Chem!stry
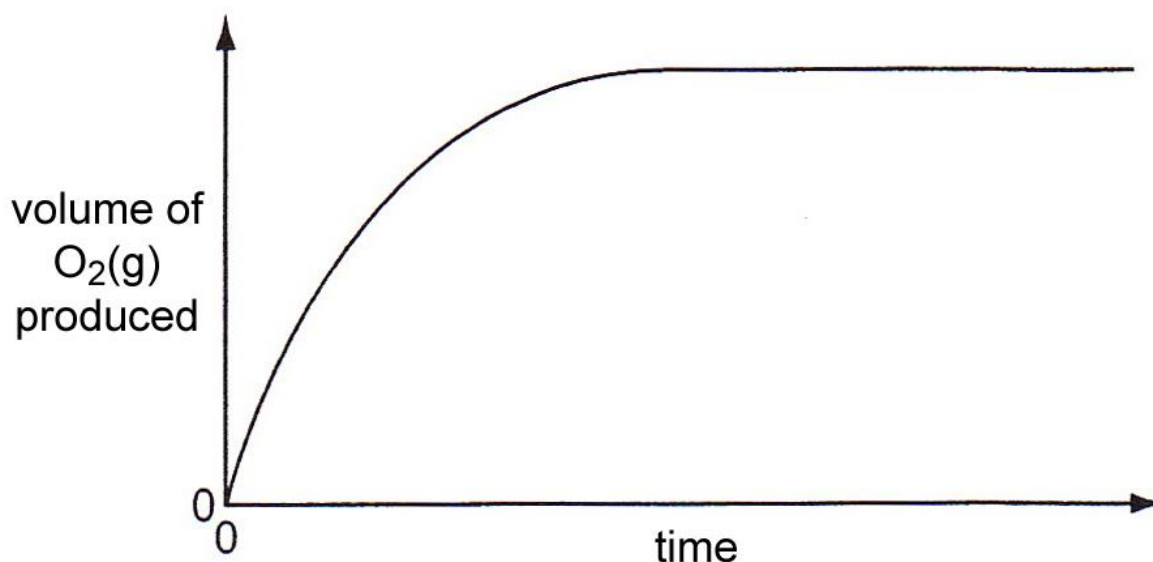
Rate of Reaction Graphs – Two

- Hydrogen peroxide decomposes into water and oxygen according to the following balanced chemical equation:

$$2H_2O_2(aq) \rightarrow 2H_2O(l) + O_2(g)$$
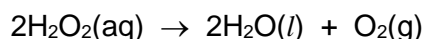
- The graph given below is for the decomposition of 20.0 cm^3 of 1.0 mol/dm^3 hydrogen peroxide at room temperature, without a catalyst.

1. On the axes given above, sketch the graph that would be obtained for the decomposition of 20.0 cm^3 of 1.0 mol/dm^3 hydrogen peroxide at 50.0 °C, without a catalyst. Label **A**.

2. On the axes given above, sketch the graph that would be obtained for the decomposition of 20.0 cm^3 of 1.0 mol/dm^3 hydrogen peroxide at 10.0 °C, without a catalyst. Label **B**.

3. On the axes given above, sketch the graph that would be obtained for the decomposition of 20.0 cm^3 of 1.0 mol/dm^3 hydrogen peroxide at room temperature, with a catalyst. Label **C**.

4. On the axes given above, sketch the graph that would be obtained for the decomposition of 10.0 cm^3 of 1.0 mol/dm^3 hydrogen peroxide at room temperature, without a catalyst. Label **D**.

5. On the axes given above, sketch the graph that would be obtained for the decomposition of 20.0 cm^3 of 0.5 mol/dm^3 hydrogen peroxide at room temperature, without a catalyst. Label **E**.

6. On the axes given above, sketch the graph that would be obtained for the decomposition of 7.50 cm^3 of 2.0 mol/dm^3 hydrogen peroxide at room temperature, without a catalyst. Label **F**.

• Scan the QR code below for the answers to this assignment.

http://www.chemist.sg/rate_of_reaction/rate_graphs_two_ans.pdf