

Title of the Experiment

Aim:

State the primary purpose of the experiment in a few sentences.

Working principle/Theory:

Give a short theoretical background (keep it short). Explain the working principles of the experiment, what is actually being measured and what will be subsequently derived.

This section will include a clear diagram or diagrams (as needed) to explain the working principle.

This section will also include any mathematical relationships or equations used during the experiment.

Observations:

Present the raw data recorded during the experiment.

Uncertainties:

Include a brief description of uncertainties. These will be instrumental, systematic or random errors. Discuss sources of uncertainty that you did not quantify as well (do try to assess which of these will be large or significant).

Analysis:

Use the observations to find the derived quantities. Show sample calculations (where the calculation of the derived quantity is not straightforward). Plot relevant graphs, with appropriately labelled axes. Mention the software used for plotting/fitting – describe the equation of fit functions, parameters. Write down the fitted parameters and their uncertainties.

Propagate the uncertainties mentioned in the previous section. Show one/two examples of this as relevant.

Results and Conclusion:

Summarize the key results obtained from the experiment. Discuss how/why your result deviates from expected results. Mention any potential improvements (to procedure or experiment as relevant) with appropriate motivation.