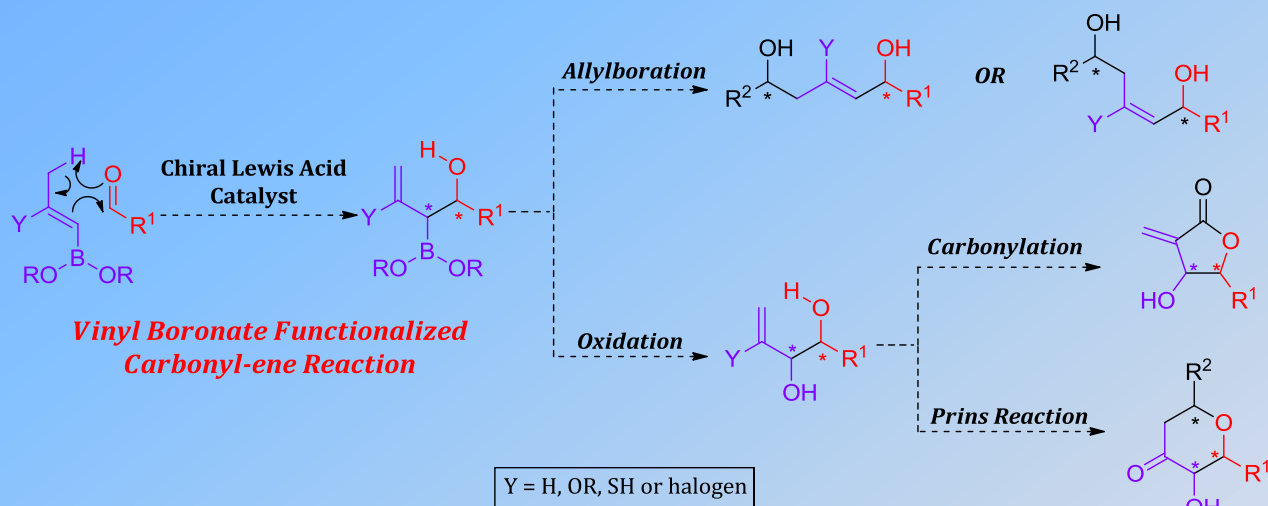


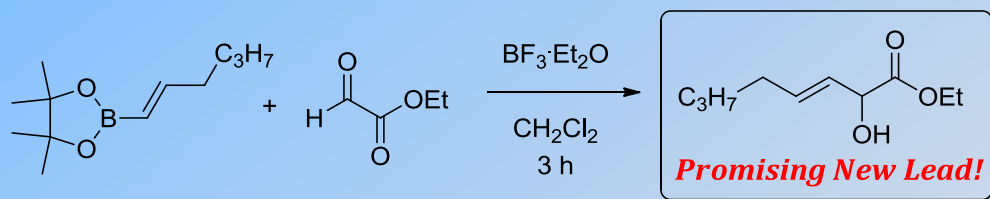
# Reactivity of Vinyl Boronates in Enantioselective Ene and Hetero-Ene Reactions

Glenn M. Sammis, Department of Chemistry, The University of British Columbia  
Vancouver, B.C., Canada, V6T 1Z1

**Hetero-ene Reactions:** We have undertaken a study to examine intermolecular hetero-ene reactions with vinyl boronates. The boronate-substituted ene products are highly versatile and can be utilized in the synthesis of a diverse set of stereochemically complex building blocks that are ubiquitous in bioactive complex natural products



Successful optimization of literature procedures allowed for reliable syntheses of vinyl boronate precursors, an unexpected addition product using a Lewis acid at room temperature was observed. **To the best of our knowledge, this is the first Lewis acid mediated addition reaction to a glyoxylate.** Investigations are currently underway to reveal the full scope of this novel reaction.



Further investigations in the reactivity of vinyl boronates in hetero-ene reactions will focus on strategies in which the ene and enophile components are tethered through a boronate ester.