



New Faculty Edition

# the chemical bond

FALL 2004  
University of Florida  
Department of Chemistry



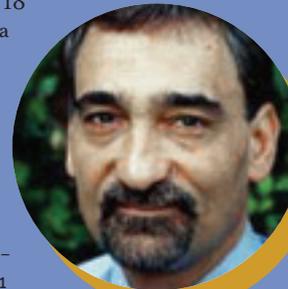
**Charles Cao** is an assistant professor in the Department of Chemistry. He received his PhD in physical chemistry from Jilin University in China. Before coming to UF, he was a research associate at Northwestern University.

His research addresses the problems that are at the interface of nanochemistry and bio-analytical chemistry. More specifically, he studies nanocrystal synthesis, nanocrystal assembly, and nanocrystals for use as biological markers. This fall, he is teaching a graduate-level nanotechnology course. Arrived: 2003

**Ronald K. Castellano** is an assistant professor in the Department of Chemistry, and received his PhD from the Massachusetts Institute of Technology in 2000. Prior to coming to UF, Castellano was a postdoctoral fellow for two years at the Swiss Federal Institute of Technology in Zürich, Switzerland. There, his research explored details of enzyme-substrate recognition using synthetic model compounds. His current research interests include organic chemistry, functional materials and nanotechnology. Castellano is currently teaching the Sophomore Organic Chemistry Sequence. Arrived: 2002



**George Christou** is the first Drago Professor in the Department of Chemistry. In 1978 he earned his PhD in organic chemistry from Exeter University in London. After a postdoctoral fellowship at Manchester University and a NATO Fellowship at Stanford and Harvard Universities, he held his first faculty position in 1982 at Imperial College in London. Before coming to UF, he served on the faculty of Indiana University for 18 years. Christou has been a leading figure in the development of single-molecule magnetism, which has vast potential applications for ultra-high-density information storage, quantum computing and other specialized areas. Arrived: 2001



**Tammy Davidson** joined the faculty at the University of Florida in July 2004 as a senior lecturer in the Organic Division of the Department of Chemistry. She earned her BS in Chemistry in 1992 from Denison University and her PhD in Chemistry in 1997 from the University of Florida. She was a Postdoctoral Assistant at the University of North Carolina, Chapel Hill (1997-1998), and most recently an Assistant Professor at East Tennessee State University (1998-2004). Arrived: 2004



**Gail Fanucci** is an assistant professor in the Department of Chemistry. She is a UF alumna, completing her PhD in chemistry in 1999. She returns to UF from the University of Virginia, and her research utilizes site-directed spin labeling and electron paramagnetic resonance spectroscopy to study biopolymers such as membrane proteins.



Fanucci is teaching Physical Chemistry to undergraduates this fall and will be teaching a biochemistry and molecular biology lab during the spring. Arrived: 2004

**So Hirata** is an assistant professor in the Department of Chemistry. He received his PhD in theoretical chemistry from the Graduate University for Advanced Studies in 1998. He has held positions with the Japan Society for the Promotion of Science, the University of California, Berkeley, the Quantum Theory Project at UF, Pacific Northwest National Laboratory and Hiroshima University. Hirata's research focuses on the development of new many-body theories describing concerted motions of electrons in atoms and molecules in the gas and condensed phases and in crystalline solids. Arrived: 2004





**Jeffrey J. Keaffaber** completed an undergraduate education in Biology and Chemistry at Manchester College (1985) in Indiana and a PhD in Physical Organic Chemistry at the University of Florida (1989).

Keaffaber started career with Walt

Disney Imagineering's Research and Development group. He has also worked as consultant and taught chemistry and oceanography in California's Community College System. In 2003, Keaffaber was named lecturer in the Department of Chemistry. Keaffaber teaches general chemistry and is active in the development of a distance education course designed for non-majors. Arrived: 2003

**Nicolo Omenetto** is a professor in the Department of Chemistry. He received his Laurea in Chemistry from the University of Padua in Italy.

Prior to coming to UF, he was with the University of Pavia (Italy) and the Joint Research Center (EU) in Ispira (Italy). His research activity is focused on the fundamental aspects and applications of atomic and molecular laser spectroscopy. He will be teaching Lasers in Chemistry, designed for graduate students, and Instrumental Methods of Analysis for undergraduates. Arrived: 2001



**Valeria D. Kleiman** is an assistant professor in the Department of Chemistry. She received her PhD from the University of Illinois at Chicago. Before arriving at UF, she worked at the Naval Research Laboratory. Her research interests focus in the understanding of ultrafast processes governing light-harvesting and energy flow in dendrimers and conjugated polymers. Dr. Kleiman is also fascinated with coherent processes and the use of lasers to manipulate photochemical reactions. She is currently teaching graduate-level quantum chemistry. Arrived: 2000



**Adrian Roitberg** is currently an associate professor in the in the Department of Chemistry, affiliated with the Quantum Theory Project. He graduated from the University of Illinois at Chicago with a PhD in Physical Chemistry applied to biomolecules. After that, he worked at Northwestern University on computational chemistry of nanotechnological systems.

His current research deals with theoretical and computational studies of important biological systems, and their interface with nanomaterials. He is currently teaching an undergraduate Physical Chemistry course for students in the biological sciences. Arrived: 2000



**Tom Lyons** is an assistant professor in the Department of Chemistry. He earned his PhD from the University of California, Los Angeles in 1998. His research focuses on the genetics and biochemistry of zinc metabolism. Lyons is

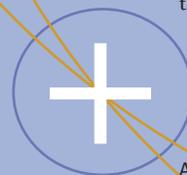
currently

teaching Biochemistry of the Cell and will teach Introduction to Biochemistry and Molecular Biology during the spring.

Arrived: 2001



**Adam Veige** is an assistant professor in the Department of Chemistry. He earned his PhD in inorganic chemistry from Cornell University in 2003 and was a postdoctoral associate at MIT from 2003-2004. His research focuses on the synthesis and study of transition metal complexes that improve upon or catalyze new industrially relevant transformations. He is interested in the critical bond making and breaking events of important transformations such as dinitrogen fixation and hydrocarbon functionalization. This fall, he is teaching the graduate level course Advanced Inorganic Chemistry. Arrived: 2004



# from the chair

a note

Welcome to the second issue of *The Chemical Bond*! We were gratified by the enthusiastic response to the spring 2004 issue from our alumni and friends. We hope that you enjoy this special issue focusing on recent faculty hires in the department, featuring biographical information on the dozen new faculty members who arrived since late 2000.



Approximately half of the current department's fifty regular faculty members have been hired in the last fifteen years. These new hires were made primarily to replace retiring faculty and accommodate the significant growth in University of Florida enrollments.

This year the department is seeking two new tenure track assistant professors and one lecturer. Candidate interviews have just begun as I write this note. Although the areas of the tenure track positions are not tightly constrained, we are looking at candidates who work in organic synthesis or develop instrumental methods (often called "makers" and "measurers" for short). The lecturer position is focused on general chemistry.

President Machen is expected to announce a bold new UF capital campaign soon, and this will be important to the university's ability to meet its missions in research, teaching, and service. In times of lean state budgets, private giving to the department helps enhance our undergraduate and graduate programs significantly. Small gifts and endowments are vital to our future success. The department's needs range from student fellowships to a new research and teaching building. If you are interested in making a gift to the department, feel free to write or call me to discuss your ideas.

—David Richardson, Chair

## keep in touch with Chemistry

We want to hear from you! Send your update to: Maribel Lisk, PO Box 117200, Gainesville, FL 32611-7200. Please include your degree (BS, MS, PhD, etc.), graduation date and e-mail address if you have one. Photos are welcome too! You can also e-mail your update to [chairadmin@chem.ufl.edu](mailto:chairadmin@chem.ufl.edu). To make online contributions to the department, go to <https://www.ufl.edu/OnlineGiving/CLAS.asp>. Select "Chemistry 001401" and continue through the prompts.



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### Spring 2004 Correction:

W. Brey joined the Chemistry faculty in 1952.