

# Laboratory Report Guidelines

It is important that you avoid filler and extra verbiage that does not address the three questions above when you write an abstract. It is also important to include specific information. Do not be too general in your answers to the questions above. For example, you could be criticized too generally if you said, "The viscosity was lower than published values over the temperature range we tested." Instead, it would be better to say, "The viscosity was 22% lower than published values over the temperature range of 20 °C to 40 °C." An example of a decent abstract is given at the [end](#) of the Guidelines.

## Table of Contents

The table of contents lists the titles of the major sections of the report and the page numbers where they begin to enable the reader to easily find a particular section. When you write the subsections within the major sections, you should consider listing the titles of the subsections in the table of contents also. Subsection titles should appear indented below the titles of the major sections of the report. Use a tabbed leader line from the end of each title to the page number to make it easy for the reader to associate the correct page number with the section title. In Word, insert a tab by clicking on the ruler. To set a tabbed leader line, double-click the tab mark on the ruler and select the leader style.

## Introduction

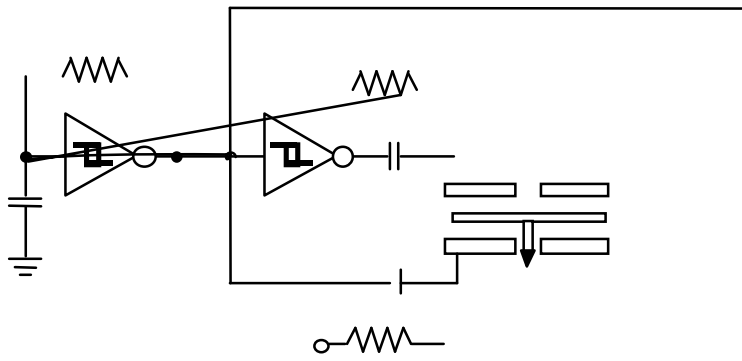
The introduction should state some background on the problem your experiment investigated.

The introduction should also clearly explain the objectives and motivation for the experiment.

Write the introduction answering the question, "What is the purpose of the experiment?"

## Experimental Setup and Procedure

This section describes what you did and what equipment you used to do it. The idea is to explain in sufficient detail what you carried out in the experiment so that another engineer who is not familiar with the experiment could repeat what you did. As a general guideline, start by listing the equipment you used, then describe the experimental setup, then describe what you did.



research. Note your instructor will greatly appreciate any recommendations that the experiment could be improved so please include these recommendations too. One often finds that the results of an experiment generate more questions than answers so where it is appropriate to describe what should be done next.

4. Be sure that you recapitulate the important results and do so specifically. Do not be too technical. Writers write far too generally. Consequently it makes it difficult for the reader to extract the most important points that you put into the report or specifics. For example if your experiment consisted of comparing the acoustic noise of two fans you should NOT be too general. If you found that Fan A was noisier than Fan B or that the applied voltage range 3-5 V while this may be true it would be far more effective if you wrote something like 2.5 V found that the average noise level for Fan A was 65 dB versus 55 dB for Fan B or that the applied voltage of 1 to 12 V does not make sense.

#### Conclusions

It is probably ok for a report in this course but in general it is very important to conclude

The other perhaps more desirable method is to cite using the author's last name and date of publication such as

## Comments on Style

Reports must be typed. The text of your report should be spaced at 1.5 lines to make it easier for your instructor to give feedback. Headings should be prominent (in bold face or underlined); see 16 inches margins all around. Put page numbers in your report preferably in the top or bottom right corner. Be sure to spell correctly before you print.

For a more in#ormation on report writing especially on prose style see the Guide to Engineering Report Writing put out by the University of Connecticut - Department

<http://www.engr.uconn.edu/~senior-esis/design/outB2002B20TechnicalB205ritingB202007.doc>

## Final Words

Before you write make an outline of the major points you are going to cover in each section.

Think about what they will see. Read your report out loud to yourself or a friend before

submitting it. This will help you catch lots of grammatical errors and it will help you correct them.

## Executive Summary

The executive summary is a brief, concise summary of



# ( Measurement of the Temperature Dependence of ) Viscosity for $\text{C}_6\text{H}_6$ ( Motor Oil

' report on an experiment performed for

4 \* 120 \* experimental methods

, an Jos: , state ; university

- department of Mechanical and Aerospace Engineering

By

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.ane A/ Student

February - 01

## Abstract

A new rotor balancing method has been proposed that uses deformable torsional elements to support mass in a plane as the rotor spins. The time dependent torsional deformation of thin-walled tube samples of 70G stainless steel was investigated at temperatures approaching the melting point. The samples were treated by passing a predetermined number of cycles of 10 A electric current through them as they were held in a specially designed fixture that also applied an approximately constant torsional stress below yield at room temperature. The experimental results indicate that the torsional deformation of the balancing elements can be controlled to better than 1% by pulse heating and that the proposed balancing method is feasible. Additional work is needed to integrate the subsystems of the proposed balancing method into a working prototype.