DOI: 10.18462/iir.gl2024.XXXX

A template for manuscripts submitted to the IIR Gustav Lorentzen Conference on Natural Refrigerants

First Name SURNAME(a), First Name SURNAME(a), First Name SURNAME(b)

(a) Organization 1: City, Zip code, Country, e-mail

(b) Organization 2: City, Zip code, Country, e-mail

ABSTRACT

As a first step, the authors are invited to carefully read the guidelines which are provided in addition to this document in a separate file. The guidelines are meant to give instructions to the authors about the requested format for your full paper. All authors MUST use and comply with the conference paper template and apply the mentioned styles. The abstract should be no longer than 150 words. The entire manuscript (i.e. including abstract, text, figures, and tables but **excluding references**) must contain a maximum number of 5,000 words for conference papers and a maximum number of 5,500 words for a keynote paper. A paper cannot exceed 12 pages in length, 15 for keynotes. The manuscript should clearly state the objective of the work, give a concise and factual description of the contents, and present the important conclusions. Abstracts can be submitted in English or the local language. If an abstract is submitted in the local language, an English translation MUST also be provided. 5 to 6 keywords should be provided from the keyword list if provided by the organizers otherwise do list of own 5-6 keywords.

Keywords: Refrigeration, Carbon Dioxide, Compressors, COP, Evaporators, Energy Efficiency

INTRODUCTION

The introduction should give a statement of the problem and a clear outline of the paper. As the number of words for the full paper is limited to 5,000 for a conference paper, we recommend that both abstract and introduction do not exceed one page. This document is formatted using pre-defined styles that all authors should apply to the final version of their submitted article. We highly encourage authors to do follow the instructions given in the authors guidelines to ensure the conformity of the papers throughout the conference proceedings. The paper should be written in good English. It is possible to use either British or American English but, in any case, both at the same time. The authors are requested to carefully check both grammatical and spelling errors before submitting their conference papers. The authors are also authorized to submit their papers in local language, in this case an English translation of the paper MUST also be submitted.

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.

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. Remove all blank lines between paragraphs in the main text between headings (if necessary). The pre-defined paragraph styles include all necessary blank spaces. The template is prepared in Calibri (body), but Times New Roman can also be used. Use full justification for all text. The entire manuscript (i.e. including abstract, text, figures, and tables but **excluding references**) must contain a maximum number of 4000 words for conference papers and a maximum number of 5500 words for a keynote paper. Any manuscript having excess pages will not be published. The footer will contain the conference information.

Headings

Titles of all sections should be 12-points, centered, and in boldface capital letters. A blank space 18- points (not a blank line) should be placed above the titles. A blank space 6-points (not a blank line) should be placed below the titles.

Sub-section headings should be in lower-case, 11-points, bold letters and justified left. A blank space 12-points (not a blank line) should be placed above the titles. A blank space 3-points (not a blank line) should be placed below the titles.

Sub-sub-sections [Level 3 Heading]

Sub-sub- sections should be avoided. If used, sub-section headings should be in lower-case, 11- points, regular letters and justified left. Blank space 12-points (not a blank line) should be placed above, but not below.

Margins

The text area is to be 17.0 cm wide by 25.2 cm high. Table 1 presents the margin settings for A4 size paper (21 x 29,7 cm). It is important to adhere to these margins to ensure that your manuscript prints properly on the paper format from the Conference Proceedings.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Margin Position | Top | Bottom | Left | Right |
| A4 margin size | 2.0 cm | 2.5 cm | 2.0 cm | 2.0 cm |

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: “Figure 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).



Figure 1: Monthly electricity consumption [Figure Caption]

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 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 space, already predefined in the style.

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. Reynold s Number Re), which should not be italicized. An example equation would be the ideal gas law.

$pV=RT$ Eq. (1)

where p is pressure in kPa, T is temperature in K, V is molar volume in m3.mol–1, and R is the gas constant. If few equations are used, the definition of symbols may follow each equation. Otherwise the manuscript shall include a Nomenclature where all symbols and abbreviations are explained. Use the international system of units (SI). Avoid use of the solidus (/) but present quantities in the denominator always with negative exponents. 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.

Use of “Styles” in Word of the IIR Conference Paper Template for Authors

The IIR Conference Paper Template for Authors with pre-created paragraph styles has been provided to facilitate authors of formatting their paper in Microsoft Word. The following explanation may be provided to explain the use of the template. 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.

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. [Main Text]

NOMENCLATURE

|  |  |  |
| --- | --- | --- |
| *p* | pressure (kPa) [Text Normal] | *R* molar gas constant (8.314472 J×mol–1×K–1) |
| *T* | temperature (K) | *V* molar volume (m3×mol-1) |

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 or depending of the context the name of the author(s) and the year in parentheses. The citations for Herbe and Lundqvist (1997) and Pearson (1996) provide examples for the format for a journal article and conference proceeding, or the citations could be (Herbe and Lundqvist, 1997) and (Pearson, 1996). In the case of a source with three or more authors, the citation could be Hirschfelder et al. (1967) or (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.

The sources should be presented as follows:

Article from a periodical: Name(s) of the author(s), first name initial(s)., year of publication. Title of article. Title of periodical and abbreviated according to international standards, Volume number, issue number (between brackets), first and last page.

Paper published in conference proceedings: Name(s) of the author(s), first name initial(s)., year of publication. Title of article. Title of the conference, publisher of proceedings, first and last page. [References]

Book: Name(s) of the author(s), first name initial(s)., year of publication. Title of the book. Name of publisher, place of publication, number of pages. Establishments can be considered authors when they assume main responsibility for the text and their publications reflect their collective reflections or activities. [References]

Book chapter: Name(s) of the author(s), first name initial(s)., year of publication. Title of chapter. In: name(s) and initial(s) of the coordinator(s), title of the book, name of publisher, place of publication, first and last page. [References]

Examples:

Duminil, M., 1995. Principes de la production du froid. In: Côme, D., Ulrich, R., La chaîne du froid – Le froid au service de l'homme, Hermann, Paris, 33-144. [Book chapter]

Herbe, L., Lundqvist, P., 1997. CFC and HCFC refrigerants retrofits. Int. J. Refrigeration 20(1), 49- 54. [Article from a periodical]

Janna, S.W., 1986. Engineering Heat Transfer. PWS Publishers, Boston, 769 p. [Book]

Pearson, S.F., 1996. Uses of Hydrocarbon Refrigerants. Proceedings of the IIR Conference on Applications for Natural Refrigerants, Aarhus, Denmark, IIF/IIR, 439-446. [Paper published in conference]