University at Buffalo The State University of New York

CHEMICAL ENGINEERING NEWS

Fall 2000

Message From The Chair

Carl R. F. Lund

We're half way through the Fall 2000 semester, and things are going very well in the Chemical Engineering Department. It looked like Professor Tom Weber's retirement was going to leave us a little short-handed for the semester. Instead, we were very fortunate to learn that one of our own alumni, Dr. Mohammad Soltanieh, was on a sabbatical leave from Sharif University of Technology, Tehran, Iran, and was interested in a visiting professorship for the semester. We are happy to have him with us and teaching both fluid mechanics and the junior design course. For those of you who remember Dr. Soltanieh and would like to drop him a line, his e-mail address is "*msoltan@eng.buffalo.edu*".

The Department is boasting of yet another winner of an NSF Young Investigator Award (presently called CAREER awards), this time to Professor Stelios Andreadis. Professor Andreadis has very quickly established a premier research program with a strong focus on tissue engineering and retrovirus mediated gene transfer. He's involved in some fascinating research on artificial skin. Congratulations Stelios!

While talking bio, the department is also quite excited to announce that Dr. Mattheos Koffas has accepted a position as an Assistant Professor. Mattheos worked with Professor Gregory Stephanopoulos at MIT for his doctorate. He'll be spending some time at Dupont as a postdoctoral fellow before joining us here in Buffalo. Mattheos' research interests will nicely complement those of our present bioengineering faculty as well as presenting opportunities for interdisciplinary interactions with several departments around campus.

While talking about hiring, the Department has initiated searches for three faculty positions. We are accepting applications from candidates for positions in the materials and bio areas at open rank. Spread the word to qualified individuals! We are also searching for a lecturer who will assume full responsibility for our lab courses and maintenance of the labs. This position will require a Ph.D. or extensive industrial experience.

This fall, together with Mechanical and Aerospace Engineering, the Department opened a new PC classroom/laboratory. This facility has 30 PCs along with capabilities for projection of the instructors screen at the front of the room. We'll be using the room for our process design recitations where heavy use is made of the simulator, and for selected topics and lectures in other classes. Whenever the room is not in use by one of the departments, it will be open for use by our students.

Finally, I'd like to extend a thank-you to all of you who have been contributing to the Department in any way. We really appreciate the e-mails and other feedback we've been receiving from our web site and other places. We also appreciate the financial support that has come to the Department through your donations that are designated for Chemical Engineering. Please look elsewhere in this issue for the article on the curriculum and, if you have some ideas, suggestions, or criticisms, pass them along to us. If you'll be at the Annual AIChE Meeting in Los Angeles, please drop by at our hospitality suite on Tuesday evening and spend some time with us. Hope to see you there! ♦

Please stop by our Hospitality Room at the Annual AIChE Meeting in Los Angeles
Tuesday, November 14, 2000
6:30—8:30 pm
The San Fernando Room
The Westin Bonaventure Hotel

Undergraduate Curriculum News

By David Kofke

Today's Curriculum

So, you might be wondering, what is the academic life of a UB CE student like these days? Is the curriculum anything like it was when you were a student here? Well, in the past ten years we've made some changes, but most likely you'll still recognize the recommended course of study:

Freshman Year

Fall	Spring
Calculus I	Calculus II
Chemistry I	Physics I
Intro to Engineering	Chemistry II
Gen Ed	Gen Ed
Gen Ed	Gen Ed

Sophomore Year

Fall	Spring
Calculus III	Differential Equations
Physics II	Statics
Intro to CE	Tech Elective
Thermodynamics	CE Thermodynamics
Tech Elective	Programming Language

Junior Year

Fall	Spring
Organic I	Organic II
Design	Unit Ops I
Transport I	Transport II
CE Lab I	CE Lab II
Gen Ed	Physical Chemistry
	P Chem Lab

Senior Year

Fall	Spring
Kinetics	Plant Design
Unit Ops II	CE Technical Elective
Material Science	Tech Elective
CE Lab III	CE Lab IV
CE Tech Elective	Engineering Elective

Students now get their first taste of chemical engineering in their sophomore year, when they take their material balances and CE thermo courses. The curriculum has more elective content than it used to, even though we had to reduce the credits to 128 (from 136) to meet University guidelines. No longer required are the third course in physics, the course in circuits, and the sixth and seventh Gen Ed courses. Students take C, C++ or Java rather than Fortran for a programming language. Students no longer take an entire course on spreadsheets. Instead, in their first semester "Intro to Engineering" teaches them Unix, Windows, the Maple mathematics package, and spreadsheets, all in the context of meaningful applications in the engineering disciplines.

As detailed by Professor Gupta in the next article, the Department now offers several opportunities for industrial experience. The Internship program is still in place (where the student works 10 hours per week in industry for three credits), but now there is also a "Engineering Career Institute", an intensive summertime program where students combine on-the-job experience with classroom instruction in the "soft" skills of communication, teamwork, quality, and so on. And, yes, we have just launched a true co-op program where students work two summers and one semester full time in industry. We also have a five-year program that leads to a combined BS(CE)/MBA degree.

Curriculum of the Future: We Need Your Input!

Recent changes in the Accreditation Board for Engineering and Technology (ABET) guidelines mean that we have much more flexibility in designing our curriculum. Within very broad constraints, we are free to choose our own priorities in undergraduate education, and to implement a curriculum that makes it happen. This is indeed an exciting opportunity, but we must act responsibly. Mistakes here put at risk the future marketability and reputation of our graduates.

Thus, the process by which we decide upon and implement changes is even more important than the changes themselves. A good process lets us identify existing deficiencies, and recognize and recover from our mistakes. A core element of our decision-making process must be input from our alumni. You are the ones who know whether the experience you had here adequately prepared you for your career. If you let us know what worked, and what didn't, we

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can (and will) make the changes to improve the education of our current and future students.

We have some ideas in mind right now about how to improve the curriculum. You can let us know if these steps move us in the right direction. More important, you can let us know what else we should be thinking to change. We've reviewed the current status for you above. Other things we're thinking of doing—some more seriously than others—include:

- Expanding the role of technical communication in the curriculum
- Adding some new required courses: Applied Math/Numerical Methods; Process Control
- Removing some required courses: Statics, Junior Design (CE 307)
- Replacing Organic II with an Advanced Chemistry Elective (*e.g.*, bio or inorganic)
- Folding Unit Ops I into the Transport Courses, and adding an Advanced Transport elective
- Expanding the use of process simulation software in the curriculum
- Introducing computational fluid dynamics, computational chemistry, and/or molecular simulation in the curriculum.

This gives you an idea of the scope of the changes we're contemplating. What do you think? Please take some time to visit our web site, and see in more detail what we're considering, and why. There's a lot more than we have room to describe here. Then fill out the survey there and give us the advice we need to decide wisely. Your input will make a real difference. The URL is: *www.cheme.buffalo.edu/curriculum* **.** ♦

Real World Engineering

By Ashish Gupta

UB Chemical Engineering undergraduates, like their counterparts in other top departments, know how to model transport phenomena and solve differential equations. Unlike many of these counterparts, three of every five graduating students in our class also know how this would be used in their first job. These students have spent anywhere from three weeks to three semesters in an industrial internship in one of several western New York companies as part of the BS CE curriculum. The students learn real world skills (communications, proposal preparation, presentation and report writing, team work), and benefit their employers, through UB's unique Engineering Work Experience programs (The only virtual thing about this experience is the detailed website: *http://www.eng.buffalo.edu/Outreach/work.html*). There are three primary internship opportunities offered to chemical engineering majors:

1. The **Co-operative Degree Program** offers students ten months of full-time employment in industry and takes four years and a semester to complete.
2. The **Engineering Career Institute** offers full-time employment for twelve weeks in the summer to senior students and provides them with two weeks of lectures on Total Quality management, communication skills, industrial finance, project management, value engineering, safety and time management. Typically these are some of our best students.
3. The **Internship Program** allows a student to work alongside practicing engineers one day a week for a semester.

Participating companies include nearly every manufacturer in the area: Honeywell, Praxair, Delphi Automotive, Leica, Niagara Blower, Olin Chemicals, APV, Pyron Corporation, Steuben Foods, Niacet, Malcolm Pirnie, FMC Corp., and Wilson Greatbach. Students have helped design an optical biosensor, oxygen permeable packaging, sintering and ceramic powder manufacturing protocols. They have organized databases for purchasing, bidding, inventory control, and plant layouts; and have conducted product testing for frost-free mixtures, polymeric membranes, advanced adsorbents and ceramics. The supervising engineers value the student contributions (many of the interns are offered a full-time job). They return to recruit interns from UB every year.

Besides these opportunities, many students work part-time, are involved in cutting edge research with our faculty (there is a National Science Foundation program in the department: *http://www.eng.buffalo.edu/Departments/ce/reu/*), and design a project advised by practicing engineers for their capstone design course. If your company would like to involve our students in one of these ways, please contact Dr. Ashish Gupta at (716) 645-2911 ext.2221, *ashishg@buffalo.edu*.♦

UB at the AIChE Meeting, Los Angeles

This year's AIChE annual meeting will include thirty-four contributions authored by UB chemical engineering faculty and students. For your convenience, these talks and their times and locations are listed below. They are arranged in chronological order.

***Ab Initio* Modeling of Iron Dimers in ZSM-5 and Other Iron Clusters**
In session [331] - Applying Computational Chemistry and Molecular Simulations I
4:00 p.m., Sunday, November 12, San Jose - Westin
Carl R.F. Lund and Bryan H. Kim

A New Approach to Free-Energy Measurement in Solids by Molecular Simulation
In session [76] - Thermodynamics and Kinetics of Solid-Fluid Phase Equillbria
8:30 a.m., Monday, November 13, San Francisco - Westin
David A. Kofke and C. Daniel Barnes

Vapor Phase Synthesis of II-VI Semiconductor Nanoparticles in a Counterflow Jet Reactor
In session [4] - Gas Phase Synthesis of Nanoparticles
9:58 a.m., Monday, November 13, Santa Barbara A - Westin
Demetrius Sarigiannis, T. J. Mountziaris, A. Petrou, and G. Kioseoglou

High Efficiencies of Gene Transfer using Recombinant Retroviruses Immobilized on Recombinant Fibronectin
In session [305] - Gene Therapy and Intracellular Processes
10:20 a.m., Monday, November 13, Santa Anita C - Westin
Stelios Andreadis, Bharat Bajaj, and Pedro Lei

Photothermal Aerosol Synthesis of Semiconductor Nanoparticles
In session [4] - Gas Phase Synthesis of Nanoparticles
10:42 a.m., Monday, November 13, Santa Barbara A - Westin
Suddha S. Talukdar, Xuegeng Li, and Mark T. Swihart

Role of Non-Linear and Time-Varying Shear Fields on Cell Aggregation and Activation
In session [306] - Cell Adhesion and Migration
4:27 p.m., Monday, November 13, Room 109 - UCLA
Harish Shankaran and S. Neelamegham

Influence of the Air-Water Interface on the Apparent Surface Tension of Aqueous Solutions of Hydrophilic Solutes
In session [75] - Poster Session: Fundamental Research in Interfacial Phenomena
4:30 p.m., Monday, November 13, Pasadena Room - Westin
Aristides Docoslis, Carel J. van Oss, and Rossman F. Giese

Phase Behavior and Microstructure in Siloxane Surfactant - Water - Silicone Oil System
In session [75] - Poster Session: Fundamental Research in Interfacial Phenomena
4:30 p.m., Monday, November 13, Pasadena Room - Westin
Paschalis Alexandridis and Sungsook Ahn

Bifurcation and Stability Analysis of Counterflowing Jets
In session [53] - Poster Session: Fundamental Research in Fluid Mechanics
4:30 p.m., Monday, November 13, Pasadena Room - Westin
Roger P. Pawlowski, Andrew G. Salinger, and T. J. Mountziaris

Novel Configurational Bias Scheme for Simulation of Polymer Systems
In session [80] - Poster Session: Thermodynamics and Transport Properties
7:00 p.m., Monday, November 13, Pasadena Room - Westin
Nandou Lu and David A. Kofke

Molecular Simulation of Associating Fluids
In session [80] - Poster Session: Thermodynamics and Transport Properties
7:00 p.m., Monday, November 13, Pasadena Room - Westin
Scott J. Wierzchowski and David A. Kofke

Rheological Investigation of Interactions between Associating Polymers, Surfactants, and Cyclodextrins in Aqueous Solutions
In session [100] - Fundamental Research in Interfacial Phenomena III
8:30 a.m., Tuesday, November 14, San Gabriel C - Westin
Paschalis Alexandridis, Sungsook Ahn, Marina Tsianou, and Ioannis S. Chronakis

The Physicochemical Properties of Poloxamers Modulate their Ability to Inhibit Platelet Aggregation
In session [307] - Characterization of Biomaterial-Host Interaction
8:55 a.m., Tuesday, November 14, San Gabriel B - Westin
S. Neelamegham, Fariyal Ahmed, and Paschalis Alexandridis

Control of the Phase Behavior and Microstructure of Amphiphilic Block Copolymers by the Addition of Cosolutes and Cosolvents
In session [99] - Self-Assembly in Solution I
9:00 a.m., Tuesday, November 14, San Fernando - Westin
Paschalis Alexandridis and Lin Yang

Gas Phase Reaction Mechanisms and Kinetics of Elementary Reactions for the Al-H-Cl System from Molecular Orbital Calculations
In session [341] - Combustion Reaction Engineering II
10:02 a.m., Tuesday, November 14, Concourse Ballroom Salon 1 - Marriott
Mark T. Swihart and Laurent Catoire

Kinetics and Free Energies of Protein Adsorption onto Mineral Microparticles
In session [279] - Poster Session: Food, Pharmaceutical and Bioengineering
7:00 p.m., Tuesday, November 14, Pasadena Room - Westin
Aristides Docoslis, Carel J. van Oss, Laura A. Rusinski, and Rossman F. Giese

Models of the Metalorganic Vapor Phase Epitaxy of Compound Semiconductors and Related Studies
In session [348] - Detailed Reaction Mechanism and Reactor Modeling I
9:45 a.m., Wednesday, November 15, Concourse Ballroom Salon 3 – Marriott
T. J. Mountziaris, Roger P. Pawlowski, Constantinos Theodoropoulos, H. K. Moffat, and Andrew G. Salinger

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Molecular Thermodynamics is not an Oxymoron
In session [59] - Fun Thermodynamics is not an Oxymoron
10:08 a.m., Wednesday, November 15, San Gabriel A - Westin
Daniel J. Lacks, Peter Cummings, Richard Rowley, and David A. Kofke

Structural Characterization of Contact Lens Material Based on Polydimethylsiloxane
In session [182] - Poster Session: Materials General Session
4:30 p.m., Wednesday, November 15, Pasadena Room - Westin
Paschalis Alexandridis and Sungsook Ahn

Multi-parametric Analysis of the Factors Affecting Cell-substrate Binding in a Parallel-Plate Flow Chamber
In session [310] - Biorheology and Biomechanics
4:38 p.m., Wednesday, November 15, Santa Anita B - Westin
Yi Zhang and S. Neelamegham

A Very Effective Method for Completing Molecule Insertions
In session [86] - Molecular Simulation - Recent Advances I
8:45 a.m., Thursday, November 16, San Francisco - Westin
David A. Kofke, Nandou Lu, and Bryan Mihalick

N_2O Decomposition over Fe-ZSM-5
In session [352] - Zeolite Catalysis
8:45 a.m., Thursday, November 16, Concourse Ballroom Salon 2 - Marriott
Carl R. F. Lund and Chimin Sang

Development of an *in vitro* Model of Wound Reepithelialization
In session [312] - Cellular Therapies
9:35 a.m., Thursday, November 16, Santa Anita B - Westin
Stelios Andreadis, Daniel Swartz, and David Geer

A Graph Theoretic Approach to Mixed Fluid Power Cycle Synthesis
In session [242] - Process Synthesis
11:10 a.m., Thursday, November 16, Beaudry B - Westin
Ashish Gupta

Water Gas Shift Kinetics under Membrane Reactor Conditions
In session [353] - Catalytic Membranes and Membrane Reactors
11:10 a.m., Thursday, November 16, Concourse Ballroom Salon 1 - Marriott
Carl R. F. Lund and Donghao Ma

A Graph Theoretic Formulation for Utility Bounds on Reactive Distillation Systems
In session [245] - Design of Reactive Separation Systems
2:00 p.m., Thursday, November 16, Santa Barbara A - Westin
Ashish Gupta

Minimum Utility Bounds For Liquid-Liquid Extraction Systems
In session [49] - Reactive Separations
4:00 p.m., Thursday, November 16, Santa Barbara B - Westin
Ashish Gupta and Dennis D. Sourlas

Solute Release via the Dissolution of Self-Assembled Block Copolymers: Experiments and Modelling
In session [107] - Applications of Microstructured Fluids I
4:20 p.m., Thursday, November 16, San Fernando - Westin
Paschalis Alexandridis, Lin Yang, and Suddha S. Talukdar

Solution of Reaction Diffusion Equations through Systematically Modified Adaptive hp Meshes
In session [272] - Numerical Analysis
4:45 p.m., Thursday, November 16, San Bernardino - Westin
Ashish Gupta and Abani Patra

Modeling Particle Nucleation during Thermal CVD of Silicon from Silane using Kinetic Monte Carlo Simulation
In session [215] - Molecular Simulation of Material Processes I
10:30 a.m., Friday, November 17, San Pedro - Westin
Xuegeng Li and Mark T. Swihart

A Pollution Prevention Course for the Chemical Engineering Curriculum
In session [67] - Pollution Prevention in the Chemical Engineering Curriculum
10:35 a.m., Friday, November 17, San Gabriel B - Westin
Ashish Gupta and Dennis D. Sourlas

Microstructural Model for the Permeability of Skin
[314] - Thermodynamics and Transport in Biological Systems
11:15 a.m., Friday, November 17, Santa Anita C - Westin
Tsuo-Feng Wang, Priya Talreja, Gerald B. Kasting, and Johannes Nitsche

Design of Industrial-Scale Reactors for MOVPE of Group III Nitrides
In session [217] - Reactor Design and Analysis for Electronic Materials
2:54 p.m., Friday, November 17, San Gabriel B - Westin
Roger P. Pawlowski, Constantinos Theodoropoulos, Andrew G. Salinger, H. K. Moffat, T. J. Mountziaris, and E. J. Thrush

Uncatalyzed and $AlCl_3$-Catalyzed Chlorination of Toluene
In session [359] - Homogeneous and Phase Transfer Catalysis
3:20 p.m., Friday, November 17, Concourse Ballroom Salon 2 - Marriott
Carl R. F. Lund, Zhang Mang and Scott Spencer ♦

AIChE Student Chapter Activities

By Scott Boyle, Internal Vice President and Mark Swihart, Faculty Advisor

This year, the UB student chapter of the American Institute of Chemical Engineers (AIChE), has scheduled several exciting activities, with many more still in planning. On October 20th, AIChE sponsored a party at Cloud 9. Not only is this an excellent way of raising money to support the club's more serious activities, but it also provides a great opportunity for chemical engineers to interact outside of the classroom. The week after the party, AIChE held its semi-annual "Bowling with the Faculty" event on October 26th at the Sheridan Game Zone. This event gives the students a chance to express their opinions about the program to the faculty, as well as providing for some fun student-faculty interaction. The most anticipated event of the fall semester is the AIChE National Student Conference. This year the conference is being held in Los Angeles, CA, from November 11-13, and includes the Chem-E-Car competition in which UB will compete. In the spring of 2000, the

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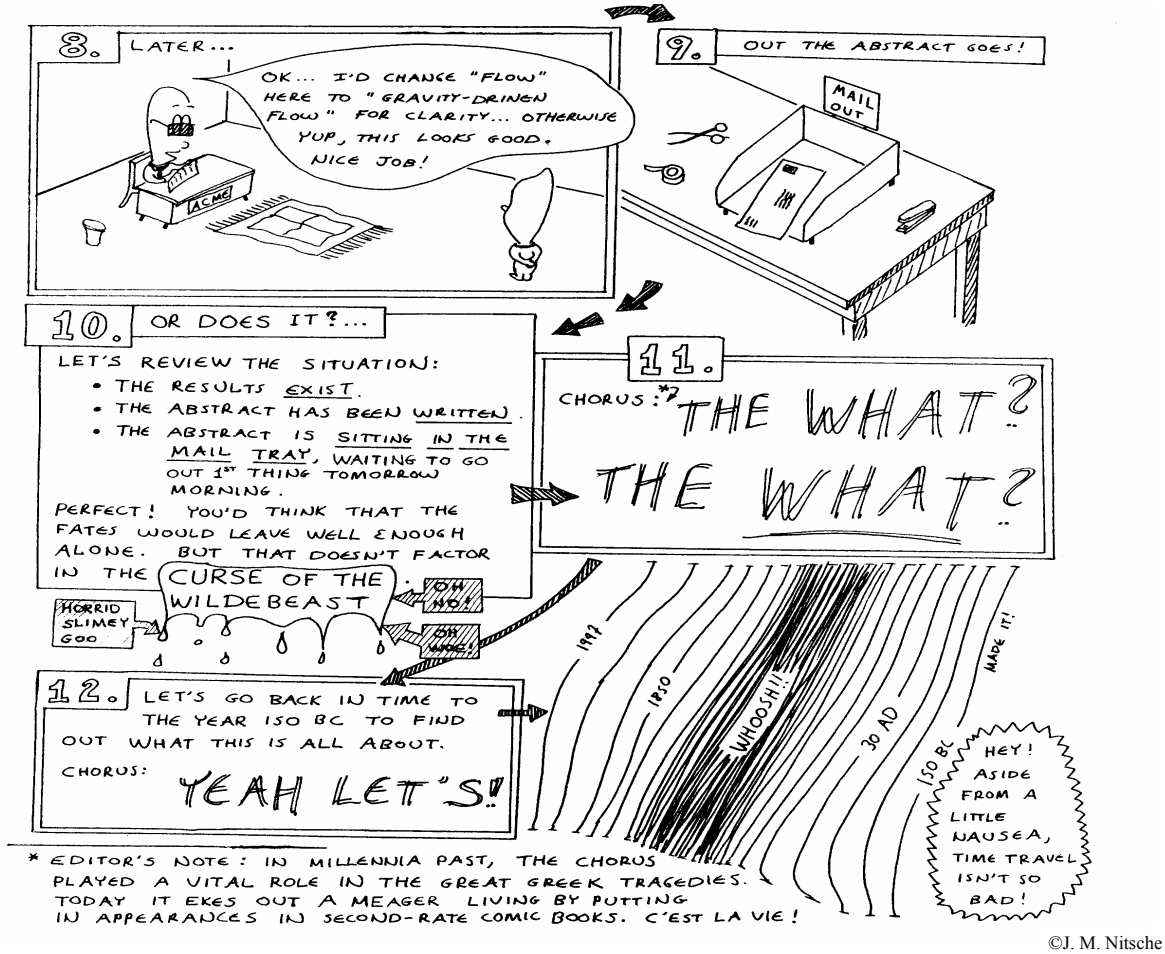
UB chapter hosted the New York regional student AIChE conference, and a UB team won the Chem-E-Car competition at that conference. Several additional fund-raising activities have allowed the club to raise enough money to cover a substantial portion of the travel costs of the fourteen students that will attend the conference in LA. The club's officers are also working to add Lasertron to this semester's bill of activities.

AIChE plans to kick off the spring semester with another fund-raising party. Also in the spring the club hopes to hold another bowling event, as well as a softball game and a CE picnic. The club also plans to participate in the annual engineers week during the spring. This year, the closest regional student conference will be in West Virginia, so travel costs may prevent our chapter from participating. As the spring semester winds down, AIChE will once again hold its annual "Semi-Formal Dinner and Dance".

The officers are also in the midst of planning several community service events. They include: adopting a highway, participating in the annual Buffalo News Kids Day, and helping with a habitat for humanity project. We also plan to initiate a small tutoring program at a local high school, where we can help students in math, chemistry, and physics.

Conspicuously absent from the list of events described above are meetings with guest speakers from industry. If any alumni out there would be interested in speaking to the student AIChE chapter about their career, their company, life after graduation, how to get the most from their UB experience, or other topics, we would be pleased to hear from you. Please contact Professor Swihart at 645-2911 x2205 or *swihart@eng.buffalo.edu*, or Mike Wolbert, student chapter president, at *mwolbert@eng.buffalo.edu*.♦

Elroy and the Big Technical Conference — Episode 3



Department News

On Friday, October 13, 2000, we honored **Dr. Thomas Weber** at a dinner banquet held at the University Inn in celebration of his retirement from Chemical Engineering. Tom joined the Department in 1963, and was the last of the "founding fathers" of our Department to retire. Joining in the festivities were Tom's family, friends, former and present colleagues, staff, and students, many of whom shared their thoughts and experiences of how Tom touched their lives. It was a bittersweet evening — happy to be able to share in Tom's celebration, but sad to see him go!

*****

The Department of Chemical Engineering held the annual **Chemical Engineering Graduate Research Symposium** on Wednesday, October 25, 2000. The event began with a seminar presented by Professor Linda J. Broadbelt from the Department of Chemical Engineering at Northwestern University. Professor Broadbelt's seminar was entitled, "Unraveling Catalytic Kinetics via Detailed Mechanistic Modeling and Computational Chemistry."

A wine and cheese party followed, along with the poster presentations of the CE Graduate Students' research. The poster session showcased research on such areas as "Semiconductor and Thin Film Processing," "Nanoparticle Synthesis and Characterization," "Environmentally Benign Chemical Processing and Products," "Cell and Tissue Engineering," "Gene Therapy," "Cell Adhesion," "Heterogeneous Catalysis," "Statistical Thermodynamics and Molecular Simulation," "Polymer Rheology and Processing," "Surfactant Self-Assembly," and "Process Design and Optimization."

The event concluded with awards for the "Best Posters". Professor Broadbelt and Professor Alexander Cartwright from UB's Electrical Engineering Department had the difficult task of judging this year's entries. First Place honors went to **Tsuo-Feng (Carrie) Wang** for her poster entitled, "Microstructural Model for the Permeability of Skin," (co-authors, P. Talreja, G.B. Kasting and J.M. Nitsche). Second Place went to **Suddha S. Talukdar** for his entry entitled "Data Inversion for Aerosol Size Distribution Using a Scanning Differential Mobility Analyzer," (co-author, M.T. Swihart). Third Place honors went to **Bharat Bajaj** for his poster entitled, "High Efficiencies of Gene Transfer through Optimization of the Activity of Recombinant," (co-authors, P. Lei and S.T. Andreadis).

Congratulations to this year's winners, and to all those students who participated. The Department would like to extend a special "Thank You!" to **Paschalis Alexandridis, Stelios Andreadis, Ashish Gupta, Sriram Neelamegham, Mark Swihart, Bharat Bajaj, Mark Beauharnois, Danijela Milosevic, Demetrius Sarigiannis, David Seymour, Harish Shankaran, Suddha Talukdar**, and **Vi-Dat Tu**, all of whom worked very hard to make the Symposium a success! ♦

Shape the Future of Chemical Engineering Education at UB!

Let us know your view of the skills needed by practicing engineers (and how well we taught them to you).

Please complete the survey at

www.cheme.buffalo.edu/curriculum

Alumni News ~ What are they up to now?

Jose G. Campos (BS, 1968) is a GESupply Manager of Sourcing & Inventory for Mexico & South America based at Houston, Texas.

Gary M. Holob (BS, 1968; MS, 1970; PhD, 1975) is a Project Manager at E.I. DuPont de Nemours Inc.

Robert W. Krieger (BS, 1969) is employed as a Principal Valuation Engineer for the New York State Public Service Commission.

Ronald G. Metz (BS, 1972; MS, 1977) is currently a Product Manager for LIGHTNIN in Rochester, NY. Ron resides with his wife, Mary Anne, and three children in Batavia, NY.

Renato T. Yadoya (PhD, 1972) is retired from the Nuclear Energy Commission and is currently living in Brazil.

Paul B. Kranz (BS, 1980) is currently an Associate Environmental Quality Engineer for the Erie County Department of Environment and Planning. Paul is married to the former **Diane Zarcone** (BS, 1981) and resides in Amherst, NY.

Nisar Amin (BS, 1996) is employed as a Senior Process Engineer at Mannington Mills, Inc. in Delaware. Nisar resides in New Jersey. ♦

Obituaries

Viresh N. Patel (BS, 1994), 26, died suddenly in Baltimore. Dr. Patel graduated summa cum laude in 1994 in chemical engineering from UB and entered medical school. Dr. Patel was a surgical resident at Union Memorial, Baltimore, where he was working to become an orthopedic surgeon.

Anthony J. Campagna, Jr. (MS, 1974), 59, died June 16, 2000 in his Amherst, NY home. He earned a master's degree in chemical engineering from UB and recently completed a master's degree in counseling from Canisius College. He worked as a chemical engineer for Hooker Chemical Corp., Lapp Insulator Corp. in LeRoy and O'Cello Inc. in the Town of Tonawanda until about 10 years ago, when he changed careers and became an associate professor in the chemistry department at Erie Community College. At the time of his death, he was an associate professor of chemistry at Daemen College and co-owner of the ABC's to College Counseling Association in Amherst, NY. ♦

Moving?

Don't forget to give us your new address so you won't miss an issue.

Name: _____

Degree/Year Graduated: _____

New Address: _____

_____

_____

Mail your address change to: Newsletter
Department of Chemical Engineering
State University at Buffalo
307 Furnas Hall
Box 604200
Buffalo, NY 14260-4200

Chemical Engineering Department Seminar Series
Fall 2000

AUGUST 30
Peilin Cen
Zhejiang University, P. R. China
THE PROCESS AND KINETIC MODEL OF THE SIMULTANEOUS CHITOSANANASE PRODUCTION AND CHITOSAN HYDROLYSIS

SEPTEMBER 13
Surajit Sen
Dept. of Physics, SUNY at Buffalo
IMPULSE PROPAGATION AND BACKSCATTERING IN GRANULAR ASSEMBLIES

SEPTEMBER 27
Rena Bizios
Dept. of Biomedical Engineering, Rensselaer Polytechnic Institute
DESIGN AND EVALUATION OF BIOMATERIALS TO MODULATE BIOLOGICAL ACTIVITY

OCTOBER 4
Louis A. Girifalco
Dept. of Materials Science and Engineering, University of Pennsylvania
CARBON NANOTUBES, BUCKYBALLS, ROPES AND A UNIVERSAL GRAPHITIC POTENTIAL

OCTOBER 18
John L. Brash
Dept. of Chemical Engineering, McMaster University
PROTEIN INTERACTIONS AT THE SOLID-SOLUTION INTERFACE WITH PARTICULAR REFERENCE TO BLOOD

OCTOBER 25*
Linda Broadbelt
Dept. of Chemical Engineering, Northwestern University
UNRAVELING CATALYTIC KINETICS VIA DETAILED MECHANISTIC MODELING AND COMPUTATIONAL CHEMISTRY

NOVEMBER 1
David Lytle
Occupational Safety & Health Training Officer, SUNY at Buffalo
RIGHT TO KNOW – CHEMICAL LABORATORY SAFETY

NOVEMBER 29
Mark Stradtherr
Notre Dame University
TO BE ANNOUNCED

DECEMBER 6
Gerald B. Koudelka
Dept. of Biological Sciences, SUNY at Buffalo
SEQUENCE DETERMINANTS OF DNA STRUCTURE AND THE MECHANISM OF DNA STRUCTURE RECOGNITION BY 434 REPRESSOR

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All seminars are held in 206 Furnas Hall at 3:30 pm unless otherwise noted.
*Seminar held at 2:00 pm.

Watch our website for our Spring 2001 Seminar Series at: *www.cheme.buffalo.edu*

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We would like to hear from you to know what you've been up to since graduation! Please take a few minutes to fill out the form below and mail it to us, or reply via the web at: ***www.cheme.buffalo.edu/alumni***. We'll put your news in future issues of our newsletter (unless you indicate otherwise).

Name: _____

Address: _____

_____

UB CE degree(s) and years: _____

Spouse's Name and Children: _____

News/Comments: _____

_____

_____

_____

_____

Please return to: Alumni News
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