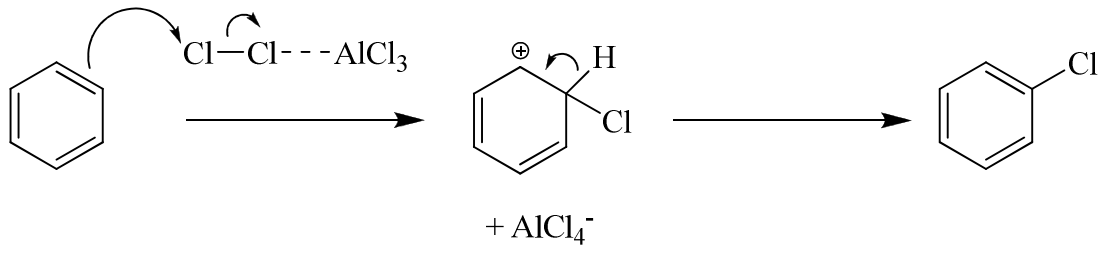
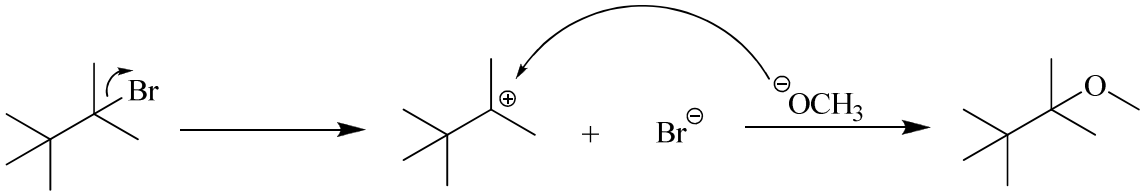
Marks 5

- Complete the following mechanism by adding curly arrows to illustrate the bonding changes that take place.

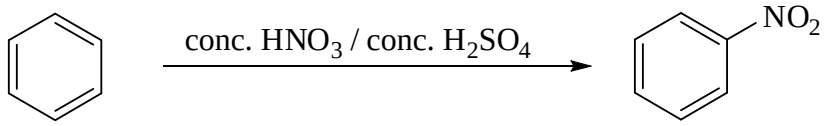




THE REMAINDER OF THIS PAGE IS FOR ROUGH WORKING ONLY.

Marks 2

- A mixture of concentrated nitric and sulfuric acids generates the nitronium ion, NO_2^+. Benzene will react with such a mixture to give nitrobenzene.



What 3-part name is given to the mechanism of this nitration reaction?

electrophilic aromatic substitution

- Draw the constitutional formula of the major organic product formed in each of the following reactions.

Marks 6