

Layout for a Laboratory Report

1 Summary or Abstract

This is not absolutely essential, but certainly desirable. This is usually the last section written, but should head the report. It should briefly explain what the experiment is about, and give a concise summary of the results and their significance. In the real world it will be the only section read by most readers, so it must be clear.

2 Introduction

This contains the background to, and aims of the experiment or set of experiments. The background to the work needs to be clearly described in the context of existing knowledge (giving references if appropriate). For example some experiments have historical significance, e.g. Millikan oil drop, speed of light, photoelectric effect, and this would be described in the introduction in addition to the physical significance of the experiment. Others will be adequately introduced by a description of a physical phenomenon and why it is important. The introduction should normally be no more than 20% of the total report in length.

3 Theory

This section should include all theoretical relations which will be used to interpret your results in later sections. Omit derivations of standard formulae, but if you develop an equation into some other form to fit your analysis, then include the development.

4 Method

Describe the experiment, produce and refer to figures of the experimental layout, electrical circuits, etc., as necessary. Each figure must be numbered and have an accompanying figure caption. List important apparatus. Do not reproduce the laboratory manual/notes. Give a reference to these in your report as seems appropriate, particularly for 100 level physics courses. You may like to attach a copy of the laboratory notes to the back of your report for future reference.