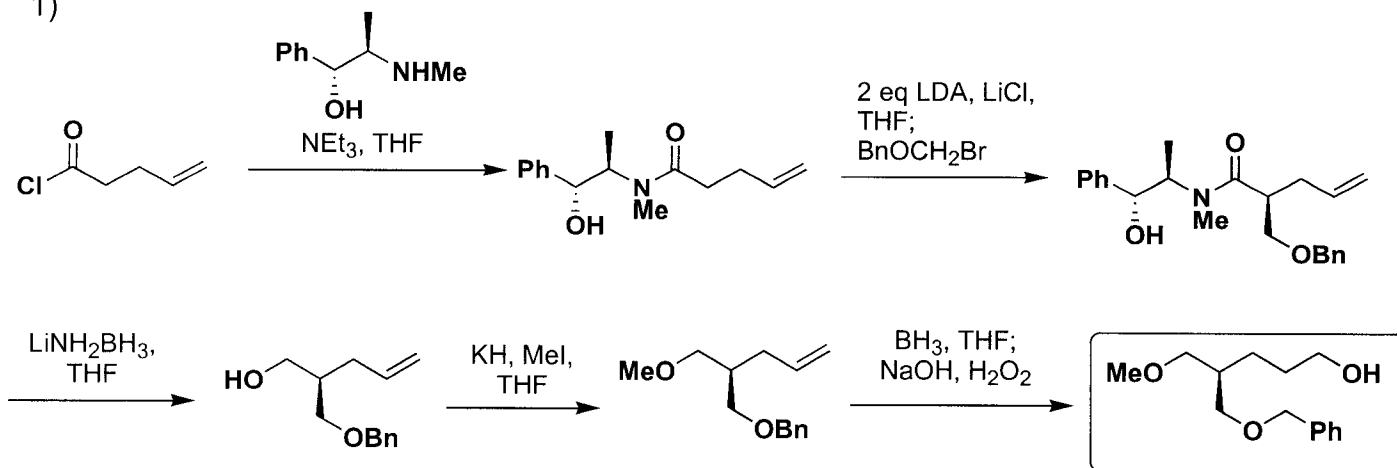


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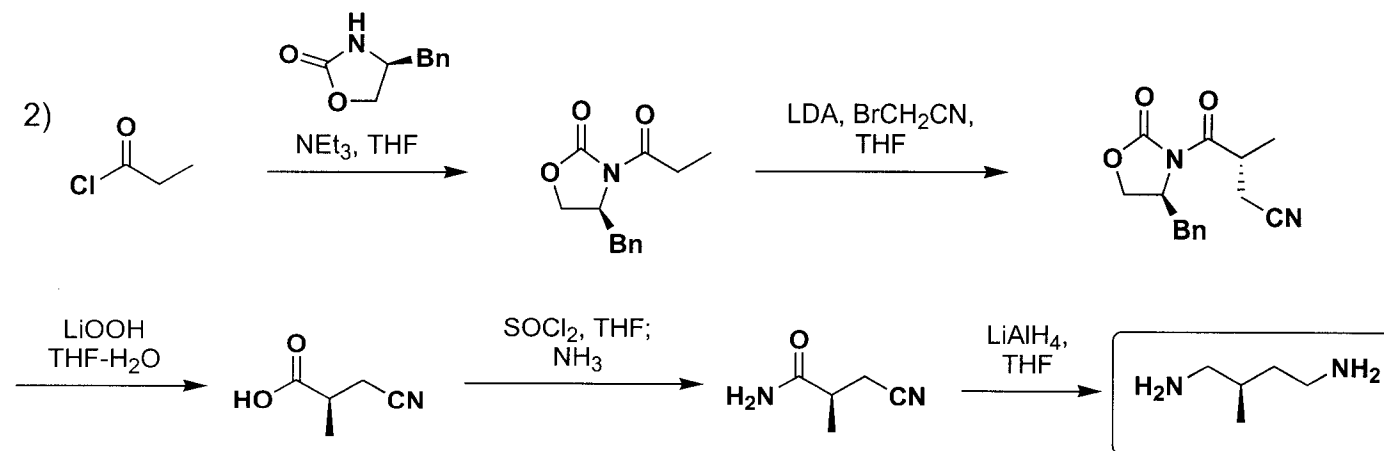
March 30, 2005
Wesley Austin

Problem Set 3 Solutions
Stereocontrolled Alkylation and Related Strategies

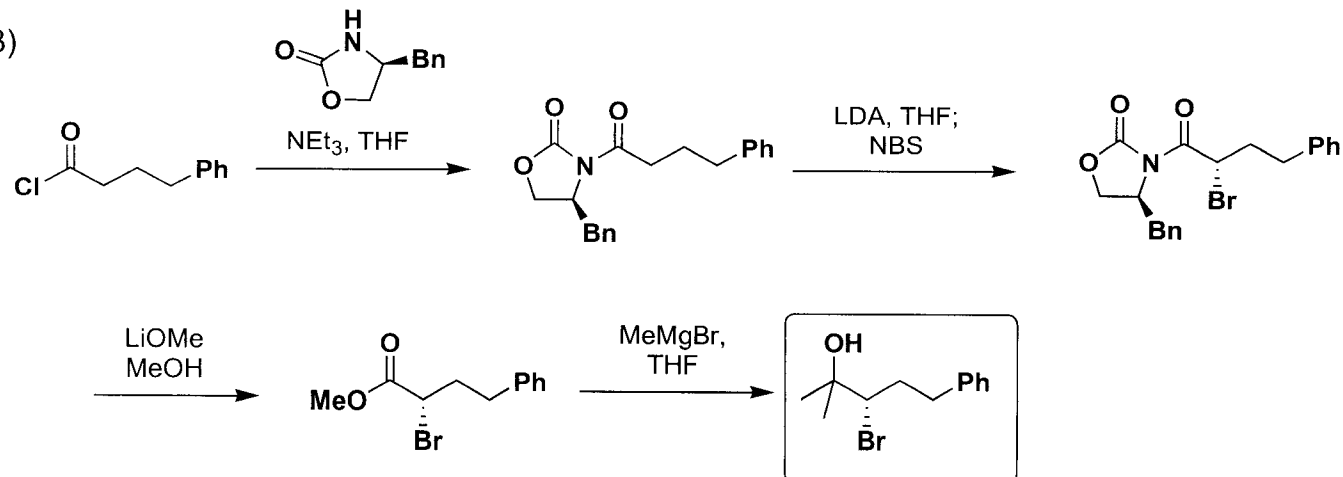
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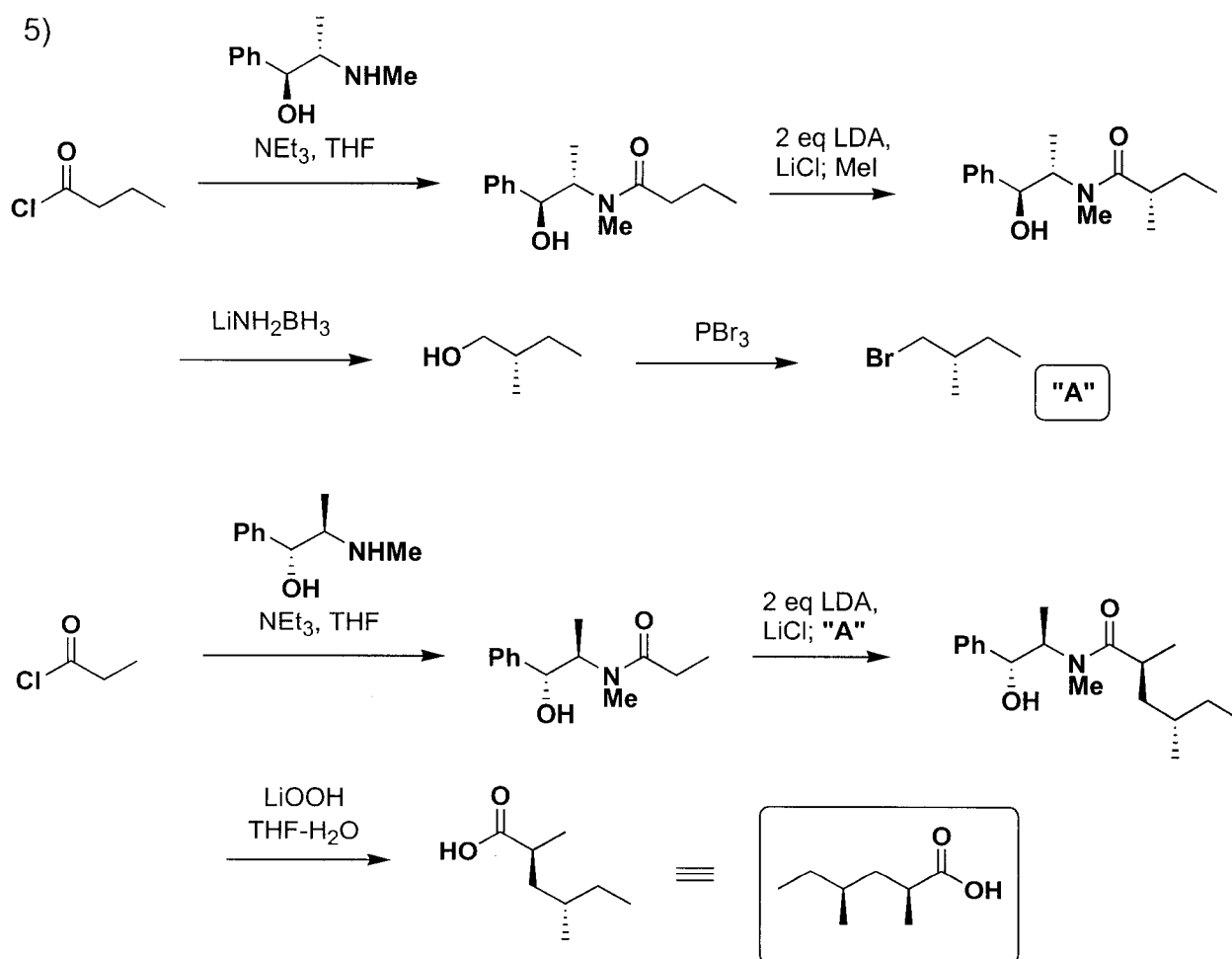
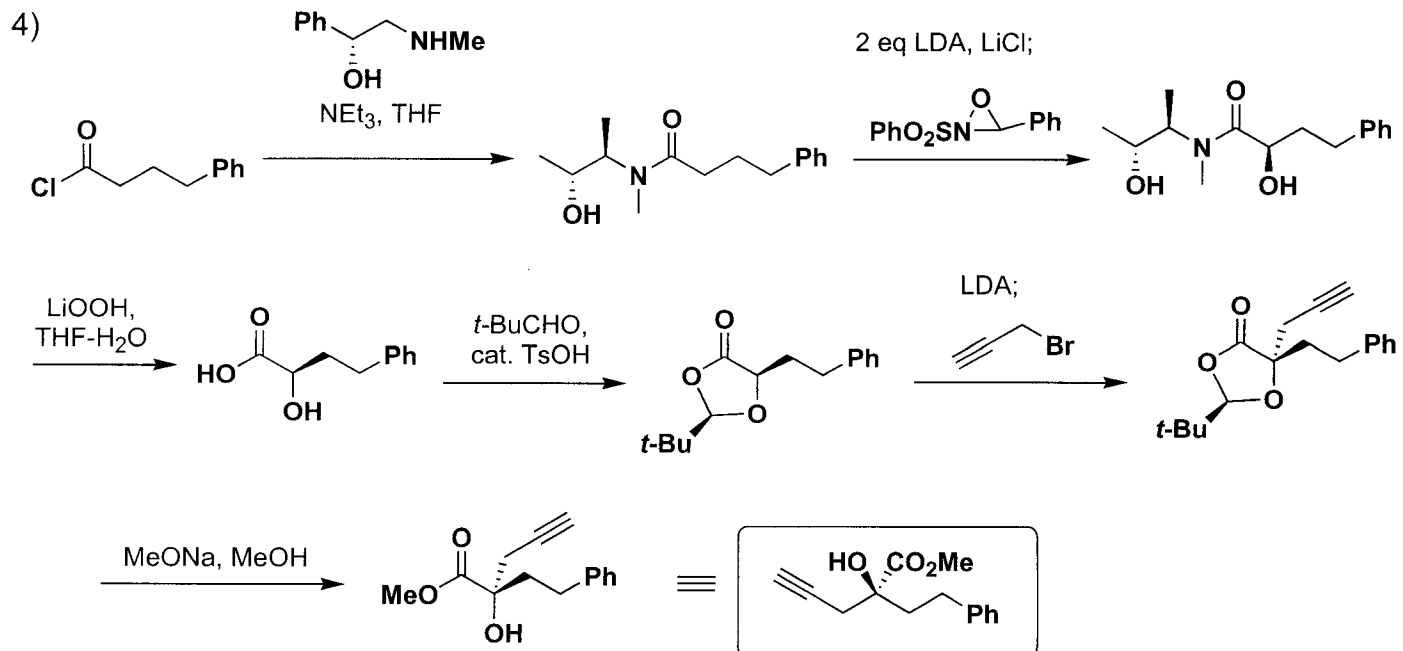


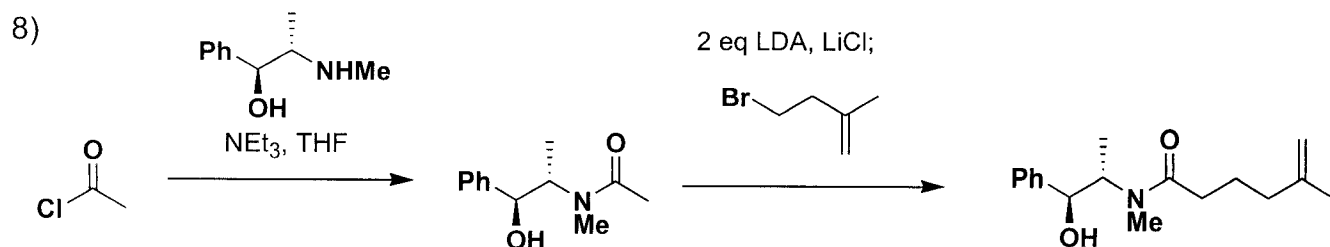
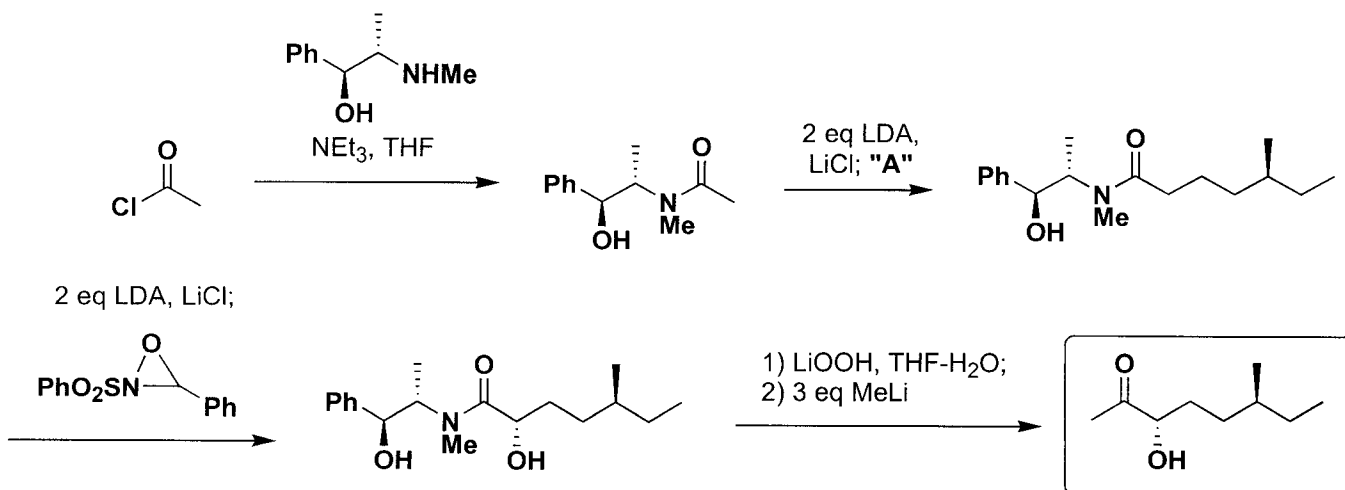
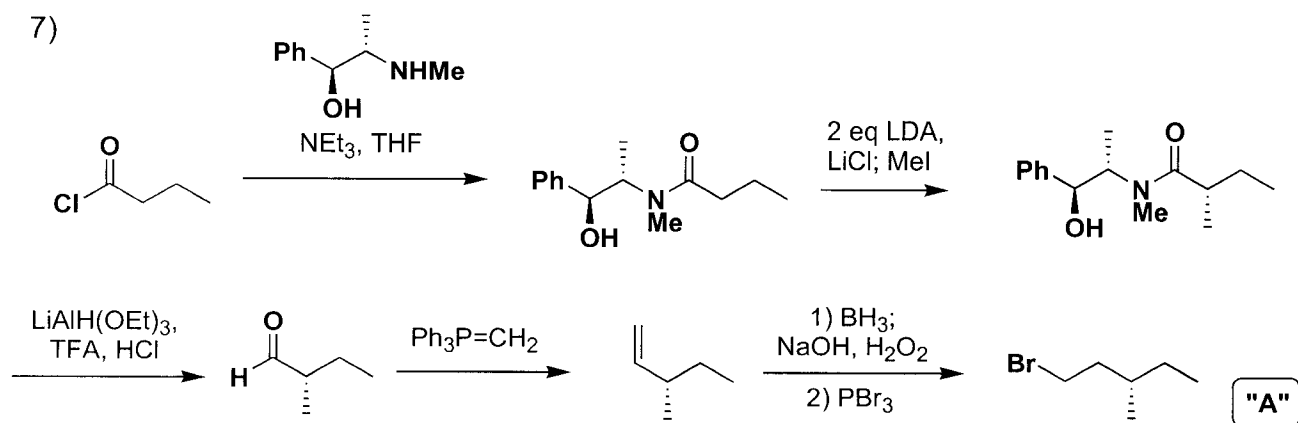
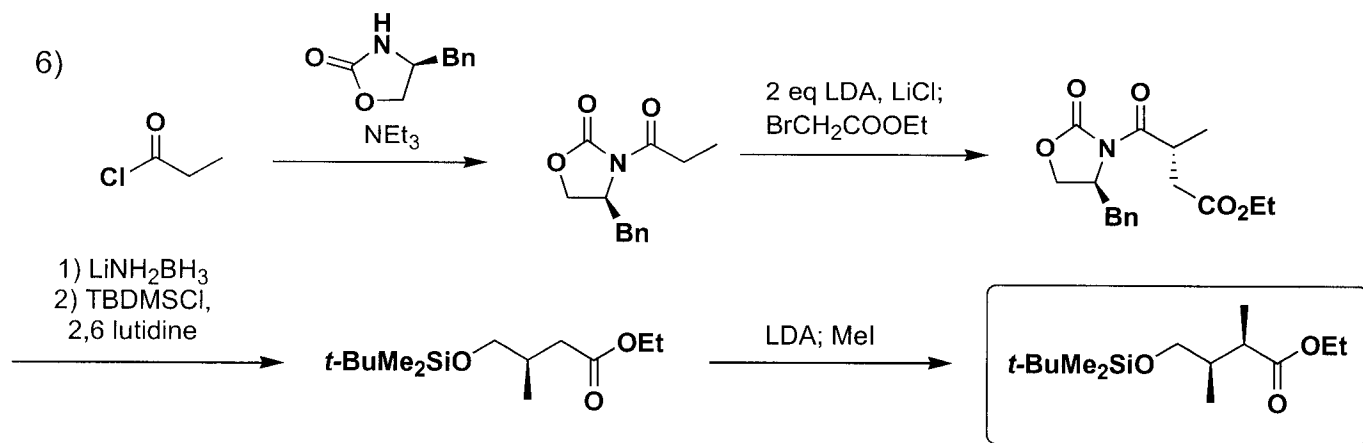
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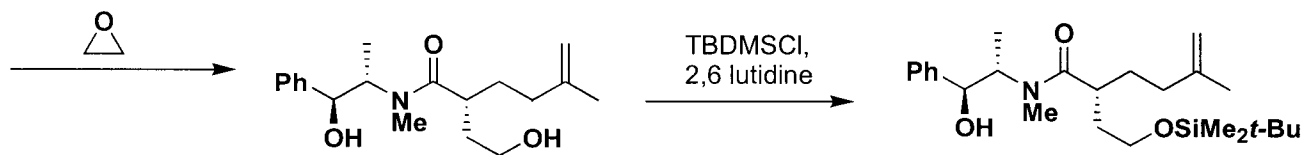
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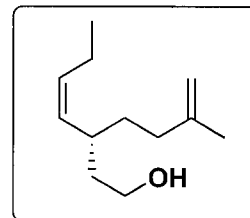
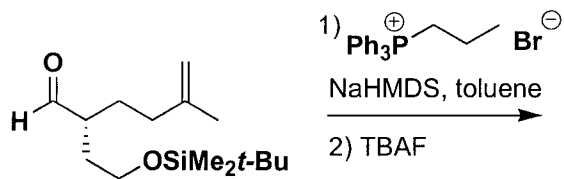




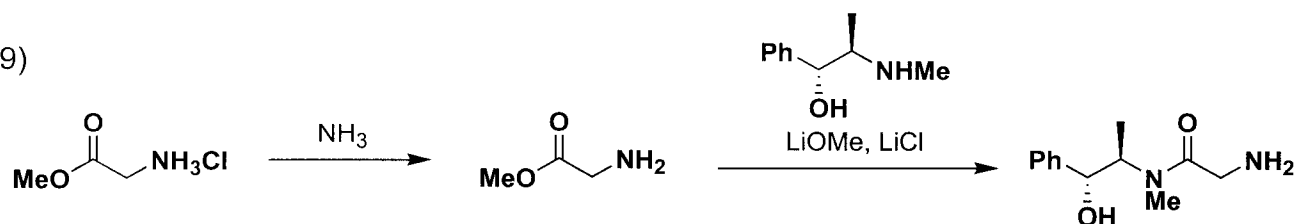
2 eq LDA, LiCl;



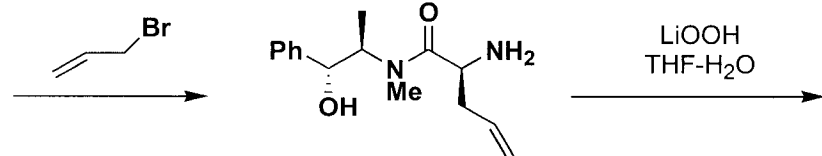
LiAl(OEt)₃;
TFA, HCl



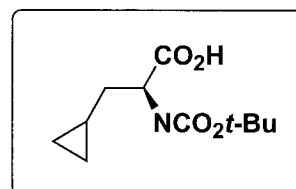
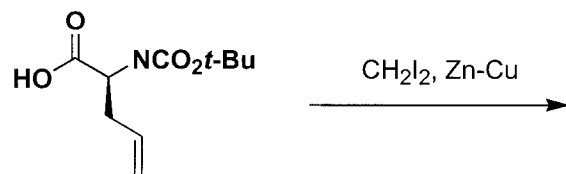
9)



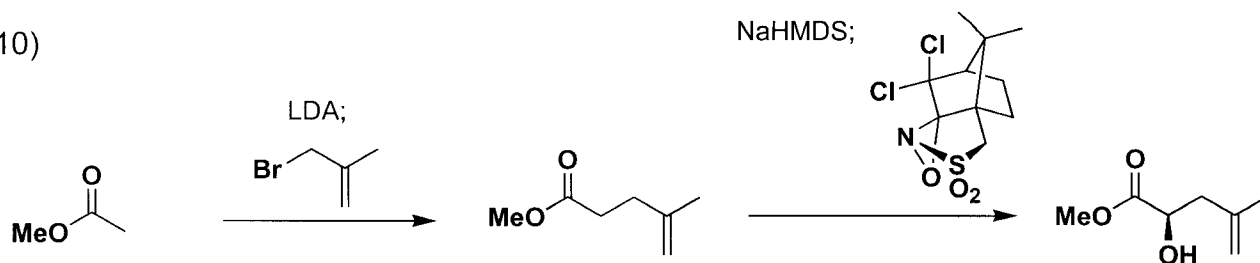
2 eq LDA, LiCl;



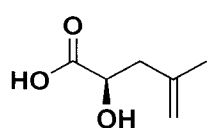
ClCO₂*t*-Bu,
NEt₃



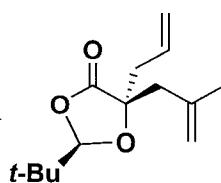
10)



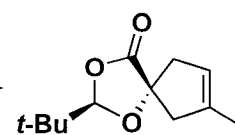
LiOH
H₂O

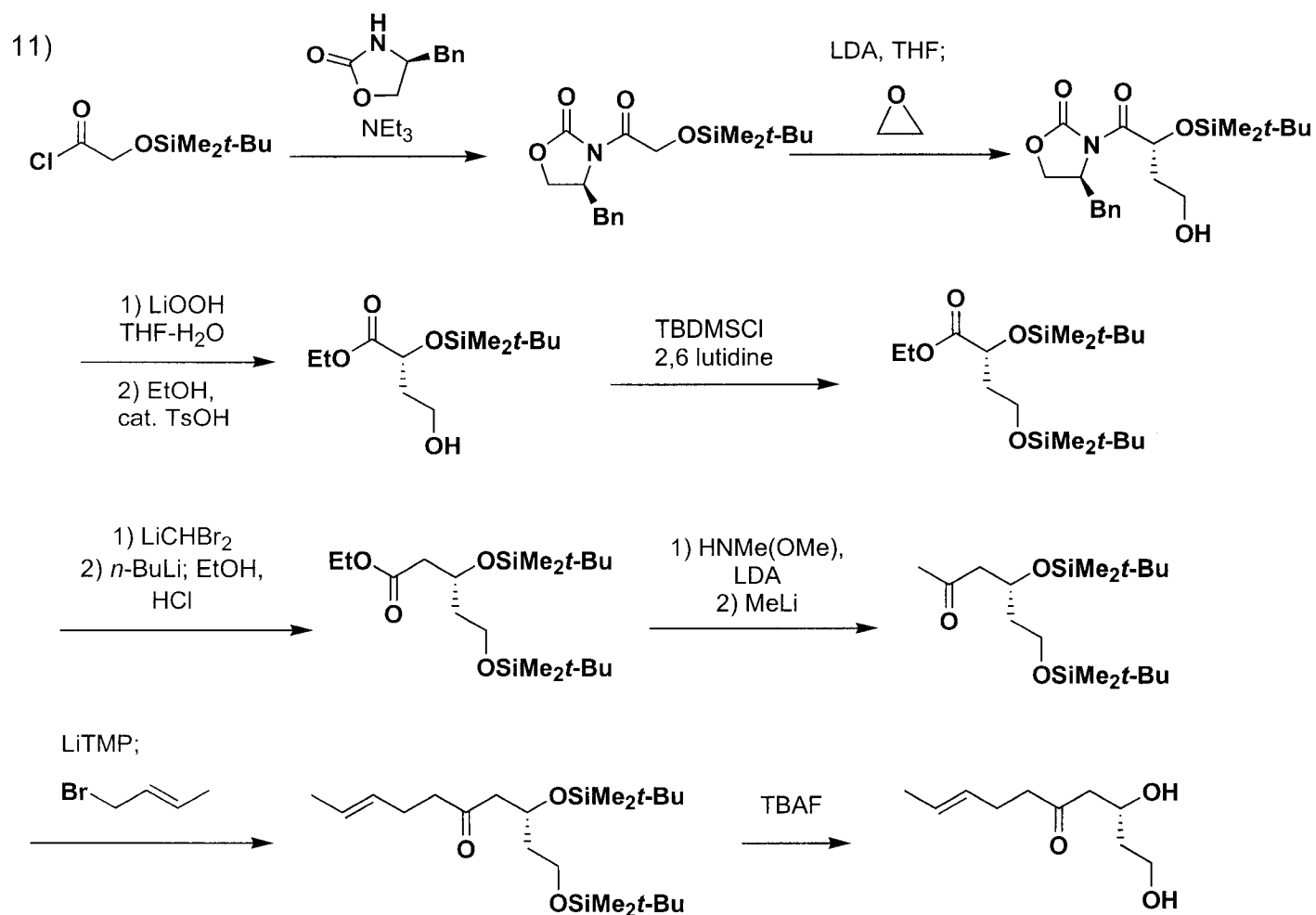
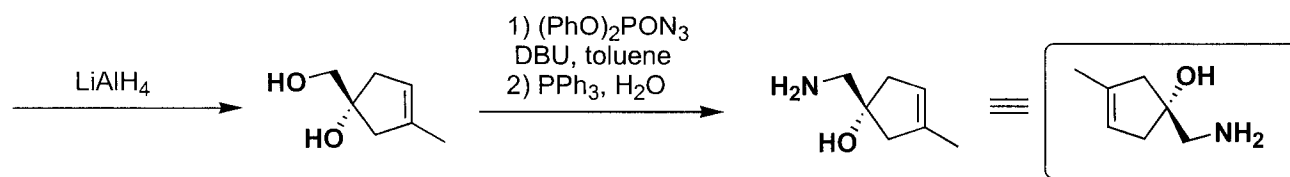


1) *t*-BuCHO,
cat TsOH
2) LDA;
allyl bromide

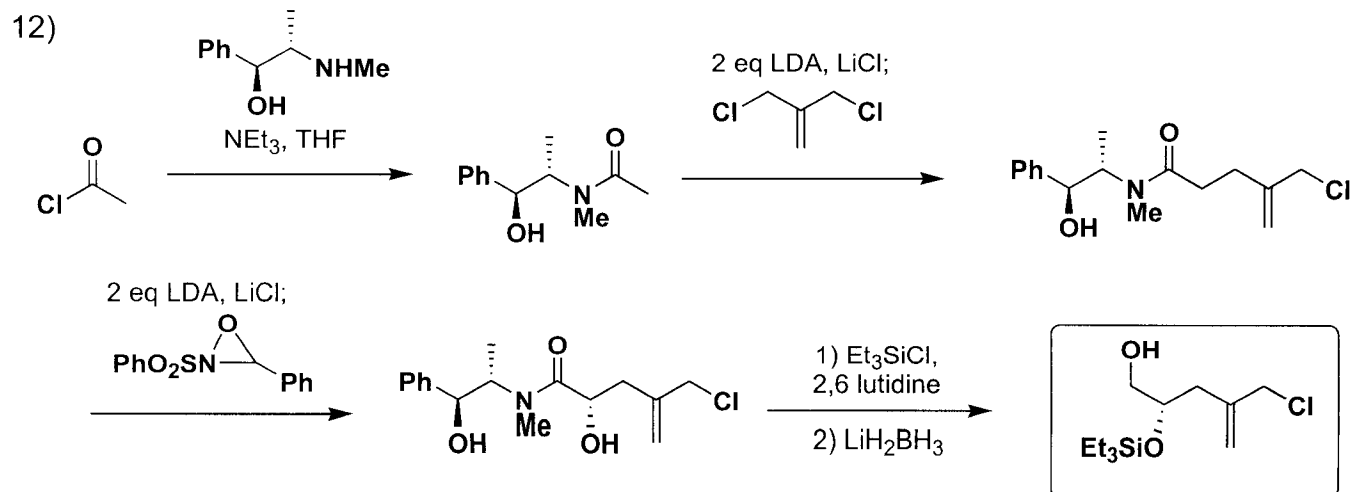


Grubb's 2nd
generation catalyst





For an alternate route using SAMP-hydrazone, see Enders *European J. Org. Chem.* **1999**, 751.



See also Crimmins *Org. Lett.* **2001**, 3, 949.