Jason Locklin
Department of Chemistry and Faculty of Engineering
The University of Georgia, Athens, GA 30602

EDUCATION

B.S. in Chemistry, Millsaps College, Jackson, MS 1999
M.S. in Chemistry, University of Alabama at Birmingham, 2002
Ph.D. in Chemistry, University of Houston, Houston, TX, 2004

PROFESSIONAL EXPERIENCE

Assistant Professor, University of Georgia, Athens, Georgia, 2002- 2007
Intelligence Community Postdoctoral Scholar, Stanford University, Stanford, CA 2004-2006

SYNNERGISTIC ACTIVITIES

The major research areas are (1) Synthetic design of stimuli responsive polymers; (2) Surface initiated polymerization; (3) Ultrathin films for enzymatic biofuel cells; (4) Autonomous propulsion mechanisms for catalytic nanomotors and related topics.

TEN RECENT PUBLICATIONS

1. Bao, Z.; Locklin, J., Eds. *"Organic Field-Effect Transistors,"* CRC Press, 1st Edition, (2007).
2. Locklin, J.*;* Ling, M.-M.; Sung, A.; Roberts, M.E.; Bao, Z. *"High Performance Organic Semiconductors Based on Fluorene-Phenylene Oligomers with High Ionization Potentials,"* Adv. Mater., **18***,* 2989-2992, (2006).
3. Locklin, J.; Roberts, M.E.; Mannsfeld, S.C.B.; Bao, Z. *"Optimizing the Thin Film Morphology of Organic Field-Effect Transistors: The Influence of Molecular Structure and Vacuum Deposition Parameters on Device Performance,"* Journal of Macromolecular Science: Polymer Reviews, **46**, 79, (2006) Invited Review.
4. Sung, A.; Ling, M. M.; Tang, M. L.; Bao, Z.; Locklin, J. *"Correlating Molecular Structure to Field-Effect Mobility: The Investigation of Side-Chain Functionality in Phenylene-Thiophene Oligomers and Their Application in Field Effect Transistors,"* Chem. Mater., **19**, 2342-2351 (2007).
5. Deng, S.; Locklin, J.; Patton, D.; Baba, A.; Advincula, R. *"Thiophene Dendron Jacketed Poly(amidoamine) Dendrimers: Nanoparticle Synthesis and Adsorption on Graphite,"* J. Am. Chem. Soc. **127**, 1744-1751, (2005).
6. Locklin, J.; Patton, D.; Deng, S.; Baba, A.; Millan, M.; Advincula, R. "*Conjugated Oligothiophene-Dendron-Capped CdSe Nanoparticles: Synthesis and Energy Transfer.*" Chem. Mater. **16**, 5187-5193, (2004).
7. Locklin, J.; Shinbo, K.; Onishi, K.; Kaneko, F.; Advincula, R.C.; Bao, Z. "*Ambipolar Organic thin film transistor-like behavior of cationic and anionic phthalocyanines fabricated using layer-by-layer deposition from aqueous solution."* Chem. Mater. **15**, 1404-1412, (2003).
8. Liu, S.; Tok, J.B.H.; Locklin, J.; Bao, Z. *"Assembly and Alignment of Metallic Nanorods on Surfaces with Patterned Wettability"*, Small*,* **2***,* 1448-1453, (2006).

9. Mannsfeld, S.C.B.; Locklin, J.; Reese, C.; Roberts, M.; Lovinger, A.J.; Bao, Z. *"Probing the Anisotropic Field Effect Mobility of Solution-Deposited Dihexyl-α-Quarterthiophene Single Crystals,"* Adv. Funct. Mater., **17**, 1617-1622, (2007).
10. Locklin, J.; Bao, Z. *"Effect of Morphology on Organic Thin Film Transistor Sensors"* Anal. Bioanal. Chem. **384**, 336-42, (2006). (Invited Review).

Past Advisors and Current Research Group

Graduate Advisors

Ph.D. thesis advisor – Topic: From Structure to Function: Designing Organic materials for Thin Film Electronics. Advisor: Prof. Rigoberto Advincula, University of Houston
Postdoctoral Advisor – Detection of Chemical and Biological Agents using Organic Thin Film Transistors. Prof. Zhenan Bao, Stanford University and Dr. Susan Durham, Central Intelligence Agency

Thesis Advisor and Postdoctoral Fellow Sponsor

Postdoctoral Research Associate (1): Dr. Satyabrata Samanta, 2007-present
Current Graduate Students (5): Nicholas Marshall, Sara Orski, Kyle Sontag, Gareth Sheppard, and Kristen Fries.
Undergraduate Thesis Advisor to (2): Bethany Wigington and Ken Yamamoto