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Template for 15th IIR Gustav Lorentzen conference

First Name SURNAME\*(a), Smith K. ANTON(a), Jones BERNARD(b)

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

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

\*Corresponding author: 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, excluding references) must contain a maximum number of 5000 words for conference papers and a maximum number of 7000 words for a keynote paper. It 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 organisers otherwise do list of own 5-6 keywords.

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

1. 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 5000 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. The authors are requested to carefully check both grammatical and spelling errors before submitting their conference papers. The authors are also authorised to submit their papers in local language, in this case an English translation of the paper MUST also be submitted.

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* + 1. Sub-sub-section

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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 Nth IIR Conference

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Figure 1: Monthly electricity consumption



Figure 2: James Harrison's ice making machine (© iifiir.org/en/iir-presentation)

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Use the “Equation Editor” whenever possible. Equations should be centred, 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 and 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.

 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 follows 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. 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.

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1. CONCLUSIONS

The Conclusions section should include the major conclusions of the work and summarize the significance of the paper as clearly and concisely as possible. Further works can be also stated in the conclusions.

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 (8.314472 J×mol–1×K–1) |
| *T* | temperature (K) | *V* | molar volume (m3×mol-1) |

REFERENCES

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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.

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For instance:

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.

Herbe, L., Lundqvist, P., 1997. CFC and HCFC refrigerants retrofits. Int. J. Refrigeration 20(1), 49-54.

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

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