

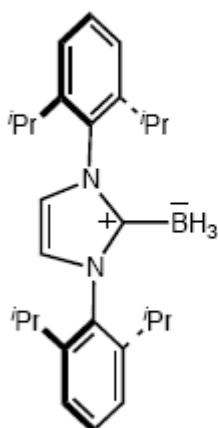
Radical, Ionic and Organometallic Reactions of *N*-Heterocyclic Carbene Boranes

Dennis P. Curran

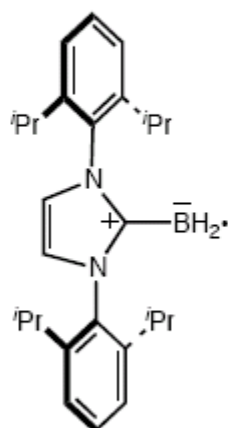
Department of Chemistry, University of Pittsburgh, 219 Parkman Avenue, Pittsburgh, Pennsylvania 15260, USA
E-mail: curran@pitt.edu

Boranes are common Lewis acids and *N*-heterocyclic carbenes (NHC's) are popular Lewis bases, so it is surprising that their complexes—*N*-heterocyclic carbene boranes—were little known until very recently. An overview of the chemistry of *N*-heterocyclic carbene boranes will be provided. They are proving to be interesting reagents for radical, ionic and organometallic reactions. Such reactions occur through the intermediacy of new classes of reactive intermediates including boryl radicals, borenium ions, boryl anions and even borylenes (boron analogs of carbenes).

NHC-borane



NHC-boryl radical



NHC-boryl anion

