

# Orientation to the Materials Science & Technology Conference Proceedings Author Instructions

TMS<sup>1</sup> and ISS<sup>2</sup>

<sup>1</sup>TMS (The Minerals, Metals & Materials Society); 184 Thorn Hill Road; Warrendale, PA 15086, USA

<sup>2</sup>The Iron and Steel Society (ISS); 186 Thorn Hill Road; Warrendale, PA 15086, USA

Keywords: Keyword1, Keyword2, etc.

## Abstract

This document is a quick reference guide to all the author material available for a **Materials Science & Technology Conference Proceedings (MS&T)**.

## Author Material

### MS&T Formatting.pdf

Whether you are using a **MS&T** supplied template, or a separate software program, this formatting guide will be the starting point and contains full instructions on how to format your paper.

### MS&T CopyrightForm.pdf

This file should be completely filled out and sent in with final submission of each paper.

### MS&T.pdf

This file contains all PDF documents in a single file.

### Templates

If you wish to use either Microsoft Word or LaTeX, MS&T provides templates with instructions:

- MS&T\_Word.dot – Microsoft Word template
- MS&T\_Word.pdf – Instructions for Word template
- MS&T\_Base.tex – Document structure and styles for LaTeX
- MS&T\_Paper.tex – Starting point for preparing paper in LaTeX
- MS&T\_LaTeX.pdf – Instructions for the two LaTeX template files

# Materials Science & Technology Conference Proceedings: Formatting Instructions

TMS<sup>1</sup> and ISS<sup>2</sup>

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Keywords: Keyword1, Keyword2, etc.

## Abstract

This is an instructional guide designed to cover the steps of paper preparation that are necessary to ensure uniformity and continuity for the various **Materials Science & Technology Conference Proceedings (MS&T)**. This guide can be used in conjunction with the templates that are available in both Microsoft Word or LaTeX formats. It can also be used to help you properly format your paper if you are using another software package.

When the final version of your paper is finished, you will be required to send a hard copy along with an electronic version of your paper. For the electronic version, it is highly recommended that you create a PDF version for final submission. You can also submit a Word file; however, anytime a source file (such as Word format) is submitted, there is always the very likely possibility that font substitutions will take place and photos, graphs, etc. will become rearranged when the document is opened on a different computer. The reason a PDF version is preferred is because this technology removes these variables – ensuring that the paper in the finished publication looks exactly as you wish it to look.

IT IS IMPORTANT TO NOTE THAT BY USING THIS TEMPLATE TO PRODUCE YOUR PAPER, YOU MAY BE CREATING IT LARGER (~135%) THAN THE PRINTED SIZE

- The size of your typeface should be set at 12 points with ~14 point leading.
- The typeface should be a serif font such as the Times family of fonts or Computer Modern (for LaTeX users).
- Keep all text and artwork within the template margins.
- For the hard-copy, you must use a laser printer of at least 600 dpi print resolution (dot matrix printers are not acceptable since they do not allow for satisfactory reproduction quality) and the printout should be on 20# white bond grade or better.

## FOR ARTWORK

- There are two types of figures you may work with on your paper: “line-art” (spot graphs, bar graphs, etc.) and “photo-images” (micrographs, photos, etc.). You will need to supply figures that will look good in print – that means scanning each type of figure at specific resolutions or “dots-per-inch” (dpi).
- You **MUST** scan photo-images at 300 dpi (minimum); failure to do so will result in washed-out and/or blurred images when printed. note: even if photo-images are not scanned (i.e. the image

is already in electronic format), they still must be set to at least 300 dpi for good print reproduction.

- You **MUST** scan line-art at 600 dpi (minimum); failure to do so will result in jagged lines when printed.
- Note: images prepared for the web are set at 72 dpi and make for a very poor print product; avoid using images pulled from web-based material.
- The preferred file formats for any graphics are either EPS or TIFF; using other formats, such as JPG or GIF decreases the commercial printing value.
- Make sure all type in graphs and figures is large enough to read and understand.
- How readable your paper is in the finished publication is dependant on how well the images are scanned.

**COLOR IS ACCEPTABLE, BUT WILL BE PRINTED IN BLACK AND WHITE, SO...**

- Avoid light colors such as yellow, light blue, light green and pink.
- Delineation between plots in a graph should be indicated by type of symbol and/or line pattern; avoid color graphs where delineation between plots is indicated by color alone.

## Introduction

### Layout

The following table contains the dimension for page set up.

| <b>Dimension for Page Setup</b> |                |           |         |                  |
|---------------------------------|----------------|-----------|---------|------------------|
| Dimensions                      | Inches Decimal | Points    | Picas   | Millimeters      |
| Page Size:                      | 8.5 x 11       | 612 x 792 | 51 x 66 | 215.9 x 279.4 mm |
| Margins:                        | Left: .75      | 54        | 4p6     | 19.05            |
|                                 | Right: .75     | 54        | 4p6     | 19.05            |
|                                 | Top: .5        | 36        | 3       | 12.7             |
|                                 | Bottom: 1      | 72        | 6       | 25.4             |
| Live Area:                      | 7 x 9.5        | 504 x 684 | 42 x 57 | 177.8 x 241.3    |

Single line spacing is preferred; however, if your manuscript contains a large number of subscripts or superscripts, and you cannot adjust these “script’s” sizes or position, use space-and-a-half indexing to eliminate overlaps, as seen in the following example:

“...activation energies for the stage III recovery were observed with increasing dose depending on the magnitude of the activation energies of vacancies,  $EMV$ , self-interstitials,  $EMI$ , and divacancies,  $E_{2V}^M$ , for the various metals...”

Use SI units for consistent measurement references. When possible, justify right margins as well as the left for a more finished appearance.

## **First Page**

The top of the first page of your paper contains the title of your paper, author(s) name(s), author(s) affiliation(s), and keywords. After this information is set, there should be a blank line between the keywords and the beginning of your paper.

**Title and Authors.** The title of your paper should start about 3 lines below the top margin, with the author(s) name(s) and author(s) affiliation(s) directly following. If there is more than one author, subsequent author names should follow on the same line as the first author mentioned, continuing onto further lines as necessary. If the different authors also have different affiliations, there should be a superscript number following each author name that corresponds to the proper affiliation.

There should be a blank line between the author(s) name(s) and affiliation(s). Each author affiliation should be put on a separate line (multiple lines as needed), with a superscript number at the beginning that corresponds to the correct author(s) in the previous section. Please see the first page of this guide for an sample author list.

## **Headings**

A suitably-divided text enables easier reading. These are the standards for **MS&T** headings:

- Title: 14 pt., bold, centered, first letter of each word capitalized
- First-level subheadings: 12pt., bold, centered on a separate line, first letter of each word capitalized
- Second-level subheadings: 12 pt., bold, underlined, flush left on a separate line, first letter of each word capitalized
- Third and subsequent-level subheadings: 12 pt., bold, underlined, flush left but run as part of paragraph, first letter of each word capitalized

## **Equations**

All equations should be typed, centered, and separated from the text by one blank line of space above and below. They should be numbered consecutively in parentheses at the right-hand margin, in line with the last line of the equation as seen in the example below.



## **Tables**

Place tables as closely as possible to their references. Number consecutively with Roman numerals and center the title above the table. Tablewidth rules should separate the title from column headings, and column headings from the table body and finally at the bottom of the table. Footnotes would appear below this line. (See following example).

Table IV Location and Distribution of World Strip Casting Operations

| Location       | Number | Percent |
|----------------|--------|---------|
| North America  | 58     | 37      |
| Western Europe | 37     | 23      |
| Eastern Block  | 29     | 18      |
| Asia           | 18     | 11      |
| Africa         | 9      | 6       |
| South America  | 7      | 4       |
| Australia      | 2      | 1       |

\*Footnotes

If a table cannot be contained in the margins of the template, place the table vertically (sideways) for better treatment of the information. (See Example A on following page). This is an exclusive treatment for table placement and no other text should appear on this page.

### **Figures**

Original figures in your paper should be consecutively numbered with Arabic numerals and each figure should be captioned. At an absolute minimum, graphic images (halftones) should be set at 300 dots per inch. As with tables, figures should be placed as closely as possible to the appropriate text. Photocopies, or items from previously printed sources should be avoided since they reproduce poorly and any potential value is negated. If your figures must be reduced before inserting on the page, be sure that the caption is still set in a 12 pt. font. When presenting microstructures, be sure to place a scale marker on the photograph. (see Figures 1 and 2)

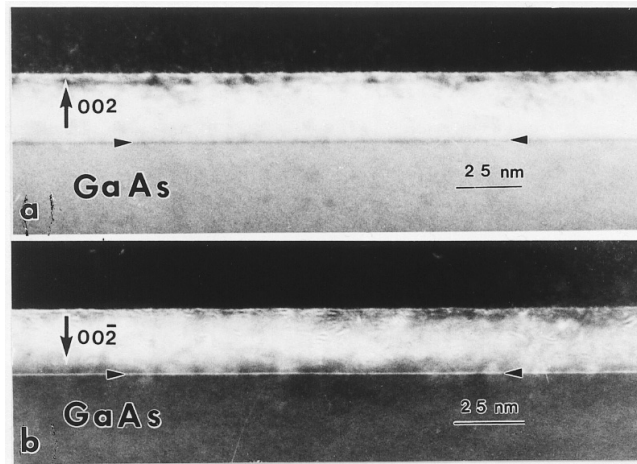


Figure 1: TEM (110) cross sections of (a) 002 and (b) 002 dark field images from a sample with 1 min Zn exposure of a As-stabilized GaAs-(2×4) epilayer prior to the growth of the thin ZnSe Layer. The Zn-As interfacial layer is marked by arrowheads.

**EXAMPLE A -VERTICAL TABLE PLACEMENT**

**TABLE III. -X-RAY DIFFRACTION RESULTS FOR HIPPED -NiAl ALLOYS TESTED FOR 1-HR EXPOSURE CYCLES IN STATIC AIR AT 1200°C**

[Phases listed in decreasing order of intensity. Code: A = Al<sub>2</sub>O<sub>3</sub>; Z = ZrO<sub>2</sub>; S = Nickel aluminate spinel; a = 8.05 to 8.10 Å; N = NiO; -NiAl matrix as weakest surface phase under oxides. The oxide surface phases present at various times, hr.]

| Alloy                        | Run   | Oxide surface phases present at various times, hr |     |       |                |                    |                    |                    |                    | Spall - when observed                             |
|------------------------------|-------|---|-----|-------|----------------|--------------------|--------------------|--------------------|--------------------|---|
|                              |       | 100   | 200 | 500   | 1000           | 1500               | 2000               | 2500               | 3000               |   |
| Alloy 1<br>Ni-46.6%Al-0.1%Zr | 683-4 | A   | A   | A     | A <sup>a</sup> | A,S,N <sup>b</sup> | A,S <sup>c</sup>   | S,N,A <sup>d</sup> |                    | 2000 hr - A,S<br>2500 hr - N,S,A                  |
|                              |       | A   | A   | A     | A <sup>a</sup> | A,S,N <sup>b</sup> | A,S <sup>c</sup>   | S,N,A <sup>d</sup> |                    | 2000 hr - A,S<br>2500 hr - N,S,A                  |
| Alloy 2<br>Ni-48.3%Al-0.1%Zr | 683-2 | A   | A,Z | A,Z   | A,Z            | A,Z                | A,Z                | A,Z                | A,Z                | 1500 hr - A<br>2000 hr - A,S,Z<br>2500 hr - A,Z,S |
|                              |       | A   | A,Z | A,Z,S | A,Z            | A,Z,S              | A,S,Z              | A,Z,S              |                    | 1500 hr - A<br>2000 hr - A,S,Z<br>2500 hr - A     |
| Alloy 3<br>Ni-38.1%Al-0.1%Z  | 683-6 | A   | A,Z | A,Z,S | A,Z            | A,Z,S              | A,Z,S <sup>b</sup> | A,Z,S              | A,S,Z <sup>c</sup> | 1500 hr - A<br>2000 hr - A,S,Z<br>2500 hr - N,S,A |
|                              |       | A   | A,Z | A,Z,S | A,Z            | A,Z,S              | A,Z,S <sup>b</sup> | A,Z,S              |                    | 1500 hr - A<br>2000 hr - A,S,Z<br>2500 hr - N,S,A |

<sup>a</sup> Martensitic β-NiAl under scale

<sup>b</sup> β-NiAl and γ<sup>\*</sup>Ni under scale

<sup>c</sup> γ<sup>\*</sup>Ni- under scale

<sup>d</sup> γ<sup>\*</sup>Ni and β-NiAl under scale

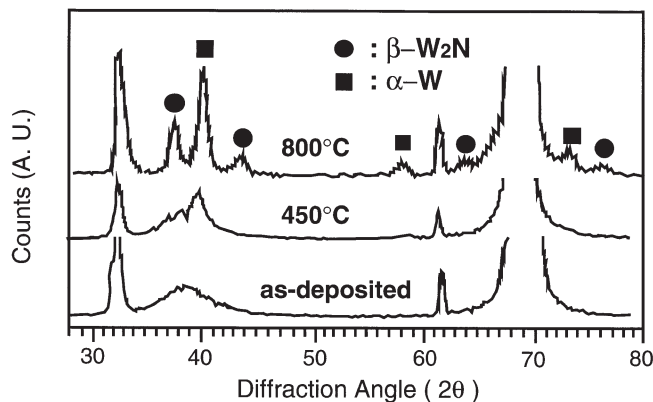


Figure 2: X-ray diffraction spectra of as-deposited and annealed films.

## References

All text references should be consecutively numbered parenthetically, using square brackets with the period after the reference – example [1, 2]. Complete citations should appear at the end of the paper in the “References” Section, using a single-spaced format with an extra, blank line of space between items. References should provide readers with enough information to find the cited material. See Example B for various reference forms. Any manuscript preparation manual will assist you in handling unique citation situations. Abbreviations of widely-used journals are accepted, but it is best to spell out the titles of foreign and less-well known journals.

## Copyright Form

This statement, which transfers copyright from the author(s) or their employers to **MS&T** must be submitted before the manuscript can be accepted for publication. Such a written transfer of copyright is necessary under U.S. Copyright Law.

## Mailing

For the hard-copy, to ensure that your manuscript arrives undamaged, sandwich it between stiffeners and mail along with the completed copyright form.

## EXAMPLE B -REFERENCES

### BOOK

#### One Author

1. Robert D. Pehlke, *Unit Processes of Extractive Metallurgy* (New York, NY: American Elsevier Publishing Company, 1973), 175-199.

#### Two or three authors

2. Ulrich Rembold, Karl Armbruster, and Wolfgang Ulzmann, *Interface Technology for Computer-Controlled Manufacturing Processes* (New York, NY: Marcell Dekker, Inc., 1985), 103.

#### More than three authors

3. R.L. Gibbey et al., *Fast Breeder Reactor Fuel Performance* (LaGrange Park, IL: American Nuclear Society, 1979), 188.

#### Editor, compiler, translator

4. Lawrence E. Murr, ed., *Industrial Materials Science and Engineering* (New York, NY: Marcel Dekker, Inc. 1985), 98.
5. Robert C. Bates. "A Model for Striation Spacing in Fatigue Crack Growth," *Fracture: Interactions of Microstructure, Mechanisms and Mechanics*, ed. J.M. Wells and J.D. Landes (Warrendale, PA: The Metallurgical Society of AIME, 1984), 255-284.

#### Multivolume work or series

6. H. Baker et al., eds., *Metals Handbook*, vol. 2 (Metals Park, OH: American Society for Metals, 1979), 60.

### JOURNAL

#### Volume and year

7. E.H. Lee, R.L. Mallet, and W.H. Yang, "Stress and Deformation Analysis of the Metal Extrusion Process," *Computer Methods in Applied Mechanics and Engineering*, 10 (1977), 339-353.

#### Volume, issue and year

8. M.J. Cooke et al., "LPCVD of aluminum and Al-Si Alloys for Semiconductor Metallization," *Solid State Tech*, 25 (12) (1982), 62-65.
9. B.L. Agarwal, "Postbuckling Behavior of Composite Shear Webs," *A.I.A.A. Journal*, 19 (F) (1981), 933-939.

## **Year as volume number**

10. A.H. Cottrell and P.R. Swann, "Technical Lessons for Flixborough, A Metallurgical Examination of the Eight-Inch Line," *The Chemical Engineer*, 1979, no. 4:266-274.

## **UNPUBLISHED PAPERS**

### **Reports**

11. D.N. Robinson, "A Unified Creep-Plasticity Model for Structural Metals at High Temperature" (Report ORNL/TM-5969, Oak Ridge National Laboratory, 1978).

### **Dissertation or thesis**

12. B.G. Snyder, "Superplasticity in Ferrous Laminated Composites" (Ph.D. thesis, Stanford University, 1982), 45-51.

### **Paper presented at meeting**

13. P.B. Queneau, "Behavior of Magnesium Sulfate During Acid Pressure Leaching Nickeliferous Laterite Ore" (Paper presented at the 113<sup>th</sup> AIME Annual Meeting, Los Angeles, California, 28 February 1984), 5.

### **Interview of personal communication**

14. James F. Rogers, private communication with author, U.S. Naval Research Laboratory, 10 September 1978.

Top Margin: .5 inches; 36 points; 3 picas; 12.7 mm

NOTHING SHOULD LAY OUTSIDE OF MARGINS

Left Margin: .75 inches; 54 points; 4p6 picas; 19.05 mm

9.5 inches; 684 points; 57 picas; 241.3 millimeters

NOTHING SHOULD LAY OUTSIDE OF MARGINS

**PAPER TITLE**

Author(s) Names(s)<sup>1</sup>

<sup>1</sup>Authors(s) Affiliation(s)

Keywords

*(Paper title, author(s) name(s), author(s) affiliation(s), and keywords appear on first page only)*

Right Margin: .75 inches; 54 points; 4p6 picas; 19.05 mm

7 inches; 504 points; 42 picas; 177.8 millimeters

Bottom Margin: 1 inch; 72 points; 6 picas; 25.4 mm

## CHECKLIST

A paper is considered complete when it can be reproduced without further alteration. With this in mind, please use the following checklist to guarantee that your manuscript meets these qualifications for inclusion in the published proceedings:

Yes    No

- 1. The resolution for all photos/images/halftones is set to at least 300 dots per inch; any line-art that must be scanned is set to at least 600 dots per inch.
- 2. Logical placement of figures and tables has been made within the body of my paper to allow for easier reading.
- 3. Typing is single-spaced on pages set up according to this guide; right-hand margin justification when possible. **ARTICLES WILL NOT BE RETYPED.**
- 4. If necessary, space-and-a-half indexing has been used for comfortable placement of superscripts and subscripts.
- 5. For the hard-copy, a high quality laser or ink jet printer was used to generate the pages (NOTE: A Dot matrix printer has poor reproductive quality; do not use this type of printer.)
- 6. A signed copyright form accompanies each of my manuscript submissions.
- 7. Key words are provided on first page.
- 8. Submission of a hard-copy along with a PDF file of your paper; if a PDF file cannot be produced then a Word file is acceptable, but .

**The Iron & Steel Society** and **TMS (The Minerals, Metals & Materials Society)** value your contribution and strive to produce quality publications. You, as individual authors, should make certain that your research and written efforts will be represented in the best possible manner.

Thank you for your cooperation.

# **Materials Science & Technology Conference Proceedings: Instructions for Word Template**

TMS<sup>1</sup> and ISS<sup>2</sup>

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Keywords: Keyword1, Keyword2, etc.

## **Abstract**

This is an instructional guide for using the Microsoft Word Template for the **Materials Science & Technology Conference Proceedings (MS&T)**: “MS&T.dot”. This template has a preset formatting structure to help you layout your paper. When the final version of your paper is finished, you will be required to send a hard copy along with an electronic version of your paper. For the electronic version, it is highly recommended that you create a PDF version for final submission. You can also submit the Word file; however, anytime a source file (such as Word format) is submitted, there is always the very likely possibility that font substitutions will take place and photos, graphs, etc. will become rearranged when the document is opened on a different computer. The reason a PDF version is preferred is because this technology removes these variables – ensuring that the paper in the finished publication looks exactly as you wish it to look.

## **Introduction**

The Word template has the proper margins set, includes some styles specifically designed for **MS&T**, and includes a few buttons to help automate some common tasks. The margins and styles should remain constant for whatever version of Word you are using and whether you are using a Windows or MacIntosh computer. But, please note that the buttons use Macros that will work only in Word ‘97 and subsequent versions.

Once you have a copy of the template on your computer, you can place it in the “Templates” folder for Word and it will then be available to you whenever you click on the “New” option under the “File” menu. Please utilize the Word “Help” menu for more information on adding templates.

## **Layout**

When beginning your paper, be sure to create a new document based on this template (do not open up the template itself). The paper size and margins for the template are setup according to the following table.

| <b>Dimension for Page Setup</b> |                       |               |              |                    |
|---------------------------------|-----------------------|---------------|--------------|--------------------|
| <b>Dimensions</b>               | <b>Inches Decimal</b> | <b>Points</b> | <b>Picas</b> | <b>Millimeters</b> |
| <b>Page Size:</b>               | 8.5 x 11              | 612 x 792     | 51 x 66      | 215.9 x 279.4 mm   |
| <b>Margins:</b>                 | Left: .75             | 54            | 4p6          | 19.05              |
|                                 | Right: .75            | 54            | 4p6          | 19.05              |
|                                 | Top: .5               | 36            | 3            | 12.7               |
|                                 | Bottom: 1             | 72            | 6            | 25.4               |
| <b>Live Area:</b>               | 7 x 9.5               | 504 x 684     | 42 x 57      | 177.8 x 241.3      |

Please do not make any changes and be sure that everything in your paper (included all tables, artwork, etc.) is within these the margins.

### **First Page**

The top of the first page of your paper contains the title of your paper, author(s) name(s), author(s) affiliation(s), and keywords. After this information is set, please beginning typing your paper below the keywords.

#### **Title and Author(s)**

Position the cursor over the text “Materials Science & Technology Conference Proceedings: Word Template” and click on the left mouse button; you may then beginning typing the title. After typing in the title, please follow the same procedure for clicking on and typing in the author(s) name(s) and affiliation(s). If there is more than one author, subsequent author names should follow on the same line as the first author mentioned, continuing onto further lines as necessary. If the different authors also have different affiliations, there should be a superscript number following each author name that corresponds to the proper affiliation.

There should be a blank line between the author(s) name(s) and affiliation(s). Each author affiliation should be put on a separate line (multiple lines as needed), with a superscript number at the beginning that corresponds to the correct author(s).

### **Styles**

This template has certain character/paragraph styles predefined. When you type in your paper title, author(s) name(s), author(s) affiliation(s), abstract and introduction, the proper style is already set. As you add in more headings and paragraphs, you will need to make sure that the new text receives the proper formatting style. The toolbars described later can help in this process.

**IMPORTANT NOTE:** If you have typed your paper in another software application and are pasting it into this template, Word usually attempts to retain the original formatting style. So, once the text is pasted in, you will need to apply the proper **MS&T** style.

## **Heading 1, MS&T: First-Level Heading**

This style should be used for any first level headings such as the “Abstract” and “Introduction” portions of your paper.

Font: Times New Roman  
Font Size: 12 pt.  
Font Attributes: Bold; first letter of each word in caps  
Alignment: Centered  
Spacing: Begin paragraph 2 lines below heading

## **Heading 2, MS&T: Second-Level Heading**

This style should be used for any second level headings. An example would be “Heading 2, MS&T: Second-Level Heading” above.

Font: Times New Roman  
Font Size: 12 pt.  
Font Attributes: Bold + Underline; first letter of each word in caps  
Alignment: Left justified  
Spacing: Begin paragraph 2 lines below heading

**Heading 3, MS&T: Third-Level Heading**. If necessary, this style should be used for any third (and subsequent) level headings. It is almost identical to the second level heading except that a second level paragraph begins 2 lines below the heading whereas the third level paragraph begins on the same line, immediately following the heading.

Font: Times New Roman  
Font Size: 12 pt.  
Font Attributes: Bold + Underline; first letter of each word in caps  
Alignment: Fully justified  
Spacing: Begin paragraph on same line

## **Heading 4, MS&T: Paper Title**

This style should be used for the paper title only.

Font: Times New Roman  
Font Size: 14 pt.  
Font Attributes: Bold; first letter of each word in caps  
Alignment: Centered  
Spacing: Begin author information 2 lines below title

## MS&T: Paragraph Style

This style should be used for the main text in the body of each paragraph.

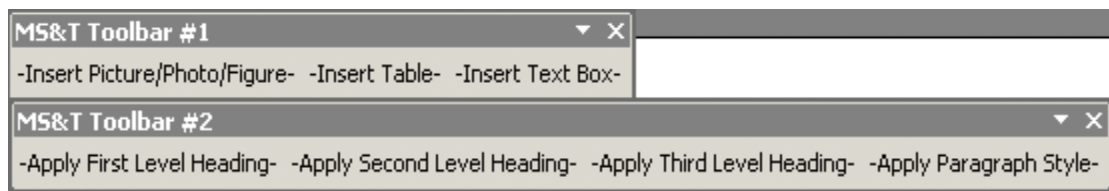
Font: Times New Roman  
Font Size: 12 pt.  
Font Attributes: None  
Alignment: Fully justified  
Spacing: Use single line spacing and block paragraphs

## MS&T: Σψμβολ

This is the “Symbol” font; please use this whenever possible when inserting special characters.

Font: Symbol  
Font Size: 12 pt.  
Font Attributes: None

### Buttons



This template contains two toolbars (see example above). “MS&T Toolbar #1” contains the following buttons:

- Insert Picture/Photo/Figure
- Insert Table
- Insert Text Box

“MS&T Toolbar #2” contains the following buttons:

- Apply First Level Heading
- Apply Second Level Heading
- Apply Third Level Heading
- Apply Paragraph Style

### Using Buttons

In order for the buttons to work, the security settings for Word must be set properly to allow Macros to run. This is done by going to the following menu:

“Tools” – “Macros” – “Security”

To use the buttons, set the security to either “Medium” or “Low.” If you set the security to “Low” then the buttons will work; if you set the security to “Medium” when you launch the template, you will be prompted to either enable or disable macros – choose “Enable Macros” if you want the buttons to function.

### **“Insert” Buttons**

These buttons (Insert Picture/Photo/Figure, Insert Table and Insert Text Box) are resident in the toolbar because they are commonly used tasks when preparing papers. Whenever inserting any object, be sure that the object is kept within the margins of the paper.

When you click on the “Insert Picture\Photo\Figure” button, the cursor will first be centered, and then you will be taken to the appropriate dialog box. You can save items such as graphs and equations as a graphic files and use this button to insert them into the document – thus ensuring that they look correct and no information is lost or changed. The preferred file formats for any graphics are either EPS or TIFF; using other formats, such as JPG or GIF decreases the commercial printing value.

### **“Apply...” Buttons**

These buttons are resident in the toolbar to help automate applying the correct styles to text. Highlight the text you wish to change and then click on the appropriate button to apply the proper style.

# Materials Science & Technology Conference Proceedings: Instructions for LaTeX Template

TMS<sup>1</sup> and ISS<sup>2</sup>

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Keywords: Keyword1, Keyword2, etc.

## Abstract

This is an instructional guide for using the LaTeX Template that has been built for the **Materials Science & Technology Conference Proceedings (MS&T)**. This template has a preset formatting structure to help you prepare your paper.

## Introduction

This LaTeX template is divided into two files. “MS&T\_Base.tex” contains the proper layout and command definitions; “MS&T\_Paper.tex” should reside in the same directory and should be used as the actual starting point for your paper.

The template uses both the “geometry” and “titlesec” packages. If you do not have these packages, they can be downloaded from the following web locations:

<http://www.ctan.org/tex-archive/macros/latex/contrib/supported/geometry/>

<http://www.ctan.org/tex-archive/macros/latex/contrib/supported/titlesec/>

## Document Setup

### Document Class

In the first line, the document class is set to the following:

- letterpaper (8.5x11 page size)
- 12pt (for default font size)
- onecolumn
- onesided
- article

### Layout

**Margins.** The next section uses the “geometry” package to properly set up the page layout (see following table); please do not make any changes to these dimensions.

| <b>Dimension for Page Setup</b> |                |           |         |               |
|---------------------------------|----------------|-----------|---------|---------------|
| Dimensions                      | Inches Decimal | Points    | Picas   | Millimeters   |
| Page Size:                      | 8.5 x 11       | 612 x 792 | 51 x 66 | 215.9 x 279.4 |
| Text Height:                    | 9.5            | 720       | 57      | 241.3         |
| Text Width:                     | 7              | 462       | 42      | 177.8         |
| Top Margin:                     | .5             | 36        | 3       | 12.7          |
| Left Margin:                    | .75            | 54        | 4p6     | 19.05         |

There is no need to have a header or footer when submitting an electronic document, so the “noheadfoot” option is set. There is also no need to have page numbers, so the “\pagestyle{empty}” option is set.

### **Commands for Sectioning**

The default way LaTeX sections papers is not used. Instead, the “titlesec” package is used to redefine the sectioning commands. No section numbering is used, so the “secnumdepth” is set to 0.

#### **\section{This is an Example}**

This command should be used for any first level headings such as the “Abstract,” and “Introduction” sections of your paper.

Font Attributes: Bold  
 Capitilization: First letter of each word in caps  
 Alignment: Centered  
 Spacing: Begin paragraph below heading

#### **\subsection{This is an Example}**

This command should be used for any second level headings.

Font Attributes: Bold + Underline  
 Capitilization: First letter of each word in caps  
 Alignment: Flush left on column  
 Spacing: Begin paragraph below heading

**\subsubsection{This is an Example.}** If necessary, this style should be used for any third (and subsequent) level headings. It is almost identical to the second level heading except that a second level paragraph begins below the heading whereas the third level paragraph begins on the same line, immediately following the heading.

Font Attributes: Bold + Underline  
 Capitilization: First letter of each word in caps  
 Alignment: Flush left on column  
 Spacing: Begin paragraph on same line as heading

## Commands for First Page

The next portion contains the command definitions for the paper title, author list and author affiliation(s).

### \PaperTitle

The title of your paper should start about 3 lines below the top margin. The title is in large (14 pt.), bold text and there should be a paragraph break between the title and author(s) name(s); capitalize the first letter of every word, using lower case as needed.

### \AuthorsList

There should be a blank line between the title and the author list. If there is more than one author, subsequent author names should follow on the same line as the first author mentioned, continuing onto further lines as necessary. If the different authors also have different affiliations, there should be a superscript number following each author name that corresponds to the proper affiliation.

There should be a blank line between the author(s) name(s) and affiliation(s). Each author affiliation should be put on a separate line (multiple lines as needed), with a superscript number at the beginning that corresponds to the correct author(s) in the previous section

### \AuthorsAffiliation

There should be a blank line between the author(s) name(s) and affiliation(s). Each author affiliation should be put on a separate line (multiple lines as needed), with a superscript number at the beginning that corresponds to the correct author(s) in the previous section

## Keywords

There should be a blank line after the author(s) affiliation(s) and then the keyword list for you paper. Another blank line should follow below the keyword list.

You may now begin inputting the main body of your paper. The default way in which LaTeX handles footnotes, floats (tables, pictures, graphs, etc.) and the bibliography is acceptable. Any further information on how to prepare your paper should be covered in the formatting instructions.

## Saving and Submitting

Because of LaTeX's built-in PDF capabilities, you will be required to submit a PDF version of your paper along with a hard-copy. Be sure to create the PDF version directly from the LaTeX file (e.g. the "pdflatex" command); please do not create the PDF file from a DVI version of the paper.



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