

Expt - 1

1.1 Introduction

The purpose of this experiment is to study the effect of temperature on the rate of reaction between potassium dichromate and sulphuric acid.

1.2 Aim

To study the effect of temperature on the rate of reaction between potassium dichromate and sulphuric acid.

1.3 Theory

The rate of a chemical reaction is defined as the change in concentration of a reactant or product per unit time. The rate of reaction is affected by several factors such as temperature, concentration, surface area, and catalyst.

1.4 Procedure

1. Preparation of potassium dichromate solution: Weigh 10g of potassium dichromate and dissolve it in 100ml of distilled water in a 250ml beaker.

2. Preparation of sulphuric acid solution: Weigh 10ml of concentrated sulphuric acid and dilute it to 100ml with distilled water in a 250ml beaker.

3. Reaction: Mix the two solutions in a 250ml beaker and observe the color change. The color changes from orange to green.

1.5 Observation

The color of the solution changes from orange to green as the reaction proceeds. The rate of color change is faster at higher temperatures.

1.6 Conclusion

The rate of reaction between potassium dichromate and sulphuric acid increases with an increase in temperature.

