Publications

Independent Career

3) Havlik, Sarah. E.; Simmons, Jessica. M.; Winton, Valerie. J.; Johnson, Jeffrey B. "Nickel-Mediated Decarbonylative Cross-Coupling of Phthalimides with *in situ* Generated Diorganozinc Reagents" *J. Org. Chem. In press.*

2) Rathbun, Colin M.; Johnson, Jeffrey B. "Rhodium-Catalyzed Acylation with Quinolinyl Ketones: Carbon-Carbon Single Bond Activation as the Turnover Limiting Step of Catalysis" *J. Am. Chem. Soc.* ***2011***, *133*, 2031.

1) Book Chapter: Johnson, Jeffrey B. "Ring Opening Reactions of Epoxides, Aziridines and Cyclic Anhydrides" *Stereoselective Synthesis,* Vol. 3, P. Andrew Evans, ed. Thieme Chemistry, Stuttgart, Germany. In Press.

Postdoctoral Research

19) Johnson, Jeffrey B.; Cook, Matthew J.; Rovis, Tomislav "Ligand Differentiated Complementary Rh-Catalyst Systems for the Enantioselective Desymmetrization of *meso*-Cyclic Anhydrides." *Tetrahedron* **2009**, *65*, 3202-3210.

18) Williams, Catherine M.; Johnson, Jeffrey B.; Rovis, Tomislav "Ni-Catalyzed Reductive Carboxylation of Styrenes Using CO_2." *J. Am. Chem. Soc.* **2008**, *130*, 14936-14937.

17) Johnson, Jeffrey B.; Rovis, Tomislav "Enantioselective Cross-Coupling of Anhydrides with Organozinc Reagents: The Controlled Formation of Carbon-Carbon Bonds through the Nucleophilic Interception of Metalacycles." *Acc. Chem. Res.* **2008**, *41*, 327-338.

16) Johnson, Jeffrey B.; Rovis, Tomislav "More than Bystanders: The Effects of Olefins on Transition Metal Catalyzed Cross-Coupling Reactions." *Angew. Chem. Int. Ed.* **2008**, *47*, 840-871. *Angew. Chem.* **2008**, *120*, 852-884.

15) Johnson, Jeffrey B.; Bercot, Eric A.; Williams, Catherine M.; Rovis, Tomislav "Enantioselective Anhydride Desymmetrization with *in situ* Formed Arylzinc Reagents: A Concise Synthesis of Eupomatilones 4, 6, and 7." *Angew. Chem. Int Ed.* **2007**, *46*, 4514-4518. *Angew. Chem.* **2007**, *119*, 4598-4503.

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13) Johnson, Jeffrey B.; Yu, Robert, T.; Fink, Paul; Bercot, Eric A.; Rovis, Tomislav "Ligand Dependent Transfer from Mixed Zinc Reagents in Ni-Catalyzed Anhydride Alkylation." *Org. Lett.* **2006**, *8*, 4307-4310.

Doctoral Research

12) Casey, Charles P.; Johnson, Jeffrey B.; Jaio, Xiandong.; Beetner, Sharon E.; Singer, Steven W. "Chain Mechanism for Exchange of D_2 with a Ruthenium Hydride." *Chem. Commun.* **2010**, *46*, 7915.

11) Casey, Charles P.; Beetner, Sharon E.; Johnson, Jeffrey B. "Determination of the Active Catalytic Species via Reaction Modeling and *in situ* IR Spectroscopy During Carbonyl Reduction with Shvo's

Hydroxycyclopentadienyl Ruthenium Hydrogenation Catalyst." *J. Am. Chem. Soc.* **2008**, *130*, 2285-2295.

10) Casey, Charles P.; Strotman, Neil A.; Beetner, Sharon E.; Johnson, Jeffrey B.; Priebe, David C.; Vos, Thomas E.; Khodavandi, B.; Guzei, Ilia A. "The PPh_3 Substituted Hydroxycyclopentadienyl Ruthenium Hydride [2,5-Ph_2-3,4-Tol_2(η^5-C_4COH)]Ru(CO)(PPh_3)H is a More Efficient Catalyst Hydrogenation of Aldehydes." *Organometallics* **2006**, *25*, 1230-1235.

9) Casey, Charles P.; Strotman, Neil A.; Beetner, Sharon E.; Johnson, Jeffrey B.; Priebe, David C.; Guzei, Ilia A. "Slower Stoichiometric and Faster Catalytic Reduction of Aldehydes by [2,5-Ph_2-3,4-Tol_2(η^5-C_4COH)]Ru(CO)(PPh_3)H: A Highly Chemoselective Catalyst for Hydrogenation of Aldehydes over Ketones." *Organometallics* **2006**, *25*, 1236-1244.

8) Casey, Charles P.; Johnson, Jeffrey B. "Kinetic Isotope Effect Evidence for the Concerted Transfer of Hydride and Proton from Hydroxycyclopentadienyl Ruthenium Hydride in Solvents of Different Polarities and Hydrogen Bonding Ability." *Can. J. Chem.* **2005**, *83*, 1339-1346. *Invited Contribution for a Special Issue on Organic Reaction Mechanisms.*

7) Casey, Charles P.; Johnson, Jeffrey B.; Singer, Steven W.; Cui, Qiang "Hydrogen Elimination from a Hydroxycyclopentadienyl Ruthenium(II) Hydride: Study of Hydrogen Activation in a Ligand-Metal Bifunctional Hydrogenation Catalyst." *J. Am. Chem. Soc.* **2005**, *127*, 3100-3109.

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Doctoral Collaboration

4) Johnson, Jeffrey B.; Bäckvall, Jan-E. "Mechanism of Ruthenium-Catalyzed Hydrogen Transfer Reactions. Concerted Transfer of OH and CH Hydrogens from an Alcohol to a (Cyclopentadienone)ruthenium Complex." *J. Org. Chem.* **2003**, *68*, 7681-7684.

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2) Nelson, Ryan C.; Johnson, Jeffrey B.; Congdon, David J.; Nedrelow, Jonathan H.; O'Brien, Brian A. "Alkali-Metal Phthaloylphosphides: Easily Prepared Phosphide Reagents for Coordination and Main-Group Chemistry." *Organometallics* **2001**, *20*, 1705-1708.

1) Guz, Nathan R.; Stermitz, Frank R.; Johnson, Jeffrey B.; Beeson, Teresa D.; Willen, Seth; Hsiang, Jen-Fang; Lewis, Kim. "Flavonolignan and flavone inhibitors of a Staphylococcus aureus multidrug resistance pump: structure-activity relationships." *J. Med. Chem.* **2001**, *44*, 261-268.