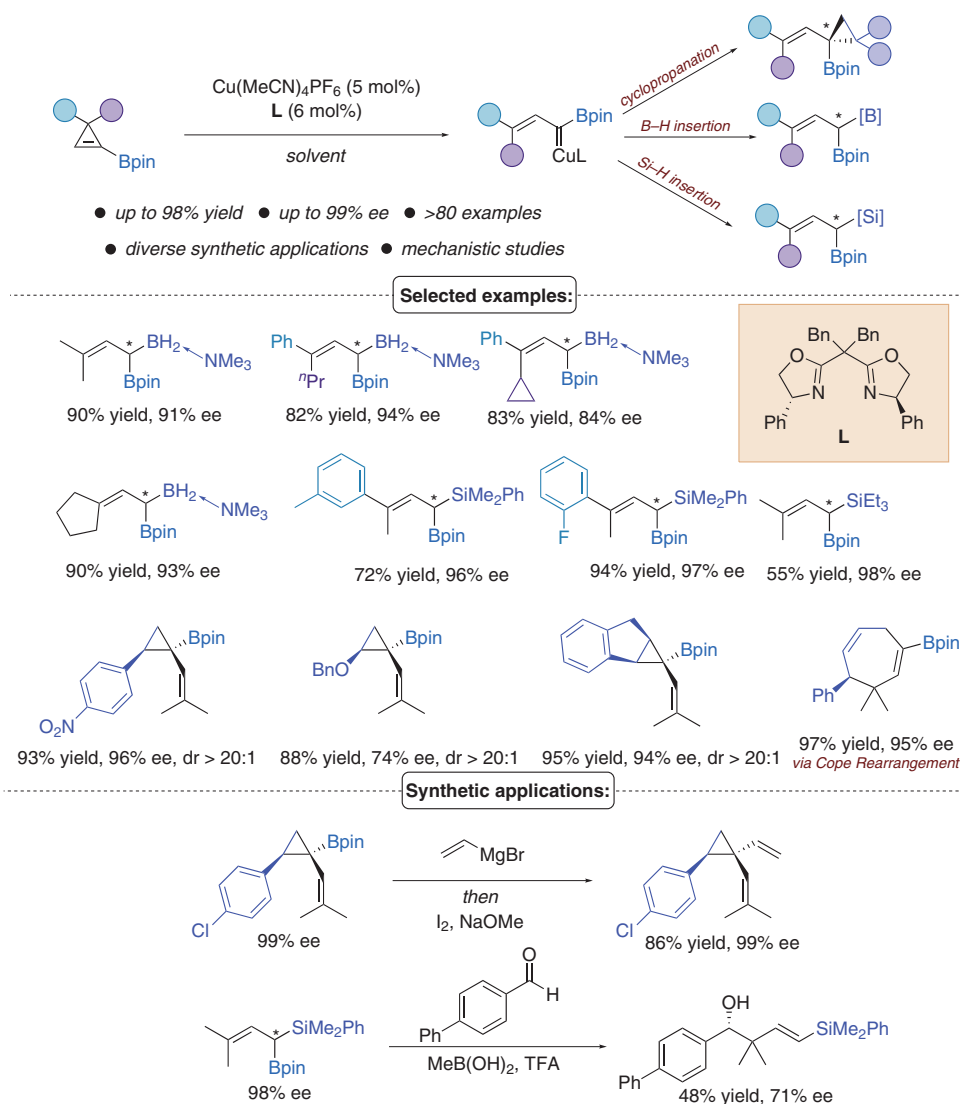


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Enantioselective α -Boryl Carbene Transformations

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Enantioselective Synthesis of Organoborons Enabled by Cyclopropene Ring Opening



Significance: Zhu and coworkers report an enantioselective synthesis of organoboron compounds via the α -boryl carbene. This work expands on the scarcely used α -boryl carbene intermediate in a wide range of applications.

Comment: While investigating the mechanism, KIE studies revealed that the rate-determining step was likely the cyclopropene ring opening. Interestingly, it is suggested that the α -boryl carbene is likely a donor-type carbene when compared to the known α -ester and hydrogen carbenes.

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