

Decomposition of hydrogen peroxide demonstration

Education in Chemistry

November 2017

rsc.li/EiC617-catalysts-get-helping-hands

This demonstration accompanies the above article 'Catalysts get helping hands'.

Aim: Observe a series of chemical reactions catalysed by different substances to judge which is the best catalyst.

Starter:

What is a catalyst?

.....
.....

How do catalysts work?

.....
.....

From your teacher's initial demonstration of the reaction, bullet point some ideas for how we could judge which is the best catalyst.

Record your observations from the demonstration in the table below

	Name of catalyst	Catalyst type	Observations
1			
2			
3			
4			
5			

Follow up questions

Write a balanced symbol equation for the decomposition of hydrogen peroxide

.....

Explain why a foam is produced in this reaction

.....

.....

.....

Suggest why this demonstration does not truly show a catalyst is being used

.....

.....

Read the article '*Catalysts get helping hand*' and focus on the paragraphs with the subheading '*A bio future*' to answer the following questions.

What reasons does Roger Sheldon give for why enzymes are better catalysts than classic chemical catalysts?

.....
.....

Why is using enzymes not always easy?

.....
.....