

LAB REPORT

Your report should be no more than 5 pages (dbl space) with a few graphs and tables. Please reference external sources in your report. eg. [1] Pasco Co. , [2] internet addresses.

Cover Page Make a cover page with

Experiment Title

your name

Date

Abstract

(eg. I measured Planck's constant with the PE apparatus to be $A \pm s(\text{stat}) \pm s(\text{sys})$).

1-2 paragraphs each!

I. Introduction

(1) State the experimenters and historical significance of the experiment.

(2) State the goal of the experiment. Include here any theoretical equation which you will verify. State equations you will use and verify in the report.

II. Apparatus

(3) Briefly describe the apparatus indicating company name (Pasco, eg.).

(4) Make a simple diagram of the experimental setup, labeling main components.

III. Recording Data - Procedure

(5) Describe and list any data you recorded. Graphs and tables must have labeled axis and columns with proper unis. Use and refer to table numbers.

IV. Analysis

(6) Describe your analysis of data and include any plots (use figure numbers) . Here you must make a sound statistical error analysis. Describe this.. Make an estimate of systematic errors. The difference between your measurement and the accepted value can be stated as a systematic error. The knowledge of fundamental values in your experiment can be thought of as systematic effects.

State you final answer, $\langle A \rangle \pm s(\text{stat}) \pm s(\text{sys})$

V. Conclusion

(7) State your final result $\langle A \rangle \pm s(\text{stat}) \pm s(\text{sys})$ Discuss the accuracy and precision of your experiment.. Discuss any apparatus problems or improvements. Summarize statistical and systematic errors

VI. Figures

(8) Plots and graphs at the end. Use figure numbers and refer to them in your text. Axes must be labeled. Figure numbers please.

VII. Appendix

Additional material and questions here.