

## Enantioselective Synthesis of Heterocycles from Carbon-Carbon Multiple Bonds

F. Dean Toste

*University of California, Berkeley, Berkeley, CA, USA*

This lecture will emphasize a reactivity driven approach to development of electrophilic catalysts for addition, rearrangement, cycloaddition and coupling reactions of C-C multiple bonds. More specifically, the application of cationic gold(I) complexes, chiral counterions and chiral acids in enantioselective transformations initiated by  $\pi$ -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.

