

Concepts and Catalysts for Enantioselective Reactions of C-C

Multiple Bonds

F. Dean Toste

*Department of Chemistry, University of California-Berkeley, Berkeley,
California, 94611-1460, USA
E-mail: fdtoste@berkeley.edu*

This lecture will emphasize a reactivity driven approach to development of electrophilic catalysts for addition, rearrangement and coupling reactions of C-C multiple bonds. More specifically, the application of cationic gold(I) complexes, chiral anions and chiral acids in enantioselective transformations initiated by π -activation will be discussed. Particular attention will be devoted to the mechanistic hypotheses that form the basis for catalyst discovery and the development of new reactions.