K Education Centre

GCSE Chemistry - Edexcel

Rates Of reaction

Assignment Questions

Year 2023

Rates of Reaction

Q1: Describe including diagrams, how you will investigate the correlation between temperature and rate of reaction between magnesium and hydrochloric acid.

Q2: Explain why acid reacts faster with calcium carbonate granules faster than calcium carbonate ribbon.

Q3: What is difference between endothermic and exothermic energy changes?

Q4: Using idea about collisions and energy explain how the rate of reaction can be increased by change in concentration, temperature, and size of pieces of solid reactant.

Q5: The reaction between chlorine and hydrogen produces hydrogen chloride gas. For this reaction.

a) Write a balanced chemical equation with state symbols.
b) Explain how decreasing the gas pressure affects the rate.
c) Explain how and why increasing the temperature affects the rate.

Q7: What are catalysts? Along with reaction profile, explain in terms of activation energy how catalysts work.

Q8: Compare the differences between chemical catalysts and biological catalysts.

Q9: Draw the reaction profiles of exothermic and endothermic energy changes.

Q10: Diagram shows the reaction of propene, C_3H_6, with water.

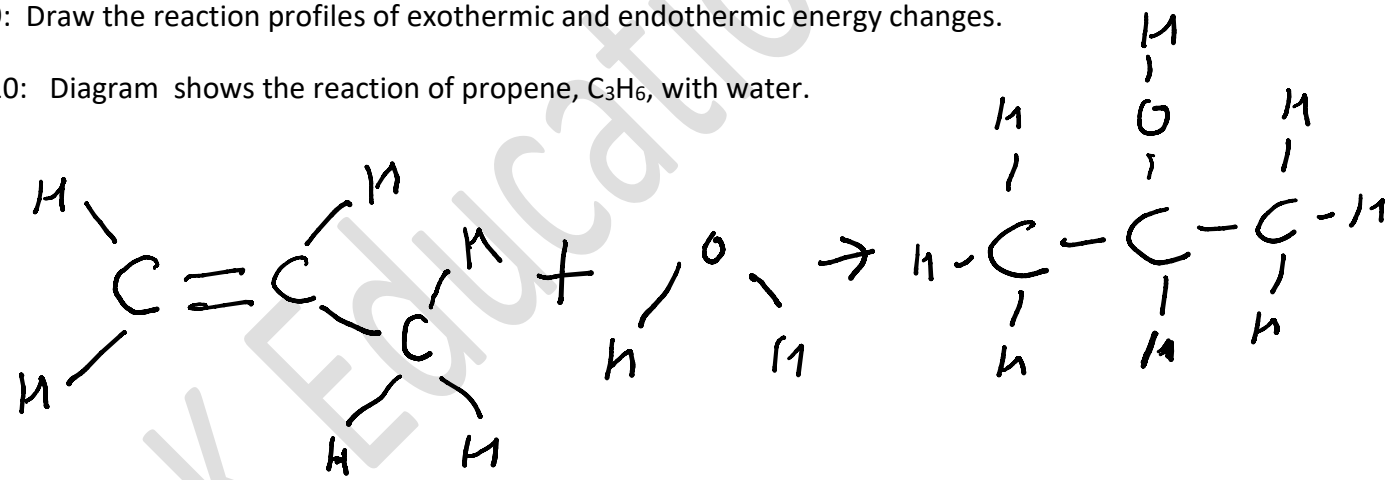

Table shows some bond energies:

Bond	Bond energy in $KJmol^{-1}$
C – C	347
C – O	358
C – H	413
O – H	464
C = C	612

Use bond energies to calculate the energy change of the reaction.