

Problem 89, Chemistry 301X - 2006

Here are three possible transformations of vinylcyclohexane into alcohols. Your jobs are to give structures for **X**, **Y**, and **Z** and to find the proper reagents with which to carry out the transformations. You may pick from the following list. You must use each once, and you may use a reagent more than once. Mechanisms are not necessary. Be careful - if you intend to use a sequence of reactions

List: H_3O^+ , H_2O , B_2H_6 , KOH , NaBH_4 , HOOH , $\text{Hg}(\text{OAc})_2$

