

A MODEL FOR PAPERS SUBMITTED TO THE 3RD IIR CONFERENCE ON THERMOPHYSICAL PROPERTIES AND TRANSFER PROCESSES OF REFRIGERANTS

Mark O. McLinden,^(a) David Yashar,^{(b)(c)} and Piotr Domanski^(b)

^(a)Thermophysical Properties Division, National Institute of Standards and Technology
Boulder, Colorado 80303 USA

^(b)Building Environment Division, National Institute of Standards and Technology
Gaithersburg, Maryland 20899 USA

^(c)Corresponding author:
NIST, 100 Bureau Drive, Stop 861, Gaithersburg, MD 20899-8631 USA
david.yashar@nist.gov; fax:1-301-975-8973

ABSTRACT

This mock paper describes the form at for papers submitted to the 3rd IIR Conference on Thermophysical Properties and Transfer Processes of Refrigerants. The abstract should be no longer than 250 words. It should state clearly the objective of the work, give a concise and factual description of the contents, and present the important conclusions.

1. INTRODUCTION

The introduction should give a statement of the problem and an outline of the paper. The production of a preprints volume on CD-ROM for a conference such as this IIR Conference in a short period of time presents a significant challenge to the organizers. This mock paper will describe the format to be followed. We will prepare the CD-ROM directly from the file that you submit, thus strict adherence to these guidelines by all authors will be greatly appreciated. The format of this model paper can be used as an example and reference.

2. MAIN SECTION

The main body of the paper will consist of one or more main sections describing experimental designs, test procedures, theoretical consideration, and results. Sections with appropriate subtitles should describe the test equipment, measurements, observations, and mathematics needed to perform the experiments. Case histories, systems descriptions or applications should contain original aspects, out-of-standard performances or noteworthy details that should be clearly identified and described. Discussion of the results, qualifications, limits to the accuracy of tests, and calculations should also be included in this part.

2.1 General Format and Page Limit

Please adhere to the following order: Title, Author(s) information, Abstract, Introduction, Main Text (one or more sections and subsections, as appropriate), Conclusions (as appropriate), Acknowledgements, Nomenclature, References, Appendix(es). Papers should be prepared on your word processor. The text is to be single-spaced with one blank line before each new paragraph and two blank lines before each main section heading. A proportional font, such as Times or Times New Roman should be used. (This paper is prepared in Times New Roman.) Use full justification for all text.

The entire manuscript (i.e. including abstract, text, figures, tables, and references) must be eight or fewer pages. Any manuscript having excess pages will not be published.

The paper number should be placed on the right side of the header on every page, as shown above. The footer should contain the conference information and page number, as shown below. Please refer to the “Guidelines for Authors” document posted on the Conference web site for further information.

2.2 Margins

The text area is to be 16.5 cm wide by 22.9 cm high. Table 1 presents the margin settings for A4 and U.S. letter size paper. It is important to adhere to these margins to ensure that your manuscript prints properly on both paper formats from the Conference Proceedings CD.

Table 1. Page margins for manuscripts submitted to the 2009 IIR Conference

Margin Position	Top	Bottom	Left	Right
A4 Size	2.54 cm (1 inch)	4.29 cm (1.69 inch)	2.54 cm (1 inch)	1.96 cm (0.77 inch)
U.S. Standard Letter Size	1 inch (2.54 cm)	1 inch (2.54 cm)	1 inch (2.54 cm)	1 inch (2.54 cm)

2.3 References

Bibliographical sources should be cited by giving the last name(s) of the author(s) and the year of publication. The year should always be in parentheses, whether or not the name of the author(s) is. The citations for Herbe and Lundqvist (1997) and Pears on (1996) provide examples for the format for a journal article and conference proceeding, respectively. In the case of a source with three or more authors (e.g. Hirschfelder et. al. 1967), which also provides an example citation for a book, only the name of the first author is cited in the text, but all authors are listed in the entry in the References section. The References section should be alphabetized by the last name of the first author.

2.4 Tables and Figures

Each table should be numbered (Table 1, Table 2, etc.), with the caption being placed above the table. Each figure should be numbered (Figure 1, Figure 2, etc.), with the caption being placed below the figure. In the text, figures and tables should be referred to as follows: “Fig. 1 shows the relationship ...” or “the measured values are given in Table 1.” Figures and tables should be inserted into the text soon after they are first referenced (as illustrated by Table 1). Alternately, all figures and tables may be placed at the end of the paper.

2.5 Equations and Symbols

Use the “Equation Editor” whenever possible. Equations should be centered, with the equation number flush with the right margin. If you are using the “IIR_equation” style, this is accomplished by inserting tab characters before the equation and before the equation number. Equations should be cited in the text with its number, for example, “...as shown in Eq. (1)”. Equations should be separated from the text above and below by a blank line.

Symbols used in equations should be explained directly within the paragraph they first appear or in a nomenclature section at the end of the manuscript. Symbols for physical quantities should be *italicized*. Exceptions are symbols for established dimensionless groups (e.g. Reynolds Number Re), which should not be italicized. An example equation would be the ideal gas law

$$pV = RT, (1)$$

where p is pressure in kPa, T is temperature in K, V is molar volume in $\text{mol}\cdot\text{L}^{-1}$, and R is the gas constant. If few equations are used, the definition of symbols may follow each equation. A separate nomenclature section should be used when equations are used extensively. The units used should be given, if appropriate. For the Nomenclature section only, a two-column format may be used, if desired, to save space.

2.6 Use of “Styles” in Word

We have prepared this manuscript using the “styles” feature in Microsoft Word. Styles are a very powerful tool that can greatly simplify the formatting of a manuscript, but we find that many authors are unfamiliar with their use. The basic idea is to define a “style” for each element in the paper—title, author list, section headings, text paragraphs, equations, references, etc. When preparing the manuscript the author simply types (or pastes in from other sources) the appropriate words. Then, at the end, the vast majority of the formatting effort is accomplished by simply applying the appropriate “style” to the various elements. Alternately, the author can open this document in Word and replace the elements of this paper with his or her own material. For example, place your cursor over our names in the author list and type your name(s).

The appearance and location of the “Styles Formatting Palette” or “Styles Window” will vary depending on the version of Word that you are using. You may also need to “Show the Styles Window” and select “Show styles in use.” All of the styles defined in this paper start with “IIR_” followed by a descriptive word or two, such as “IIR_TITLE.” A number of other standard styles, defined by Word itself, may also appear. Refer to the topic “About formatting text by using styles” under the Help menu for more information on using styles.

3. CONCLUSIONS

The Conclusions section should list the major conclusions of the work and summarize the significance of the paper as clearly and concisely as possible.

ACKNOWLEDGEMENTS

A short section may acknowledge special assistance, such as financial aid, help of guiding technical committees, individuals, or other groups.

NOMENCLATURE

p pressure (kPa)	R molar gas constant ($8.314\,472\text{ J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$)
T temperature (K)	V molar volume ($\text{mol}\cdot\text{L}^{-1}$)

REFERENCES

- Herbe L., Lundqvist P., 1997. CFC and HCFC refrigerants retrofits. *Int. J. Refrigeration* 20 (1), 49-54.
- Hirschfelder, J.O., Curtiss, C.F. and Bird, R.B., 1967. *Molecular Theory of Gases and Liquids*, John Wiley and Sons, Inc., New York.
- Pearson S.F., 1996. Uses of Hydrocarbon Refrigerants. In: *Proceedings of the IIR Conference of Application for Natural Refrigerants*, Aarhus, Denmark, IIF/IIR, 439-446.