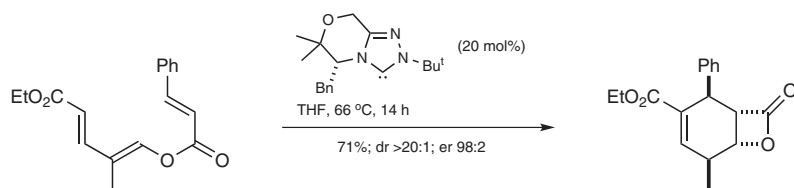


2.8 Recent Advances in N-Heterocyclic Carbene Organocatalysis*A. T. Davies and A. D. Smith*

In recent years, organocatalysis has seen a rapid rise in popularity and this has led to a subsequent increase in the research output of the area, with organocatalysis by N-heterocyclic carbenes (NHCs) playing a significant role. Beginning with the benzoin condensation, through the work of Breslow and others to modern, asymmetric protocols, NHC organocatalysis has a rich history, which has been covered in many reviews. The focus of this chapter is on recent advances within the area of NHC organocatalysis, offering a brief historical perspective and highlighting what the authors believe to be some of the key advances made within recent times, both in terms of novel processes and significant advancements on previously documented reactions.



Keywords: organocatalysis • N-heterocyclic carbenes • azolium enolates • acyl azoliums • acyl anions • Breslow intermediate