



2010-2011 POCC Lecture Series

September 30, 2010, 8:00 PM

Prof. John F. Hartwig

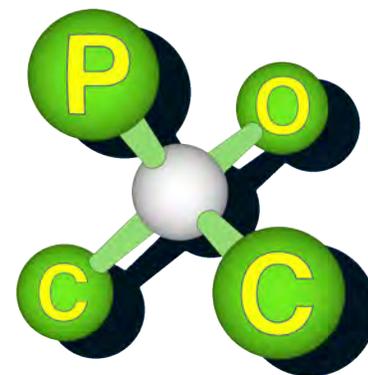
University of Illinois at Urbana-Champaign

Understanding Transition Metal-Catalyzed Reactions

Carolyn Hoff Lynch Lecture Hall

Chemistry Building, University of Pennsylvania

The Philadelphia
Organic Chemist's
Club



POCClub.org

John F. Hartwig was born in 1964 in Illinois, and was raised in upstate New York. He received a B.A. degree in 1986 from Princeton University, and a Ph.D. degree in 1990 from the University of California, Berkeley under the collaborative direction of Robert Bergman and Richard Andersen. After an American Cancer Society postdoctoral fellowship with Stephen Lippard, he began an appointment at Yale University in 1992, where he was an Assistant Professor, Associate Professor, and then full Professor until 2004. In 2004, he was named the Irénée P. duPont Professor of Chemistry. In August of 2006, Professor Hartwig moved to his current position on the faculty at the University of Illinois Urbana-Champaign, where he is the Kenneth L. Rinehart Jr. Professor of Chemistry.

Abstract: Professor Hartwig's research focuses on the discovery and understanding of new reactions catalyzed by transition metal complexes. He has developed a selective catalytic functionalization of alkanes, a method for formation of arylamines and aryl ethers from aryl halides or sulfonates, a method for the direct conversion of carbonyl compounds to α -aryl carbonyl derivatives, systems for the catalytic hydroaminations of alkenes, vinylarenes and dienes, and highly enantioselective and site-selective catalysts for the regio- and enantioselective amination of allylic carbonates. With each system, his group has conducted extensive mechanistic investigations. Through these studies, he has revealed several new classes of reductive eliminations, has isolated discrete compounds that functionalize alkanes, has reported unusual three-coordinate arylpalladium complexes that are intermediates in cross-coupling, has identified the first compounds that oxidatively add ammonia to form monomeric products, and has identified amido and alkoxo complexes that insert alkenes. One of his more recent projects was authoring a textbook titled *Organotransition Metal Chemistry: From Bonding to Catalysis* published December 2009.