

## CURRICULUM VITAE

INVESTIGATOR NAME: Kenneth Hanson

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION	DEGREE (if applicable)	Completion Date YYYY	FIELD OF STUDY
St. Cloud State University	B.S.	2005	Chemistry
University of Southern California	Ph.D	2010	Inorganic Chemistry
University of North Carolina, Chapel Hill	Postdoc	2013	Physical Inorganic Chemistry

### A. Positions

2013–present      Assistant Professor, Department of Chemistry & Biochemistry, Florida State University

### B. Selected publications related to the proposal

#### Closely Related

- 1) Hill, S.P.; Banerjee, T.; Dilbeck, T.; Hanson, K. Photon Upconversion and Photocurrent Generation via Self-Assembly at Hybrid Interfaces. *Nature Chemistry* **2015** (round two of revisions/reviews).
- 2) Wang, J.C.; Murphy, I.A.; Hanson, K. Modulating Electron Transfer Dynamics at Dye-Semiconductor Interfaces via Self-Assembled Bilayers. *J. Phys. Chem. C* **2015**, 119, 3502-3508.  
<http://pubs.acs.org/doi/abs/10.1021/jp5116367>.
- 3) Song, W; Ito, A.; Binstead, R. A.; Hanson, K.; Luo, H.; Brennaman, M. K.; Concepcion, J. J.; Meyer, T. J. Accumulation of Multiple Oxidative Equivalents at a Single Site by Cross-Surface Electron Transfer on TiO<sub>2</sub>. *J. Am. Chem. Soc.* **2013**, 135, 11587-11594.  
<http://pubs.acs.org/doi/abs/10.1021/ja4032538>.
- 4) Hanson, K.; Torelli, D. A.; Vannucci, A. K.; Brennaman, M. K.; Luo, H.; Alibabaei, L.; Song, W.; Ashford, D. L.; Norris, M. R.; Glasson C. R. K.; Concepcion, J. J.; Meyer, T. J. Self-assembled Bilayer Films of Ru(II) Polypyridyl Complexes by Layer-by-Layer Deposition on Nanostructured Metal Oxides. *Angew. Chem. Int. Ed.* **2012**, 51, 12782-12785.  
<http://onlinelibrary.wiley.com/doi/10.1002/anie.201206882/abstract>.
- 5) Hanson, K.; Brennaman, M. K.; Luo, H.; Glasson, C. R. K.; Concepcion, J. J.; Song, W.; Meyer, T. J. Photostability of Phosphonate-Derivatized, Ru(II) Polypyridyl Complexes on Metal Oxide Surfaces. *ACS Appl. Mater. Interfaces* **2012**, 4, 1462-1469.  
<http://pubs.acs.org/doi/abs/10.1021/am201717x>

#### Other Significant Products

- 1) Das, A.; Banerjee, T.; Hanson, K., Protonation of Silylenol Ether via Excited State Proton Transfer Catalysis. *J. Am. Chem. Soc.* **2015**, (under review).
- 2) Mohamed, R. K.; Mondal, S.; Gold, B.; Evoniuk, C. J.; Banerjee, T.; Hanson, K.; Alabugin, I. V. Alkenes as Alkyne Equivalents in Radical Cascades Terminated by Fragmentations: Overcoming Stereoelectronic Restrictions on Ring Expansions for the Preparation of Expanded Polyaromatics. *J. Am. Chem. Soc.* **2015**, 137, 15493–15496.

- <http://pubs.acs.org/doi/abs/10.1021/jacs.5b02373>.
- 3) Longstreet, A.; Jo, M.; Chandler, R.; Hanson, K.; Zhan, N.; Hrudka, J.; Mattoussi, H.; Shatruk, M.; McQuade, D. T. Ylidenemalonitrile enamines as fluorescent “turn-on” indicators for primary amines. *J. Am. Chem. Soc.* **2014**, 136, 15493–15496.  
<http://pubs.acs.org/doi/abs/10.1021/ja509058u>.
- 4) Pati, K.; Gomes, G.; Harris, T.; Hughes, A.; Phan, Hoa; Banerjee, T.; Hanson, K.; Alabugin, I. Traceless Directing Groups in Radical Cascades: From Oligoalkynes to Fused Helicenes without Tethered Initiators. *J. Am. Chem. Soc.* **2014**, 137, 1165–1180.  
<http://pubs.acs.org/doi/abs/10.1021/ja510563d>.
- 5) Hanson, K.; Ashford, D. L.; Concepcion, J. J.; Binstead, R. A.; Luo, H.; Glasson C. R. K.; Templeton, J. L.; Meyer, T. J. Sensitized Photo-Decomposition of Organic Bis-Phosphonates By Singlet Oxygen. *J. Am. Chem. Soc.* **2012**, 134, 16975-16978.  
<http://pubs.acs.org/doi/abs/10.1021/ja307987g>.

### C. Research Support

Hanson, Kenneth G. (PI). (Sep 2014–Aug 2016). *Absolute Stereocontrol of Prochiral Substrates with Chiral Excited State Proton Transfer Dyes*. Funded by American Chemical Society. (PRF# 54435-DNI4). Total award \$110,000.

Hanson, Kenneth G. (PI). (Sep 2014–Dec 2015). *Asymmetric Electron Transfer Rates at Organic-Inorganic Hybrid Interfaces Via Self-Assembled Bilayers*. Funded by United States Army Research Laboratory. (W911NF-14-1-0660). Total award \$60,000.

Hanson, Kenneth G. (PI). (May 2014–Aug 2014). *FYAP: Self-Assembled Bilayers for Application in Dye-Sensitized Solar Cells*. Funded by FSU CRC. Total award \$20,000.

Schlenoff, Joseph B (Co-PI), Shatruk, Mykhailo (PI), Hanson, Kenneth G. (Co-PI), & De Prince, Albert (Co-PI). (Apr 2014–Jan 2015). *Polymer-Embedded Gamma-Ray Detectors*. Funded by Invincea. (PO 1010-103-4). Total award \$95,664.

### D. Other data pertinent only to the research or activity proposed

N/A