# FORMAT GUIDELINES FOR THE PREPARATION OF MASTER THESIS

It is the responsibility of the student and the supervisor to ensure that the Thesis complies in all respects to these guidelines.

# A. Language

Master.thesis must be submitted in the English language.

# B. Copy right page

The copyright page will be in a standard format as supplied by the department (Example I)

# C. General Format and Style

Items **must** be placed in the following order:

- Title Page see Example II
- Approval Page see Example III
- Abstract
- Acknowledgements (optional)
- Table of contents see Example IV
- List of Tables (if any)
- List of Figures and Illustrations (if any)
- List of Plates (if any)
- List of Symbols, Abbreviations, Nomenclature (if any)
- Body of Text: main text, tables, figures see Example V
- References
- Appendices (if any)

#### Typeface

Only **one single typeface** (font), with its *italic* and **bold** variants, may be used through the **entire** thesis, including the title page, approval page, acknowledgements, references and appendices. (Exceptions to this can be made for footnotes, subscripts and uperscripts, and for tables, figures or illustrations imported from other sources.)

# **Type Size**

The font of the texts must be Times New Roman Only *twelve point* size is acceptable. This means that there must be approximately twelve characters per inch.

#### Justification

A thesis must be fully justified (i.e., have even left- and right-hand margins), or

# Margins

A left margin of 1-1/2 inches (3.5 cm) on all pages is required. All other margins must be one inch (2.5 cm) wide. Page numbers in the body of the text must be one inch (2.5 cm) from the bottom and centered at the bottom of the page.

The prefatory pages (everything that comes before the actual body of the text) are numbered in Arabic numerals, and have their page numbers one inch (2.5 cm) from the bottom of the page. This includes the Approval Page. This means that the text ends two lines above the page numbering.

### Spacing/Printing

Using a laser printer, the spacing should be set at one-and-one-half (1.5) spacing.

### **Spacing Within Sections of the Thesis**

Single spacing may be used in an extensive Table of Contents, List of Tables, or List of Figures, as long as there is double or one-and-one-half spacing between chapters. The spacing must be consistent. Single spacing may be used in extensive quotations within the body of the text. Double or one-and-one-half spacing is required in the Abstract, Acknowledgements, etc.

The Space between two Consecutive paragraphs of the texts must be 6 points before and after.

# Page Numbers

All pages must be taken into account in the numbering: this includes all pages of figures, tables, legends, etc.

Every single page in the thesis must be numbered, except the title page. Pagination begins with the Cover Page, which is always Page 1.

The lead (prefatory) pages, up to the beginning of the text, are to be numbered with Arabic numerals (e.g.,1,2,3,4, etc.) centered at the bottom of the page, one inch from the bottom.

Appendices must also be numbered following the rest of the thesis. If the references end on page 247,

Appendix A begins on page 248. Numbering Appendices page A1, B1, C1, etc., is not acceptable.

Inserting or deleting a page after the thesis has been completed requires the repagination of all subsequent pages. Inserting "a" (e.g., 141a, 141b, 141c) is not acceptable.

Numbering of tables and figures must be consecutive, without repetition of numbers throughout the text. Numbering can be 1, 2, 3, etc., or by chapter, i.e., 1.1, 1.2, 1.3. The numbers must be consistent.

#### **Page Headers**

Page headers may be used as long as there is a line across the entire page to separate the header from the text.

# D. Thesis Sections

### 1. Title Page

The title of the thesis as it appears on the Title Page MUST BE IDENTICAL to the title found on the Approval Page and on the *Thesis of Final Oral Examination* including the capitalization and punctuation.

All items on the Title Page must follow the model exactly (see Example II). The Logo of the Institutions is placed right above the name of Tribhuvan University at the center of the page.

The name of the University, Institute and Campus must be in uppercase letters.

The title of the thesis must be in upper- and lowercase letters.

The name of the student (s) must be in upper- and lowercase letters, and identical in both places on the title page.

The full name of the degree for which the thesis is presented must be written out, e.g., DEGREE OF MASTER OF ..... IN ENGINEERING

The full, official name of the department must be written out, e.g., DEPARTMENT OF...... ENGINEERING.

There is a comma between LALITPUR and NEPAL. There is a comma between the name of the month and the year. There is **no comma** between the name and the year.

All items on the Title Page must be at least double-spaced. This includes the title and the name of the department.

All items on the Title Page must be **centered** within the margins.

The full title of the thesis cannot be longer than 240 characters (including letters, figures, symbols and spaces). The spine title cannot be longer than 50 characters (including letters, figures, symbols and spaces).

# 2. Approval Page

#### All items on the Approval Page must follow the model exactly (see Example II).

- The title of the thesis on the Approval Page must be **exactly** the same as the title of the thesis on the Title
- Page, and the *Thesis of Final Oral Examination*.
- The Approval Page must be **double-space**d.
- The **date** at the bottom is the date on which the supervisor signs the Approval Page indicating that all corrections have been made and that the thesis has final approval.
- If there are more examiners than will fit on one column on one page, a second column should be used. Under no circumstances should the Approval Page extend beyond one page.

- Examiners' signatures should include all those listed on the *Notice of Oral Examination* except for Observers. If the examination is chaired by someone other than the supervisor, this person should be listed as "Committee Chairperson". External readers must also be indicated, and their signatures obtained.
- All signatures must be **originals**; no faxed copies, stamps, photocopies or other reproductions will be accepted.
- Students should have a minimum of five copies of their Approval Page signed by the examining committee. Check departmental requirements.
- The margins on the Approval Page must be consistent with those in the body of the text. Ensure that there is a 1½ inch (3.5 cm) margin on the left-hand side of the page to allow for binding. The page number (Arabic numeral 3) must be one inch (2.5 cm) from the bottom of the page, and the top and right hand margins must be one inch (2.5 cm).
- The Approval Page should be prepared with the same font as the rest of the thesis.

# 3. Abstract

Abstracts in thesis presented by students for Master degrees must be **no longer than 200 words and should not exceed two page**. Hyphenated words or words separated by a slash are considered two words.

# 4. Table of Contents

- The Table of Contents must include a listing of all items in the thesis. See General Format and Style for the order in which items must be listed. Everything, except the title page, including the Table of Contents itself, must be listed in the Table of Contents. (See Example III.)
- Headings and sub-headings must be consistent between the Table of Contents and the body of the text. Although in the Table of Contents headings may be shortened to fit space requirements, the wording must be consistent enough that the reader will know that the correct heading, figure or table has been reached. All capitalization, punctuation, abbreviations, etc., must be consistent between the titles in the Table of Contents and Lists of Tables and Figures, and the actual titles as they appear in the body of the text.
- The Table of Contents should, if at all possible, fit on one page, Omit third level sub-section heading if necessary.
- Only the headings for Table of Contents, Chapter, Title and Page are bold.
- For chapter titles, use title capitalization (capitalize the first letter of each word in the title).
- Section headings may use either title capitalization or sentence capitalization (only the first letter of the first word is capitalized, all other words in the title appear in lower case).
- Do not use ALL CAPITAL letters for chapter title of sub-section headings.
  Words like 'and' 'or' 'at' 'a' and 'the' are not capitalized unless they are the first word in the title.
- Four levels of heading can be used, including the chapter title.
- More than three levels of subheading below chapter title should be avoided.
- Number chapter titles in Arabic numerals (1,2,3....)

#### 5. Epigraph

An epigraph is an apt quotation that precedes the text of a chapter or of a book. Epigraphs should be indented twenty spaces from the left margin. Quotation marks are not used. The author and title of the source must be cited below the quotation. Further bibliographical information is optional for widely known authors and works and can be supplied in a note.

#### **Example:**

The last years of the eighteenth century are broken by a discontinuity similar to that which destroyed Renaissance thought at the beginning of the seventeenth. Michel Foucault, The Order of Things: An Archaeology of the Human Sciences

#### 6. Footnotes

Footnotes may be placed at the foot of the page (footnotes proper), in a group at the end of a chapter (called "Notes"), or grouped at the end of the thesis before the reference (called "Endnotes"). If notes or endnotes are collected at one place in the thesis, their location must be shown in the table of contents by title and page.

Footnotes must be in 10 point size.

# 7. Citing References

When citing references in the text, use the author's last name only.

If there are two authors: Nordberg and Wildung (1978).

Notice the ' ' Follows the closing parenthesis, Do not use '&' as an abbreviation for 'and'.

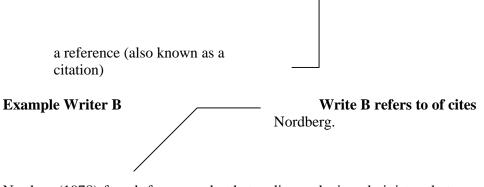
If there are more than two authors: Nordberg et al. (1978).

Notice there is no period after 'et'.

Do not CAPITALIZE or **boldface** the author's name.

# **Example Writer A**

It has been found, for example, that sodium selenite administered at appropriate doses increases the life span of experimental animals given toxic doses of both cadmium and mercury (Nordberg, 1978).



Norderg (1978) found, for example, that sodium selenite administered at appropriate does increases the life span of experimental animals given toxic doses of both cadmium and mercury.

When citing multiple references, separate the authors names with semi-colons.

#### Example

Various types of irrigation models have been developed for specific uses (Mahbub et al., 1975:Kraazt, 1975)

Approved reference format must be used in given in the following Examples

### Book

Glassman, I., 1987, *Combustion*, Second edition, Academic Press, New York, ISBN 0-12-285851-4.

# Thesis

Bade Shrestha, S. O., 1992, "Systematic Approach to Calculations of Flammability Limits of Fuel-Diluent Mixtures in Air", *M.Sc. Thesis*, Department of Mechanical Engineering, The University of Calgary, Calgary, Alberta.

# Journal

- Macek, A., 1979, "Flammability Limits: A Re-examination", *Combustion Science* and Technology, vol. 21,pp. 43-52.
- Wierzba, I., Bade Shrestha, S.O., and Karim, G. A., 1996, "An approach for Predicting the Flammability Limits of Fuel/Diluent Mixtures in Air", *Journal of the Institute of Energy*, Volume LXIX, No. 480, pp.122-130.

# **Edited** journal

Rees, M., 1976, "The Ivory Tower and the Market Place", in Sterling M, McMurrin (editor), *On The Meaning of the University*, University of Utah Press, Salt Lake City, Utah.

# Internet

# Citing Internet Sources

In general, the reference is similar in structure to references for print materials with the addition of an access date and the URL. Note the< > symbols are not part of the URL and may be deleted as in the second example.

# Example

Anklesaria, F., McCahill, M., Lindner, P., Johnson, D., Torrey, D., and B. Alberti, "The Internet Gopher Protocol ( a distributed document search and retrieval protocol)", RFc1436, University of Minnesota, March 1973.

<URL:ftp://ds.internic.net/rfc/rfc1436.txt:type=a>

Anklesaria F., Lindner, P., McCahill, M., Torrey, D., Johnson, D., and B. Alberti, "Gopher-: Upward compatible enhancements to the Internet Gopher protocol," University of Minnesota, July, 1993. URL:ftp//bombox.micro.umn.edu/pub/popher/gopher\_protocol/Gopher-Gopher+txt

Berners-Lee, T., "Universal Resource Indentifiers in WWW:A Unifying Syntax for the Expression of Names and Addresses of Objects on the Network as used in the World-Wide Web", RFC1630,CERN, June 1994. <URL:ftp://ds.internic,net/rfc/rfc1630.txt>

Brners-Lee.t., "Hypertext Transfer Protocol (HTTP),"

CERN, November 1973. <URL:ftp://info.cern.ch.pub/www/doc/hup-spec.txt.Z>

### **References inside the text**

- The so-called concept of the constant adiabatic flame temperature was applied by Bade Shrestha (1996) to predict the flammability limits at different initial temperatures.
- It was shown previously that the rich flammability limits of ethylene in air determined experimentally in astainless steel test tube at elevated temperature were affected very significantly by the time of exposure before the spark ignition (Ale and Wierzba, 1997).
- It is known that some metals, for example, steels and iron are active catalysts for the oxidation of hydrogen and ethylene at elevated temperatures in air (Pangborn and Scott, 19979; Baker, 1974; Krishnankutty *et al.*, 1996).

### 9. Appendices

Appendices follow the list of references. Number or letter appendices and give each a title as if it were a chapter.

# Example

Appendix1: Questionnaire Appendix2:BOI Regulations Appendix A: Derivation of Equations

#### 10. Style

#### Spelling

Spelling may be either British or American. Whichever standard the writer chooses should be used consistently throughout the text.

#### Punctuation

Consult any standard grammar reference for rules of punctuation. Take care with spacing before and after punctuation.

There are no leading spaces before the comma, period, colon, semi-colon or question mark. There is always a space following these marks.

#### Incorrect

After compacting the first layer , which should not exceed the top edge of the mold by more than 8 mm , the excess soil is removed.

# Correct

After compacting the first layer, which should not exceed the top edge of the moldy by more than 8mm, the excess soil is removed.

When using parentheses, there is space before the opening parenthesis and a space after the closing parenthesis but no space between the beginning of the first word or the end of the last word inside the parentheses.

#### Incorrect

Leland (1975 ) has recently reviewed the literature about the sources the effects of metal pollutants. Therefore, a new experiment was done with lower concentrations of the metals to avoid the toxicity, using the nutritive solution (15%N, 15%P and 15%K), instead if the compost.

#### Correct

Leland (1975) has recently reviewed the literature about the sources the effects of metal pollutants. Therefore, a new experiment was done with lower concentrations of the metals to avoid the toxicity, using the nutritive solution (15%N, 15% P and 15% K), instead if the compost.

The terms 'as follows' of the following 'require a colon(:) if followed directly by a list of items.

#### Example

The reasons for rational use of electricity are as follows:

- 1. There is untapped potential for savings.
- 2. Electricity prices have increased dramatically.
- 3. Most fossil fuel plants are ineffcient.

If the introducing clause is incomplete, punctuate the numbered items as if they were clauses in a single long sentence.

#### Example

Reaches are chosen so that boundaries occur at points in the river where there are likely to be singnificant changes in the water quality of flow, due to any of the following:

- 1. the confluence with a tributary,
- 2. the location of an obstruction, or
- 3. the location of weir.

Notice the numbered clauses do not begin with a capital letter and are followed by commas rather than periods. The last two items are joined with a conjunction and period is placed at the end of the last item.

#### Numbers

Do not begin a sentence with a number. A number must be written in words if it begins a sentence. If this is not practical or awkward, rephrase the sentence so that it does not begin with a number.

Incorrect	Correct				
4 trials were run.	Four trials were run.				
42 trials were run.	Forty-two trials were run.				

It is commonly accepted style to write numbers less than ten in words.

#### **Units and Measures**

Use the International System of Units (SI). Consult any standard reference manual on the correct form of abbreviation for SI units. It is not necessary to place an Imperial conversion in parentheses after an SI unit as in, 'The depth of the bore hole was 3.4 m (9ft.18 in)'.

#### **Tables, Figures and Equations.**

Tables, figures and equations should be inserted into the text as close as possible to their first mention in the text. Large tables or figures would appear on the following page.

Tables, figures and equations should be numbered to indicate the chapter and the sequence in the text.

When referring to a numbered table, figure or equation, use a capital letter.

#### Example

Figure 3.4 (Fourth figure in Chapter3) Table 5.6 (Sixth table in Chapter 5) Equation 2.1 (First equation in Chapter 2)

Tables are titled at the top, figures at the bottom. Each table or figure is given a title as well as a number. Titles may be either title capitalization style of sentence capitalization style (see examples in List of References section).

#### Example

Among the three elements tested, Cd was the most toxic (Table 4.1). Figure 3.4 shows the concentration of the three metals. The concentrations of the three metals are shown in Fig.3.4.  $y_i(t) = F_o / K_i [A_i sin(bt) + B_i cos (bt)]$ Eq.3.4

#### **Numbering Equations**

Numbered equations should be 'displayed' either by centering on the line below the text or with a standard indentation from the left margin. The equation number is usualy placed so it is flush with the right margin, It is not necessary to bracket equation numbers as in Equation (3.2)

#### Example

If  $A_i$  and  $B_i$  can be writen as in Equation 3.2 and 3.3, modal response can be expressed as.

Equation 3.4

 $y_i$  (t)=  $F_0/K_i$  [ $A_i sin(bt) \div B_i cost$  (bt)]

#### Abbreviations

The international standard of abbreviations should be used throughout the text, and of the standard style manual to cheek on standard abbreviation in parentheses.

When abbreviating the names of organizations or specific terms, write the full name or term the first time it is used., followed by the abbreviation in parentheses.

#### Example

Write hyacinths have been used successfully by the National Space Technologies Laboratories (NSTL) to remove organics and heavy metal wastes at the NSTL was done under optimal conditions.

All but one household had electricity and most households used liquefied petroleum gas (LPG) in all the sample urban areas. There were a relatively smaller number of households in Chiangmai using LPG.

In the text, do not abbreviate ordinary words such as 'approxinately' or 'versus'. Do not use the ampersand (&) in place of 'and'. Do not use a slash (/) in place of 'and' or 'or'. Gender Bias and Gender Sensitive Language.

#### 11. Avoiding Gender Bias in Language

Achieving unbiased language, so that readers will concentrate on what you have to say rather than how you say, is an admirable goal. It's also a necessity. For example, businesses and individuals have been sued because job descriptions used "he" and seemed to exclude women- whether or not the exclusion was intended. Therefore, gender sensitive language is a requirement of the workplace and the university.

It may be easy to avoid gender biased nouns by replacing exist nouns with more neutral ones: chairman with chair, mailman with paper carrier, and congressman with senator or representative But how can you avoid the pronouns "he", "him" and "his" or "she", "her" and "hers" when you refer to nouns meant to include both genders?

The following five options will enable you to revise your writing so that your use of pronouns is both gender sensitive and correct. As you review this list, compare the biased language of the original sentences with the gender sensitive phrasing of the revisions.

### 1. Use the plural form for both nouns and pronouns. Biased Language

Studying the techniques by which a celebrated writer achieved "his" success can stimulate any writer faced with similar problems.

#### Gender Sensitive Language

Studying the techniques by which celebrated writer achieved "their" success can stimulate any writer faced with similar problems.

# 2. Omit the pronoun altogether. Biased Language

Each doctor should send one of his nurses to the workshop **Gender Sensitive Language.** Each doctor should send one of nurses to the workshop

3. Use his or her, he/she or she when you occasionally need to stress the action of an individual. Such references won't be awkward unless used frequently.

### **Biased Language**

If you must use a technical term he may not understand, explain it.

### Gender sensitive Language

If you must use a technical term he or she may not understand, explain it.

4. Vary pronoun choice when you want to give examples emphasizing the action of an individual, Ideally, choose pronouns that work counter to prevailing stereotypes.

### **Biased Language**

Gradually, a child will see the resemblance between block creations and objects in his world, and "he" will begin to name some structures, like "house" and "door".

#### **Gender Sensitive Languages**

Gradually, a child will see the resemblance between block creations and objects in "her" world, and "she" will begin to name some structures, like "house" and "door".

# **Biased Language**

The kitchen can serve as a center for new experiences, an interesting place where important things happen and where "she" has a chance to learn about the way adult things are done.

#### **Gender Sensitive Language**

The kitchen can serve as a center for new experiences, an interesting place where important things happen, and where "she" has a chance to learn about the way adult things are done.

5. Switch from the third person (he) to she second person (you) of a "you understood" when his shift is appropriate for what you are writing.

#### **Biased Language.**

Each manager should report his progress to the supervisor by may 1.

#### **Gender Sensitive Language**

You should report your progress to the supervisor by may 1. Managers should report their progress to the supervisor by may 1.

Gender and Objectivity

In an attempt to sound more scientific or objective, some writers use the terms 'male' and 'female' when referring to people.

### Example

In the village, 61% of the males had primary education while only 39% of the females had primary education, respectively.

Using the terms 'male' and female' to talk about fellow human beings sounds cold, distant and arrogantly superior.

Use 'male' and 'female' for plants, animals, insects and fish, Use 'man' or 'men' and 'woman' or 'women ' for people.

Also note, the plural of 'person' is 'people' as in 'one person' or 'two people'

# 12. Plagiarism

### Warning

- Plagiarism 'presentation of someone else's ideas of words as your own' is grounds for dismissal from the Institute of Engineering and denial of your degree. Because
- It is misleading and perhaps dishonest to present the work of your colleagues as your own.
- It is unfair not to acknowledge your colleagues for the work they have done.
- Readers will be inclined to think you are far more intelligent and creative than you actually are.

#### **Voiding Plagiarism**

- acknowledge borrowed material within the text by introducing the quotation or paraphrase with the name of the authority from whom it was taken.
- enclose within quotation marks all quoted materials.
- make certain that paraphrased material is written in your own style and language. The simple rearrangement of sentence patterns is unacceptable.

#### **13.** Printing the Thesis

#### 1. Paper

White bond paper of uniform size (A4 or 21 cm x 29.7 cm) and weight (75 g/m 2) must be used throughout the thesis, except for such charts and diagrams as necessary. Erasable bond is not acceptable.

#### 2. Corrections

Corrections or changes made to the thesis after the oral examination must be made in a manner that conforms to the original style of the thesis as submitted to the examiners. Clumsy erasures and informal corrections are not acceptable.

#### 3. Copies

The original version of a thesis must be printed single-sided on the recto side (the right-hand side of an open manuscript) only.

A minimum of five hard copies of the thesis along with an electronic copy must be made. Copies are bound in (Colour) hard cover, with a spine title not exceeding 50 characters (including all letters and spaces),

The spine should include following information: Title of the project, name of the student(s), degree and finishing year. For example:

#### VEHICULAR POLLUTION IN KATHMANDU VALLEY A. SAH B.E./M.Sc. 1999.

### 4. Illustration

Illustrations should be positioned as the main text (the type reading across the 210 mm dimension). If figures or tables cannot be printed in the same direction as the text, they can be rotated to landscape orientation in such a way that the top of the figure is oriented to the inside (1-1/2 inch margin side) and the caption placed at the bottom (along the right-hand side of the page). The page number must appear in the usual place (i.e., at the bottom and center of the page, one inch in from the bottom).

## 5. Coloured photographs

If a thesis includes coloured photographs, the photographs should coloured photocpied. The glued photos will not be accepted.

#### 6. Charts, Graphs, Maps, Etc.

**Example V** illustrates the format of chart and table. The use of charts, graphs, maps and tables that is larger than the standard page should be avoided. Photographically reduced pages are acceptable if they are clearly legible.

#### 7. Oversized pages

Oversized pages can be included in the thesis as fold-outs, but they must be folded to no more than eight inches (21.5 cm) wide to avoid being cropped in the bindery.

Oversized pages must be placed in a pocket at the end of the thesis. They must then be referred to in the body of the thesis as being in a pocket, and listed as such in the Table of Contents.

#### EXAMPLE I

#### COPYRIGHT

Head

Department of ..... Pulchowk Campus, Institute of Engineering Lalitpur, Kathmandu Nepal

#### **EXAMPLE II**

# TRIBHUVAN UNIVERSITY INSTITUTE OF ENGINEERING

# PULCHOWK CAMPUS

Title of Thesis (double spaced)

by

Name of Student

## A THESIS

SUBMITTED TO THE DEPARTMENT OF ..... IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER IN .....ENGINEERING

DEPATRMENT OF .....

LALITPUR, NEPAL

MONTH, YEAR

#### **EXAMPLE III**

# TRIBHUVAN UNIVERSITY INSTITUTE OF ENGINEERING

### PULCHOWK CAMPUS

DEPARTMENT OF .....

The undersigned certify that they have read, and recommended to the Institute of Engineering for acceptance, a thesis entitled "Title of the " submitted by Name of Student(s) in partial fulfillment of the requirements for the degree of Master in ....

Supervisor, name of Supervisor Title Name of the Department

Co- Supervisor, name of Co-Supervisor, Title Name of the Organization,

Committee Chairperson, name of the Chairperson Title Name of the Department

Date

# **EXAMPLE IV**

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# EXAMPLE V

Table 4.1 Flammability limits of different fuels at different initial temperatures at a residence time of 10 minutes.

Initial	Flammability limits, % by volume									
temperature	Methane		Hydrogen		Ethylene		Propane			
°C	LL	LR	LL	LR	L	LR	LL	LR		
21	4.8	15.1	3.9	75.9	2.6	31.8	2.1	10.6		
100	4.6	16.2	3.4	78.6	2.4	36.4	1.8	11.4		
200	4.0	16.8	2.7	82.0	2.2	42.6	1.6	12.6		
300	3.6	18.2	2.6	77.0	2.0	48.6	1.4	15.0		
350	3.4	19.0	2.6	71.0	1.8	24.6	1.2	7.0		

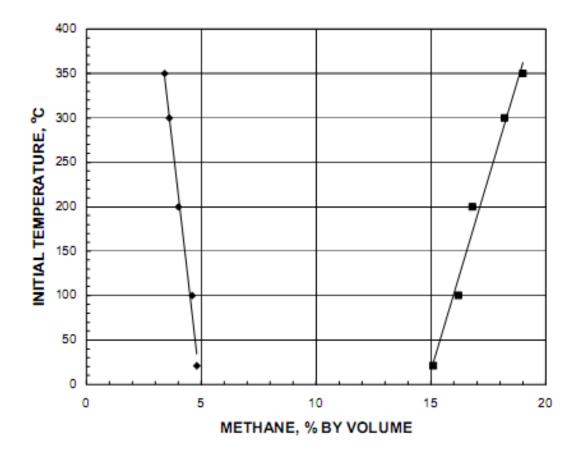


Figure 4.1 Flammability limits of methane-air mixtures as a function of the initial temperature at a residence time of 10 minutes.