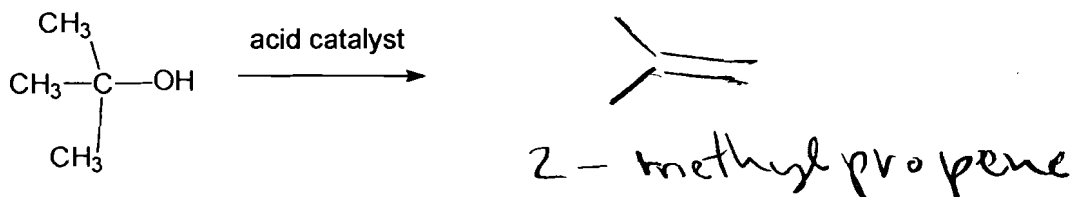


1. Show a name and structural formula for the alkene you obtain if you dehydrate *tert*-butanol! (4 pts)



2. Circle all compounds that you expected to be in your distillate during last week's experiment (preparation of cyclohexene from cyclohexanol). (4 pts)

phosphoric acid

water

cyclohexene

cyclohexanol

3. The use of hydrochloric acid as catalyst for last week's reaction would result in poor yields of cyclohexene. There are two reasons for this. State one of them! (2 pts)

1) too volatile

2) can lead to substitution products

4. Circle all correct statements. They refer to the preparation of cyclohexene from cyclohexanol. A "I could have prepared cyclohexene by treating hexene with a strong acid" **B** "I could have used sulfuric acid instead of phosphoric acid and obtained the same product" C "I could have used cyclopentanol instead of cyclohexanol and obtained the same product" D "My reaction consumed 2 moles of phosphoric acid for each mole of product prepared" E "The cyclohexene I prepared is a mixture of the *cis* and *trans* isomers" (5 pts).