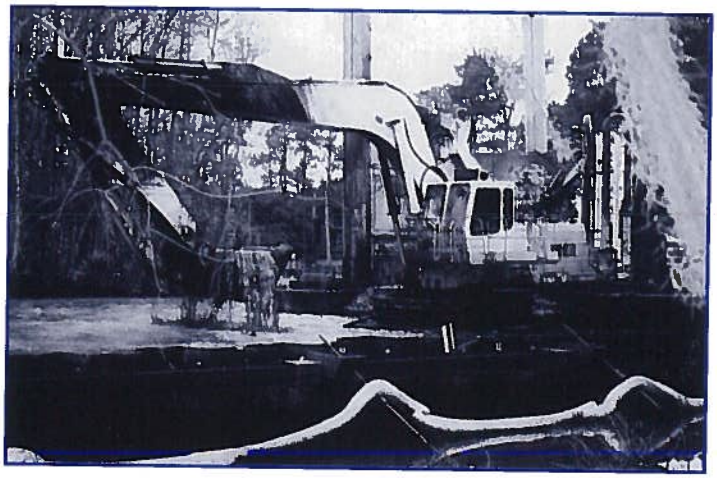


FIGURE 1. IDEALIZED DREDGE-PARTICLE GENERATING DEVICE AND POSSIBLE PATHWAYS FOR FATE OF CONTAMINATEDD SEDIMENT.

others are released into the air, and some are caught in the waterway's currents and swept further downstream.

Dr. Louis Thibodeaux visited Washington, D.C. several times during the past few months, advising and assisting the Environmental Protection Agency on the viability of environmental dredging. He says that he and other remediation experts gave the EPA "a completely different perspective they didn't get from their own people." The Agency is in the process of deciding when, where, and if to use dredging.

Dredging is also of increasing interest to Congress in their efforts to ensure the appropriate management of contaminated sediments. Dr. Thibodeaux provided expert testimony in a session before the U.S. House Committee on Transportation and Infrastructure, Subcommittee on Water Quality and the Environment Hon. R. Bahlert (D-NY) Chair. In early June, he returned to D.C., to brief the Director and technical staff of the U.S. EPA Office of Energy Environmental Response (OEER). Two weeks later, Dr.



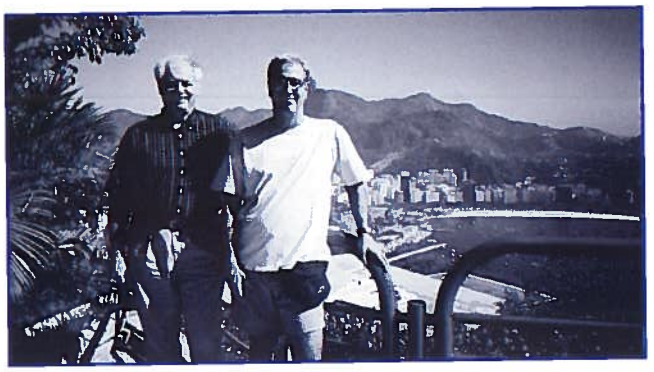
Thibodeaux visited Hon. James Obestar's (D-MN) office for a one-on-one chat to update him on the subject of suction dredging. Dr. Thibodeaux says the question of dredging is far from being resolved, it is still "festering through the systems."

While Congress wades their way through more documents and expert testimony, Dr. Thibodeaux says that he and his associates will continue to improve their models and perform experiments to better understand how chemicals are released through the dredging process. As part of this decision process, the EPA is anticipating a report from the National Research Council of the National Academy of Sciences and National Academy of Engineers, soon to be issued on the subject. Dr. Danny D. Reible, Director of HSRC-S/SW, is a member of the NRC Committee.

Dr. Kalliat Valsaraj and Dr. Thibodeaux are developing a mathematical model for transporting pollutants during dredging. This work is part of the Environmental Effects of Dredging Evaluation supported by the U.S. Army Corps of Engineers, Vicksburg, MS.

CONTAMINANTS IN QUANABARA BAY, BRAZIL

Water pollution is not something normally associated with Rio de Janeiro, but the bay by the city is suffering from unusually high levels of benzo[a]pyrene (B[a]P), a common pollutant created by the burning of organic materials. Dr. Louis Thibodeaux spent the month of July at Pontifica University Catholic (PUC) of Rio de Janeiro, examining that problem. Funded by the Brazilian authorities, Dr. Thibodeaux and Dr. Roberto Carvalho of the Department of Metals and Material Sciences (PUC) developed a simulation of the multimedia behavior of B[a]P.



DR. THIBODEAUX WITH DR. ROBERTO CARVALHO OF PONTIFICA UNIVERSITY CATHOLIC.

B[a]P combines with dust particles in the air and settles in water and on soil, where it is often washed into nearby waterways. The pollutant has been found in levels exceeding World Health Organization standards in two major waterways in the Rio de Janeiro area, Quanabara Bay and Paraiba River. Industrial waste, combustion sources, and automotive pollution over the last 30-50 years have created the high concentrations of B[a]P in the mud of Quanabara Bay. B[a]P could be considered a carcinogen, according to the U.S. Department of Health and Human Services. Because of the abundance of fish and seafood in the South American diet, there are concerns about the accumulation of B[a]P in aquatic life. In addition, many of the residents of Rio who enjoy swimming in Quanabara Bay could themselves come into direct contact with contaminated mud.

Dr. Thibodeaux expects the completion of the modeling effort and the identification of key chemicals processed in the bay to provide a basis to guiding future clean-up efforts. In this spirit, the collaborative research will continue, to look for answers about what is happening in Quanabara Bay with respect to B[a]P; specificially, tracking where it comes from, where it goes, and its rate of entry into the environment. One factor that will be especially significant is where B[a]P is being degraded, due to the pollutant's resiliency to breakdown. Once those questions are answered, then the task will be to determine how to protect the public. According to Dr. Thibodeaux, this protection could be either through advisories, closing areas of the bay, or by dredging the bay and surrounding waterways in an attempt to remove B[a]P.

QUANABARA BAY

DR. THIBODEAUX BRAVES THE WILDS OF BRAZIL.

DR. THIBODEAUX AND HIS WIFE, JOYCE, ENJOYING THEIR TRIP DOWN THE AMAZON RIVER BAY.

While in Brazil, Dr. Thibodeaux and his wife, Joyce, had the opportunity for a bit of an adventure. They spent a few days at the Ariau Amazon Towers, a tree top lodge in the heart of the rain forest. As the Amazon River floods during Brazil's winter months, elevated walkways over the river allow a "living with the animals" feeling, as many birds and mammals take refuge near the resort at this time of year. Day tours included bird watching, jungle-medicine tree tours, spot-lighting camiaus, piranha fishing, and all sights and sounds of living in the jungle. Indian and Brazil guides, thankfully in English, provided a wonderful insight to an area containing some of the world's most precious natural resources.

JOYCE THIBODEAUX WITH ONE OF THE RESIDENTS OF ARIAU AMAZON TOWERS.

ENGINEERING GRADUATE GIVES BACK, OFFERS MESSAGE OF PERSEVERANCE

– Jennifer Melancon, University Relations

JOSEPH A. KLEINPETER

The first member of his family to attend college, Joseph A. Kleinpeter has always been a resolute achiever. Victory over a serious illness proved just how unbending his determination to succeed is. Kleinpeter is sharing this spirit with LSU.

He has recently contributed $80,000 to the LSU Foundation to establish an endowed scholarship fund for engineering and science undergraduates. "LSU gave me a wonderful education and learning experience that played a big role in the good fortune I've had in my professional career, so I wanted to give some back to the university," Kleinpeter said.

In the late '90s, Kleinpeter was diagnosed with non-Hodgkins lymphoma. He said contemplations while recovering from the disease in 1998 were the impetus to establish the scholarship. "An illness like that and six months of chemotherapy make you think about what you might do to help others," he said. Kleinpeter said the idea of helping someone from a similar background as his appealed to him.

A native of Roseland, Louisiana, Kleinpeter graduated from Amite High in 1961. Because of modest family finances, Kleinpeter said he depended on several scholarships to fund his education.

After three semesters at USL in Lafayette, Kleinpeter transferred to LSU. He said he knew LSU had a strong chemical engineering curriculum that would prepare him to be a competitive professional in his field.

Kleinpeter received his bachelor's degree in chemical engineering from LSU in 1965 and a Ph.D. in chemical engineering from Tulane University. He said he began his career as a research engineer for Conoco in 1968 and was instrumental in efforts to develop synthetic fuels from coal technology in the '70s – work that led to six U.S. patents and more than a dozen technical publications.

He moved to DuPont as a research manager in 1982, shortly after DuPont acquired Conoco. He has been involved in information technology leadership at DuPont for the past 18 years and has also held other management positions, including his current position of Director of Telecommunications. In the early '80s, he went through the LSU Executive Program and received what he called a "mini-MBA" over the course of three summers.

The commitment to excellence that revealed itself in Kleinpeter's early endeavors remains with him today. The first Joseph A. Kleinpeter Scholarship for Engineering and Science is scheduled to be awarded this fall. Kleinpeter said he would like students from Amite High to be given first priority and that he plans to increase the amount of the scholarship as the endowment grows.

Kleinpeter and his wife, Carolyn Furca Kleinpeter, a native of Hammond, have lived in Chadds Ford for the past 18 years. They have three grown children, all of whom have engineering degrees.

ADVISORY COMMITTEE MEETS

The Chemical Engineering Department Industrial Advisory Committee met with Carl Knopf and other faculty members in October. Chancellor Mark Emmert, Provost Dan Fogel, and Engineering Dean Pius Egbelu also met with the Committee. Among the issues discussed at the meeting were plans for a new Chemical Engineering facility; Committee members expressed their support for the building and pledged to help with fund-raising efforts. Committee members attending the meeting were: Dr. Alfred M. Lopez of ExxonMobil Research and Engineering, Alden Andre of Formosa Plastics, Dewey Aucoin of Conoco, John Berg of Shell Chemical, Gwen Bingham of Motiva Enterprises, Dr. Jim Boone of Albemarle, Stephen Delo of AlliedSignal, Vernon Fabre of BASF, Dave Magee of Georgia Gulf, David Mongrue of Union Carbide, and Dr. Lindsey McMorris of Exxon Chemical Americas.

LSU CHEMICAL ENGINEERING ALUMNUS PIONEERS AMERICA'S SPACE PROGRAM

Quotes and excerpts from http://space.systems.org/oh/thibodaux

When most people think of chemical engineers, they think of processing plants and paper mills; however, one of our very own alumni was in on the creation of the National Aeronautics and Space Administration. Guy Thibodaux (B.S. 1943) is one of the "Pioneers of America's Space Program," featured on the Center for Space Future Strategy's Oral Histories website. In his interview, Thibodaux talks about his days with fellow LSU graduates Paul Purser and Max Faget, and how the three men literally walked into jobs at Langley Air Base that later led to rocket development with NACA (National Advisory Committee for Aeronautics).

Thibodaux credits much of his success with rocket propulsion work to the professors in the Chemical Engineering department. He says, "We were taught to think. Methodology was much more important than getting the arithmetic right." Working as a team and learning to think out problems played a large role throughout Thibodaux's career, especially during his time as Director of the Propulsion Division at the Johnson Space Center.

Thibodaux's work with rockets included the shift in the 1950s, from missiles using liquid propulsion systems to all solid systems. He also developed some of the first spherical rockets to be used in research, along with varying sizes of rockets used in early aerodynamic studies. Thibodaux is now enjoying retirement, living in Nassau Bay, Texas with his wife Mary Jo.

▲ GUY THIBODAUX JUST BEFORE RETIREMENT FROM NASA.

For the complete transcript of Guy Thibodaux's interview, and more on the Center for Space Future Strategy, visit http://space.systems.org.
The interviewers are currently negotiating with Routledge Publishing to compile the interviews into a book.

State Awards Matching Funds for Cain Endowment

On August 28, the Louisiana Board of Regents notified Chemical Engineering that $800,000 will go toward establishing the first Gordon A. and Mary Cain Chair in Chemical Engineering. The Cain Chair was one of two Endowed Chairs awarded out of the more than 80 proposals submitted to the state in 2000. Five Cain Chairs are to be established with the $10 million endowment by Mr. and Mrs. Gordon Cain, in early 1999.

Conoco Presents Chemical Engineering with Grant Check

Representatives from Conoco's Gulf Coast Region were on campus over the summer to present LSU a check for nearly $70,000, of which the Chemical Engineering department received $15,000. The presentation was made at a luncheon at the University Faculty Club. Attendees included: Carl Knopf and Ralph Pike, Chemical Engineering; Harold Silverman, Dean of Biological Sciences; Zaki Bassiouni, Petroleum Engineering; Julius Langlinais, Engineering; Thomas Arnold, Finance; and Doug Caro, Thomas Demchuk, Dewey Aucoin, Janet Anderson, and Sandy Spatafora from Conoco. We extend our thanks to Conoco for their generous gift.

Faculty News

At this fall's AIChE annual meeting, **Kerry Dooley** presented a paper, "Mating the Unit Operations Lab to the Entire Upper-Level Curriculum," during the Chemical Engineering in the New Millennium topical conference.

Douglas Harrison received support from the Department of Energy for two new research projects; one addresses the problem of high-tempurature desulfurization of synthesis gas, while the second addresses the separation and capture of CO2 from flue gas. Dr. Harrison also presented two papers at the AIChE National Convention in Los Angeles. In addition to his teaching and research duties, he hosted Dr. S.Y. Lin and Dr. Y. Suzuki from the National Institute for Resources and Environment of Japan for research discussions.

Michael Henson continues to serve as the Associate Editor for the Journal of Process Control, along with serving on the review panel for the NSF Small Business Initiative Program. At this year's AIChE National Convention, he was appointed as Director of Computing and Systems Technology (CAST) division of AIChE, and as Programming Chair for CAST Area 10b. In addition to co-publishing four papers, Dr. Henson also co-chaired symposia at two control conferences over the summer.

Martin Hjorstø served as a panel member for a public discussion forum at the third annual European Symposium on Biochemical Engineering Science meeting in Copenhagen. This forum addressed the issue of the rapid growth of bioengineering fields, and how to fit them into university curricula without sacrificing traditional chemical engineering courses.

While serving as Interim Dean of the College of Engineering until July 2000, **Ralph Pike** also hosted two researchers in the department. Professor Serafim D. Vlaev from the Bulgarian Academy of Sciences studied with Dr. Pike on two-phase, non-Newtonian flow in stirred chemical reactors. Dr. Pike was assisted by Adam Nagy, from the University of Veszprem in Hungary, to research pollution prevention using an advanced process analysis system.

Along with presenting papers at four universities in Korea, **Danny Reible** was named to the National Academy of Sciences' Committee on Remediation of Navy Contaminated Sites. He also completed a report on Remediation of PCB Contaminated Sediments, to be presented to Congress in early 2001. Dr. Reible continues to head the Hazardous Substance Research Center, and will chair the NATO Advanced Study Institute on In-Situ Assessment and Remediation of Contaminated Sites.

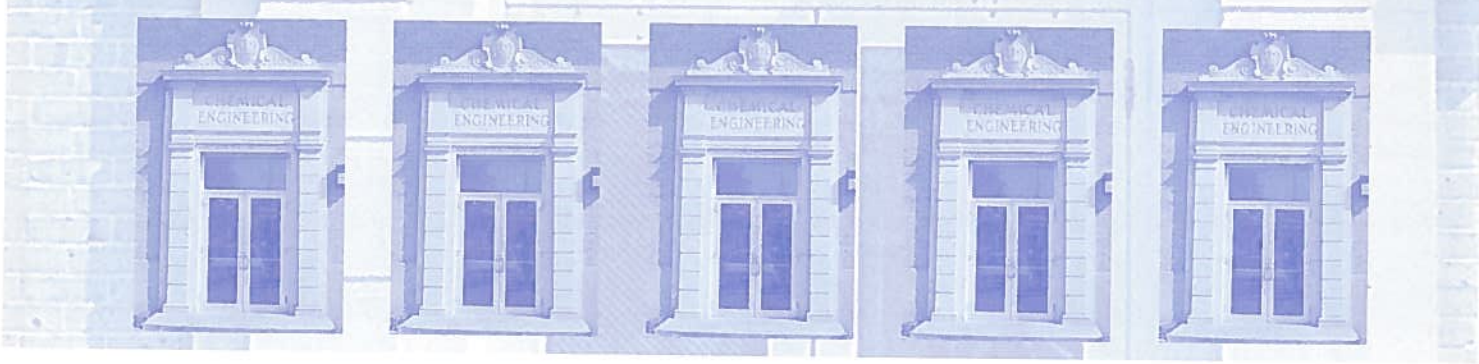
Louis Thibodeaux served as conference chair and on the planning committee of the fifth annual Environmental State of the State Conference in November. The ESOS conferences are sponsored by the Environmental Research Consortium of Louisiana, Inc. (ERCLA), as a method of increasing communication concerning environmental issues between the research community and the public.

K.T. Valsaraj hosted Yuan QingZhong, a researcher from the Department of Chemical Engineering at the Shandong Institute of Light Industry in China. They examined the mechanisms of photocatalysis treatment of wastewater streams. Dr. Valsaraj was an invited speaker at the International Photochemical Sciences Symposium, held in Trivandrum, India.

Faculty Awards

ExxonMobil Chemical has agreed to donate $111,000 to fund **Kerry Dooley's** research on "Catalyst Evaluation and Development for Heterogeneous Carbonylation Reactions."

Kerry Dooley and Karsten Thompson were awarded $18,000 from BASF to fund the "Permeameter and Reactor Flow Analysis" experiment for the undergraduate laboratory.



Student News

Summer 2000 Commencement

Bachelor of Science in Chemical Engineering:

Jason G. Jones

Master of Science in Chemical Engineering:

Narayan Bhimasen
Raman Thiruvenkatachari

Doctor of Philosophy in Chemical Engineering:

Hao Jiang

M.S. GRADUATE RAMAN THIRUVENKATACHARI AND HIS PARENTS.

DONALD SEWARD RECEIVED HIS B.S. HE'S PICTURED WITH HIS DAUGHTER, LORI, WHO IS ALSO A CHE STUDENT.

PH.D. RECIPIENT ALEJANDRO LOPEZ-ORTIZ, WITH DR. DOUGLAS HARRISON.

SCOTT STRIKMILLER RECEIVED HIS B.S., WITH HIS HAPPY FAMILY PRESENT.

Fall 2000 Commencement

Bachelor of Science in Chemical Engineering

Denton J. Alesius
Bradley D. Jones
Anthony P. Kolniak
Amanda L. Lee
Ian E. Quinn
Donald L. Seward
Scott S. Strikmiller
Benjamin P. Templet

Master of Science in Chemical Engineering

Jenny Jingying Gong
P. Bruce Hubbard
Jinghan Yu

Doctor of Philosophy in Chemical Engineering

Alejandro Lopez-Ortiz
Raghunathan Ravikrishna

2000 SCHOLARSHIP RECIPIENTS

B.P. Amoco Scholarship
Rusty J. Dauzat
Jourdia L. Matherne

Chemical Engineering Scholarship
John A. DiZinno

O. Dewitt Duncan Scholarship
Dwight P. Bordelon
Anthony S. Rotolo

Gerard Family Scholarship
Christian P. Aucoin
Rebecca Lorenz
Carolyn Melton

Frank & Clara Groves Scholarship
Christopher J. Burke

R.L. Hartman Scholarship
William Lipham
Patrick Vellon

Paul M. Horton Memorial
Ryan E. Varnado

Marathon Ashland Scholarship
Shannon Frith
Matthew K. Lemann
Barry M. Rogge

William McFadder Scholarship
Darren Marchal

Texaco Scholarship
Travis C. Lane

AIChE News

AIChE meetings were especially informative to Chemical Engineering students this fall, including a session on interview skills, discussion of the impact of e-commerce on the chemical industry, and how environmental regulations directly impact chemical engineers.

At the first meeting, sponsored by Andersen Consulting, the remaining available officer positions were filled. The new officers rounded out an enthusiastic group of officers consisting of students from all levels. BP, sponsor of the second meeting, discussed their recent merger and their plans for going "beyond petroleum". BP was again a hit when they gave away many prizes including printers, scanners, zip drives, and T-shirts. At the final meeting of the semester, ExxonMobil provided a realistic view of what to expect in the workplace when dealing with environmental concerns.

BASF was a large sponsor to LSU AIChE this year. They sponsored chemical engineering barbeque for all students and faculty for Homecoming weekend. It was a great chance for students to learn more about the opportunities available at BASF. They even provided the chapter T-shirts for the event. BASF also sponsored the third meeting of the semester and discussed interviewing techniques.

Department chair Dr. Carl Knopf spoke to the students at a meeting about the upcoming changes in the chemical engineering department. Students had the chance to ask questions about anything on their mind, and to express their opinions about course offerings, professors, the department, and the facilities.

Two students from the LSU AIChE chapter attended the AIChE National Student Conference. Becky Lorenz and Scott Crowell attended the conference in Los Angeles and produced many new ideas for the LSU chapter which they will be using in the spring semester.

The LSU AIChE chapter is currently setting up the meeting schedule for the spring semester. If your company has an interest in sponsoring a meeting or hosting a plant tour, please contact Becky Lorenz (rlorenz@lsu.edu) or Scott Crowell (scrowel@lsu.edu). We would love to have you at our meeting!

2000–2001 AIChE Student Chapter Officers

President
Becky Lorenz

Vice President
Scott Crowell

Faculty Adviser
Karsten Thompson

Alumni Updates

If you would like for us to print news of your latest achievements, please complete the enclosed card and return it to us or send us an e-mail at broussard @che.lsu.edu

1930s

We have recently learned that **Charles E. Gill** *(B.S. 1935)* passed away in 1983. Our belated condolences to his family.

George T. Mercier, Jr. *(B.S. 1939)* enjoys retirement. He now spends his free time as a tree farmer in Wesson, Mississippi.

Otis B. Rowland *(B.S. 1938)* passed away in the early 1990s. Our condolences to his family and friends.

We have also learned that **Lucien Vautrain** *(B.S. 1938)* passed away in 1998. Our belated sympathies to his family and friends.

1940s

Thomas B. O'Brien *(B.S. 1948)* supervised fire-fighting operations in Kuwait, following the Gulf War in the early 1990s. He is now president of O'Brien-Goins-Simpson, Inc., an oil and gas drilling engineering firm located in Midland, Texas.

Alfred Smith III *(M.S. 1942)* passed away this fall. He worked at Ethyl Corporation in Baton Rouge for 32 years, before retiring in 1983. He also served as the National Director for AIChE from 1965-1967. Our condolences go out to his family and friends.

1960s

Lawrence G. Focht *(Ph.D. 1969)* passed away on September 9, 1999. He was a faculty member at the University of Akron from 1969 to his retirement, in 1997.

George R. Huddleston *(M.S. 1949, Ph.D. 1960)* has retired from Goodrich and lives in Lorain, Ohio. He enjoys playing golf, gardening, and traveling. Many of his travels bring him back to Baton Rouge, to visit the casinos.

Gaylen L. Nix *(B.S. 1961)* is retired and living in Charleston, West Virginia. He does "whatever I want to do" and continues to root for his alma mater's sports programs.

John R. Willis *(B.S. 1961)* retired this year, after 38_ years in the sugar industry. His career with Domino Refining took him to Boston, Philadelphia, and New Orleans; all places that he considers three of "America's great cities."

1970s

Michael L. Junker *(M.S. 1977)* is the Quality Systems Manager for DSM Elastics America in Addis, Louisiana.

Thomas C. Kelly *(B.S. 1975)* is a general/peripheral vascular surgeon at Cooper Clinic, and is also on staff at St. Edward Mercy Medical Center; both located in Fort Smith, Arkansas.

Sohan L. Khungar *(M.S. 1974)* works for Packer Engineering, after receiving his Ph.D. from Carnegie Mellon in 1977 and working for companies such as Exxon, Union Carbide, and Amoco. He is also the Chairman for the Metalworking Fluids Technical Committee of the Society of Tribologists and Lubrication Engineers and the Paper Solicitation Chairman of the Lubricant Conservation and Recycling Committee. He lives with his wife in Naperville, Illinois.

1980s

Deborah Bell Cameron *(B.S. 1983)* was recently named Manager of Information Services for International Paper's Corporate Environment, Health & Safety Group. She and her husband John live in Bartlett, Tennessee, with their two children, Christy and Paul.

Cory Ann Hay Conn *(B.S. 1985)* is a neurology resident at a charity hospital, having received her M.D. this past year. She, her husband Bob, and their two sons reside in Mandeville, Louisiana.

Dwayne P. Cormier *(B.S. 1983)* works on the staff of the U.S. Naval Inspector General , as an Environmental Engineers. His position requires him to travel to across the globe, assessing environmental performance at naval installations

David A. Ivey *(B.S. 1983)* now owns a travel agency, after working as engineering manager with the KSC Space Shuttle Fleet for 10 years. He lives in Cocoa, Florida, with his wife and two children

1990s

Christopher M. Agostinelli *(B.S. 1997)* recently began working for Nalco Chemical Company in Houston, Texas, following a 3-year stint with Trinity Consultants since graduating from LSU. His new duties include trouble-shooting process-related problems within various chemical industries, along with some sales work and technical support.

Sonny Bringol *(B.S. 1991)* recently began the MBA program at Carnegie Mellon. He and his wife Margaret live in Pittsburgh, Pennsylvania.

Molly Soulier Browning *(B.S. 1998)* is a Process Engineer in the Technical Support division of Shell Chemical in Geismar, Louisiana.

Alan K. Chan *(B.S. 1995, Ph.D. 1999)* is a Senior R&D Engineer at DowChemical, specializing in process and product development.

Michael A. Cromwell *(B.S. 1994)* recently returned to Baton Rouge with his wife Mary Ann and daughter Clare. He received his J.D. in 1997 and now works as a Patent Attorney for ExxonMobil.

Jason D. Gardner *(B.S. 1991)* is now an assistant professor in the Department of Anatomy, Physiology, and Pharmacology at Auburn University. He has been busy writing grant proposals for his research on gender-specific differences in the development of heart failure. He and his wife welcomed their second child, a boy, in December 2000.

Wu-Ning Huang *(M.S. 1997)* works as a production engineer for Aristech Chemical in Houston, Texas.

William H. H. Jeffcoat IV *(B.S. 1999)* is an independent consultant living in Baton Rouge. He also spends his free time as a member of "In the Company of Dancers", a local dance troupe.

Steven J. Maniscalco *(B.S. 1994)* works for Liquid Carbonic/Praxair in Geismar, LA. He spends his spare time playing with his two sons, along with gardening and birdwatching.

Beth M. Pederson *(B.S. 1997, M.S. 1999)* works as an Engineer with BASF in New Jersey.

Bijan Seyfzadeh *(Ph.D. 1999)* is a Research Associate at the Center for Advanced Engineering Fibers and Films at Clemson University.

Julie D. White *(M.S. 1999)* is working as a Process Engineer for Rohm and Haas Company, and lives in Deer Park, Texas.

LOST ALUMNI

WE NEED YOUR HELP:

We would like to thank the treasured alumni who forward up-to-date information and current addresses for both themselves and others. Although many of our past graduates can be located easily thanks to the Internet, there remains a surprisingly large number of alumni that simply cannot be found.

Even though chemical engineering employment opportunities sometimes require an extremely volatile lifestyle, many of our graduates keep in touch years after the excitement of the diploma ceremony has waned. If you happen to know any information regarding the following alumni, please contact us. We would like to send a newsletter to as many of our graduates as possible.

1935

Henry P. Broussard
Mary L. Digirolamo
Charles Edgar Gill
Richard A. Pratt
Clark W. Rider
Frank w. Valls
Guy G. Vanderpool

1936

James R. Britt
Lealand A. Enberg
Hamilton M. Johnson
Louise T. Kennedy
Francisco Pepito Pilapil
Alvin D. Rolufs

1937

John Lucious Burt
Delma McCabe Cointment
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
William Yeoman Gissel
Walter Hudson Johnson
Gangadhar Dinker Kane
Otis B. Rowland
Herman Siegel

1939

Angel Alberto Colon
John H. Doherty
James Hardie McGee
Junius E. Sapp
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

T. Ben Arnold
William Fowler Daniels
Varner E. Dudley
Gilbert Fletcher Moore
James Stanton Patterson

1943

John W. Mizenko
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. Chandler
William A. Dominguez
Harold L. Keaton
Clarence E. McMillan
Edward O'Donnell
Charles Joseph Perilloux
Dwaraknath Reddy
Jeptha Vanday
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
Edward M. Miscar
Pablo Navarrete Vaillant
Bruce Eugene White
Ben Allen Willard

1950

Harish Chandra Anand
Earl Paul Babin
Maurice G. Baxter
Richard C. Berry
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
Albert L. Gagneux
Ruble Landis Huff
Lonnie Zach Mallory
Jimmy Edgar Middleton
Pramod Lal Sarma
Arthur Wellington Sellers
Elvin Andrew Stafford

1952

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

1953

Mansour Ghadar
Riyad Abdallah Khalaf
Albert H. Wehe

1954

Philip Earl Brubaker
Robert W. Duhl
John B. Fontenot
Kenneth Odell Halbrook
Gene Addison Johnson
Humberto Pinheiro Machado
Jose Antonio Moncada
Freeman Louis Morgan
Mario Posada
Roy T. St. Pierre
Kenneth L. White

1955

Zevada M. Avalos
Wiley B. Fisackerly
George Mathieu Guidroz
Stanley Dison Hanesworth
Raymond Calvin Hatfield
Habib Labbauv
Guy Clifton McCombs
Wilhelmus Melis
Paul E. Otto
Patrick Gerald Simms
James B. Starks
Ezra Jasper Westbrook
George W. Wright

1956

Whitney P. Breaux
Thomas W. Howard
Kenneth Hoy
Robert Pole

1957

Austin C. Abshier
Philip Dominic Accardo
Yeganeh A. Amir

Jose A. Chapman
Rafael Jorge Garcia
Frederick Eugene Marsh, Jr.
Norwood William Matherne
John William Maurin
Felix Fortune Planche
Walter James Porter
Silva Joaquin Sanchez
Regulo Atilio Sardi
Harold Alfred Simms
James J. Swearingen
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
Richard I. Brown
James Kernon Crochet
Jai Narain Goel
Willard Milton Hanks
Thomas Charles James
Paul Richard James
Harold Douglas Jelks
Robert Harley Jines
Habib Labbauf
Freddy W. Landaez
John Morgan Webre

1960

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

1961

Heraldo Antonio Sifontes Agreda
Ronald L. Clark
Hector Joaquin Corella
Robert Allen Davis
Ernest Woodard Harrison
James Cleveland Holland
Boyd Young LeBlanc
Jose G. Lopez-Barreda
Humberto E. Lopez-Sanchez
Eugie A. Martin
Jorge Andres Clemente Pino
Fernando Xavier W. Pires
Victor Plas
Emilio Rebull Rivera
Konchady Nagesh Shenoy
William Dave Taylor
Vincent Stephen Verneuil
Glenn Lamar Wise
Gary H. Young

1962

Jeff W. Baird
Fred Edward Causey
Charles Reggie Guerin
Jack Welbur Harris
Clovis P. Legleu
James M. Shipp, Jr.
Henry M. Troth

1963

Maria Z. Aguilar
James Leston Case
Robert Guerra
Billy Wayne MaGee
Frank Nemours Newchurch
Jimmie Doyle Pottorff
Ramachandra M.R. Rao
Jose Francisco Agreda Rodriguez
Maria Aguilar Rodriguez
Francisco J. Rovira
Leo Simon Sues

1964

Joseph F. Accardo
David Gray Caddy
Ivan E. Caro
Danilo P. Castillo
Omar J. Esmal
James Thomas Kennison
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
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
Ronald C. Keller
David Wesley Miner
Pedro Joaquin Nogueira
Sims Louis Roy
Richard Joseph St. Pierre

1967

Raul Cardenas
James H. Doub
Joseph Larry Edmonson
Carlos M. Finalet
Ronald E. Jones
Mauricio A. Lopez
Wilbert S.F. Mackay
Hooshang S. Moghani

1968

Ricardo J. Gomez
Guy Jean-Pierre Harel
Randall John Indovina
Kenneth J. Parent, Jr.

1969

Antonio De Aguirre-Aurrecoh
Alvin A. Fairburn
Louis A. Gonzalez
David R. Hendricks
Virgil d. Joffrion
John Randolph Langley
Yu-Chin Liu
Carlos E. Moreno
Ivan A. Navarro

1970

Alvaro Campuzano

1971

Sain D. Anand
Michael John Atchetee
Jose F. Azouth
Leroy Joseph Cavaliere
Thomas F. Dominick
Richard Edwin Dorris
Carl David Engel
Charles Goodson Guffey
Mark Austin Jeffers
Ronald Dean Miles
Glen Dale Savoy
William Alden Settoon
Vinodchandra R. Shah
Stephen R. Williamson

1972

Juan F. Ardila
Robert John Camacho
Bernad C. Chan
Frank R. Cusimano
Jose Rafael Morao
Marshall Budd Nelson
Richard Wayne Nill
Sanford James Stinnett
Mark A. Williard

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
Marlin Rufus Vernon
Roger Earl Waguespack

1974

Jamal Al-Din Barzinji
Mohamad B. Behbehani
Frank Darral Duringer
Hafez Hafezzadeh
Mostafa Mina
Najmeh Sadighi-Nouri
Mario Moises Salinas
Solaiman G. Sindy
Suresh Mansukhlal Vora
Wing Yan Woo

1975

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

1976

Stephen William Krajicek
Frederick Henry Pitts

1979

Manuel A. Arguello

Ender J. Ferrer
Carolyn R. Koontz
Jamaleddin Madjdpour
Carl E. Sladek
Tuan A. Tang
Beth Maria Troxler

1980

Mary E. Ahner
Mahmoud Madhat Alhashimi
Bob B. Carter
Villa D. Holland
Bradley K. Kruelski
Edward A. Thistlethwaite
Labrador Angela Vitelli
Martin K. Wiewiorowski

1981

Linda Lovorn Bonin
Edgar Hernandez
Patrick C. Lejeune
Andrew C. Mok

1982

Jean E. Carvajal
James Douglas Griffin
Joseph Khalk Koro
Jaime A. Pineda
Thomas Anthony Stroud

1983

Lawrence T. Faucheux
Lily Gunawan
Kenneth M. Jones
Gregory B. Pickren
Sharron R. Woodall

1984

Edwin Chukwudi Akujobi
George M. Charron
William W. Conway
Rudyard E. Davidson
Bernie Lofaso, Jr.
Neftaly E. Rodriguez-Corea
Susan K. Snodgrass

1985

Karen Craft-Kofai
Mohamad Kheir S. Habbal
Karen E. Korn
Robert D. Moore
Susanne Warren Tully
Lynne C. Tutzauer
Richard S. Willms
Kigham Seropp Yeretzian

1986

Mohammed Noureddine Amrouni
Andreas Phoebus Constantinides
Alvaro Jarquin
Hung Duy Nguyen
Rammohan Varadarajan

1987

Sheng-Yang Ju
Stephen R. Brodt

1988

David E. Cockrill
Ileana Perez

1989

John Anthony King
Michael W. Landry

1990

Dhananjay B. Ghonasgi

1991

Sriram Gangadharan
Subhash R. Ghorpade
Wai Shen Lee
Yu Wen Lo
Yeung Ho Park
Philip Roberts

1992

Pankaj Agarwal
Michael P. Bilello
Scott J. Daigle
Roland J. Doucet
Darryl J. Folse
Chun Han
Donald J. Icard
Reginald Little
Jorge Rolando Paiz
Hongmei Ren

1993

Yumi Akiyama
Lufti A. Bafahgih
Allen W. Bihm
Cheng-Ho Chen
Marc J. Chitty
Jennifer A. Cole
Mandar Dikshit
Rajiv Gehani
Betty Yeefei Huang
Toni Weavil Hunter
Manjunath Mahishi
Arpaden Silaban
Sudhanshu Thakur
Sachit Verma

1994

Trent Bolling
Andrew Cain
Ming Chia
Joseph L. Hamlin
Jianxin Hu
Jeffrey T. Miller
Ruben H. Munoz
Pankaj Nigam
Ramon R. Rionda
Vivek Shende
Subramanyam Vdaygiri

1995

Brandy Breithaupt
Shellen G. Cair
Aimee G. Deangelo
Michael S. Genius
Rajesh Girdhar
Chun Han
Eric D. Hollis
John F. Ledoux
William E. Mixon
Max P. Morvant
Quang V. Nguyen
Xuxian Niu
Jeannette Santos-Cordero
Flavio Tinoco
Quy T. Ton
Shin Won

1996

Shannon M. Berteau
Chad J. Bourgeois
Kevin D. Burkes
Deependra Charan
Tanya Fruge
Kai Z. Jiang
Shane M. Johnson
Damon P. Lechtenberg
Yew K. Loo
Bianca C. McWilliams
Thomas Menuet
Jonathan Miller
Brad Oubre
Quoc P. Phan
Jacob T. Richardson
Ryan P. Roussel
Trent J. Schexnaildre
Amritpal S. Sidhu
Alma C. Thomas
Yihua Xiong

1997

Clyde Alcon
Moh Fahrurrozi
Wendy Harris
George Holder
Peter Minsong Kim
Antwane Shephard
Stefan Vost
Brian Watts
Tiyan Xu

1998

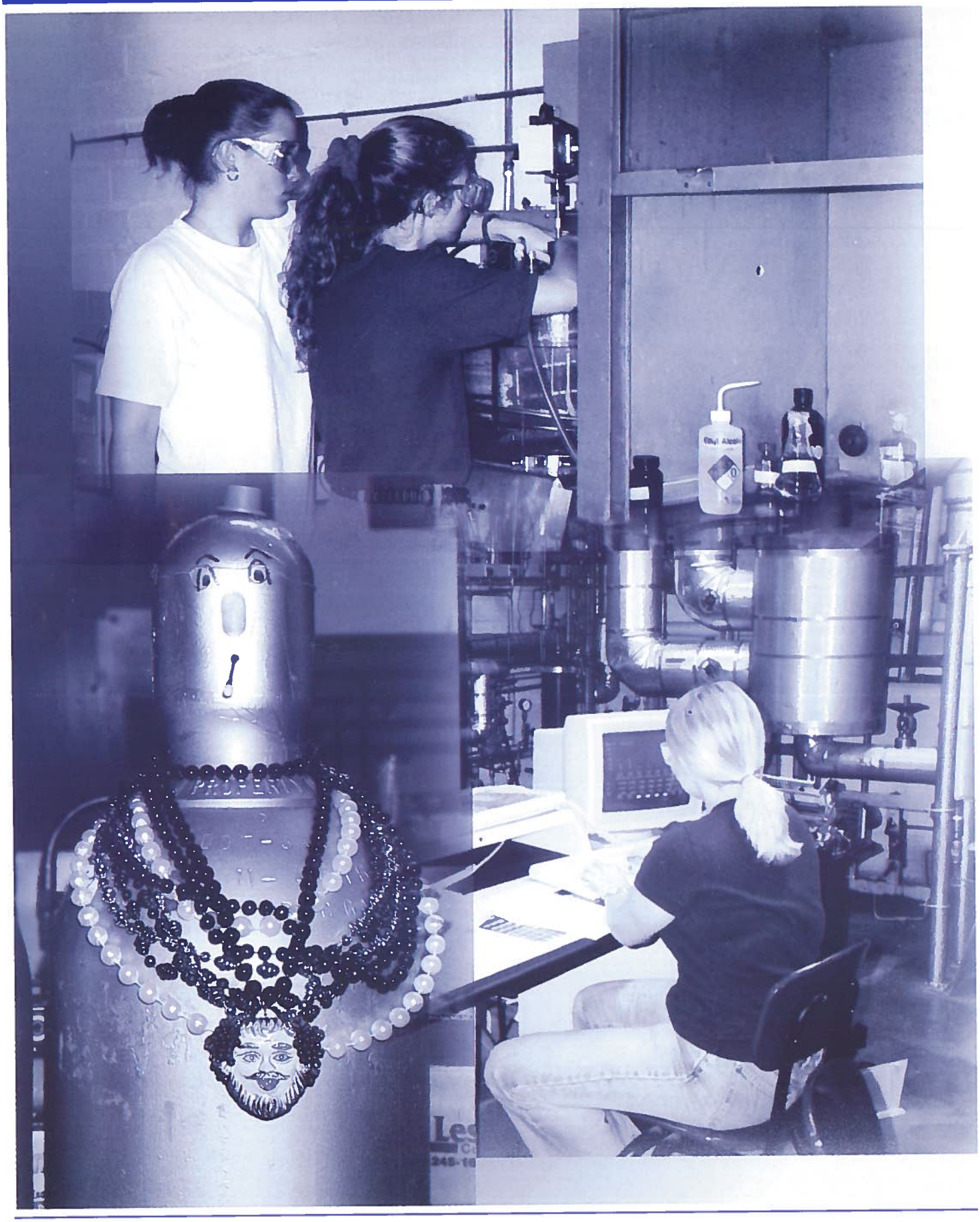
Diane Worthy Braselman
Xueyu Chen
Venu Gedela
Bronson Guilbeau
Cheng Pan
Amit Sharma

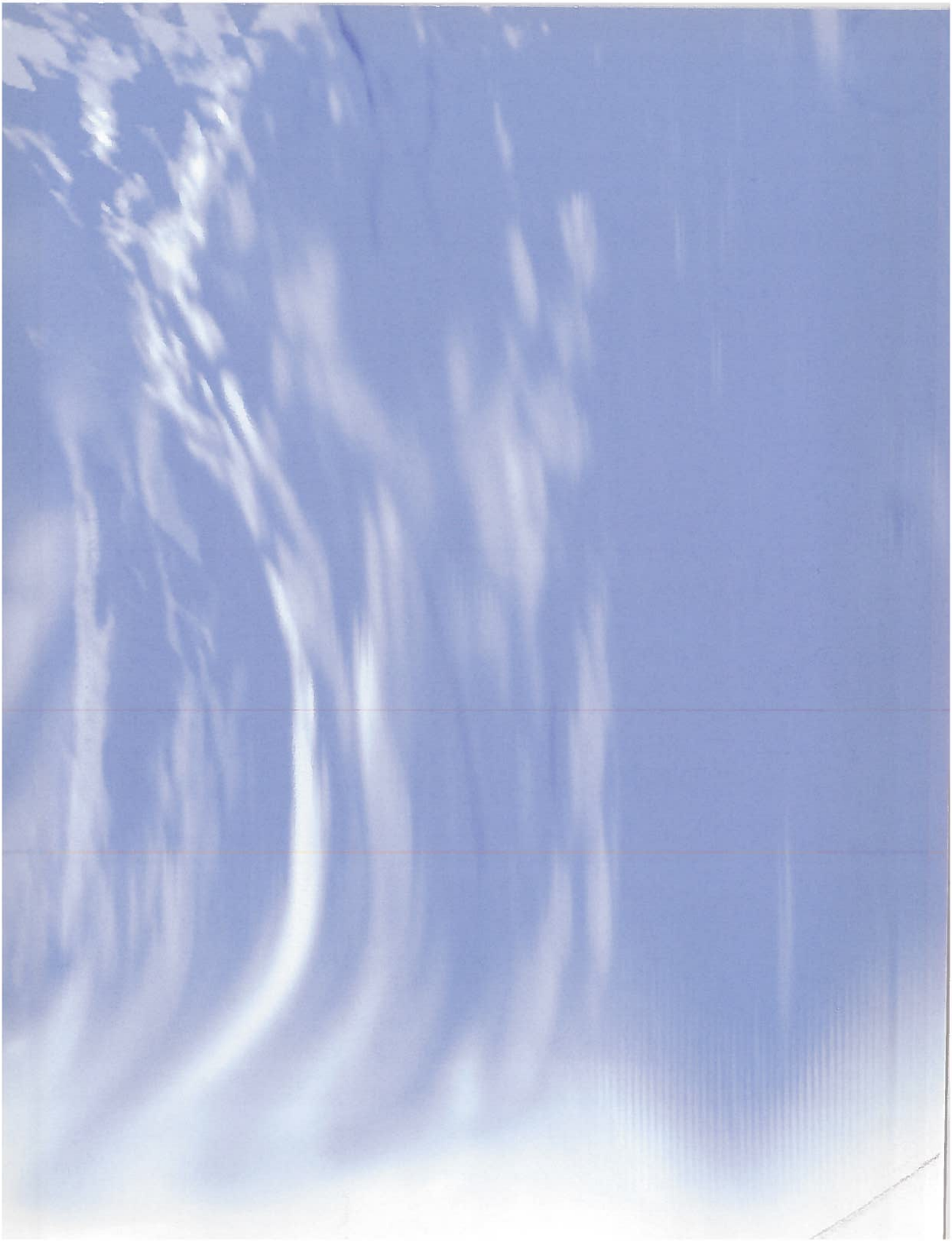
1999

Michael E. Dean
Franciscus X. Prawiro
Steve Reynolds
Shin Wong
Sook-Wai Yei

Notice

Effective November 15, 2001, telephone service at LSU will officially convert to a new exchange. All numbers with 388 exchanges will be reassigned the same last 4 digits, but with a 578 exchange (which spells "LSU"). Administrative numbers with 334 or 346 exchanges will be assigned brand new numbers with the 578 exchange. Residence hall telephones will retain the 334 exchange.





LOUISIANA STATE UNIVERSITY
Gordon A. & Mary Cain Department of Chemical Engineering
Baton Rouge, LA 70803-7020