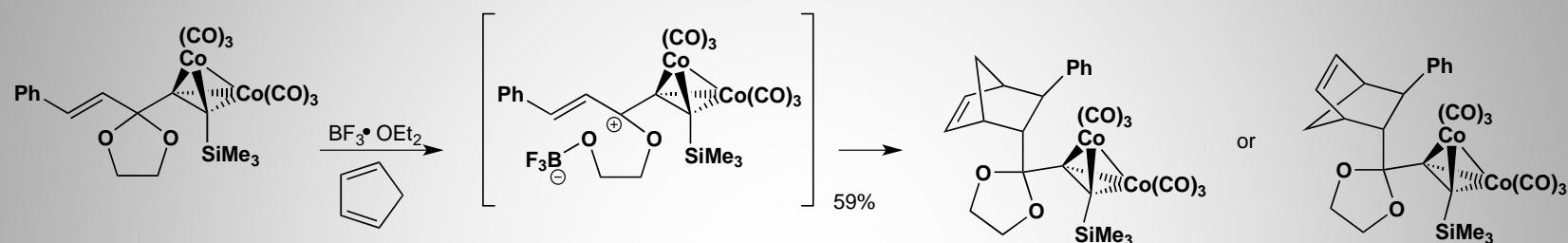


Expanding the Scope of the Diels-Alder Reaction: Development of Cationic Dienophiles Stabilized by Cobalt-Complexed Alkynes

Kevin M. Shea, Department of Chemistry, Smith College, Northampton, MA



Diels-Alder reactions of cationic dienophiles stabilized by cobalt-complexed alkynes show greatly enhanced reactivity versus the corresponding substrates lacking cobalt complexation. Studies are currently underway to determine the regio- and stereoselectivity of these novel dienophiles. Upon completion of these studies, we plan to expand our investigations to dienophiles that will enable [4+3] cycloadditions and tandem reactions incorporating Diels-Alder and Pauson-Khand reactions.

