

Edexcel Chemistry IGCSE

3.16 - Rates of Reaction

Investigate the effect of different solids on the catalytic decomposition of hydrogen peroxide solution

Flashcards

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What is a catalyst?



What is a catalyst?

A substance which increases the rate of a reaction without being chemically changed at the end



How does a catalyst increase the rate of a reaction?



How does a catalyst increase the rate of a reaction?

Provides an alternative pathway which has a lower activation energy.

More collisions will exceed activation energy so more frequent successful collisions.



State 2 things that should be measured when investigating the rate of hydrogen peroxide decomposition



State 2 things that should be measured when investigating the rate of hydrogen peroxide decomposition

Volume of gas produced

Time



What apparatus is required to measure the rate of hydrogen peroxide decomposition with different catalysts?



What apparatus is required to measure the rate of hydrogen peroxide decomposition with different catalysts?

- Conical flask
- Water trough
- Measuring cylinder
- Capillary tube
- Bung



Describe an experiment to measure the rate of hydrogen peroxide decomposition using different catalysts



Describe an experiment to measure the rate of hydrogen peroxide decomposition using different catalysts

- Add H_2O_2 to a conical flask and connect this to an upturned measuring cylinder filled with water using a capillary tube
- Add catalyst to the conical flask and close the bung quickly
- Measure the volume of gas produced over a set time
- Repeat with different catalysts



When measuring the rate of hydrogen peroxide decomposition, why is it important that the bung is connected as soon as the catalyst is added?



When measuring the rate of hydrogen peroxide decomposition, why is it important that the bung is connected as soon as the catalyst is added?

To ensure minimal gas is lost



Write an equation for the decomposition
of hydrogen peroxide



Write an equation for the decomposition of hydrogen peroxide



Or



What catalyst is used to increase the rate of hydrogen peroxide decomposition?



What catalyst is used to increase the rate of hydrogen peroxide decomposition?

