

Experiment 10-1: The Effect of Temperature on the Rate of a Chemical Reaction



The purpose of this experiment is to determine the effect of temperature on the rate of a chemical reaction. The reaction between hydrogen peroxide and potassium iodide will be used as an example.

The reaction between hydrogen peroxide and potassium iodide is an exothermic reaction. The rate of the reaction increases as the temperature increases.

The following procedure will be used to determine the effect of temperature on the rate of the reaction.

- 1. Prepare a solution of 10% hydrogen peroxide.
- 2. Prepare a solution of 10% potassium iodide.
- 3. Measure the volume of the hydrogen peroxide solution.
- 4. Measure the volume of the potassium iodide solution.
- 5. Mix the two solutions and measure the time it takes for the reaction to occur.
- 6. Repeat the experiment at different temperatures.

