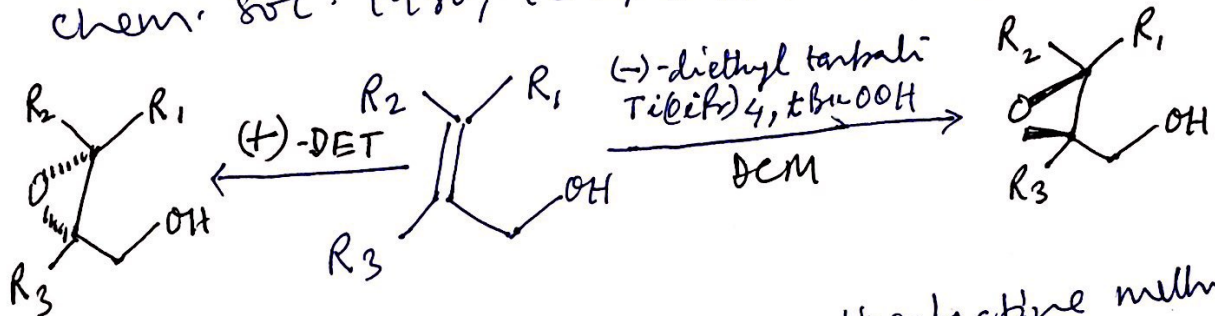
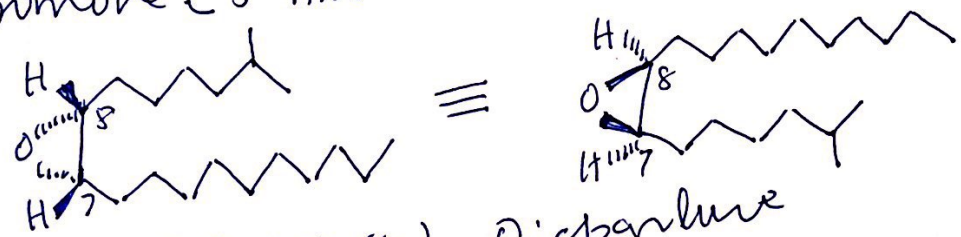


# Efficient Synthesis of (+)-Disparlure by asymmetric epoxidation of allyl alcohol derivatives

There are many insect pheromones which contain chiral epoxide ring. K. Barry Sharpless and Tsutomu Katsuki have developed highly enantioselective method for epoxidizing allylic alcohols (J. Am. Chem. Soc. 1980, 102, 5974-5976).

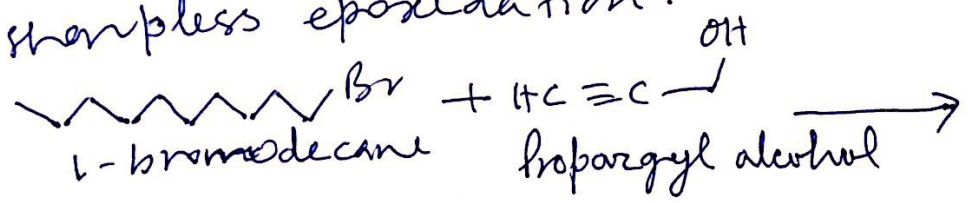


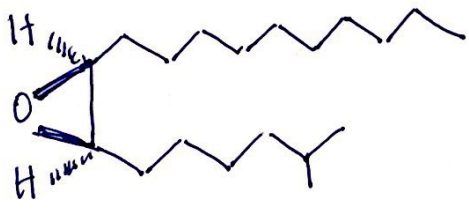
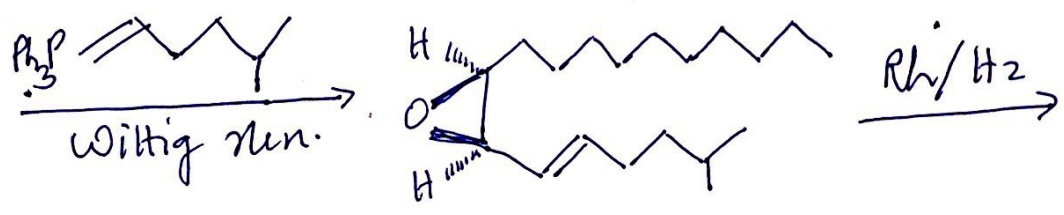
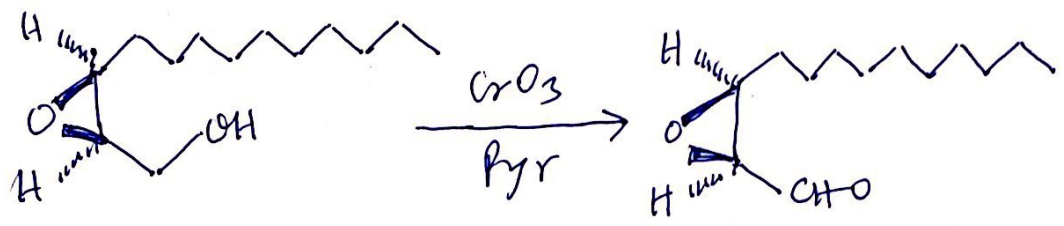
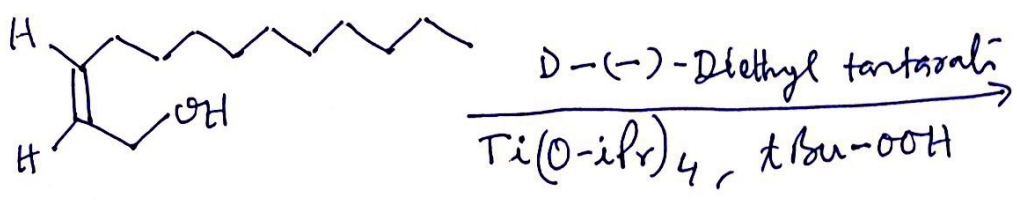
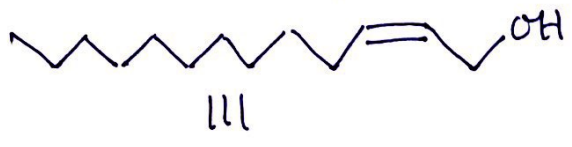
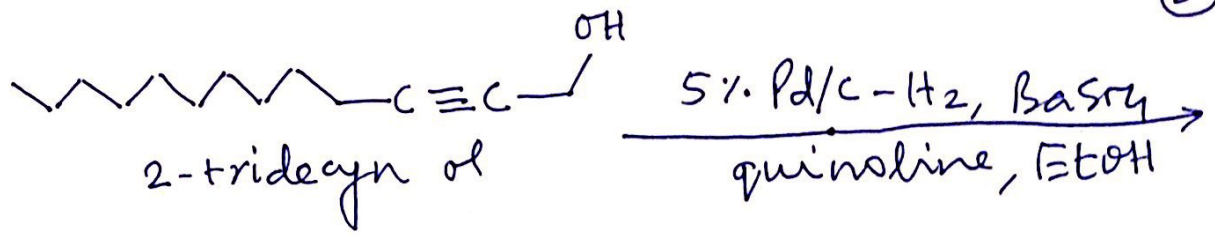
After discovering highly enantioselective method of epoxidation sharpless demonstrated chiral synthesis of many natural products containing epoxide ring, including (+)-disparlure insect pheromone (J. Am. Chem. Soc. 1981, 103, 464-65).



(7R, 8S)-(+)-Disparlure

Chiral Synthesis of (+)-Disparlure using Sharpless epoxidation.





(7R, 8S)-(+)-Disparlure