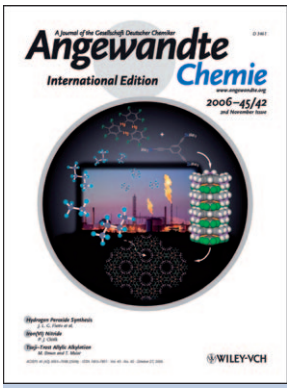
F. P. Gabbaï

*The author presented on this page has recently published his **10th article** since 2000 in Angewandte Chemie:* "A Mercury→Antimony Interaction ": T.-P. Lin, C. R. Wade, L. M. Pérez, F. P. Gabbaï, *Angew. Chem.* **2010**, *122*, 6501 – 6504; *Angew. Chem. Int. Ed.* **2010**, *49*, 6537 – 6360.



F. P. Gabbaï has been featured on the cover of Angewandte Chemie: "Hydrocarbon Uptake in the Alkylated Micropores of a Columnar Supramolecular Solid": T. J. Taylor, V. I. Bakhmutov, F. P. Gabbaï, *Angew. Chem.* **2006**, *118*, 7188 – 7191; *Angew. Chem. Int. Ed.* **2006**, *45*, 7030 – 7033.

François P. Gabbaï

Date of birth:	March 16, 1968
Position:	Professor of Chemistry, Texas A&M University, College Station (USA)
Education:	1990 MSc, Université de Bordeaux I (France) 1994 PhD on "Precursors to Low Valent Main Group Compounds" with Alan Cowley, University of Texas at Austin (USA) 1994–1998 Postdoc and Habilitation with Hubert Schmidbauer at the Technische Universität München (Germany)
Awards:	**2001** National Science Foundation Career Award; **2009** Dalton Transactions North American Lectureship, UC Berkeley
Current research interests:	My research is concerned with the chemistry of electrophilic and/or Lewis-acidic molecules with a special focus on the discovery of new structures, bonding modes, and reactivities. We are currently studying the design of cationic Lewis acids as water-compatible receptors for small anions. These efforts, which constitute the main thrust of our current research, have led us to design anion receptors that can selectively capture small anions, including fluoride ions, cyanide ions, and azide ions in water. In addition to advancing fundamental science, this project is expected to lead to the development of useful environmental and biomedical applications. Another project in which we are currently involved concerns the synthesis and redox properties of cationic main group compounds.
Hobbies:	Windsurfing and skiing

When I wake up I … go to our kitchen and prepare the lunches of my daughters.

The biggest problem that scientists face is … the increasing pressure put on our planet by humanity.

The biggest challenge facing scientists is … the development of new approaches to ensure the sustainability of our world and the discovery of new ones.

When I was eighteen I wanted to be … an oceanographer. Although I have not fulfilled this ambition, I have remained fascinated by aquatic ecosystems.

If I won the lottery I would … organize a memorable celebration and think about what to do with the money the day after.

My most exciting discovery to date has been … the development of water-compatible Lewis acids for the detection of fluoride and cyanide ions in aqueous environments at ppm or ppb concentrations.

A good work day begins with … a new exciting idea or an unexpected result brought in by a student.

My favorite author is … Ernest Hemingway.

My 5 top papers:

1. "A bidentate Lewis acid with a telluronium ion as an anion-binding site": H. Zhao, F. P. Gabbaï, *Nat. Chem.* **2010**, *2*, 984 – 990. (In this paper we demonstrate that heavier main group onium ions are more Lewis acidic than their lighter congeners, a property that can be exploited for the design of polydentate Lewis acids with enhanced anion affinities.)
2. "A Mercury→Antimony Interaction": T.-P. Lin, C. R. Wade, L. M. Pérez, F. P. Gabbaï, *Angew. Chem.* **2010**, *122*, 6501 – 6504; *Angew. Chem. Int. Ed.* **2010**, *49*, 6537 – 6360. (Herein we establish that the diffuse d^{10} shell of mercury(II) ions can participate in bonding interactions.)
3. "Sulfonium Boranes for the Selective Capture of Cyanide Ions in Water": Y. Kim, H. Zhao, F. P. Gabbaï, *Angew. Chem.* **2009**, *121*, 5057 – 5060; *Angew. Chem. Int. Ed.* **2009**, *48*, 4957 – 4960. (This paper serves to establish that cationic boranes can be used to detect very low concentrations of toxic cyanide ions.)
4. "Fluoride Ion Chelation By a Bidentate Phosphonium/Borane Lewis Acid": T. W. Hudnall, Y.-M. Kim, M. W. P. Bebbington, D. Bourissou, F. P. Gabbaï, *J. Am. Chem. Soc.* **2008**, *130*, 10890 – 10891. (This paper allowed us to introduce the use of pshosphonium ions as Lewis acidic centers in polydentate Lewis acids.)
5. "π-Complexation of Biphenyl, Naphthalene, and Triphenylene to Trimeric Perfluoro-*ortho*-phenylene Mercury. Formation of Extended Binary Stacks with Unusual Luminescence Properties": M. R. Haneline, M. Tsunoda, F. P. Gabbaï, *J. Am. Chem. Soc.* **2002**, *124*, 3737 – 3742. (Herein, we introduced a novel supramolecular approach, which allows us to efficiently induce the phosphorescence of a broad range of unsaturated organic compounds.)

DOI: 10.1002/anie.201005522