
Chromatography Lab Report

1. Title

- **Title:** Specify the type of chromatography used (e.g., Gas Chromatography, Liquid Chromatography).

2. Abstract

- A brief summary of the chromatography experiment, including the purpose, method, and key findings.

3. Introduction

- **Objective:** State the purpose of the chromatography experiment.
- **Background:** Briefly explain chromatography and the specific technique used.
- **Hypothesis:** Mention what you expect to observe based on the experiment.

4. Materials

- List of materials and reagents used, including:
 - **Chromatography column or instrument type** (e.g., gas, liquid, or paper chromatography).
 - **Solvents and reagents** used in the mobile phase.
 - **Samples:** Specific details of the sample being analyzed.

5. Procedure

- A step-by-step description of how the chromatography experiment was conducted, including:
 - **Preparation** of the stationary and mobile phases.

- **Sample Injection:** Describe how the sample was injected or applied to the chromatography system.
- **Flow Rate and Temperature:** Parameters of the mobile phase flow and temperature control.

6. Results

- **Chromatogram:** Include the chromatogram obtained (graph showing peaks for different compounds).
- **Retention Time:** Mention the retention times for the components separated.
- **Peak Areas/Heights:** Quantify the components based on peak areas or heights.
- **Tables and Graphs:** Present data in tables or graphs to illustrate your results.

7. Discussion

- **Analysis:** Interpret the results, explaining how the different compounds were separated based on their retention times.
- **Error Analysis:** Discuss any errors or discrepancies in the chromatography process.
- **Comparison:** Compare the results with expected values or previous data, if available.

8. Conclusion

- A summary of the findings, confirming or rejecting your hypothesis.
- Explain the significance of the results in relation to the experiment's objectives.

9. References

- List any scientific papers, textbooks, or manuals that were referenced in preparing the lab report.

10. Appendices

- Include any additional chromatograms, raw data, or calculations relevant to the experiment.