

**Zachary B. Henson**  
355 Cannon Green Dr., Apt. C  
Goleta, CA 93117  
(219) 916-2783  
[zhenson@chem.ucsb.edu](mailto:zhenson@chem.ucsb.edu)

### **Education**

**Ph.D., Materials Chemistry**, July 2009-Present, University of California-Santa Barbara, Santa Barbara, CA  
GPA: 4.0/4.0

**B.S., Chemistry**, August 2005-May 2009, Indiana University-Bloomington, Bloomington, IN  
GPA: 3.7/4.0

### **Research Experience**

**University of California- Santa Barbara**  
Santa Barbara, CA

Research Advisor: Dr. Guillermo C. Bazan

Principle Areas of Study: Synthesis of narrow band gap conjugated polyelectrolytes and investigation of their electronic properties for use in organic electronic materials. July 2009- January 2012. Design and synthesis of organic semiconducting chromophores which can be processed via environmentally friendly protocols. April 2011- Present.

**Indiana University- Bloomington**

Bloomington, IN

Research Advisor: Dr. David E. Clemmer

Principle Areas of Study: Design and construction of novel ion-mobility spectrometry/mass-spectrometry instrumentation for increased resolution in ion-mobility separations. April 2006-May 2009

### **Publications**

“Seeking Design Strategies for Organic Semiconductors Beyond the Molecular Formula” **Henson, Zachary B.**; Müllen, Klaus; Bazan, Guillermo C. *Accepted to Nature Chemistry*. Manuscript ID: NCHEM-12040515

“Color Tuning in Polymer Light-Emitting Diodes with Lewis Acids” Zalar, Peter; **Henson, Zachary B.**; Welch, Gregory C.; Bazan, Guillermo C.; Nguyen, Thuc-Quyen. *Angew. Chem. Int. Ed.* Published Online 5 June 2012.

“Pyridalthiadiazole-Based Narrow Band Gap Chromophores” **Henson, Zachary B.**; Welch, Gregory C.; van der Poll, Thomas; Bazan, Guillermo C. *J. Am. Chem. Soc.* **2012**, 134 (8), 3766-3779.

“A Dithienosilole-Benzooxadiazole Donor–Acceptor Copolymer for Utility in Organic Solar Cells”. Caputo, Bruno J. A.; Welch, Gregory C.; Kamkar, Daniel A.; **Henson, Zachary B.**; Nguyen, Thuc-Quyen; Bazan, Guillermo C. *Small*. **2011**, 7 (10), 1422-1426.

“Ion mobility spectrometer having segmented drift tube with coupled electric field per each segment for controlled electric field”. Clemmer, David E.; Kurulgama, Ruwan T.; Nachtigall, Fabiane M.; **Henson, Zachary**; Merenbloom, Samuel I.; Valentine, Stephen J. *PCT. Int. Appl.* **2009**. WO 2009091985 A1 20090723

“High-Resolution Ion Cyclotron Mobility Spectrometry”. Merenbloom, Samuel I.; Glaskin, Rebecca S.; **Henson, Zachary B.**; Clemmer, David E. *Anal. Chem.* **2009**, 81(4), 1482-1487.

### **Oral Presentations**

“Narrow Band Gap Conjugated Polyelectrolytes (CPEs): Synthesis, Photophysical and Electronic Properties.” **Zachary B. Henson** and Guillermo C. Bazan. October 14-17, 2011, 10<sup>th</sup> *International Symposium on Functional  $\pi$ -Electron Systems*, Beijing, China.

### **Poster Presentations**

“Pyridalthiadiazole-Based Narrow Bandgap Chromophores for High Performance Organic Photovoltaics.” **Zachary B. Henson**, Gregory C. Welch, Thomas S. van der Poll, Yanming Sun, Alan J. Heeger, Guillermo C. Bazan. October 14-17, 2011, 10<sup>th</sup> *International Symposium on Functional  $\pi$ -Electron Systems*, Beijing, China.

“Synthesis and Photophysical Properties of Conjugated Poly- and Oligoelectrolytes.” **Zachary B. Henson**, Giussepina Pace, Jenny Clark, Jung Hwa Seo, Richard H. Friend, Guillermo C. Bazan. June 19-24, 2011, *Excited State Processes/Optical Probes Conference*, Santa Fe, NM.

### **Awards**

- Corning Incorporated Foundation Fellowship, 2012-2013
- 10<sup>th</sup> International Symposium on Functional  $\pi$ -Electron Systems Poster Prize, 2011
- National Science Foundation Graduate Research Fellowship Honorable Mention, 2010 & 2011
- International Center for Materials Research International Research Fellowship, 2010
- UCSB Outstanding Teaching Assistant award, 2009-2010
- Phi Lambda Upsilon, 2009-2010
- American Chemical Society Undergraduate Award, 2009
- Malcolm A. Kochert Scholarship, 2008-2009
- Ira E. Lee Summer Research Scholarship, 2008
- Andrew Loh Scholarship for Analytical Chemistry, 2007-2009
- Hutton Honors College Summer Research Grant, 2007

