



the chemical bond

FALL 2009
University of Florida
Department of Chemistry



...on the cover

On Saturday October 31st the Center for Catalysis hosted the 4th annual Halloween Molecular Mania at the Oaks Mall. A group of graduate and undergraduate students led by **Prof. Adam Veige** conducted experiments for mall patrons from 10am to 2pm in the Belks court area. The experiments were designed to reach students about fundamental aspects of chemistry such as vapor pressure, polymerization, crystallization, and the different states of matter. Students **Soumya Sarkar** and **Michelle Jurcak** organized the event and the team's efforts were highlighted in an article in the *Gainesville Sun* newspaper, the *Alligator*, and on WCJB 11:00 O'Clock News. The event was supported by the National Science Foundation, the ACS-Florida Section, the Department of Chemistry and the Center for Catalysis.

50 Years Since Graduation!

Congratulations to our masters and doctoral graduates of 1959 on their 50th anniversary of their commencement day. Our department awarded M.S. degrees to **John Bane** (Prof. Butler), **Perla Lopez** (Prof. Anthony), **Neville Stone** (Prof. Anthony), and **Alvin Marcus** (Prof. Cramer). The students awarded a Ph.D. degree that year were **Robert Johnson** (Prof. Tarrant), **George Savitsky** (Prof. Gropp), **Paul Schmidt** (Prof. Brey), **Robert Whitaker** (Prof. Sisler), and **Donald Pilipovich** (Prof. Brown).

A note from The Chair

Faculty recognition in the form of awards and honors is one of the best indicators of the health of a department. Quality departments have quality faculty teaching classes, performing research, and contributing to the university and the community. The academic reputation of the department, or of the university for that matter, parallels the distinction of its faculty.

So how is reputation established? Certainly, it is a cumulative process. How well graduates are placed and how successful they are in their careers, the number of scholarly publications, and grant dollars received for research all add to a department's reputation. However, one of the most visible contributors to reputation is awards, and our faculty have received some very high-profile honors this year. Here are a few.

- **Graduate Research Professor Rodney J. Bartlett** was named recipient of the Royal Society of Chemistry S. F. Boys/A. Rahman Award for his "pioneering development and applications of the coupled-cluster theory of quantum chemistry."
- **Associate Professor So Hirata** received a Camille Dreyfus

Teacher-Scholar Award from the Dreyfus Foundation. Last year, Hirata was also awarded the 2008 Annual Medal of the International Academy of Quantum Molecular Science.

- **Master Lecturer Jim Horvath** received a College of Liberal Arts and Sciences Teaching Award.
- **Graduate Research Professor Alan Katritzky** has been named the recipient of the 2009 Robert Robinson Award by the Royal Society for "his many outstanding contributions to the synthesis and reactivity of heterocycles."
- **Crow Professor Charles R. Martin** received the 2009 Charles N. Reilly Award given by the Society for Electroanalytical Chemistry.
- **Professor Lisa McElwee-White** was selected as one of five recipients of the University's Doctoral Dissertation Advisor/Mentoring Award for 2008–2009.
- **Professor Kennie Merz** has been named the 2010 recipient of the American Chemical Society Award for Computers in Chemical and Pharmaceutical Research.
- **Assistant Professor Nick C. Pofler** received the 2008 American Society of Mass Spectrom-



etry Research Award at the 56th ASMS conference in Denver, CO.

- **Professor Kirk Schanze** was honored with the 2009 Florida Award presented annually by the Florida Section of the American Chemical Society.
- **Butler Professor of Polymer Chemistry Kenneth Wagener**, was honored with the Max Planck Institute for Polymer Research Award on June 13th, 2009.

You can see that recognition for our faculty comes from all levels, local, state, national and international. It is good to know that just as our graduates are out there earning distinction and making us famous, our faculty colleagues are doing their part to add value to those degrees for which they worked so hard.

—Daniel R. Talham

Welcome New Faculty

Dr. W. David Wei joined our department in August, 2009 as an Assistant Professor working in Analytical, Physical, and Materials Chemistry. Wei's research interests include novel electronic and optical properties of metallic and semiconductor nanomaterials and their applications in solar energy harvesting, conversion and storage, visible light photocatalysis, chemical and biological detection, drug delivery, and cancer therapeutics. David received his Ph.D. from the University of Texas at Austin with Mike White and trained as a postdoctoral researcher at Northwestern University with Chad Mirkin. He has also held a research position at Pacific Northwest National Labs. David has more than twenty publications, eleven invited talks, and five pending patents. His teaching interests span a number of fields, including analytical chemistry, physical chemistry, surface science on nanomaterials, nanophotonics, and nanochemistry.



Dr. Benjamin Killian joined our department on August 17, 2009 as a Lecturer and Director of the Upper Division Teaching Labs. Ben received his B.S. (1998) and Ph.D. (2005) in computational chemistry from the University of Florida, under the direction of Yngve Öhrn. He did his post-doctoral work with Mike Gilson at the Center for Advanced Research in Biotechnology at the University of Maryland Biotechnology Institute in Rockville, MD. His research interests include computation of configurational entropy changes in molecular processes, molecular reaction dynamics and developing computational chemistry modules for use with teaching. Ben teaches the physical, biophysical, and instrumental analysis labs.



UF Chemistry: One of the Biggest

The nationwide influence of our department continues to grow. The American Chemical Society Committee on Professional Training reported that UF Chemistry is one of seven departments in the US that are among the leaders in each degree category, Bachelor's, Masters, and Ph.D. UF ranked third in the US in Ph.D. degrees, behind only UC Berkeley and Purdue.

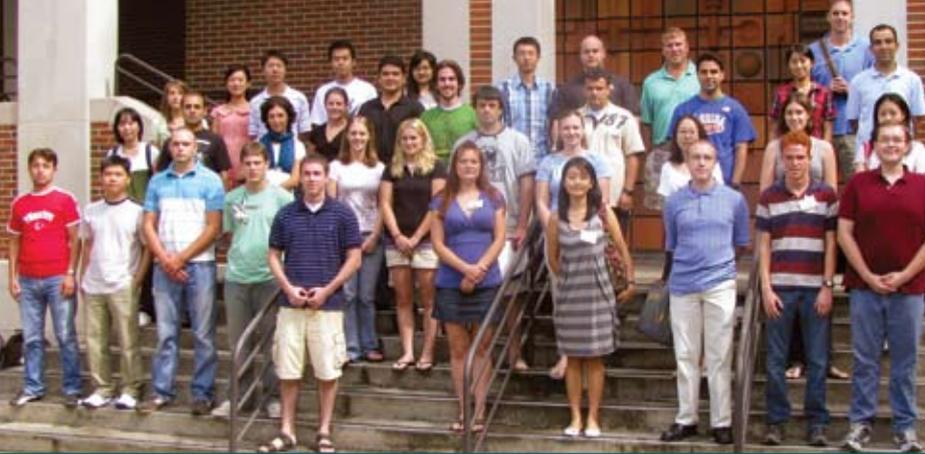
BIG PRODUCERS OF CHEMISTRY GRADUATES

Seven Schools made the top 25 list at all three degree levels in 2007–08.

NUMBER OF GRADUATES	BA	MA	PH.D.
California, U of, Los Angeles	238	17	28
Florida, U of	104	20	47
Minnesota, U of, Twin Cities	100	40	27
California, U of, Irvine	96	20	36
Illinois, U of, Urbana-Champaign	90	17	32
North Carolina, U of, Chapel Hill	84	18	34
Michigan, U of, Ann Arbor	83	43	44

Source: Report of the ACS Committee on Professional Training, 2008

The full story appears in *Chemical Engineering News*, November 23, 2009



2009 GRADUATE STUDENT AWARDS

The department recognized graduate students with several awards in the past year. The Ruegamer Charitable Trust, established by William and Arlene Ruegamer, provides scholarships for students of high scholastic standing in biochemistry. The recipients for 2009–2010 were **Kwame Sefah** and **Mike Veloro**. The Colonel Allen R. and Margaret G. Crow Endowment and the Dr. Ann R. Stasch Memorial Scholarships were again used to recognize excellence in graduate student peer-reviewed publications. This year, Crow-Stasch Publication Awards were given to **Pierre Beaujuge** (First Place), **Ou Chen**, **Soumya Sarkar**, **Zhi Zhu**, **Geeta Meher**, **Youngmi Kim**, **Megumi Yoshioka**, **Christos Lampropoulos**, **Roxy Lowry**, **Yanrong Wu** and **Huimeng Wu**. The 2008–2009 Procter & Gamble Awards for Research Excellence were given to **Berenger Biannic**, **Ou Chen**, **Yan Chen**, **Danniebelle Haase**, **Matthew Jeletic**, **Huaizhi Kang**, **Yan Li**, **Yilin Meng**, **Jianguo Mei**, **Jonathan Merten**, **Megan Meyer**, **Heh-Young Moon**, **Kate Oppen**, **Jongwoo Park**, **Soumya Sarkar**, **Kwame Sefah**, **Sarah Stefan**, **Abigail Shelton**, **Jingyi Wang**, **Yuying Wei** and **Yanrong Wu**. The 2009 M. A. Battiste Award for Creative Work in Synthetic Organic Chemistry, sponsored by Petra Research, was presented to **Berenger Biannic** and **Jongwoo Park**.

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