

INSTRUMENTAL ANALYSIS

1. INTRODUCTION
2. THEORY

The purpose of this experiment is to determine the concentration of a solution of a substance in a solvent. The method used is based on the principle of Beer's Law, which states that the absorbance of a solution is directly proportional to the concentration of the substance and the path length of the light through the solution.

The following steps will be followed in this experiment:

1. Preparation of standard solutions of known concentrations.

2. Measurement of the absorbance of these standard solutions using a spectrophotometer.

3. Construction of a calibration curve (Absorbance vs. Concentration) from the data obtained in step 2.

4. Measurement of the absorbance of the unknown solution.

5. Determination of the concentration of the unknown solution using the calibration curve.

APPENDIX
1. DATA TABLE
2. CALCULATIONS
3. CONCLUSIONS