

# What's v?

## *in the Department of Chemistry*



Volume 1, Issue 2

Oct./Nov. 1994

### NEW GRADUATE DEGREES

A number of students have completed their Ph.D.s this fall:

**Lucinda Hittle** (Hercules group) *Hydrogen-Deuterium Exchange in the Time-of-Flight Secondary Ion Mass Spectra of Polystyrene.* taking a break with her new husband until starting her von Humboldt postdoctoral fellowship with Prof. Franz Hillenkamp at the University of Münster.

**Hui Liu** (Curran group) *Formal Total Synthesis of ( $\pm$ ) Camptothecin Via 4+1 Radical Annulation.* post-doc at University of California-Irvine working with Hal Moore.

**Jim Pfanstiel** (Pratt group) *High Resolution Spectroscopy of Conjugated Systems.* position with Westinghouse-Bettis.

**Paul Zimmerman** (Hercules group) *Practical Applications of Time-of-Flight Secondary Ion Mass Spectrometry.* position with Intel in Portland, Oregon

In the last issue we failed to note that **Brad Lewis** (Hopkins group) completed his M.S. thesis in August.

Congratulations to all!

### AWARDS

We are pleased to report Dr. **John Yates'** receipt in June of the Medard W. Welch Award from the American Vacuum Society for his development and use of modern measurement methods to provide

insight into the behavior of chemisorbed species on metal and semi-conductor surfaces. This award coincides with his election a Fellow of the Society.

**John Yates** also has just received word of his receipt of a von Humboldt Fellowship for 1994-95. He will spend his sabbatical at Philipps University in Marburg, Germany where, among other things, he plans to write two books. Plans also include numerous trans-Atlantic flights to keep in touch with research at Pitt.

**Kacey Gribbin** (Chapman group) was one of six finalists in the Sherwin Williams Student Award Competition sponsored by the Divisions of Polymer Chemistry and Polymeric Materials: Science and Engineering. She presented her work on low surface energy polymers in a special symposium at the Fall ACS meeting in Washington.

**Michael Garguilo** (Michael group) has been named the 1994 Perkin-Elmer/Dow Young Research Award in Process Analytical Chemistry. He is the first recipient of this award. Mike received his award in October at the Instrument Society of America Conference.

The Department's Lubrizol Fellow has been selected for 1995, and he is **Zdenek Dohnalek**, a third year student working with Prof. Yates.

## COMINGS AND GOINGS

Several new faces recently joined the Department. **Christopher Arumainayagam**, an Assistant Professor from Wellesley College in Massachusetts, will be working with the Yates group while on an academic year sabbatical. **Christoph Kuhn** from Switzerland has joined the Beratan group as a new research associate, following a previous position at the Laboratoire Leon Brillouin of Saclay in Paris. **Wei Yang** from China (and the 1994 winner Medard W. Welch Student Award from the American Vacuum Society) has joined the Yates group. **Laura Cornaglia**, Assistant Professor from Fac. de Ing. Quimica in Argentina, will be working with the Hercules group.

A number of research associates and research faculty left the Department since September. **Guangquan Lu** (Yates group) left in September to work with Dr. Gary Rubloff, Director of the Semiconductor Research Institute, at North Carolina State University. After his brief return visit, **Jean Weiss** (Hamilton group) has returned to the CNRS in Strasbourg, France. **Ulf Diederichsen** (Curran group) has left for the University of Munich to undertake his habilitation with an eye toward a future academic career in Germany. **Karl Stoppek-Langner** (Hercules group) has returned to the University of Münster to continue research there. **Song-Yuan Chang** (Asher group) has taken a position with EM Industries in Savannah, Georgia.

**Sriram Naganathan** (Dowd group) has taken a position in the Foods Research Division at Pfizer Pharmaceuticals in Connecticut. **Kamal Ismail**, a frequent summer visitor to the Weber group, returned in September to his faculty post at the University of Alexandria.

## GRANTS

Several faculty received official notice of new grant awards starting in September and October. **John Yates'** funding was renewed from NEC Corporation for his *Study of Chemisorption of Small Molecules on Semiconductor Surfaces*. He also received notice of an additional three-year award from the Army Research Office for *Schottky Barrie Modification of Photocatalysts for Environmental Cleanup*. **David Beratan** has received a three-year award from the Department of Energy for *Designing Macromolecular Electron Delivery Systems for Artificial Biocatalysis*. **Pam Aker** was awarded a two-year renewal from the Department of Energy for her *MDSRS Studies of Gas-Aerosol Interaction Kinetics*.

## SAFETY MATTERS

We all know that most of the solvents we use are flammable, but sometimes individuals forget to take the proper safety precautions. An incident was reported where a student had prepared a compound of tin complexed with some organic ligands and dissolved in a low-boiling solvent. Even though he was aware that the solvent was flammable, and that steam bath distillation would pose no flammability hazard, he instead chose to use a hot plate equipped with a magnetic stirrer because he wanted to agitate the mixture as it was stirring.

He determined that at the lowest setting, the surface of the hot plate would not exceed 50°C. He also inspected the stirrer motor underneath the hot plate and determined that it was an induction motor and was, therefore, spark-free.

The student set up the reaction in a hood, but did not pay attention to the fact that the hood was not functioning properly. With the hot plate at its lowest setting and the stirrer on, he proceeded with the distillation. A few minutes later there was an explosion and in the confusion, the student, who was otherwise not seriously injured, inhaled vapors of the tin compound--vapors which when inhaled cause severe damage to the brain.

The student made several mistakes. In addition to not recognizing the malfunctioning hood, the student had failed to understand that the thermostatic control device that maintained the set temperature of the hot plate surface consisted of a simple bimetallic strip that by bending and unbending made and broke the circuit to the nichrome heating coils, sparking as it did so. This device was located behind the skirt of the hot plate inside a small enclosure with an opening to ambient air. The stirrer motor was equipped with its own cooling fan blade, rotating in such a manner as to draw vapors generated in the operation of the hot plate under the skirt and past that enclosure and its small opening.

*Condensed from Chemical Health & Safety, June/July 1994*

## NETWORK NEWS

*Federal Information Exchange (FEDIX)* provides free online access to federal research information and education, including research opportunities by keyword, research equipment grants, program descriptions and contacts, education scholarships and grants, and both Federal Register and Commerce Business Daily announcements for ten participating agencies: Dept. of Energy, Air Force Office of Scientific Research (AFOSR), Office of Naval Research (ONR), Dept. of Agriculture, Federal Aviation Administration, NASA, Agency for International Development, Dept. of Housing and Urban Development, the Defense Automation Resources Information

Center, and the National Institute of Allergy and Infectious Diseases. With time, additional agencies will be added. FEDIX can be accessed through Telnet or Gopher at [fedix.fie.com](http://fedix.fie.com).

## WEDDING BELLS

Some are aware, but we are pleased to announce the recent wedding of Professor **David Pratt** and Ms. Kathleen Cummings. The ceremony and reception were held on October 2 at the Phipps Conservatory. Mrs. Pratt is an environmental lawyer with the Bettis Atomic Power Laboratory in West Mifflin.

## ARRIVALS

Dr. & Mrs. **Xue-Qing Tan** (Ph.D., 1991) are the proud parents of their first child. Daughter Alicia was born on September 16 weighing 7 lbs. 2 oz. Mother, Baby, and Father are doing fine.

Prof. and Mrs. **Peter Wipf** are also the proud parents of a baby girl. Miriam Katharina was born on October 28, weighing 6 lbs. 15 oz. Siblings Peter and Heidi anxiously awaited the new arrival.

## GRADUATE STUDENT NEWS

*What is the FAS-GSO?:* The Faculty of Arts and Sciences Graduate Student Organization (FAS-GSO) is a university recognized student organization representing the interests and concerns of the graduate students of the FAS. The organization maintains contact with the deans of FAS, as well as sending representatives to the University Senate Council, Graduate and Professional Students Association (GPSA), FAS Council, and other important university organizations and committees. In addition to

representing the FAS graduate students, the FAS-GSO is in charge of dispensing a portion of the student activity fee (a fee is not covered by a TAsip/TFship/RAship) to individual academic departments.

The FAS-GSO sponsors an annual fall party, as well as lunch workshops. It also acts as the voice of the graduate students and has addressed such issues as taxes and graduate students. Presently being discussed is the University shuttle bus system...specifically the lack of space on the Shadyside and Squirrel Hill buses.

Phi Lambda Upsilon (PLU) in the Chemistry Department is allocated a certain amount of money for graduate student activities, like the New Student Picnic and the Phillips Lecturer. A representative is sent to the monthly meetings to insure that we get funding. This person also represents the interests and concerns of graduate students in the Department, and brings back information on graduate student activities outside the Department. This year's representative is Sharon (formerly Yee) Fredericks. If you have any questions about FAS-GSO or would like to attend meetings, send e-mail to [syee@vms.cis.pitt.edu](mailto:syee@vms.cis.pitt.edu). If you would like to be involved with PLU, contact Mike Schaeberle at [mswolf+@pitt.edu](mailto:mswolf+@pitt.edu).

FAS-GSO and GPSA News: As part of a series of workshops titled The University of the 21st Century: A Focus on Gender, the FAS office of Graduate Studies and Carnegie Mellon University are sponsoring *From Ada to Gameboy: How Computer Science Became Gendered Male* on December 1, 12-1pm at CMU's Student Activities Center. Beverages and dessert will be provided. Contact Kit Ayars in 910 Cathedral of Learning at 624-6026/[fasgrad@vms.cis.pitt.edu](mailto:fasgrad@vms.cis.pitt.edu) for more information.

Travel grants are available through the GPSA. Call 648-7844 for more information or stop by 628 William Pitt Union for an application.

The 1994-1995 GRAD-Guide is available to all new and continuing students at 910 Cathedral of Learning. This comprehensive guide to graduate student living contains information on housing, personal finances, health insurance, entertainment, food and much more. This was published by the FAS office of Graduate Studies and is free of charge.

Meals at Mad Mex on Atwood Street are half-price for graduate students Monday-Friday 2-5pm. You must present your graduate student I.D. The special is only on food and not drinks (sorry). The Mexican food is excellent and there's a large selection of beers (especially from micro-breweries in the United States).



from American Scientist

