



## CHEMISTRY DEPARTMENT NEWSLETTER

August 1982 No. 7

### Dr. Albert Lehninger: Third Rachelle Lecturer



The Chemistry Department was privileged to enjoy a visit by the famous biochemist, Albert Lehninger, as the third annual Rachelle Lecturer this past March 16 and 17. Dr. Lehninger, best known to students for his biochemistry textbook, was a pioneer in the study of mitochondria. In fact the function of mitochondria was largely unknown until 1948, when Lehninger and E.P. Kennedy discovered that it was the site of the Krebs cycle and fatty acid oxidation and subsequently showed that ATP is formed with energy released in the oxidation of NADH by molecular oxygen.

Dr. Lehninger presented three seminars. "Proton Translocation by Cytochrome Oxidase" was a review of current work on mitochondrial energy coupling. "Oxidative Phosphorylation-Where Now and Whither?", a joint seminar with Biology, surveyed the chemical and biological aspects of mitochondria and presented evidence that each cell may contain a single "megamitochondrion." Finally "Phosphocitrate, Mitochondria, and Biological Calcification" reviewed some fascinating recent work on the role of mitochondria in bone mineralization.

Dr. Lehninger participated in several meetings with faculty and students and seemed to be followed by a stream of students, each thrusting at him a ballpoint pen and a large blue book opened to the front cover page for an autograph. Because of the tremendous student interest generated by Dr. Lehninger's visit, we all agree that this was a most successful Rachelle Lecture-ship. The Department is very grateful for the funding for this series provided by Rachelle Laboratories, and we look forward to other distinguished visitors in the years to come.



### Chairman's Message: Alumni as Partners

This academic year will constitute the twenty-fifth anniversary of Chemistry as a degree-granting department. In 1958 three students received their BS degrees in chemistry: Phillip L. Anthony, Robert C. Barrett and Dr. Lloyd S. Peak. Since that time approximately 570 bachelor's degrees have been conferred as well as 170 master's granted.

Our alumni are scattered across the United States and around the world; graduates are found in Thailand, Korea, Canada, England, Belgium, Norway, Brazil, Iran, Turkey, and Saudi Arabia. A variety of occupations are represented with the largest number of alumni involved in some type of chemical research (27%). Other major occupations are analytical chemistry, chemical production, medicine, dentistry, pharmacy, college and university teaching, high school teaching, scientific sales, business administration, criministics, law and private consulting.

Continued on Page 2

### John Stern Given Distinguished Scholar Award

At an awards banquet held on May 21, 1982, Dr. John Stern of the Chemistry Department, along with thirteen other faculty campus-wide, received a Distinguished Scholar and Creative Activity Award from Dr. Stephen Horn, President of the University.

Dr. Stern is among the most published members of our department with 38 publications appearing in *J. Physical Chemistry*, *J. Solution Chemistry*, and *J. Chemical and Engineering Data*.

Based upon experimental data which he and his students have amassed, Dr. Stern has formulated theories which describe association and dissociation phenomena at the molecular level in water and mixed solvents. Presently his work deals with physiologically important molecules. Since all living systems use water as a solvent for chemical reactions, his work with sugars, caffeine, analgesics, nucleosides, and amino acids are of great biological importance and is recognized as such by chemists throughout the world who frequently visit his laboratory.

Dr. Stern has directed the research efforts of 17 master's students and 9 undergraduate laboratory research students. Of these, 13 (50%) now have their doctorates and 12 are college professors!

His research has been funded by grants from the National Science Foundation, The Petroleum Research Fund, The Research Corporation, the U.S. Army and the Heart Association. He presently holds a \$10,200 grant from the California Heart Association.



CSULB graduated 5,200 students in the 1981-82 academic year. From that number 15 were elected to Phi Beta Kappa, among whom were two chemistry graduates out of a graduating class of about 60 chemistry students.

Chairman's Message Continued

Chemistry alumni have been of significant help to our department in a variety of ways, and the chemistry faculty and I encourage even broader participation in the future.

- Alumni notify the Chemistry Department about job openings for our students, both permanent and part-time. Many of our students and graduates have been placed in excellent positions as a result of the efforts of loyal alumni.
- Alumni participate in our seminar program (see the article on the department's seminar program elsewhere in this issue) bringing recent developments in chemistry to our students and faculty.
- Alumni visit the department frequently giving programs on careers in chemistry to our students which help them (and the faculty) gain a more precise understanding of just what can be done with a degree in chemistry and how to go about seeking a job.
- Three alumni serve on the Chemistry Advisory Council, representing their companies in cooperative relationships between our department and chemical industry. Present members are Ancel Calloway (Aerospace), Dr. Mike Gardner (TRW) and Dan Gelfand (Stauffer Chemical).
- Alumni help our department fund worthwhile projects by making affordable contributions to the Chemistry Department Alumni Fund. Money derived from alumni contributions is used to fund student awards and scholarships, to help support our seminar program, to defray some costs of this *Newsletter*, and to meet a few small expenses in our instructional and research programs.

In a sense, you as an alumnus are in a position to become a partner in the educational processes and results of our program, and your participation, in any way you deem appropriate, is warmly invited.

Please continue to keep us informed about yourself, your work, your family, your successes. Last year about 20% of our alumni corresponded with us through the mechanism of this *Newsletter*! We invite the others of you who did not respond to take a few minutes to do so. We would like to include information about you in a future issue of the *Newsletter*.

With best wishes to you all,  
Ken Marsi

DR. CYRIL PONNAMPERUMA  
PRIMORDIAL CHEMIST, SPEAKS  
AT CSULB

Searching for the answers to the chemical beginnings of life occupies the research efforts of Dr. Cyril Ponnampereuma of the University of Maryland who spoke to faculty and students on March 12, 1982. Contrary to prevailing opinion, Dr. Ponnampereuma, believes that at life's beginning the atmosphere may have been richer in carbon dioxide than hydrogen. In pursuit of information about the origins of life he examines meteorites for organic materials, especially amino acids, and searches other planets and interstellar space for spectroscopic clues to life-related molecules. Presently he and his research group are synthesizing the enzyme ribonuclease from *D*-amino acids. Naturally occurring ribonuclease consists of 124 amino acid residues having *L*-configurations. The purpose of this experiment is to determine whether left-handedness in proteins and polypeptides is an essential requirement for life.



CHEMISTRY SEMINAR PROGRAM

During the 1981-82 academic year, twenty-seven Wednesday afternoon seminars were held for faculty and students. Unfortunately, limitations of space do not permit a listing of all speakers and topics, but notable among them were talks given by three alumni, two Advisory Council members and three faculty.

*Alumni:* Dr. Howard Stephens BS '65, Sandia National Laboratories, "Catalysis of Direct Coal Liquefaction"; Patrick McKay MS '79, Genentech, "Purification and Chemical Modification of Biosynthetic Desacetylthymosin"; Marianne Marsi BS '78 UCLA, "Organic Transformations via Metal Silane Reagents."

*Advisory Council Members:* Dr. Richard Jenkins, Getty Synthetic Fuels, "Methane Recovery from Landfills"; Dr. Ken Kipers, Pilot Chemical Company, "Development of a Consumer Product: Liquid Hand Soaps."

*CSULB Chemistry Faculty:* Dr. Isidore Goodman, "Regulation of Arginine Metabolism in Neurospora"; Dr. Dorothy Goldish, "Cycloadditions of Cyanoketenes"; Dr. Jack Berry, "Some Biochemical Tests Involving the Diagnosis of Autoimmune Diseases."

The Chemistry Seminar program is supported entirely by contributions from chemistry alumni, faculty and firms represented on the Chemistry Department Advisory Council.

NOBEL LAUREATE, GUILLEMIN,  
SPEAKS AT CSULB



On April 16 Nobel Laureate, Dr. Roger Guillemin, of the Salk Institute in San Diego, lectured on "Hormones in the Brain: Hormones of the Brain," giving an absorbing account of the discovery, purification and chemical characterization of the hypothalamic regulatory hormones and a variety of other chemical regulators found in the brain. Dr. Guillemin shared the Nobel Prize in Physiology and Medicine in 1977 with Drs. Schally and Yalow.

In the 1940's physiologists had postulated the involvement of the hypothalamus, a small area at the base of the brain, in the control of the secretions of the pituitary gland. However, the specific chemicals responsible for this regulation remained unidentified for many years subsequent to this discovery because of their miniscule presence in the brain and the difficulty of their isolation. In 1969, however, after processing hypothalami from over a million sheep brains, approximately 1 mg. of a tripeptide called thyrotropin releasing hormone, was isolated and its structure determined.

Since that time several similar hormones have been isolated and characterized and their biological activity more carefully studied.

Dr. Guillemin and his group isolated other peptide hormones in 1976 which possessed potent analgesic (pain-killing) properties when injected into the brains of laboratory animals. These substances were termed "endorphins" and are known to affect the same receptors in the brain as opiates, but are many times more powerful.

WHERE ARE THEY NOW?

This column gives an account of former faculty who at one time were part of our department. If you are a former CSULB faculty member, but were not featured in last year's or this year's *Newsletter*, you are invited to send in information about yourself so that former colleagues and students may be informed about your present status.

**KEN BARTLETT** joined the CSULB faculty in 1954 as the first full-time chemist. Prior to that he taught at the University of Santa Clara while completing graduate work at Stanford. The department faculty tripled in 1955 when Ed Becker and Bob Henderson joined the staff. After teaching during the 1956 summer session, Ken departed to accept a position at Southern Oregon State College where he is still employed. Ken hastens to note that retirement is imminent and particularly appealing because his duties as department chairman would cease. Several summers were spent teaching at Oregon State University and Stanford to enrich the nestegg for building a home. One of the OSU summers made it possible for Ken and Darwin Mayfield, who was also on the summer staff, to become acquainted.

**RICHARD PASELK** (Lecturer 1974-76) was promoted to Associate Professor with tenure at Humboldt State University. He considers the two years of teaching experience at CSULB as "my apprenticeship in teaching-without that opportunity and experience I probably wouldn't be in teaching today." Among courses which Dr. Paselk teaches is clinical chemistry. He received his BS degree from CSULA in 1968 and his PhD from USC in 1975 and was an undergraduate in our department in 1966-67.

**RON WIKHOLM** (1974-78) teaches at the Hartford Campus of the University of Connecticut. He maintains an office and research laboratory at the main campus in Storrs. His wife, Nancy, is a Technical Librarian at the United Technologies Research Center in East Hartford. They and their golden retriever, Sierra, enjoy the rural life of central Connecticut and manage to keep active with skiing, canoeing and backpacking.

FACULTY NOTES

**Dr. Roger Acey**, PhD Wayne State University, Detroit, Michigan, has been appointed Lecturer for the 1982-83 academic year in biochemistry. Dr. Acey is on leave from Wayne County Community College in Michigan and taught during the 1981-82 academic year at California State College, Bakersfield.

**Dr. Jeffrey Cohlberg** will spend the 1982-83 academic year on sabbatical at Heidelberg University in Germany. Several weeks were devoted to touring Japan during the Summer of 1982.

**Dr. Charles "Pat" Dunne** has accepted a full-time research position at the Army Research Center in Natick, Massachusetts and is involved mainly in food research. The Dunes reside in Farmingham, MA.

**Dr. Mahmoud Firouzbakht**, PhD University of Nebraska, joins the Chemistry Department as a Lecturer in analytical chemistry for the 1982-83 academic year. Dr. Firouzbakht was assistant professor at the University of Nebraska, Omaha before coming to CSULB.

**Dr. Dorothy Goldish's** text, "Basic Mathematics for Beginning Chemistry," enters its third edition with McMillan Publishing Company.

**Dr. Isidore Goodman**, PhD UCLA, has been reappointed Lecturer in biochemistry for the 1982-83 academic year.

**Dr. Robert B. Henderson** resumes coordination of the general chemistry program. He retires as a member of the Board of Trustees for Deep Springs College.

**Dr. Richard Hunt** has resigned his position to become Chairman of the Chemistry Department of Morehead State University in Morehead, Kentucky.

**Dr. James Jensen** returns from a sabbatical year spent at UC Irvine and at CSULB, continuing work on acetal hydrolysis funded by the National Science Foundation.

**Dr. Kenneth Marsi** was the external reviewer for the Department of Chemistry at California State College, Bakersfield on February 26 and 27, 1982.

**Dr. Linda B. McGown** and her husband, Steve, are proud parents of a new daughter, Jenna, born May 17, 1982. Dr. McGown resigns her position at CSULB to join the chemistry faculty at Oklahoma State University in Stillwater. She is looking forward to the opportunity to work with PhD candidates in analytical chemistry.

**Dr. Henry Po** was awarded a PRF grant to continue his research in electrochemistry.

**Dr. Nail Senozan** and **Dr. Richard Hunt** are authors of the cover article for the March 1982 issue of *J. Chem. Educ.* entitled, "Hemoglobin: Its Occurrence, Structure and Adaptation." Dr. Senozan will spend a portion of his upcoming sabbatical in the Near East.

**Dr. Teresa Shaw**, PhD UCLA, has been reappointed a Lecturer in organic chemistry for the 1982-83 academic year.

**Dr. John Stern** received the Outstanding Scholar Award for 1982 for his research in chemical thermodynamics. Dr. Stern was recently awarded a California Heart Association Research Grant.

**Dr. Andrew Wong**, PhD State University of New York, Buffalo, will join the organic chemistry faculty as a Lecturer for the 1982-83 academic year. Dr. Wong comes to CSULB from UCLA where he was a postdoctoral student of Dr. John Gladysz.

CSULB CHEMISTRY DEPARTMENT NEWSLETTER

An annual publication of the Chemistry Department for past, present and future students and for faculty and friends of the Department.

News items and photos are welcomed and may be sent to:  
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Co-Editors: Robert B. Henderson and Kenneth L. Marsi  
 Typeset and Layout: Word Processing Center  
 Printing and Photo Processing: Duplicating Center  
 All the rest: The hardworking Chemistry Office Staff



## FACULTY PROFILES

Each year we feature the activities of a few faculty in greater depth. This year they are . . .

**PETER BAINE** reports "One of my extracurricular interests associated with chemistry has been the American Chemical Society. I first got my feet wet in the workings of the local section by running the High School Chemistry Contest for them back in 1975. I really got quite a charge out of the young eager high school kids eating up chemistry like it was candy. I thought I had set a pretty tough test for them that year, with a particularly tough section on electron spin resonance. The top student missed a perfect score by one point!

"One of the exciting responsibilities I had occurred in 1979 when I was program chairman for the Western Regional Conference in Pasadena. When I look back, the work load was heavy in organizing the approximately 600 papers into the various symposia. This was an exciting time and after it was all over I had the feeling of really doing something worthwhile for my fellow chemists.

"This year I'm currently the general chairman of the 1983 Western Regional Conference. At the moment we are in the process of choosing the site for this conference and are visiting a lot of hotels in the Southern California area.

"I can really recommend participation in local section activities--there are a lot of rewards to be had and neat people to meet."

**PROFESSOR VAN T. LIEU** and his students pursue research interests encompassing the areas of analytical chemistry and related problems in the petroleum industry. Several projects are currently or recently under investigation:

1. The application of dilute surfactant for enhanced oil recovery.
2. Development of automatic analytical method for the analysis of oil in brine.
3. Study of long term alkaline consumption in petroleum reservoir rocks.
4. Development of an analytical method for the analysis of surfactant in water and in crude oil.
5. Study of reclaim sewage water characteristics for oil field injection.
6. The application of flame and graphite furnace atomic absorption spectroscopy to the determination of metals in oil-field injection water and its suspended solids.

Some of these projects are carried out in cooperation with engineers and geologists in the industry. Project No. 5 is being carried out in cooperation with Dr. Gill Geesey of the Department of Microbiology of our University.

Dr. Van T. Lieu's other research interests and activities include atomic absorption, diffuse reflectance, spectrofluorometry, gas chromatography and high performance liquid chromatography.

The following are some of the students that are currently or recently participating in his research activities: Mike Moone, Arlene Oto, Mark Martinez, Steve Miller, Renee Hermes, Amon Zohren, Daniel Rupp, Pamela Hubler, David Lease, Ali Bidarian, Carl Martin, Elizabeth Suwita.

**DR. TERESA J. SHAW** is a native Southern Californian, raised in Downey, California. She received bachelor's degrees in both Chemistry and Biology from the University of California, Irvine in March, 1975. Following that, she worked for six months as a lab technician at Califoam Corp. in Santa Ana prior to graduate school. She attended graduate school at UCLA, specializing in synthetic organic chemistry and received her Ph.D. in November, 1979. Her thesis work was performed under the direction of Dr. Michael E. Jung and involved both a mechanistic investigation of hydrazone enolates and the total synthesis of anti-hypertensive drugs.

Her teaching experience also began at UCLA. Following three years as a teaching assistant in lower and upper division chemistry courses, she taught organic chemistry part-time at Mt. St. Mary's College. After receipt of the Ph.D., Dr. Shaw accepted a research position in the Biochemicals Department at DuPont in Wilmington, Delaware, where she was involved primarily in the synthesis of new herbicides.

It is fairly well-known that Southern Californians are difficult to transplant, and Dr. Shaw is no exception. When the opportunity arose to return to Southern California to teach at CSULB, she snapped it up. She will begin her third year at CSULB this fall, where she teaches organic chemistry and general chemistry for non-science majors. Dr. Shaw sees the general education chemistry course as a particular challenge: educating the general public about science and chemistry in order to remove the stigma of the unfamiliar from the general impression that people have of technology.



## NATALIE LAREAU SCHOLARSHIP

West Coast Technical Service, Inc. has established a Natalie Lareau Scholarship to honor the memory of Miss Lareau, an employee of WCTS and an undergraduate chemistry major at CSULB. Miss Lareau passed away suddenly in January of this year. Funds will be used to recognize an outstanding student or students in the 1983 graduating class.



## CORPORATE CONTRIBUTIONS TO THE CHEMISTRY DEPARTMENT

We gratefully acknowledge contributions from the following companies and foundations to our department since June 1, 1981 for summer research fellowships, lectureships, seminar support, scholarships, tuition awards and discretionary use:

Aerospace Corporation  
Akzona Foundation  
California Foundation for Biochemical Research  
Getty Synthetic Fuels, Inc.  
Hyland Laboratories  
McDonnell Douglas  
Nalco Chemical Company  
Occidental Research Corporation  
Pilot Chemical Company  
Rachelle Laboratories  
Stauffer Chemical Company  
TRW  
Union Oil Company of California  
West Coast Technical Service, Inc.



## CHEMISTRY ADVISORY COUNCIL ADDS NEW MEMBERS

For the last year we are pleased to report the addition of the following companies and representatives to membership on the Chemistry Advisory Council:

Dr. Victor A. Pattison, Occidental Research Corporation  
Walter Felt, Detergents, Inc.  
Andrea Larson, Nalco Chemical Company  
Gary W. Valentine, Hughes Aircraft Company

In addition, the following persons are new representatives for their companies: C.C. Gerheim, Shell Oil Company  
Dr. Michael Gardner, TRW

This council assists our department with advice, with information concerning employment opportunities, by providing speakers and with material support for our program.

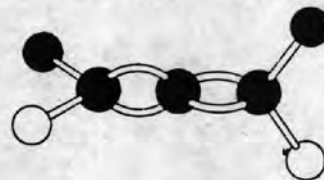


Robert H. Collins, President of Getty Synthetic Fuels, Inc., presents a check to CSULB President, Dr. Stephen Horn, for use in funding Graduate Research Fellowships in the CSULB Chemistry Department. Looking on (left to right) are Dr. Dick Jenkins, Laboratory Director and GSF representative on the Chemistry Department Advisory Council; Dr. Kenneth Marsi, Chairman, Chemistry Department at CSULB; Dr. John Pettus, Group Leader, GSF and former CSULB Chemistry faculty member. Getty Synthetic Fuels is one of twenty companies represented on the Advisory Council who actively assist the Chemistry Department in a variety of ways.

#### OCEAN POLLUTANTS STUDIED

The department's GC/MS is being used by graduate student, Steve McGown, for an MS project. The major experimental objective is to analyze the extracts of polluted water, livers of fish living in the polluted area, and livers of fish living in a "non-polluted" environment. Preliminary analyses of organic substances extracted from water samples collected near the outfall off the Palos Verdes Peninsula indicated that more than 100 substances are present, but fewer than 50 could be identified with any level of certainty using standard computer search procedures. Current strategy is to find which substances are common to both the polluted marine environment and the fish living there. The second phase of this project will be to determine the structure of these organic substances, especially major pollutants not identified by standard computer search procedures.

This study is being carried out in cooperation with Dr. Ken Jenkins of the Biology Department and Dr. Dave Brown of The Southern California Coastal Water Research Project. Dr. James Jensen is the thesis advisor.



#### CSULB GRADUATE RESEARCH CONFERENCE

On April 15 of this year the annual University-wide Graduate Student Association Graduate Conference was held with sixteen papers presented by graduate students from nine departments. Four students from the Chemistry Department presented talks based upon their Master's research projects. Topics and chemistry graduate students were:

- ... "The Identification of Unknown Organic Waste Pollutants," Steve McGown
- ... "Significance of the Steric Effect on the Acid-Catalyzed Hydrolyses of Acetals of Benzaldehyde," Anna Martinez
- ... "Cyclic Voltammetry Studies on Porphyrin and Porphyrin-like Compounds," David Chernik
- ... "Studies Directed Toward the Synthesis of Juglomycin A," Mario Fernandez



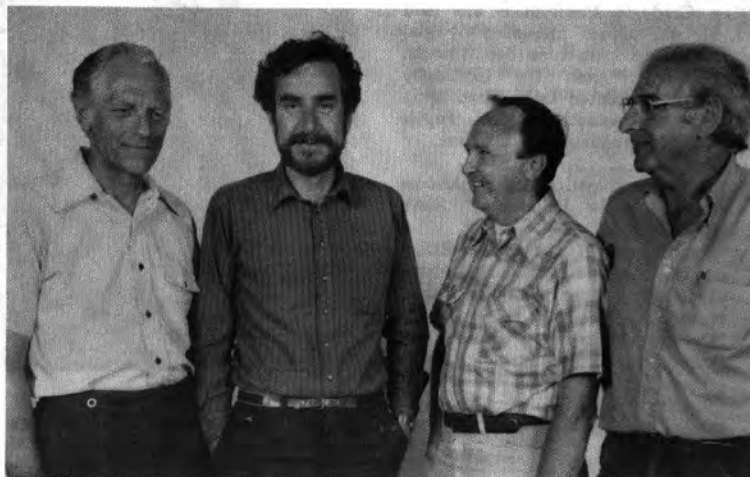
Inorganic/Analytical Chemistry Faculty, left to right: Henry Po, Gene Kalbus, Van Lieu. Not shown, Linda McGown.

Biochemistry Faculty, left to right:  
Leslie Wynston, Louis Pergut, Jeffrey  
Cohlberg, Jack Berry, Isidore Goodman  
(Lecturer), Annie Bianchino (Part-time  
Lecturer).



Organic Chemistry Faculty, left to right:  
Edwin Harris, Tom Maricich, Robert  
Henderson, Stuart Berryhill, Teresa Shaw  
(Lecturer), Robert Loeschen, Darwin M  
Mayfield, James Jensen, Kenneth Marsi.  
Not shown, Dorothy Goldish.

Physical Chemistry Faculty, left to right:  
Edwin Becker, Nail Senozan, Peter Baine,  
John Stern. Not shown, Jerold Devore.



## STUDENT AFFILIATE REPORT

It has been an active and eventful year for the Student Affiliate chapter at CSULB. Through social gatherings and educational activities, the organization has sought to benefit chemistry students.

During the 1981-82 academic year the Student Affiliates sponsored the following speakers: Dr. Phillip Crews from UC Santa Cruz speaking on "Natural Products from Coral Reef Organisms," Dr. Glenn Evans from Oregon State University speaking to undergraduates about graduate schools in general and Oregon State's program in particular, and Dr. Kenneth Marsi speaking on "A Chemistry Degree — How to Get It and How to Use It." We were also able to schedule a noon seminar with Dr. Albert Lehninger, this year's Rachelle Lecturer, who gave a presentation entitled "Oxidative Phosphorylation: Where Now and Whither?"

The Student Affiliates, recognizing the anxiety faced by both faculty and students prior to finals week, organized parties during the fall and spring semes-

ters. The Christmas party, graciously hosted by Dr. Marsi and his wife, proved very successful as did the Pizza Awards Banquet held in May. Both events were funded through the sale of lab glasses and aprons by the SAACS.

The most notable event on our calendar was the Chemistry Undergraduate Research Conference held in April and sponsored by three local sections of the ACS. Before an audience of ninety people, students representing nine universities presented a total of twenty papers on subjects ranging from biochemical experiments to quantum mechanical calculations. The Student Affiliates provided pizza and refreshments to all speakers, students, and faculty immediately following the conference. Judging from the large turnout and from the number of universities interested in hosting the event in the future, our undergraduate conference was indeed a tremendous success.

It is important that the outstanding reputation gained by our chapter in the past be upheld from year to year. Upon the election of next year's officers, we feel certain that 1982-83 will be an inno-

vative year for the Student Affiliates. These new officers are Joe Kaufman (President), David Benton (Vice President), and Donna Moromisato (Secretary).

We, the Student Affiliates of the CSULB chapter for 1981-82, wish to extend our thanks and appreciation to the following people: Dr. Peter Baine, our faculty advisor, for his help and guidance; Dr. Marsi for his help in obtaining guest speakers; and Dr. Darwin Mayfield for aiding in the organization of the successful undergraduate research conference. Of course, we are also grateful to the chemistry department staff, faculty, and chemistry students for their support and participation throughout the year.

## 1981-82 SAACS OFFICERS

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| Bill Shoemaker                      | President                         |
| David Moromisato                    | Vice President                    |
| Annie Luu                           | Secretary                         |
| Arlene Oto                          | Treasurer                         |
| Joe Kaufman and<br>Barbara Tanizawa | School Council<br>Representatives |

## FUTURE PLANS OF SOME OF OUR GRADUATES

(This is a partial list summarizing information available to date. We apologize for any oversights and we will include more data in the next edition. Editors.)

|                            |  |                                 |   |
|----------------------------|--|---------------------------------|---|
| Baker, Cathy I. BA '81     | Employed at Detergents, Inc.                         | Kim, Derek R. BA '81            | PhD program, Purdue Univ.                         |
| Barker, Scott D. BA '82    | Employed in sales with<br>Perkin-Elmer               | Klein, Larry D. BA '81          | Employed at Agri Science<br>Labs.                 |
| Bigus, Stephen J. BS '82   | MS program, CSULB                                    | Levan, Leon I. (Loc Le) MS '82  | Employed at West Coast<br>Technical Service, Inc. |
| Calhoun, Michael W. BA '82 | Employed with BKK Land-<br>fill                      | Logsdon, Margaret L. BA '82     | Pharmacy School, USC                              |
| Carr, Carmen Z. BA '82     | PhD program in Biochem-<br>istry, UCLA               | Luu, Anh Ngoc BS '82            | Employed at Rachelle Labs.                        |
| Chernik, David A. MS '82   | Employed at Gen-Chem                                 | Manos, Paul A. BA '81           | Dental School, UCLA                               |
| Chuang, Jui-Mei MS '82     | Returning to Taiwan                                  | Martin, Carl R. BA '82          | Employed at Allergan                              |
| Chung, Tam M. MS '81       | Medical School, George-<br>town Univ.                | Martinez, Mark BS '82           | Graduate program in Enology,<br>UC Davis          |
| Clevenger, Gary L. BA '82  | MS program, CSULB                                    | Mohar, John W. BA '82           | Employed at Perkin-Elmer                          |
| Eidsness, Marly BA '82     | PhD program, Univ. of Cin-<br>cinnati                | Morinishi, Glenn BA '82         | MS program, CSULB                                 |
| Erwin, Timothy P. BA '81   | Pharmacy School, USC                                 | Moromisato, David D. BA '82     | Medical School, Wisconsin<br>School of Medicine   |
| Essien, Herbert E. MS '81  | Pharmacy School, USC                                 | Oto, Arlene T. BS '82           | MS program, CSULB                                 |
| Fernandez, Mario MS '82    | PhD program, UC Irvine                               | Platt, John C. BS '82           | MS program in Computer<br>Science, Caltech        |
| Gaertner, Anton BA '82     | Employed at Chevron                                  | Plett, Gary A. BS '82           | PhD program, UC River-<br>side                    |
| Grant, Michael BS '82      | PhD program, UCLA                                    | Robello, Gilbert T., Jr. BA '82 | Veterinary School, UC Davis                       |
| Gregson, James A. BA '82   | High School Chemistry<br>Teacher, Wilmington<br>High | Schneider, Terrence L. MS '82   | Employed at North American<br>Rockwell            |
| Hakim-Afzal, Kouros MS '81 | PhD program, Loma Linda<br>Univ.                     | Schoon, Douglas D. BA '81       | PhD program UC Irvine                             |
| Hermes, Renee G. BA '82    | MS program CSULB                                     | Shoemaker, William R. BS '82    | Medical School, St. Louis<br>Univ.                |
| Herold, Larry R. MS '82    | Staff member, Chemistry,<br>CSULB                    | Smith, Dave L. BA '81           | Dental School, USC                                |
| Jetter, Jeffrey J. BS '81  | Employed at Union Oil,<br>Brea, CA                   | Sullender, William R. BA '81    | Employed at US Testing<br>Co., Inc.               |
| Jones, Nikola K. MS '81    | Employed at Beckman<br>Instruments                   | Thuy-Boun, Sorarith MS '82      | Employed at American<br>Hospital Supply           |
|                            |  | Tolentino, Lucio U. MS '82      | Employed at Aerospace<br>Corp.                    |
|                            |  | Vedenoff, Gary J. BA '82        | Dental School, Northwestern<br>Univ.              |
|                            |  | Woods, Elizabeth A. BA '82      | Postgraduate work, CSULB                          |
|                            |  | Yamaguchi, Kenneth S. MS '82    | PhD program, UC Riverside                         |



## CHEMISTRY MAJOR TO GRADUATE AT 18

NOTE: The following article was written by Linda Owens, a student staff writer for the CSULB "Daily Forty-Niner," and appeared in the November 25, 1981 edition. As a postscript to this article, it should be pointed out that Mr. Platt will enter a graduate program in computer science at Caltech in the fall of 1982 with a full three-year NSF predoctoral fellowship. Only one other student in the history of our department has received this prestigious fellowship while enrolled as a student in our program. Mr. Platt was named the Outstanding Graduating Senior for the School of Natural Sciences at the 1982 Commencement ceremonies.

He looks ordinary enough, dressed in jeans and carrying a backpack, and he says he feels ordinary. But 18-year-old Cal State Long Beach senior John Platt is considered by staff who know him to be more in the lines of extraordinary.

"I frankly think that he is probably the most brilliant student we've ever had in our department," said Ken Marsi, chairman of the Chemistry Department.

He went on to say that Platt, who turned 18 last Wednesday and graduates in May, is only the second student in Marsi's 24 years of teaching who will receive a bachelor's in chemistry at such an early age.

Platt was admitted as a freshman when he was 14, and after three years at CSULB he has an over-all grade point average of 3.96. Platt received his lowest grade—a "B" in an art class.

He never finished high school though, which initially posed problems when he attempted to be admitted to the university.

"My parents didn't think much of the secondary school system in California," Platt said. He moved to California from Illinois with his parents in 1978.

Platt said his parents went to the admissions office at CSULB, and after a lot of convincing, the university let him enroll.

Carol Revers, assistant to the director of admissions, said, "We obviously had to have some documentation for doing that (admitting Platt at age 14)."

In addition to contacting his previous schools, Platt had to take the Scholastic Aptitude Test, on which he scored 1370 (the highest score possible is a 1600), he said.

Statistical Analyst Jim Neal in the Test Office said, based on Platt's age,

the SAT score he received placed him in the ninety-ninth percentile among college-bound high school seniors.

When asked about another score—his IQ—Platt said he didn't think those were very accurate, but he remembers something about a 173 scored in elementary school.

"They used to pick on me in junior high, I guess, because I was smart," Platt said. "A lot of kids in the throes of adolescence would vent their aggressions on whatever was handy—and I was handy."

But he said his grades weren't really as good then as they are now because he was bored most of the time.

Marsi finds that Platt's boundless energy and excellent conversational skills make him far from being a dull student.

"He is not a warped genius, but has broad interests and can talk knowledgeably about a variety of things," Marsi said.

The Alpha Association Scholarship was given by Phi Beta Kappa Alumni to Platt on the basis of extraordinary scholarly performance at CSULB.

"There wasn't any question that John Platt had the highest grade point average and the best background for it (the scholarship)," said Roberta Markman, literature professor and Phi Beta Kappa alumnus. Markman chose Platt to win the \$500 award, which she said was a very important honor.

"I am already applying at different schools for graduate work," said Platt, who plans to enter a master's program in computer science after graduating from CSULB in May.

Platt already works part-time at the computer center on campus, and he said playing with a computer and his research project in astronomy are two of his current hobbies.

"I'm plotting out all of these asteroids—small pieces of rock floating between Mars and Jupiter," Platt explained.

He also enjoys reading science fiction and playing fantasy games like "Dungeons and Dragons" with friends.

Platt serves as treasurer for the General Honors Program Students Association, and he is chapter editor for Mortar Board, a service organization for seniors on campus.

## CAL STATE LONG BEACH REVIVES UNDERGRADUATE RESEARCH CONFERENCE

Some of our alumni may recall the Research Conference for Chemistry Undergraduates, formerly an annual meeting in the Southern California area. After a hiatus of ten years, the conference is again flourishing and anticipating a lively future. The Long Beach chemistry department, in cooperation with the Southern California, Orange County and San Geronio ACS Sections, is responsible for this renaissance.

Held on Saturday, April 24th, the conference included 20 papers presented in two sessions by students from nine universities. Over 90 persons were in attendance. Kenneth Marsi and Darwin Mayfield were in charge of arrangements. The actual sessions were chaired by Long Beach chemistry undergraduates Annie Luu, David Moromisato, Arlene Oto and Bill Shoemaker - all active in the local chapter of the ACS Student Affiliates.

Five papers were contributed from our department. Titles and authors with undergraduate presenter italicized follow:

"Alkylation of Trimethylsilylclopentadienyldicarbonyliron" by *Gary L. Clevenger* and *S. R. Berryhill*.

"Synthesis of a Benzophosphorinane Oxide," by *Jeffrey Jetter* and *Kenneth L. Marsi*.

"Dilantin Inhibits Ionophore (A23187) Induced Ca<sup>++</sup> Transport into Human Erythrocytes," by *Joe Kaufman* and *A. J. Berry*.

"Several Aspects of Alkaline Water Flooding," by *David K. Leese* and *Van T. Lieu*.

"Long Term Pulse Study: A Method for the Study of Long Term Alkaline Consumption by Petroleum Sands in Enhanced Oil Recovery," by *Steve W. Miller* and *Van T. Lieu*.

At the conclusion of the sessions, speakers, coauthors, friends and faculty reconvened in the less formal atmosphere of a local pizza parlor to review the morning's proceedings. Pizza and other specialties of the house were provided courtesy of the Long Beach Student Affiliates Chapter which sold lab glasses and lab aprons to help fund this conference.

Next year the sponsoring campus will be the University of California, Irvine. Other campuses have made requests to host the affair for the five succeeding years.





## HONORS TO CURRENT STUDENTS AND NEW GRADS

|                       |   |
|-----------------------|---|
| Robert Altermatt      | Graduate Dean's List of Scholars<br>Rachelle Laboratories Graduate Award<br>Rachelle Laboratories Summer Research Fellowship  |
| Michael Briggs        | Getty Synthetic Fuels Summer Research Fellowship  |
| Kris Brink            | Freshman Chemistry Award  |
| Carmen Carr           | American Institute of Chemists Award<br>Graduation with Distinction<br>Timothy Stuhl/West Coast Technical Service Award   |
| Jui-Mei Chuang        | Union Oil Summer Research Fellowship  |
| Gary Clevenger        | Graduation with Distinction and Honors in Chemistry   |
| Steve Gronert         | Merck Award in Organic Chemistry  |
| Tom Harmon*           | Award in Biochemistry   |
| Hugh Hixon            | Getty Synthetic Fuels Summer Research Fellowship  |
| Kevin Lillywhite      | Freshman Chemistry Award  |
| Annie Luu*            | Award in Physical Chemistry<br>Graduation with Distinction and Honors in Chemistry  |
| Anna Martinez         | Rachelle Laboratories Summer Research Fellowship  |
| Mark Martinez*        | Award in Analytical Chemistry   |
| Steve R. McGown       | Union Oil Summer Research Fellowship  |
| Glenn K. Morinishi    | Graduation with Distinction   |
| David Moromisato      | Dean Rhodes Award<br>Election to Phi Beta Kappa<br>Graduation with Great Distinction  |
| Lori Nakamura         | Freshman Chemistry Award  |
| Hoang Nguyen          | Occidental Research Summer Research Fellowship  |
| Arlene Oto            | Honors in Chemistry   |
| Steve Pentoney        | Merck Award in Organic Chemistry  |
| John R. Platt*        | American Institute of Chemists Award<br>Award in Inorganic Chemistry<br>Election to Phi Beta Kappa<br>Graduation with Great Distinction<br>Merck Award in Organic Chemistry<br>Outstanding Graduate, School of Natural Sciences<br>Timothy Stuhl/West Coast Technical Service Award |
| William R. Shoemaker* | Distinguished Service by an Undergraduate, School of Natural Sciences<br>Graduation with Great Distinction<br>Toni Horalek Award for Outstanding Service to the Chemistry Department  |
| Johan-Chanh Tran      | California Foundation for Biochemistry Research Summer Research Award<br>Rachelle Laboratories Graduate Award   |
| Diana C. Waldman      | Graduation with Distinction   |
| Elizabeth A. Woods    | Graduation with Distinction   |

\*Recipients of Chemistry Alumni Awards

## CHEMISTRY MAJORS AWARDED HARVARD INTERNSHIPS

Theresa Rohr and Armando Samaniego, both junior chemistry majors, were among 90 students selected for the Health Professions Program of the Harvard Summer School from 500 applicants throughout the United States. This program is geared to preprofessional training of students who are members of ethnic minority groups or are from economically disadvantaged families. Students are given individualized study programs consisting of laboratory work, clinical exposure, career advising and personal counseling. Units earned in course work can be transferred to CSULB. All their expenses are provided by a grant which covers tuition, round-trip fare, room and board, books and laboratory fees.

Both students are planning careers in medicine. Theresa hopes eventually to open her own clinic in Los Angeles, and Armando's objective is to earn an MD and PhD so that, in addition to part-time hospital clinical work, he can teach in medical school.

Neither student entered the University as a chemistry major. Theresa was a nursing major, having been accepted into the Nursing Department, and Armando was a physical therapy student before developing an interest in chemistry as a major. Both are honors students.

## PHI LAMBDA UPSILON NOMINEES FOR 1981-82

Phi Lambda Upsilon, National Honorary Chemical Society, honors undergraduate and graduate students who achieve excellence in chemistry. The Society recently established a new category called Membership-at-Large to extend recognition to outstanding chemistry students who do not happen to be enrolled at an institution where an active chapter of the Society is located. Those nominated from Cal State Long Beach are:

Robert E. Altermatt  
Marc Barajas  
Carmen Z. Carr  
Michael H. Grant  
Hugh L. Hixon  
Pamela F. Hubler  
Mark S. Martinez  
Glenn K. Morinishi  
Melissa H. Peters  
John C. Platt  
Ralf V. Reuland  
Deborah H. Schwyter  
William R. Shoemaker  
Johan-Chanh M. Tran  
Elizabeth A. Woods

1954

**FREDERICK W. HOWE** BS '54 Physical Science, has retired as a chemistry and math teacher at Buena Park High School. Although BS degrees in chemistry were not awarded until 1958, Mr. Howe had a strong concentration in chemistry. He remembers when classes and labs were taught in converted army barracks on the then Long Beach State College Campus. His son, Karl, is enrolled in CSULB as a chemistry major.

1958

**PHILIP L. ANTHONY** BS '58, MS '60 U of Hawaii, is a management consultant specializing in governmental relations. He is a member of the Board of Directors of the Orange County Water District.

1960

**AMELIA BROWN** BA '60, is a real estate agent and president of her own interior design company. All four of her children are in college, three at San Diego State and one at Chico State.

1961

**DR. FRED H. DORER** BS '61, PhD '65 U of Washington, became Dean, School of Natural Sciences at Sonoma State University in July 1981 and was named Acting Academic Vice President in January 1982. He recently published a paper, "Photochemistry of Thietane Excited to Its Second Excited Electronic Singlet State," in *J. Phys. Chem.*, 85, 2671 (1981).

1962

**KAREN (LAY) O'MALLEY** BS '62, is currently working for Sperry Univac Corporation as a Senior Educational Specialist. She teaches classes on computer technology to Sperry Univac customers and employees and serves the eleven western state region. Karen is listed in "Who's Who in America," "Who's Who in the West," and "Who's Who of American Women."

**TERRENCE C. VAN BUSKIRK** BS '62, is technical sales representative for Armak Co., Industrial Chemicals Division in Huntington Beach. Products are fatty acids and their nitrogen derivatives: amines, amine oxides, amides and quaternary ammonium salts.

1964

**PAUL J. BATTAGLIA** Student '64, is presently working at Hughes Aircraft Co. Electron Dynamics Division in Torrance as a supervisor in the metal finishing field—cleaning, plating, firing, brazing, organic coatings. He supervises the work of 86 people.

**DR. WILLIAM CENTOBENE** BS '64, MS '67, PhD '72 US International University, is Professor of Chemistry at Cypress College, Cypress, CA.

**DR. EVORD F. KNIGHTS** BS '64, PhD '68 Purdue University, is Vice President, Business Development and Planning at Union Chemicals Division, Petrochemical Group, Schaumburg, Illinois.

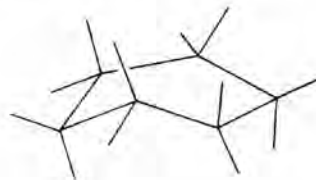
**KAHIRUP J. TORRE** MS '64, is a Senior Air Pollution Specialist with the State of California Air Resources Board at El Monte and is in charge of the Support Laboratory Unit of the Air Quality Monitoring South Section, Technical Services Division. She has been with the ARB since 1970.

1965

**DR. HOWARD P. STEPHENS** BS '65, PhD '70 Purdue University, joined Sandia National Laboratories in 1970 where he presently does research in coal liquefaction. He was presented the Bituminous Coal Research, Richard A. Glenn Award by the ACS Fuel Division in March 1982 for his exceptional work in this area. On April 21, 1982 Howard presented a departmental seminar on direct coal liquefaction research and the role of catalysis.

**LESLIE NOBLE** BS '65, is employed as a chemist at Nalco Chemical Company.

**DR. FRED SEYMOUR** MS '65, PhD UOP, is Associate Professor of Chemistry at South Dakota State University in Brookings. Following receipt of the PhD from University of the Pacific, Fred spent two years at Paris University as a postdoctoral student and then five years in medical research at Baylor University. Fred's research interests are in carbohydrate chemistry.



1966

**DR. ED BEHARE** MS '66, PhD '70 UC Santa Barbara, is employed with Associated Labs in Orange, CA

**DR. HYUN CHAI (JOE) JUNG** MS '66, PhD USC, is professor of chemistry at the Institute for Solar Energy at Kyung Hee University in Seoul, Korea, and was recently in the United States to present a paper on solar houses in Korea at an energy conference at the University of Missouri.

**DR. JAMES MYRTLE** MS '66, '71 UC Riverside, is director of the Endocrinology Department, Smith Kline Laboratory Procedures, the nation's largest medical laboratory for reference testing.

**JAMES NOBILIONE** BS '66, works in medical research at the Harbor General Hospital doing research on isolation and purification of pituitary hormones.

1967

**DR. TOM MCLAUGHLIN** BS '67, works in the Washington, D.C. area with the U.S. government. He and Mrs. McLaughlin were recently joined by their new-born daughter, Ellen Teresa.

**DR. ALAN J. SENZEL** BS '67, MS '69 PhD '70 UCLA, is currently Senior Chemist at Research Triangle Park, NC for Del Green Associates, Inc. He is working on opacity methodology for industrial air pollution control, coal sampling and analysis, and characterization of toxic chemicals at low-level waste, shallow land burial sites. He is also a consultant to EPA. Alan and his wife, Phyllis, have two children, Richard 10 and Lisa 9.

Although only 16% of the bachelor's graduates in the School of Natural Sciences at the 1982 Commencement were chemistry majors, 52% of the bachelor's students graduating with honors were chemistry majors.

Two CSULB BS chemistry graduates were involved in PhD research projects for which their advisors ultimately received Nobel Prizes. They were Dr. Mike Monahan BS '63, who worked for Dr. Roger Guillemin on brain hormones, and Dr. Evord Knights BS '64 who was a student of Dr. H.C. Brown and was involved in hydroboration research.

1968

**WILLIAM N. CLARE** BS '68, MS Chem Eng '70 San Jose State, is working for Automated Dynamics Corp. where he is engineering manager. He advises, "Tell students to combine science with computer skills; this is where the money is!"

**DONALD J. FERM** BS '68, is a research chemist in the Consumer Products Division of U.S. Borax Corp. in Anaheim, CA.

**DR. NORMAN E. HESTER** BS '68, MS '71, PhD '72 UC Riverside, is group head in oil shale research at Occidental Research Corp. at Irvine, CA.

**GLORIA K. LEONARD** BS '68, is employed by Calgon Corp. as a district representative specializing in power industrial water treatment. Gloria does technical service work, trouble-shooting and consulting to utility workers in Southern California and Arizona.

**RAYMOND E. OUELLETE** BS '68, is a senior environmental specialist with Shell Oil Company, Western Exploration & Production, Pacific Division.

1969

**ROGER HAAS** BS '69, MBA '72, recently completed his twentieth year with Rockwell International. His duties are presently to review and approve the material and processing engineering requirements on production drawings for the Shuttle Orbiter.

**DR. STEVE HANSEN** BS '69, MS '71, PhD Simon Fraser University, works as a computer analyst for the Canadian Government fisheries in Vancouver, BC.

**GARY W. VALENTINE** MS '69, MBA '81 Loyola Marymount University, works in the Corporate Office for Manufacturing Technology at Hughes Aircraft Co. He oversees transfer of technology from the laboratory to the manufacturing floor.

1970

**DR. CLAUDE LASSIGNE** BS '70, PhD '75 Simon Fraser University, is chairman of the Chemistry Department at Kwantlen Community College in Surrey, BC, Canada. He continues his NMR research at Simon Fraser University.

1971

**DR. CLAYTON J. EDWARDS** BS '71, PhD Fishery Biology, Ohio State University, is presently employed with the U.S. State Department and lives in Windsor, Ontario, Canada.

**JAMES MERRILL** BS '71 is working at Nutrilite Products.

**THOMAS PAYNE** MS '71, is now in his ninth year at Los Angeles Trade Technical College teaching chemical technology and chemistry courses.

**ALAN ROSENSTEIN** MS '71, is involved in neuropharmacology and behavior and recovery of the function of the brain following injury. He is a staff research associate in psychobiology at U.C. Irvine. More recently his group has been studying brain catecholamine synthesis and turnover, especially as it relates to aging and neural plasticity.

1972

**JOSEPH BRAMBLETT** MS '72, heads up the chromatography division at West Coast Technical Service, Inc. in Cerritos, CA.

**DR. JOSEPH R. REEVE, JR.** MS '72, PhD '77 UCLA, is assistant research professor in the UCLA School of Medicine and has just received an NIH grant for characterization of canine gastrointestinal neural peptides. Dr. and Mrs. Reeve have two children, Joy 7½ and Joshua 6.

**DR. CHUNG YUNG-HSIEN** MS '72, received his PhD from the University of Ohio and is a research chemist for Austin Powder Company in Ohio.

1973

**DR. WALTER A. BOYLE** Student '73, MD '77 UCSF, practices medicine in New York City.

**LARRY LEMOINE** BA '73, lives in Andover, Massachusetts. He and his wife, Dena, have a second child, Jacqueline Michelle, born Sept. 30, 1981.

**DR. MICHAEL J. LOCK** BS '73, MS '76, PhD '81 UC Irvine, is employed by Perkin-Elmer Aerospace Division in Pomona, CA. He is involved in the design and development of GC/MS systems for space flight application.

**DR. GARY R. WEIHE** BS '73, PhD '78 UC San Diego, is a staff scientist in the Materials Development Department, Corporate Research and Development, Raychem Corporation, in Menlo Park, CA. His research interests include polymer additives and new product development.

1974

**PETE LADJIMI** BS '74, MS '76, is a chemist at the Mobil Oil Refinery at Torrance, CA.

**DR. R.V. WHITELEY** BS '74, received his PhD from the University of Nebraska in 1978.

1975

**PRABHA J. BHALLA** MS '75, MT (ASCP) '78 Long Beach V.A. Medical Center, reports that she used to work at Bio-Science in toxicology. She now devotes most of her time to raising her one-year old daughter, Kiran.

**DAN GELFAND** BS '75, formerly with Stauffer Chemical, now works with R.D. Sloane in Sun Valley. R.D. Sloane specializes in PVC manufacture.

**DR. SHARON HERDON** BS '75, is serving an internship in internal medicine after receiving her MD from UCLA School of Medicine in 1979. She is interested in pursuing a career in research and physical medicine/rehabilitation and computers in medicine.

**DR. HOP NGUYEN** BS '75, PhD '81 USC, is project specialist at Hyland Laboratories in Glendale, CA.

**DR. ROBERT K. ONO** MS '75, PhD '79 UC Irvine, is starting his third year as an instructor in the Department of Chemistry at Pierce College.

**DR. CHRIS A. PRITSOS** Student '75, has just completed his PhD in biochemistry at the University of Nevada, Reno. The title of his dissertation was "Characterization of 2,3-Dichloro-1,4-naphthoquinone's Mechanism of Action on Mitochondria." He has accepted a one-year postdoctoral position with Dr. Ronald S. Pardine at UN, Reno.

**MARIA (LINDA) SARNO** MS '75, is manager of protein development at Hyland Laboratories and is responsible for various projects involving protein isolation and/or purification from human plasma.



1976

**DR. CHRISTOS ANGELETAKIS** BS '76, MS '78, PhD '82 UC Irvine, is currently working for American Hospital Supply Corporation in R & D on advanced dental materials.

**SOCRATES M. BATISTA** MS '76, is professor of chemistry at Universidade do Amazonas and is doing research on vegetable oils as an alternative source of energy.

**DR. LORI R. BEENINGA** BA '76, DDS '80 UCLA, has completed a two-year general practice residency at the VA hospital in Sepulveda. She becomes the Director of General Practice Residency at UCSF.

**JAMES JASPERSE** MS '76, is employed as technical director and mass spectrometrist at Environmental Data Corporation, a commercial analytical laboratory in Grand Rapids, Michigan. He is pursuing an MBA on a part-time basis.

**Dr. DAVID KANNE** MS '76, PhD '82 UC Berkeley, begins work at Stauffer Chemical Company in the Bay Area. Louise teaches in Benecia. David and Louise have two girls, Melissa 3½ and Patricia 1.

**DR. MARINA MURPHY LARSON** Student '76, received her PhD at USC and now works with Texaco, Inc. in Beacon, N.Y.

**BECKY LIZARDI** BS '76, is employed as a chemist with Getty Synthetic Fuels, Inc.

**ANITA T. THIBEAULT** BS '76, has been admitted to Western State University College of Law in Fullerton.

**DR. ERCAN UNVER** MS '76, PhD '82 Ege University, Turkey, says that "after five years on the Faculty of Science in Turkey, my wife, who is a PhD candidate, and I are planning to return to the U.S. this summer to continue our careers."

**MICHAEL YUEN** BS '76, is a radioimmunoassay chemist at Immunalysis Corp. in Glendale making RIA Direct Diagnostic Kits to detect marijuana and PCP users as well as to determine estradiol levels.

1977

**DANUTE I. BASIULIS** MS '77, is a technical supervisor in the Technology Support Division of Hughes Aircraft. She has worked in polymer chemistry developing new high performance materials with funding from DOE, NASA and the Air Force. Presently she is working on an NIH grant evaluating dielectric materials for neural prosthetic implants.

**DR. KENNETH BELL** BA '77, PhD '81 UC Irvine, works in process chemistry for Monsanto Agricultural Products in St. Louis, MO. "Missouri weather makes me long for California, although we like St. Louis." Ken and his wife have two children, Matt 8, and Jenny 3.

**ROBERT BLAIR** BA '77, MS '80, enjoys his work at BioResearch Laboratories in La Jolla. He has completed work on solid phase synthesis of peptides and is now doing work on surgical adhesives. The Company is affiliated with UCSD with Dr. Murray Goodman as advisor.

**DR. BILL CHRISTIANSEN** BA '77, MD '82 UCSF, is an intern in internal medicine at the University of Nevada, Reno. He plans to specialize in anesthesia.

**RAYMOND A. JOHNSON** BA '77, is a stockbroker at the downtown office of Merrill Lynch in Long Beach.

**DR. WALTER MANN** BA '77, DDS '82 UOP, plans to work as a dentist for the United States Public Health Service. He is married to Mary Stewart, a CSULB graduate. Mary is competing her first year at the UOP School of Dentistry.

**DAVID R. OLIVER** BS '77, MS '79, is an instructor in the Chemistry and Physics Department at Oxnard College. He and his wife, Karen, have a new son, Michael.

**SANDY STONER WRIGHT** MS '77, and her husband, Chris, live in Mountain View and are proud parents of a new little girl, Elizabeth Anne. Chris works as an engineer.



... During the fall semester of 1981, 126 sections of chemistry courses were offered which enrolled 2,248 students.

1978

**DR. BETTY JANE BURRI** MS '78, PhD '82 UC San Diego, is working on a postdoctoral fellowship at Scripps Clinic and Research Center in San Diego. She is researching the Factor X-IX-VIIIc complex on blood coagulation and is learning electron microscopy.

**KURT A. MACLEAN** BA '78, received his Juris Doctor degree from the UCLA School of Law on May 23, 1982. Kurt begins as an associate with the Century City law firm of Poms, Smith, Lande and Rose, specializing in patent, trademark, copyright and unfair competition causes. "My chemistry education has proven to be a valuable asset to my legal career."

**MARIANNE MARSI-MANRING** BS '78, completes her PhD in organic chemistry this summer as will her husband, Lewis. They will move to Boston where Marianne has an appointment at Brandeis and Lewis at Harvard University. Both are presently at UCLA.

**DANIEL PEEK** '78, says, "When I'm not fishing, I spend a little time working on my master's in soil science at Oregon State University. My thesis is on fluoride adsorption and transport in soils. I was recently granted a patent 'Fire Resistant Composites' for the work I did at McDonnell Douglas from 1978-80."

**DR. DAVID TANG** Student '78, received his DDS degree from UCLA Dental School this year.

**MALCOLM WINDSOR** BS '78, is currently employed as Assistant Environmental Coordinator at the Pine Bluff, Arkansas Army Depot.

**GERALD E. WUENSHELL** BS '78, is working on his PhD in chemistry at USC under the direction of Dr. Chris Reed on hemoglobin and cytochrome oxidase model compounds and is TAing in organic chemistry.



... During the period 1958-1981 the Chemistry Department at CSULB granted 666 degrees: 221 BA, 297 BS and 148 MS degrees.

... Living expenses for academic year 1982-83 for CSULB students are estimated to be \$3,437 for students living at home and \$7,986 for students living away from home.

## 1979

**PATTY BENNER BS '79**, works for Arco as a process engineer at the Watson Refinery in Carson. She and Mike Becker were married in May, 1981.

**JOHN E. DILLON BA '79**, is attending the University of Utah School of Pharmacy and will receive an MBA along with a PharmD degree in 1983.

**BASSEM (SAM) FASHEH BA '79**, received his MBA in June, 1982 at CSU, Dominguez Hills.

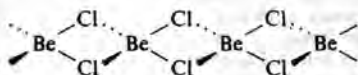
**HERMAN HIGA MS '79**, is a student in the biochemistry PhD program at UCLA.

**DR. JOHN R. MCGADY MS '79, PharmD '82 USC**, is an intern at St. Francis Medical Center and began work as a clinical pharmacist in July.

**PAT MCKAY MS '79**, has completed his second year at Genentech and reports that his project has been the purification of desacetyl thymasin alpha-one, a peptide with a molecular weight of 3,066 daltons and composed of 28 amino acid residues. Present work focusses on chemical modification of the N-terminus and glycosylation of lysine residues.

**ED WILSON Student '79**, was recently promoted to Laboratory Director with Brown and Caldwell Consulting Engineers in the Environmental Sciences Division and supervises the work of 34 people. He is presently involved in analyzing groundwater and soil borings for organic contaminants related to underground solvent storage tank problems.

**DAN H. WOO MS '79**, works at Aminol USA, Inc. in Huntington Beach. Dan is married to a CSULB alumnus, Joyce (BS '80, Business). They report a recent addition to their family, a kitten named "Pepper"!



... A national survey by the Endicott Report indicates that a strong demand will continue in the fields of accounting, engineering, business administration, sales, marketing and computer sciences, but the greatest demand is for the chemistry baccalaureates which is up more than 30%. The survey was conducted in November, 1981.

## 1980

**VICTOR CACHIA BA '80**, is presently enrolled at the UCSF School of Podiatry. Vic was formerly employed with Getty Synthetic Fuels.

**GREG DOWNS BA '80**, has completed his first year of medical school at the Wisconsin School of Medicine. He is doing research on nitrogen gas excretion during increased hyperbaric pressures on man. The work employs mass spectroscopy and ultrasound.

**BRIAN DUBOW BS '80**, has been promoted to Chief Fuel Chemist, Cruise Missile Program, and Special Projects Engineer at General Dynamics Aerospace, Convair Division in San Diego.

**GEORGE ELIADES BA '80**, leaves Bentley Laboratories in research and development of cardiopulmonary surgical equipment to attend Northwestern University School of Dentistry.

**DON HONDA BA '80**, is completing his second year as a pharmacy student at UC San Francisco and is doing research in interfacial kinetics, some of which has been published in *J. Phys. Chem.*

**RICHARD HUDSPETH MS '80**, informs us that "presently I am employed by Caltech at the Kerkhoff Marine Lab in Corona del Mar. My work is directed by Dr. Roy Britten and deals with the identification of horizontally transferred DNA sequences between *Aplysia Vacaria* and *Strongylothermus Purpuratus*. This September I am going to work for a genetic engineering company in Pasadena called Phylogen. The company is headed by James Bonner and is primarily directed towards the use of recombinant DNA technology on plants."

**ROBERT KLENCK BA '80**, is working on his PhD in organic chemistry under the direction of Dr. Bates at the University of Arizona. Presently he is doing a structure determination on deoxybouvardin. His wife works for IBM as an Assembly Inventory Attendant in Tucson.

**K. SCOTT MARSI BA '80**, is completing his MS degree in analytical chemistry at San Diego State University and is doing his thesis work in mass spectrometry.

**MARIO MOLINA BA '80**, will begin his third year of medical school this fall at USC School of Medicine.

**KIRK MORGAN BA '80**, is "having a good time in my first two years of medical school at Case Western Reserve. Thanks again for the excellent education."

**KAREN ROGERS BA '80**, is the director of the chromatography division at Agri Science Laboratories in Cerritos, CA.

**SHIRLEY D. (BALL) ROTHNIE Student '80**, was married to John Rothnie in October of 1980 and have a son, Mark Daniel, born January 16, 1982. She reports, "I am now a happily unemployed housewife and mother!"

**DEAN SEQUERA BA '80**, is employed as a product line specialist in infrared spectroscopy for Beckman Instruments in Irvine. Dean formerly worked with the Los Angeles County Sanitation District.

**CHARLENE TAYLOR BA '80**, is teaching in Richmond, Vermont and enjoys rural living.

## 1981

**MIRIAM CARDENAS BS '81**, works as a GC/MS specialist at West Coast Technical Service, Inc. in Cerritos, CA.

**JAMES DENMAN BS '81**, works as a chemist at McDonnell Douglas, Long Beach.

**MARIANNE DENNY BA '81**, is enrolled as a first year student at USC School of Medicine. She and her husband are parents of their first child, Stephanie Ann, born January 20, 1982.

**TIMOTHY ERWIN BA '81**, will begin his second year at pharmacy school at USC. He is presently a hospital intern pharmacist and was on the Dean's List.

**KANELLA V. HUSCROFT BA '81**, is working at Hughes Aircraft as a member of the technical staff in electrical engineering.

**DEREK KIM BA '81**, is pursuing a PhD at Purdue University.

**BETTY KORBER BS '81**, is in her second year of the PhD program in physical biochemistry at Caltech.

**HUONG-ANH NGO LONG BA '81**, has completed her first year of medical school at UC Davis.

**JACK LONG BA '81**, will begin medical school at the University of Cincinnati. Jack has worked as a research chemist at the Union Oil Research Center at Brea, CA.

**LARRY MANES BA '81**, is a PhD candidate in chemistry at UC Santa Cruz and works with Dr. Phillip Crews in the study of marine natural product chemistry. This work combines Larry's interests in marine biology and chemistry. He says, "the research is great, the campus is beautiful and the surf is good, too!"

**PAUL MANOS BA '81**, is finishing his second year of dental school at UCLA. He was recently married and has "a wonderful family of one cat and 27 fish."

**RANDY MASUKAWA BA '81**, works as an analytical chemist with Getty Synthetic Fuels, Inc.

**STEVE MILLER BA '81**, formerly employed with Laser Precision, Analect Division, is a graduate student in petroleum engineering at USC.

**MARK C. PHILLIPS BA '81**, has completed his first year of dental school at UCLA.

**REBECCA RABANO BS '81**, is employed as a chemist at McDonnell Douglas in Long Beach.

**ROBERT SCHALLER, JR. BA '81**, is attending dental school at the University of Missouri, Kansas City.

**ERIKA SCHNEIDER BS '81**, is a PhD candidate at UC Berkeley developing an NMR technique in powders and enjoying life in the Bay Area.

#### 1982

**TAM CHUNG MS '82**, is a medical student at George Washington University in St. Louis, MO.

**MARLY EIDSNESS BA '82**, is working on her PhD in chemistry at Cincinnati University studying gold reactions in biological systems, specifically relating to gold treatment of arthritis. Her research takes her frequently to Stanford University. She finds time to play her violin in the Cincinnati Community Orchestra and is on a city league volleyball team.

#### ALUMNUS CALLOWAY FEATURED IN C&EN

Ancel (Ray) Calloway BA '78 was featured in the Science/Technology Concentrates in the April 19, 1982 issue of *Chemical and Engineering News* for developing a new method for directly depositing integrated circuit materials. A vacuum ultraviolet chemical vapor deposition system at temperatures of less than 100° C is employed. The system costs considerably less than ultraviolet lasers used for this purpose and is about half the size. The method involves the use of trimethylaluminum photolysis and deposition of aluminum atoms. Ancel is employed by Aerospace Corporation, El Segundo, California and is a member of the CSULB Chemistry Department's Advisory Council.

#### LABORATORY RECONSTRUCTION PROJECTS

Two stages in a multiyear project are completed or underway to remodel chemistry laboratories to meet OSHA and CalOSHA safety standards. The main objectives are to improve laboratory atmospheres and to revise the hood exhaust systems so as to prevent recycling of exhausted air back into the intake ducts.

The first of these two stages involved converting the laboratories on the top floor of Peterson Hall 3 (formerly Science 3) into negative pressure rooms so that fumes cannot escape into other rooms and corridors, and to increase the rate of air change in these laboratories. This project was completed this past spring.

The second stage is a complete reconstruction of the interiors of the two organic laboratories in Peterson Hall 2 (formerly SC-2). These are two of the original three chemistry laboratories, completed in 1956. Work is underway now, with completion expected for the fall semester, to provide each student with an individual six-foot hood. The hoods are placed around the periphery of the room and communal services, such as sinks, reagents, etc., are located on center-island desks. Additionally, a much enlarged instrument room is being installed.

Although funding for future stages is problematical, we hope to continue this overall project to bring our laboratories up to modern standards by remodelling two laboratories each year.

#### CHEMISTRY ALUMNI FUND

A growing number of alumni are contributing annually to the Chemistry Alumni Fund, for which we are grateful. If you have not contributed in the past, we hope you will consider a gift (none too small!). Money generated by alumni giving is used for student awards (see Honors to Students elsewhere in the *Newsletter*), support of the seminar program, and miscellaneous research and instructional expenses. As chairman I promptly acknowledge any gifts by a personal letter, and the CSULB Alumni Association is also informed so that you may be credited as a contributing alumnus and so that your name will appear in the alumni publication. Your support in this way, needless to say, is of tremendous help to our program, giving it an edge for excellence, and provides encouragement to an appreciative faculty. If you wish, use the enclosed envelope and the back page of this *Newsletter* to respond. Make any checks payable to *Chemistry Department, CSULB*.

Ken Marsi, Chairman

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