Faculty Distinctions

Chemical Engineering congratulates Professors Linda Griffith, Gregory C. Rutledge and Jackie Y. Ying, all three of whom were recently promoted from Associate Professor without tenure to Associate Professor with tenure.
Linda Griffith joined MIT as a postdoctoral associate (1988-1990). She was appointed assistant professor of health sciences and technology and chemical engineering (1991-1993), assistant professor of chemical engineering (1993-1996) and associate professor of chemical engineering without tenure (1996). After undergraduate work at the Georgia Institute of Technology, she earned a Ph.D. in chemical engineering at UC Berkeley in 1988. Professor Griffith is a leader and pioneer in the biomedical engineering area known as tissue engineering. She has developed a range of new biomaterials and approaches to constructing functional 3-D tissues for therapeutic and clinical diagnostic use. Her accomplishments have been recognized with numerous awards, appointment to the editorial boards of several major journals, and invitations to speak on biomaterials and tissue engineering at technical meetings and university seminars. At MIT she has been co-chair of the Committee on Curricula which developed the biomedical engineering minor, and is a founding member of the Center for Biomedical Engineering.

Gregory Rutledge completed undergraduate work in chemical engineering at the University of Virginia and went on to complete his Ph.D. in Chemical Engineering at MIT in 1990. Following one year as a research fellow at the University of Leeds, he joined the MIT faculty in 1991 as an assistant professor and was promoted to associate professor without tenure in 1995. Professor Rutledge is an internationally recognized expert in polymer physics. His work on computing the thermal and electrical properties of crystalline polymers in the solid state is widely acknowledged as groundbreaking. He has been a driving force in the development of computational chemistry in the curriculum of the Department of Chemical Engineering.

Jackie Ying completed her undergraduate work at Cooper Union in 1987 and later earned her M.A. and Ph.D. in Chemical Engineering at Princeton University. She joined MIT as an assistant professor of chemical engineering in 1992 and was promoted to associate professor without tenure in 1996. Professor Ying is an internationally-recognized expert on the synthesis of inorganic nanostructured materials and the application of these materials as catalysts in various chemical processes for fine chemicals production and pollution prevention. In just over five years on the faculty, she has built an exceptional research program that has produced several significant new materials including a family of transition metal oxide molecular sieves and non-stoichiometric nanocrystalline oxide catalysts.

Congratulations to all three newly-tenured associate professors!

Alumni Distinctions

Professor Thanasis Panagiotopoulos (Ph.D. Chemical Engineering, 1986) was awarded the first John M. Prausnitz Award for outstanding achievements in Applied Chemical Thermodynamics.
presentation was made at the Eighth International Conference on Properties and Phase Equilibria for Product and Process Design at Noordwijkerhout, The Netherlands in late April of this year.

Thanasis is currently on leave from Cornell University at the Institute for Physical Science and Technology and the Department of Chemical Engineering, University of Maryland. Congratulations to Professor Panagiotopoulos on this highly regarded recognition!
E-Mail: thanos@ipst.umd.edu.

Department News

1998 ChemE Awards Day

The Chemical Engineering Department's annual Awards Ceremony was held on Monday, May 11, 1998 in Gilliland Auditorium with Professor and Department Head Robert C. Armstrong presiding. The following awards were presented:

In conjunction with the Student Financial Aid Office, an Amoco Foundation Undergraduate Scholarship was acknowledged for recipient Todd C. Bailey, a senior from Somerville, MA; the James E. Cunningham '57 Scholarship to Celeste M. Nelson, a senior from Denver, CO; and the John H. Dessauer Scholarship to Alisha L. Sieminski, a senior from Everett, WA.

Merck Fellowships were acknowledged for recipients Lisa Y. Hwang, a junior from Duncanville, TX and Benjamin D. Martens, a sophomore from Concordia, MO. A host of honors were noted for Robert B. Gray, a senior from Columbia, SC, including his recent awarding of a Marshall Scholarship.

The Dow Chemical Company Outstanding Junior Award recipient was Kevin T. Musselwhite, a junior from Madison, MS, for his balanced record of achievement in academics and campus professional and social organizations, as well as work experience.

The Robert T. Haslam Cup was awarded to Eric D. Nelson, a senior from Brookline, MA, for outstanding professional promise in chemical engineering.

The Roger de Friez Hunneman Prize, the oldest prize in the department (begun in 1927), was awarded to Weiyang Cheong, a senior from Singapore, in recognition of outstanding scholarship and research.

The Edward W. Merrill Outstanding Teaching Assistant Award was presented to Andrey Zarur, a graduate student from Mexico, for excellence in teaching in an undergraduate subject. A second place
award went to **Rebecca L. Carrier**, a graduate student from Bolton, CT.

Chemical Engineering Department Special Service Awards were given to **David M. DeWitt**, a graduate student from Albuquerque, NM, **Ann E. Schmitz**, a graduate student from Marquette Heights, IL, and **Samantha L. Lavery**, a senior from Livonia, MI, for their unselfish contributions to the success of departmental activities.

The Chemical Engineering 'ROCK' Award for outstanding athletics, as voted by the graduate students of the department, went to **S. Patrick Walton**, a graduate student from Cambridge, MA and **David M. DeWitt** (see above). 1998 was the 25th offering of this prestigious award!

The Outstanding Employee Award was presented to **Emmi L. Snyder**, an Administrative Secretary in the Chemical Engineering Departmental Headquarters, for her exceptional service to the departmental faculty, staff, and students.

The Outstanding Faculty Award from the graduate students was presented to **Professor Daniel Blankschtein**. Undergraduate students in the department presented an Outstanding Faculty Award to **Professor C. Michael Mohr**.

Individual Accomplishment Citations were presented to **Jean-Francois Hamel**, Research Engineering and Lecturer, and **Joan A. Chisholm** Administrative Secretary, for their outstanding contributions to departmental life. Hamel and Chisholm were recipients of the third offering of this special award, and each received a personalized citation signed by the Department Head.

Five ChemE Seniors Win Phi Beta Kappa Honors

*By Ann Young*

Out of forty-nine elected Institute-wide, five ChemE Seniors have been elected to MIT's chapter of Phi Beta Kappa. A lecture and initiation ceremony will be held Thursday, June 4, 1998 and is open to all Phi Beta Kappa members at MIT, wherever initiated.

This year's lecture will be by **William J. Mitchell**, Dean of the School of Architecture and Planning at MIT, and is entitled "Designing the Cities of the Twenty-First Century." It will take place at 2:30 p.m. in the Bartos Theatre and will be followed by the initiation ceremony. A reception will be held from 3:15-4:00 p.m in the Bartos Atrium.
Founded in 1776, Phi Beta Kappa honors those undergraduates who have performed most outstandingly in their course of studies in the liberal arts and sciences.

Congratulations and best wishes to these exceptional ChemE Seniors!

MIT ChemE
Phi Beta Kappa Chapter Xi 1998 Electees:

Weiyang Cheong, Singapore
Tiffany P. Cunningham, Bloomfield Hills, NJ
Nikolay A. Fidelman, Jackson Heights, NY
Celeste M. Nelson, Denver, CO
Tseh-Hwan Yong, Singapore

SAP News

The Management Reporting Project announces that a new newsletter, called SAP@MIT News, will be published periodically on the Web. It will contain announcements of general interest to users of SAP: new features, changes to existing functions, training, documentation revisions, tips, etc.

To inform SAP users when a new issue is published, a message containing the table of contents will be sent to this E-Mail list. (If you would prefer to receive a copy of this edition of SAP@MIT News on paper, please send a message to me at rmurray@mit.edu, or call me at 8-7318.)


The table of contents for this first edition includes:

1. New/Changed SAP Reports
2. SAP Documentation is on the Web
3. Documentation Updates
4. Tip: Work Lost Due to "Timing Out"

Comments and suggestions from readers of SAP@MIT News are welcome. Please send E-Mail to mr-doc@mit.edu.
MIT Library News

By Erja Kajosalo

The latest new book list of Chemistry and Chemical Engineering books are at:


For more information, please contact Erja:
Phone: 253-3258
E-Mail: kajosalo@mit.edu

Post-Doctoral Opportunities

Sandia National Laboratories in Livermore, CA has two positions available:

**Position 1:** An opening is available for postdoctoral employment to conduct experimental research and modeling with applications to materials synthesis and processing. Projects typically involve the use of a high-temperature flow reactor coupled to a molecular beam mass spectrometer to characterize homogeneous and heterogeneous processes occurring in industrial processes used to manufacture thin films and coatings for applications in electronics, optics, structural ceramics, and wear-and corrosion resistance. Knowledge gained from these experiments is used to develop process models and on-line sensors for process control. Candidates with a Ph.D. in Chemistry or Chemical Engineering, especially those with expertise in gas-phase reactions/kinetics, chemically reacting flows, chemical vapor deposition, mass spectrometry, or infrared spectroscopy are desired. Competetive salaries are ofered.

Send a resume, references, summary of previous research, and copies of transcripts to:

Sandia National Laboratories
ATT: Mark Allendorf, MS-9052
P.O. Box 969
Livermore, CA 94551-0969
Position 2: Postdoctoral candidates are sought to join a project directed at understanding chemical kinetics and mechanisms in catalytic oxidative dehydrogenation reactors. The goal of the work is to establish the relative roles of gas-phase and surface chemistry in determining product distributions and conversion efficiency for alkene and synthesis gas production from alkane feedstocks. The applicant should have a strong interdisciplinary background in one of the following areas: combustion diagnostics, laser spectroscopic methods, modeling of reaction kinetics, experimental chemical kinetics, or catalytic mechanisms and kinetics. Activities will focus on 1) developing and applying spectroscopic probes to novel flow reactors and 2) modelling the detailed kinetics of important industrial processes in unusual flow configurations. The successful candidate will have a Ph.D. in either engineering or the physical sciences.

Salaries and benefits are competitive. Please send c.v., list of publications, and names of professional references to:

Sandia National Laboratories  
ATT: Steven Rice, MS-9052  
P.O. Box 969  
Livermore, CA 94551-0969  
Phone: (510) 294-1353  
Fax: (510) 294-1004  
E-Mail: sfrice@sandia.gov
industry conferences. This person will serve as Millipore's technical expert on gas purification. This position will be in our Dallas, TX facility.

Requirements

M.S. or Ph.D. in chemistry, chemical engineering or materials science. Experience with inert atmosphere techniques and manipulation of hazardous specialty gases essential. Prior experience in the design of catalysts or inorganic support materials a plus.

Must have the ability to critically analyze data and have good technical problem-solving skills.

Must be comfortable working in a hands-on lab environment. Must be safety-conscious.

Excellent English written and verbal communication skills. Must be willing to travel approximately 20%. Initial travel may be higher for training.

Knowledge or experience in any of the following areas would be a plus: FTIR, gas chromatography, mass spectrometry, semiconductor gas handling equipment, trace-level gas analysis, design of experiments, or gas purification. To apply, contact:

Dr. Jim Snow
Millipore, Inc.
Fax: (781) 533-3195
E-Mail: jim_snow@millipore.com

Academic Opportunities

Tenure Track Faculty: The Dept. of Chemical and Nuclear Engineering (ChNE) at the University of New Mexico invites applications for a tenure-track faculty position in chemical engineering. The rank of the appointment will depend on the qualifications and prior background of the applicant. The Dept. is committed to excellence in undergraduate and graduate education, with ABET-accredited B.S. degree programs, as well as M.S. and Ph.D. programs involving students in leading edge research. Sponsored research expenditures for the 1996 academic year exceeded $5M. Major areas of research in chemical engineering include: catalysis and interfaces, colloidal transport, inorganic membranes organic surfaces and biomaterials, biomedical sensors, bioremediation, porous materials, composite thin-films, aerosol materials sythesis, chemical vapor deposition, and plasma etching and deposition. The Department enjoys extensive interactions and collaborations with New Mexico's federal laboratories, Los Alamos

National Laboratory, Sandia National Laboratories, and the Air Force Research Laboratory, as well as with high technology industries both locally and nationally.

For appointments at junior non-tenured levels, the Dept. seeks an individual who has a strong commitment to teaching at both the undergraduate and graduate levels, and the capability of developing a significant graduate research program in an area that builds upon the existing strengths within the department. For appointments at senior tenured levels, a successful candidate must have proven teaching skills, a research record of marked stature and impact in area that would strengthen the department, and be active in professional service. An earned Ph.D. in Chemical Engineering or a related field is a prerequisite for all appointments.

Applicants should send a detailed vita, including research and teaching interests and accomplishments, academic and professional service and the names (with full address, phone number, and E-Mail address) of four references to:

Professor Abhaya K. Datye, Chair
ChNE Search Committee
Department of Chemical and Nuclear Engineering
University of New Mexico
Farris Engineering Center 209
Albuquerque, NM 87131

Review of applications will begin July 1, 1998 and will continue until the position is filled.

For more about UNM's ChNE Dept, visit http://www-chne.unm.edu

Non-Tenure Track Faculty: Center for Agricultural Biotechnology, University of Maryland at College Park.

Responsibilities: Project involves the enzymatic modification of the natural polymer chitosan. The applicant will enzymatically modify chitosan with various side groups, and then characterize the modified polymer. Specifically the applicant will need to characterize chemical and functional properties [Polymer:37:r643 (1996)].

Qualifications: Doctorate in Chemistry or Chemical Engineering with extensive experience in spectroscopic techniques for chemical characterization. (e.g., NMR)

Salary: Commensurate with experience and documented performance.

Benefits: Faculty position with 22 days annual leave, 3 days personal leave, and 15 days sick leave each year, health insurance and retirement. All leave must be taken during appointment term; no payment for unused leave.
Position Available: Immediately

Apply to: For full consideration, please mail a resume, summary of research experience and interests, and have two letters of reference sent by June 15, 1998 to:

Mary Ann Winslow
Research Associate Search (GP)
Center for Agricultural Biotechnology
5115 Plant Sciences Building
College Park, MD 20742-4450
Phone: (301) 405-1582
Fax: (301) 314-9075
E-Mail: winslow@umbi.umd.edu

For more about UMCP's Center for Agricultural Biotechnology, visit http://www.umbi.umd.edu/~cab/index.html

Faculty: The University of Akron is the third-largest state-assisted university in Ohio. It offers the 24,000 students on the main campus more than 260 associate, bachelor's, and master's degree programs, and 17 doctoral degree programs.

The Department of Polymer Science has sixteen full-time faculty and over 120 full-time graduate students. It invites applications for a full professor appointment, to begin as early as September 1998. Exceptional candidates in all areas of polymer science will be considered.

The responsibilities are: leadership in the field with a pacesetting research program in polymers; direction of graduate student research; and participation in the instructional program and operation of the Department. Qualifications. The candidate must hold a Ph.D. in Chemistry, Physics, Chemical Engineering, Materials Science and Engineering or a closely related field; have outstanding communication skills; and have already developed a strong research program that will secure external funding, attract graduate students, and be of an innovative and complementary nature to existing programs in the Department.

Applicants should send a resume, list of publications, and detailed confidential research plans to:

William J. Brittain, Chairman
Search Committee
Department of Polymer Science
The University of Akron
Akron, OH 44325-3909
Phone: (330) 972-5323
Review of applications will begin immediately and continue until the position is filled. Letters of recommendation will be requested from selected applicants after initial review of the applications.

For more about UAkron's Dept of Polymer Science, visit http://www.polymer.uakron.edu/

**Lecturers (2):** The Department of Chemical Engineering at University College London is seeking to recruit two outstanding new Lecturers, one with a proven record in the field of chemical reaction engineering and catalysis, the other in computer aided process engineering, multiphase flow systems or particle technology. Teaching and administration duties will be allocated within the present departmental degree programmes which include BEng, MEng and MSc.

The Chemical Engineering Department at UCL was established in 1923 and is thus one of the oldest in the UK; this year marks its 75th anniversary. Research has always been a major departmental activity as was recognised by the award of a 5 rating in the 1996 Research Assessment Exercise and a top rating in each of the three previous assessments.

The posts will be available from 1 October 1998 and those appointed will be joining a vigorous and forward looking Department which is fully committed to enhancing its already excellent record of teaching and research.

Salary will be according to background and experience but will be on the Lecturer A or B scale of £16,045-£27,985 pa plus London weighting of £2,134 pa.

Applications with a current CV and the names and addresses of at least two referees should be sent to:

Miss Anna Harrington, Departmental Administrator  
Department of Chemical Engineering  
University College London  
Torrington Place  
London WC1E 7JE  
Phone: (011) 44-0171-419-3825  
Fax: (011) 44-0171-383-2348  
E-Mail: chemeng@ucl.ac.uk

For more about UCL's Chemical Engineering Dept, visit http://www.chemeng.ucl.ac.uk/
The Final Word

Happy flying to all you summer travel bugs and conference goers:

The passengers on a commercial airliner have been seated and are awaiting the cockpit crew to get them under way. A murmur is heard in the back of the plane, and a few passengers on the aisle glance back to see the pilot and copilot, both wearing large, dark sunglasses, making their way up to the cockpit. However, the pilot is using a white cane, bumping into passengers right and left as he stumbles down the aisle, and the copilot is using a seeing-eye guide dog. As they pass by the rows of passengers, there are nervous giggles heard, as people are thinking that it must be some sort of practical joke. But a few minutes after the cockpit door has closed behind them, the engines start spooling up and the airplane taxis out to the runway.

The passengers look at each other with some uneasiness, whispering among themselves and shifting uneasily or gripping the armrests tightly. As the airplane starts accelerating, people begin panicking. Some passengers are praying, and as the plane gets closer and closer to the end of the runway, passengers become more and more hysterical! Finally, when the airplane has only a few seconds of runway left, the shouts of horror fill the cabin as everyone screams at once, but at the very last moment the airplane lifts off and is airborne!

Up in the cockpit, the copilot breathes a sigh of relief and says to the Captain: "You know, one of these days the passengers are going to scream too late, and we're gonna get killed!"

Thanks To...

Professor Armstrong, Elaine Aufiero, Janet Fischer, Erja Kajosalo, Robert Murray, Professor Emeritus Bob Reid, Emmi Snyder, Professor Ying and Ann Young for their contributions to this month's Course X News!

Submissions for the Course X News should be sent to:
Gregory Sands
Assistant for Publications, Payroll & Fellowships
MIT Administrative Services, 8-328
77 Massachusetts Ave.
Cambridge, MA 02139
E-Mail: gsands@mit.edu
Phone: (617) 253-0949
Fax: (617) 253-9894