Thermal Science & Engineering (TSE)

Manuscript Template

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Abstract

This paper presents…………………………………………………………………………………………………….

………………………………………………………………………………………………………………………………. abstract style: single column format………………………………………………………………………………………...

………………full justification……………………………………………………………………………………………...

………………Times or Times New Roman, 10pt………………………………………………………………………….

………………About 300 words in case of paper in Japanese …………………………………………………………..

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**Key Words:** Heat conduction, Convective heat transfer, Phase change, Condensation and boiling,

Radiation, Combustion, Numerical analysis

(Note: Only the initial letter of each Key Word in capital. No period “.” needed at the end of the Key Words.)

Nomenclature *(Table borders to be deleted for publishing)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *C* | : | Constant | |  |
| *D* | : | Diameter | [m] | |
| *T* | : | Time | | [s] |
| *U* | : | Speed | | [m/s] |
| ** | : | Angle | | [rad] |
| ** | : | Thermal conductivity | | [W/(m⋅K)] |
| ** | : | Kinematic viscosity | | [m2/s] |

Suffix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *a*  *c* | : | Air |  | |
| : | Critical value | |  |
| *w* | : | Wall |  | |
| *0* | : | Initial value |  | |

**1 Introduction**

TSE, the Transactions of HTSJ, is published by using the submitted electronic version of manuscript prepared by the author(s). Please follow the guideline below to prepare your manuscript. *Please use the MS-Word format template available on its website.*

**2 Format**

**2.1 Page format**

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A4-size (297×210 mm) with page margins of 30 mm in top, 25 mm in bottom, 20 mm in left, and 20 mm in right. Each page has 45 rows. Title, Author Name(s), Abstract, and Key Words with single column appear in the first page. Two columns with 81 mm column width and 8 mm column spacing containing the Nomenclature, Main Body ‘with Equations, Figures and Tables), Acknowledgement, Reference, and Appendix then follows.

**2.2 Title**

Times New Roman, Bold, 14 pt, single space, and center aligned. The first letter of each word to be capital except for prepositions and etc.

Spacing above the Title: 10 pt × 3 lines. Spacing between the Title and the Author Name: 10 pt × 2 - 3 lines. No Japanese Title for a paper written in English. No Japanese Title needed for English papers.



Fig. 1 Effect of input power *Q0* upon the

control efficiency ** .

**2.3 Author Name(s)**

Times or Times New Roman, Bold 12 pt, Single space, Center aligned. First name: First letter in capital as Taro; Last name: All capital letters as DEN-NETSU. No Japanese Author Name for English papers. Spacing between the Author Name(s) and Abstract: 10 pt × 3 lines.

Affiliation symbol to be “1”, “2”, “3”, ... from the top to the last author, respectively.

**2.4 Abstract**

Table 1 Nusselt number.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Rew* | Case | UHF | | CTD | |
| Bottom | Top | Bottom | Top |
| 3000 | - | 8.87 | 11.28 | 5.46 | 7.14 |
| 8600 | Case 1 | 17.25 | 19.76 | 12.37 | 14.76 |
| Case 2 | 16.38 | 18.82 | 11.72 | 13.84 |
| Case 3 | 16.52 | 18.99 | 11.85 | 14.03 |
| Case 4 | 16.44 | 18.90 | 11.86 | 14.00 |

Single column. Times or Times New Roman, 10 pt, Single space. Title of the Abstract as Times or Times New Roman, Bold, 10 pt, Center aligned, no line spacing between the Title of Abstract and the Abstract body. Abstract body with single space, and 3.5 mm indentation at the beginning of the line. 10 pt × 1 line spacing between the Abstract body and Key Words.

**2.5 Key Words**

Single column. 10 mm margin in both left and right. Times or Times New Roman, Italic, 10 pt. 10 pt × 2 - 3 lines spacing between the Key Words and Nomenclature. Only the initial letter of each Key Word in capital. No period “.” needed at the end of the Key Words.

**2.6 Nomenclature**

Double column (81 mm per column, 8 mm column spacing. Times or Times New Roman, 10 pt (Symbol font can be used.) Units are right aligned.

**2.7 Main Body**

Double column (81 mm per column, 8 mm column spacing.) Times or Times New Roman, 10 pt (Symbol font can be used.)

Headings and Sub-Headings in Times or Times New Roman, Bold, 10 pt. 1 line spacing between the Heading and the Main Body. 1 line spacing between the Heading and the Sub-Heading; No line spacing between the Sub-Heading and the Main Body

**2.8 Reference**

Reference by literature numbers, such as [3], [10, 11], or [5-8].

**2.9 Figures, graphs, and photos**

Numbering on all the figures, photos, and graphs as “Fig. 2”. A space “ “ in between “Fig.” and the figure number. Figure captions in Times or Times New Roman, 10 pt. Proper line spacing between the Figure and Main Body. Use abbreviation, such as “Fig. 1”, to refer to the figure in Main Body.

Color figures possible (with color page printing fee.) But not for the use, such as, color-coding of data in the graph. Lines, such as solid, dashed, or dotted lines should be used. Use large enough fonts and thick enough lines in figures to be recognized by readers.

**2.10 Equations**

3.5 mm indentation on the left side. Half space between the Equation and Main Body. See below for an example:

Example: Marangoni number, a dimensionless number representing the magnitude of Marangoni convection, is defined as follows:

 (1)

**2.11 Numbers, variables, and units**

Numbers and units in upright. Variables in italic. A space in between number and unit. (Example: Radius of Earth is defined as *R*, and *R* is equal to about 6,400 km.)

**2.12 Reference**

Basic format follows the Main Body. See the following example.

**Reference**

1. Dennetsu, T. and Kagaku, H., “Boiling heat transfer with micro bubble emission”, *Thermal Sci. Eng.*, **14**-2 (2006), 19-25.
2. Dennetsu, T. et al., DNS of turbulent heat transfer in a channel flow with different thermal boundary conditions, *Proc. 6th ASME/JSME Thermal Eng. Conf.*, TED-AJ03-226 (2003).
3. H. Dennetsu, Introduction to Heat Transfer Science, (2006), 100-117, Dennetsu Publishing.