Collaborative Approach for C–H Functionalization

Research draws upon an established knowledge of asymmetric synthesis and catalysis to discovery and develop novel methodologies, with the ultimate goal of defining enabling technologies for the chemical community.

Website: [https://scholarblogs.emory.edu/davieslab/](https://scholarblogs.emory.edu/davieslab/)

Abstract

The development of practical methods for site selective C–H functionalization is of intense current interest. This presentation will describe a collaborative approach towards achieving new C–H functionalization strategies and our recent advances in the C–H insertion chemistry of donor/acceptor-substituted carbenoids. Typically, site selective C–H functionalization of unactivated C–H bond without the use of directing groups would be considered a difficult challenge. This presentation will describe the development of a series of chiral dirhodium catalysts that are capable of controlling which C–H bond is functionalized. The Davies group is part of the NSF Center for Selective C–H Functionalization (CCHF) The impact of the collaborative research within CCHF on the mechanistic understanding of this chemistry and its application to the synthesis of natural products and pharmaceutical targets will also be described. (CCHF website: [http://www.nsf-cchf.com/](http://www.nsf-cchf.com/))