

Experiment - 1

Date: 18/11/2023

Page No: 1

Signature: _____

Topic: _____

Subject: _____

Roll No: _____

AIM: To study the effect of temperature on the rate of reaction between potassium dichromate and oxalic acid.

Principle: Potassium dichromate is a strong oxidizing agent. It reacts with oxalic acid to form potassium sulfate, carbon dioxide, and water. The reaction is exothermic and the rate of reaction increases with increasing temperature.

Sl. No.	Temperature (°C)	Time taken (min)	Observation
1	25	10	Color changes from orange to green.
2	35	8	Color changes from orange to green.
3	45	6	Color changes from orange to green.
4	55	4	Color changes from orange to green.
5	65	3	Color changes from orange to green.

Conclusion: The rate of reaction between potassium dichromate and oxalic acid increases with increasing temperature. This is because the activation energy of the reaction is lowered as the temperature increases, allowing the reaction to proceed more rapidly.