

UniCat Colloquium and Awarding of the Einstein Visiting Certificate

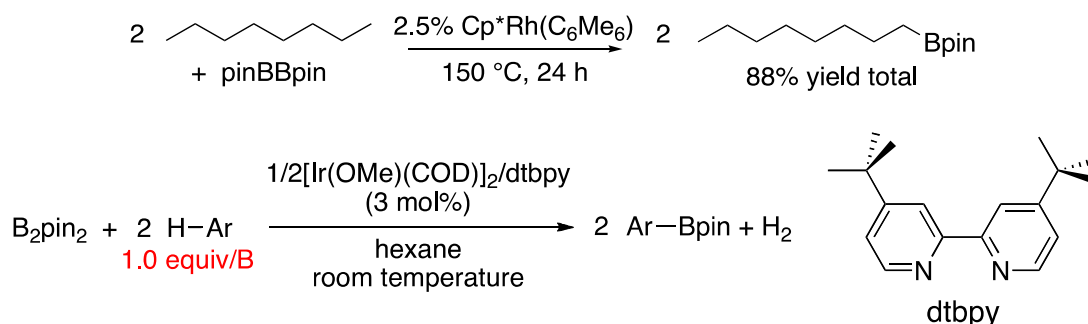
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Lecturer: Prof. Dr. John F. Hartwig, First Einstein Visiting Fellow of UniCat, Kenneth L. Rinehart Jr. Prof. of Chemistry, University of Illinois, Urbana, USA

Title: Site-Selective Functionalization of Aliphatic and Aromatic C-H Bonds

Abstract: Complexes of transition metals catalyze many of the new reactions used for the advancement of medicine, materials and energy utilization. For these applications, my group has sought to develop new catalytic chemistry that rests upon fundamentally new organometallic chemistry. We gain mechanistic information to explain the limits on reaction scope and to make rational choices when seeking to create improved catalysts. As a result of this work, we developed catalytic cross-coupling reactions that form aromatic amines, ethers, and sulfides and isolated amide, alkoxide, and thiolate complexes that undergo carbon-heteroatom bond formation during the catalytic process.

This lecture will focus on our development of reactions that cleave C-H bond selectively. We developed reactions that functionalize alkyl and aryl C-H bonds with borane and silane reagents with selectivities and efficiencies that are useful for synthetic purposes. Much of the lecture will focus on the mechanistic basis for this unusual reactivity and the properties of the transition metal-main group bond that make these transformations possible.



Date: Wednesday, 29 June 2011

Time: 5:15 pm - around 6:45 pm

Location: TU Berlin, Institute of Chemistry,
 Straße des 17. Juni 115, 10623 Berlin
 Building C, Lecture Hall C 243

Organiser Prof. Matthias Drieß (TUB)

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Coffee and tea will be served thirty minutes prior to the lecture start.

Guests are cordially invited to attend!

Prof. Dr. Matthias Drieß, Chair of the Cluster of Excellence UniCat