

Haloalkanes, Alcohols and Amines. Problem Sheet 2

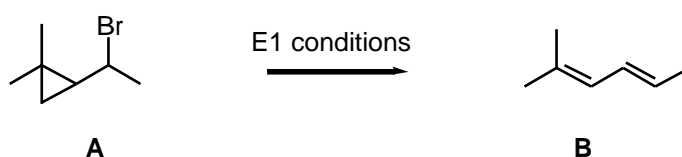
(Elimination)

1. Arrange these compounds in order of increasing reactivity towards dehydrohalogenation by a concentrated solution of strong base (*i.e.*, E2 conditions) and give the major product of each elimination:

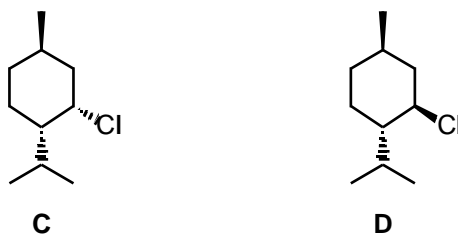
1-bromo-3-methylbutane, 2-bromo-2-methylbutane, 3-bromo-2-methylbutane

2. For the same compounds in Q1, arrange them in order of increasing reactivity under E1 elimination conditions. Give the factors that influence this.

3. In the E1 elimination of **A**, explain how the rearranged product **B** might arise.



4. Both menthyl chlorides **C** and **D** undergo E2 elimination when treated with base. For one of them the reaction yields two alkenes; for the other only one alkene can be produced. Explain.



5. Account for the contrasting results below when **E** and **F** are exposed to base:

