

## TODD W. HUDNALL

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Department of Chemistry and Biochemistry  
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### EDUCATION

- Ph.D., Chemistry: GPA: 4.00/4.00** December 2008  
Texas A&M University, College Station, TX,  
Dissertation: Neutral and Cationic Main Group Lewis Acids: Synthesis,  
Characterization, and Anion Complexation
- B.S., Chemistry: GPA: 3.47/4.00** May 2004  
Texas State University-San Marcos, San Marcos, TX, 2004  
Cum Laude

### EXPERIENCE

- 2008-present **The University of Texas at Austin**, Austin, TX  
Postdoctoral Associate  
*Advisor:* Christopher W. Bielawski
- 2004-2008 **Texas A & M University**, College Station, TX  
Graduate Researcher  
*Advisor:* François P. Gabbaï
- 2001-2004 **Texas State University-San Marcos**, San Marcos, TX  
Undergraduate Researcher  
*Advisor:* Chad J. Booth

### AFFILIATIONS

American Chemical Society  
Phi Lambda Upsilon National Chemistry Honor Society: Beta Beta Chapter  
*President* - 2007 – 2008 (Beta Beta Chapter)  
*Award Committee Chair* – 2007-2008 (Beta Beta Chapter)  
*Award Committee* – 2006-2008 (Beta Beta Chapter)  
*Sharon Dabney Memorial Scholarship Selection Committee* – 2007  
Phi Kappa Phi National Honor Society

### HONORS AND AWARDS

*Association of Former Students Distinguished Graduate Student Award for Excellence in Research*, Texas A&M University, March 2009  
*ACS Division of Inorganic Chemistry Travel Award*, June 2008  
*Richard W. Schmude, Jr. Endowed Graduate Scholarship in Chemistry*, May 2008  
*Martin Corera Travel Award*, Texas A&M University, August 2007  
*A. E. Martell Travel Award*, Texas A&M University, March 2006, April 2008  
*Robert A. Welch Foundation Graduate Fellowship Award*, Texas A&M University, August 2004 to May 2005.  
*Graduated Cum Laude*, Texas State University-San Marcos, May 2004  
*ACS Travel Award*, Texas State University-San Marcos, March 2004

## PUBLICATIONS

12. "An ambiphilic *N*-heterocyclic carbene: Application in C-H insertion, reversible carbonylation and transition metal coordination chemistry" T. W. Hudnall and C. W. Bielawski; *J. Am. Chem. Soc.*; **2009**, *submitted*.
11. "Quinobis(imidazolylidene): Synthesis and study of an electron-configurable bis(*N*-heterocyclic carbene) and its bimetallic complexes" A. G. Tennyson, R. J. Ono, T. W. Hudnall, D. M. Khrarov, J. A. V. Er, J. W. Kamplain, V. M. Lynch, J. L. Sessler and C. W. Bielawski; *Chem. – Eur. J.*; **2009**, *in press*.
10. "Azide ion recognition in water/CHCl<sub>3</sub> using a chelating phosphonium borane as a receptor" Y. Kim, T. W. Hudnall, G. B. Bouhadir, D. Bourissou and F. P. Gabbai; *Chem. Commun.* **2009**, 3729-3731.
9. "Fluoride ion recognition by chelating and cationic boranes" T. W. Hudnall, C.-W. Chiu and F.P.Gabbai; *Acc. Chem. Res.* **2009**, *42(2)*, 388-397.
8. "Fluoride ion chelation by a bidentate phosphonium/borane Lewis acid" T. W. Hudnall, Y. Kim, M. W. P. Bebbington, D. Bourissou and F. P. Gabbai; *J. Am. Chem. Soc.*; **2008**; *130(33)*, 10890-10891.
7. "A BODIPY boronium cation for the sensing of fluoride ions" T. W. Hudnall, and F. P. Gabbai; *Chem. Commun.*; **2008**; 4596-4597.
6. "Fluoride Ion Complexation by a B<sub>2</sub>/Hg heteronuclear Tridentate Lewis Acid – A Structural and Electrochemical Investigation" C. L. Dorsey, P. Jewula, T. W. Hudnall, J. D. Hoefelmeyer, T. J. Taylor, N. Honesty, C-W. Chiu, M. Schulte and F. P. Gabbai; *Dalton Trans.*; **2008**, (33); 4442-4450.
5. "Ammonium boranes for the selective complexation of cyanide or fluoride ions in water" T. W. Hudnall, and F. P. Gabbai; *J. Am. Chem. Soc.*; **2007**; *129(39)*; 11978-11986
4. "ortho-Borylated trifluoroacetanilides – Synthesis and fluoride ion binding properties." T. W. Hudnall, J. F. Bondi, and F. P. Gabbai; *Main Group Chemistry*; **2006**; *5(4)*; 319-327.
3. "A hybrid Lewis acid / hydrogen bond donor receptor for fluoride" T. W. Hudnall, M. Melaïmi, and F. P. Gabbai; *Org. Lett.*; **2006**; *8(13)*; 2747-2749.
2. "Aliphatic-Aromatic Copolyesters Derived from 2,2,4,4-Tetramethyl-1,3-cyclobutanediol" N. C. Hoppens, T. W. Hudnall, A. Foster, C. J. Booth; *J Polym. Sci., Part A: Polym. Chem.*; **2004**; *42(14)*, 3473-3478.
1. "A New Series of CBDO Based Co-Polyesters " N. C. Hoppens, T. W. Hudnall, A. Foster, C. J. Booth, Chad J. ACS *Polym. Pre.*; **2004**; *45(1)*, 1016.

## PROFESSIONAL PRESENTATIONS

Dalton Discussion 11: The Renaissance of Main Group Chemistry, June 23-25, 2008, University of California, Berkeley. "Cationic dipyrromethene boron derivatives." (Poster)

235<sup>th</sup> ACS National Meeting, April 5-10, 2008, New Orleans, Louisiana.  
"Cationic dipyrromethene boron derivatives." (Oral)

Industry-University Cooperative Chemistry Program (IUCCP), October 15-17, 2007, College Station, Texas. "Ammonium Boranes for the Selective Complexation of Cyanide or Fluoride Ions in Water." (Oral)

234<sup>th</sup> ACS National Meeting, August 19-23, 2007, Boston, Massachusetts.  
“Cyanide ion complexation by a cationic borane in aqueous media.” (Oral)

Industry-University Cooperative Chemistry Program (IUCCP), October 16-18,  
2006, College Station, Texas. “Synthesis and Structures of Polyfunctional  
Hybrid Lewis Acid/Hydrogen Bond Donor Derivatives.” (Oral)

231<sup>st</sup> ACS National Meeting, March 26-30, 2006, Atlanta, Georgia.  
“Cooperative Lewis acidic-Brønsted acidic Binding of Fluoride.” (Oral)

227<sup>th</sup> ACS National Meeting, March 28-April 1, 2004, Anaheim, California.  
“A New Series of CBDO Based Co-polyesters.” (Poster)

## REFERENCES

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