

From the Desk of the Chair

As I write this letter, the Department of Chemistry is gearing up for the spring quarter. Syllabi are being updated, reagents ordered, and lab drawers stocked in anticipation of our students returning for their last term of the academic year, and for our seniors, the last classes they will take at DePaul.

The University has committed itself to building a new science building in the near future. It will be located next to the McGowan Biological and Environmental Sciences Center (on the site of the old Stuart Center), and principally house both Chemistry and Physics along with other science-related programs. Design and cost estimation are currently underway, and construction is likely to begin once additional funds have been procured through a combination of grants and fund raising by the University. This is indeed an exciting time for the Department, which has called O'Connell Hall its home since 1937.

In addition to upgrading our physical plant, the Department regularly invests in new instrumentation to make sure that our students are exposed to the latest in technology. Over the past couple of years, we have purchased a Bruker Avance 300 NMR, a Varian 3900 GC, a Q10 DSC from TA Instruments, and a Cary Eclipse Fluorescence Spectrophotometer. We have also been obtaining some used equipment like our Bomem DA3.02 high-resolution FT-IR, and upgrading them to increase their useful lifetime.

Many of these instruments will be used directly by students participating in summer research with our faculty members. It looks to be a busy summer indeed, for 9 out of a total of 49 applications for the College's Undergraduate Summer Research Program were submitted for consideration by chemistry students. Although the awards are yet to be announced, the Department has a good track record for having its students funded through this program. The Department itself will help fund summer research through several scholarships that have been endowed by former students and faculty members.

As usual, the Department will hold its annual Undergraduate Research Symposium at the end of the spring quarter, an event for which you have a standing invitation to attend. Many of you may remember the symposium well. Several of our current students will present the results of their hard work, followed by an award presentation and a reception for all. The date of this event is to yet be determined, so please check our web site at <http://www.depaul.edu/~alchemy> for schedule updates.

If your travels bring you to Lincoln Park any time soon, please drop in and say hello. I would be glad to meet you. Otherwise, feel free to contact me at rniedzie@condor.depaul.edu.

Sincerely,

Richard F. Niedziela
Associate Professor and Chair
Class of 1988

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- **Science/Math Faculty Happy Hour!**
- **Alumni News and Notes**



Faculty Research Spotlight

This recurring column highlights recent publications authored by members of the Chemistry Department. If you are interested in learning more about a particular faculty member's research, please contact them directly via e-mail or check out their web sites (all can be accessed from the department's home page, <http://www.depaul.edu/~alchemy>). The following journal articles were published in 2005 or early 2006:



Above: Recent faculty publications displayed on a bulletin board in O'Connell

Below: Undergraduate research student Zachary Osner using the department's 300 MHz NMR



- "A copper(I) coordination polymer containing an adamantane P—N cage ligand"
R. D. Sommer and A.L. Rheingold, *Acta Cryst.* (2006), E62, m74-m76.
- "Novel copolymers of vinyl acetate and alkyl ring-substituted methyl 2-cyano-3-phenyl-2-propenoates"
G. B. Kharas, A.L. Crawford, R. Bernal, L. Kallal, V. Thomas, S. Tokman, M.C. Trnka, L.A. Hyland, P. Hughes, J. Carney, A.M. Trujillo, M. Hanks and K. Watson, *Designed Monomers and Polymers* (2005), 8, (2), 135-144.
- "Asymmetric allosteric activation of the symmetric ArgR hexamer"
Jin, L., Xue, W-F., Fukayama, J.W., Yetter, J., Pickering, M. and Carey, J., *J. Mol. Biol.* (2005), 346, 43-56.
- "A Quick, Clean and Green Synthesis of Methylene-dioxyprococene and Other Chromenes over Basic Montmorillonite K10 Clay"
M. R. Dintzner, T. W. Lyons, M. H. Akroush, P. Wucka, and A. T. Rzepka, *Synlett* (2005), 5, 785-788.
- "Microwave-Assisted Synthesis of a Natural Insecticide on Basic Montmorillonite K10 Clay: Green Chemistry in the Undergraduate Organic Laboratory"
M. R. Dintzner, P. Wucka and T. W. Lyons *Journal of Chemical Education* (2006), 83, 270-272.
- "Cooperative effects in two-dimensional ring-like networks of three-centered hydrogen bonding interactions"
R. D. Parra, S. Bulusu, X. C. Zeng *J. Chem. Phys.* (2005), 122, 184325.
- "A comparative *ab initio* study of intramolecular proton transfer in α -hydroxy Alkoxides"
R. D. Parra, I. Dukarevich, *J. Chem. Phys.* (2005), 122, 184316.
- "Fullerenes in the Cretaceous-Tertiary Boundary"
W. S. Wolbach and Dieter Heymann, in *Natural Fullerenes and Related Structures of Elemental Carbon* (ed. Frans J. M. Reitsemeijer) Springer, (2006), 191-212.



Above: Dean Suchar, Drs. Jim Montgomery (Environmental Science) and Rick Niedziela (Chemistry)

Below: Drs. Murphy (Environmental Science), Layne Morsch (Chemistry), Jesus Pando (Physics), Liam Heneghan (Environmental Science), Chris Goedde (Physics) Quinetta Shelby (Chemistry)



Department Hosts First Natural Sciences Faculty Happy Hour

In mid-December, 2005 a meeting of several faculty from DePaul's natural sciences was called by Associate Dean Lynn Narasimhan. Dr. Narasimhan, who is also Director of the Interdisciplinary Science and Technology Program (IST) and professor of mathematics called the meeting in an effort to spearhead a collaborative grant proposal for funding from the NSF's STEP (Science Talent Expansion) Program to potentially increase enrollment and retention in the sciences. In addition to carrying on a productive discussion about STEP, faculty present also decided to begin monthly happy hours in order to promote collegiality and exchange of ideas between departments. Chemistry hosted the first of these on Friday, February 10th in O'Connell 202 with an array of microbrews and pizza. The event was not only very well attended by science and math faculty, but LA&S Dean, Chuck Suchar and University EVP, Helmut Epp were also on hand. Hosting of this popular event will rotate through the natural sciences and mathematics departments and be held on the second Friday of every month.



Above: Drs. Susanna Epp (Math), Ruben Parra and Matthew Dintzner (Chemistry)

Alumni News and Notes

Aaron Kunzer (MS, 2002) is currently living in Schaumburg with his wife Michele and daughter Katie, who was born in May of '05. He is working at Abbott Labs as a medicinal chemist in cancer research. Last summer he published his work on ABT-737, an inhibitor of Bcl-2 family proteins, in *Nature* (2005, 435, 677-681), and his group will publish several medicinal chemistry papers on their work in the coming months. He and his wife are involved in teaching adult education at their church and volunteering with Pathways to a Better World, a series of personal growth seminars. **Jaclyn Yetter** (BS, 2005) is in her first year of graduate school at the University of Washington studying physical chemistry. She is working for Dr. Phil Reid, studying environmental chemistry, specifically the photochemistry of halooxides and nitrosyl halides. **Tom Lyons** (BS, 2005) is in his first year of graduate school at the University of Michigan in Ann Arbor. He is currently

doing rotations in the organic research labs in the process of selecting a research advisor for his PhD. He has also recently begun to work on a new hobby: home brewing beer! **Kara Morse** (BS, 2004) is completing her first year of medical school at Rush University Medical Center in Chicago.

For those of you who didn't make the list this time, it's only because we haven't heard from you yet! We'd love to know where you are now and what you're doing, so please send us an e-mail (mdintzne@depaul.edu) and we'll post your whereabouts and updates in the next issue of *The Catalyst*!

To contribute to the Chemistry Department in LA&S, contact Rhiannon Rossi of DePaul's Advancement Office at 773-325-4759 or visit the following site: <http://www.giving.depaul.edu>.

We're on the Web!

See us at:

www.depaul.edu/~alchemy



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DePaul Chemistry Faculty: Now and Then



2005

top row: Q. Shelby (organic), L. Jin (biochemistry), R. Parra (physical), N. Rajan (chem. ed.), G. Kharas (organic); **middle row:** R. Sommer (inorganic), M. Dintzner (organic), A. Blumberg (physical), W. Wolbach (inorganic), M. Meskauskas (biochemistry), L. Morsch (organic); **front and center:** R. Niedziela (physical)



1970s

top row: T. Murphy (organic), R. Novak (biochemistry), J. Anysas (physical), F. Prout (organic); **middle row:** S. Dhar (inorganic), F. Breitbeil (organic), A. Blumberg (physical), S. Melford (inorganic), W. Pasterczyk (biochemistry); **front and center:** E. Meyer (physical)

Catalyst Contributors...

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