Reactions of haloalkanes

**2019**

The conversion of bromoethane to chloroethane requires two steps, with alcohol as an intermediate product.

(i) Use this information to complete the reaction scheme below by drawing the structural formulae of each organic molecule and naming the intermediate alcohol and the reagents required.



(ii) Elaborate on the reaction scheme for this conversion.

In your answer, you should identify:

• any conditions needed for each step of the conversion

• the type of reaction occurring for each step of the conversion.

**2018**

Reacting 2-chloropropane with potassium hydroxide, KOH, can produce different products due to

different reactions occurring.

(i) Elaborate on the reactions of 2-chloropropane with potassium hydroxide, KOH.

In your answer you should:

• identify the conditions of the reagent KOH

• explain the types of reaction that occur with the reagent in each condition

• draw structural formulae of the organic products.

**2017**

A chemistry class was learning about the chemistry of haloalkanes. They were researching the effect of heat

and concentrated potassium hydroxide in ethanol, conc. KOH(alc), on the haloalkane 2-chloropropane.

(i) Draw the organic product formed in the following reaction.



(ii) Explain how the functional group of the organic product drawn above could be identified.

**2014**

1-chlorohexane, CH3CH2CH2CH2CH2CH2Cl, reacts with conc NH3 (alc)

(i) State whether any conditions are required

(ii) Describe the type of reaction occurring and explain why it is classified as that type of reaction

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