



MEGA LECTURE

Topic 8 EXERCISE 2 – addition reactions of alkenes

1. Write equations, using displayed formulae, to show the conversion of but-1-ene into:
 - a) polybut-1-ene
 - b) butan-2-ol
 - c) 2-bromobutane
 - d) 1,2-dibromobutane

2.
 - a) Explain why alkenes tend to react with electrophiles.
 - b) Show the mechanisms for the following reactions:
 - i) ethene with bromine
 - ii) but-2-ene with hydrogen bromide
 - iii) ethene with concentrated sulphuric acid
 - c) Explain how bromine can behave as an electrophile.

3. The following reactions give two products in unequal amounts. In each case, identify the two products, state which is the major product, explain why it is the major product and give the mechanism for its formation.
 - a) but-1-ene with HBr
 - b) methylpropene with concentrated sulphuric acid

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