Stereoselective Synthesis of syn-β-Hydroxy-α-vinyl Carboxylate Esters

**Significance:** The authors report a novel enantio- and diastereoselective synthesis of syn-β-hydroxy-α-vinyl carboxylate esters. The reaction proceeds via a reductive aldol reaction of an ethyl allene carboxylate with 10-TMS-9-borabicyclo[3.3.2]-decane.

**Comment:** The exclusive formation of syn-β-hydroxy-α-vinyl carboxylate esters can be explained by an aldol reaction via a chair-like transition state. DFT calculations suggest that the allene hydroboration involves a 1,4-reduction of the ethyl allene carboxylate with 10-TMS-9-borabicyclo[3.3.2]-decane.