

HL Questions on Electrophilic addition reactions

1. Bromine is a non-polar molecule.

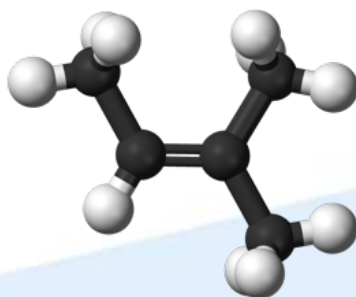
- Explain how it is able to act as an electrophile when it adds to ethene.
- Name the product when bromine is added to ethene in the absence of water.
- Explain why the major product obtained is 2-bromethanol if bromine water is added to ethene.

2. Describe the mechanism for the addition of hydrogen bromide to prop-1-ene.

Your answer should include the use of curly arrows to show the movement of electron pairs and give the structure and IUPAC name for the major product formed.

3. Deduce the structure and IUPAC name of the major product formed when iodine chloride, I-Cl, is added to but-1-ene.

4.



2-methylbut-2-ene

Draw the structure of the intermediate carbocation formed when 2-methylbut-2-ene reacts with hydrogen chloride and state whether the carbocation is primary, secondary or tertiary.