TWO-COLUMN FORMATTING GUIDE

This is a guide designed to cover the details of paper preparation to ensure uniformity and continuity for two-column proceedings publications. To obtain the appropriate template, visit www.tms.org/pubs/Books/. This guide is to be used in conjunction with the Two-Column Word Template. It can also be used to help you properly format your paper if you are using another software package. Do not change any of the template's default settings. Once you have a copy of the template on your computer click on the "New" option under the "File" menu, choosing "New from existing". Select the Word Template. Save as new file. Please utilize the Word "Help" menu for more information on adding templates to older versions of Word.

Introduction

The template includes the following:
- Character and paragraph styles designed specifically for two-column proceedings publications
- Buttons that automate some commonly used 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.

Artwork

- You MUST include images (including photos) at 300 dpi or better; failure to do so will result in blurred images when printed; even if images are not scanned (i.e., they are already in electronic format), they still must be set to at least 300 dpi for good reproduction.
- Images prepared for the web are typically set at 72 dpi and make for a very poor product; avoid using images from web-based material.
- Make sure all type in graphs and figures is large enough to read and understand.
- The readability of your paper in the finished publication is dependent on you providing good quality material.

Color

Color in a paper is acceptable, but if the publication will be in a print volume, all material will be printed in black and white. It is best to:
- 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.

Layout

When you begin your paper, be sure to create a new document based on this template (do not open the template itself). The paper size and margins for the template are already set. These are the dimensions necessary for a two-column proceedings volume; please do not make any changes and be sure that everything in your paper (including all tables, artwork, etc.) is within these margins – if anything lays outside these margins, your paper is in danger of being returned or rejected.

Single line spacing is preferred; however, if your manuscript contains a large number of subscripts or superscripts and you cannot adjust the sizes or positions of these "scripts," use space-and-a-half indexing to eliminate line overlaps.

Use SI units for consistent measurement references. Justify right margins as well as the left for a more finished appearance.

First Page

The top of the first page of your paper should contain the title of your paper, all the author(s) name(s) with affiliation(s), and a list of keywords; blank lines should separate each of these sections. After this information is set, begin typing your paper, starting with the abstract and after the keywords.

Title and Authors

Click on the text "TITLE" and enter the title of your paper in all caps. After typing in the title, follow the same procedure for clicking on and typing in the author(s) name(s), author(s) affiliation(s), and keywords. 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; there should be a superscript number following each author name that corresponds to the proper affiliation. Each author affiliation should be put on a separate line (two lines if necessary), with a superscript number at the beginning that corresponds to the correct author(s) in the previous section.

Keywords

Between the author(s) affiliation(s) and Abstract, enter at least three keywords appropriate for your paper.

Styles

This template has certain character/paragraph styles predefined. As you add in headings and paragraphs, you will need to make sure that the new text receives the proper formatting style; the buttons described later can help with this task.

If you have typed your paper in another program and are pasting it into this template, be sure the pasted text appears in the proper TMS style.

Headings

A paper with text divided under headings is recommended. These are the standards for one-column proceeding headings:

TMS: PAPER TITLE

This style should be used for the paper title only.

Font: Times New Roman
Font Size: 11 pt.
Font Attributes: Bold; All caps
Alignment: Centered
Spacing: Blank line above and below

Heading 1, TMS: First-Level Heading

This style should be used for any first-level headings such as the **Abstract** and **Introduction** headings.

Font: Times New Roman
Font Size: 9 pt.
Font Attributes: Bold; Words in title case
Alignment: Centered
Spacing: Blank line above and below

Heading 2,TMS: Second-Level Heading

This style should be used for any second-level headings (note the spacing).

Font: Times New Roman
Font Size: 9 pt.
Font Attributes: Underline; Words in title case
Alignment: Left justified
Spacing: Blank line above and below

Heading 3,TMS: Third-Level Heading

This style should be used for any third-level headings, if necessary (note the spacing).

Font: Times New Roman
Font Size: 9 pt.
Font Attributes: Underline; Words in title case
Alignment: Fully justified
Spacing: Blank line above; begin paragraph on same line

Text

TMS: Paragraph Style
This style should be used for the main text in the body of each paragraph.

Font: Times New Roman
Font Size: 9 pt.
Font Attributes: None
Alignment: Fully justified
Spacing: Use single line spacing and block paragraphs

ΤΜΣ: Σψ∫βολ
This is the "Symbol" font; please use this whenever possible when inserting special characters.

Font: Symbol
Font Size: 9 pt.
Font Attributes: None

Macro Buttons

This template contains two toolbars. These buttons can be found in the Add-ins tab under custom toolbars.

"TMS Two-Column Proceedings Set#1" contains the following buttons:
• Insert Picture/Photo/Figure
• Insert Table
• Insert Text Box
• One-Column Format*
• Two-Column Format*

***One/Two-Column Format Buttons:** When working with a multiple column document, it is sometimes necessary to briefly switch to a single column format. These two buttons will help automate this process.

"TMS Two-Column Proceedings Set #2" contains the following buttons:
• Apply First-Level Heading
• Apply Second-Level Heading
• Apply Third-Level Heading
• Apply Paragraph Style

How to Enable Macro Functionality

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

" File – Options – Trust Center – Trust Center Settings – Macro Settings – Enable All Macros"

You may be prompted to either "enable" or "disable" macros upon opening the template, choose "Enable Macros" if you want the buttons to function.

Set#1 "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 TMS 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 file and use this button to insert them into the document – thus ensuring that they look correct and no information is lost or changed.

Set#2 "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. You may now begin typing the body of your paper.

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.

$$CN + SO_2 + O_2 + H_2O - CNO + H_2SO_4 \tag{1}$$

Tables

Place tables as closely as possible to their references in the text. Number consecutively with Roman numerals and center the title above the table. Table-width rules should separate the title from column headings, column headings from the table body, and finally the bottom of the table from the next paragraph. Footnotes would appear below the last line. (See Table I).

Table I. 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, scale it down to fit the page width inside the margin area.

Figures

Original figures in your paper should be consecutively numbered with Arabic numerals and each figure should be captioned. As with tables, figures should be placed as closely as possible to the appropriate text. At an absolute minimum, graphic images (halftones) should be set at 300 dpi. 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 not to reduce the caption. When presenting microstructures, be sure to place a scale marker on the photograph (see Figures 1 and 2).
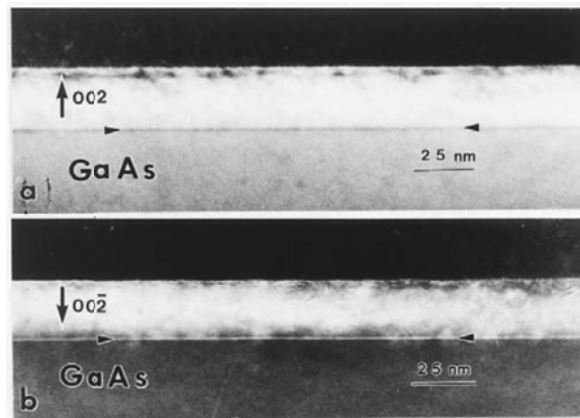
Figure 1. TEM (110) cross sections of (a) 002 and (b) 002 dark field images from a sample with 1 min Zn exposure of a As-stabilized GaAs-(2×4) epilayer prior to the growth of the thin ZnSe Layer. The Zn-As interfacial layer is marked by arrowheads.
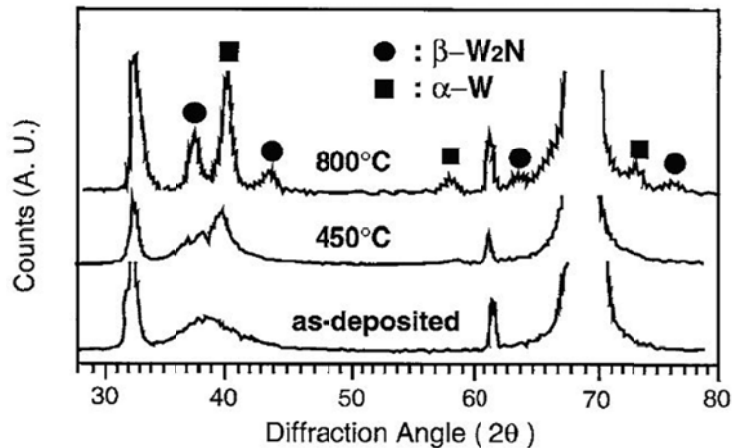
Figure 2. X-ray diffraction spectra of as-deposited and annealed films.

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 single-spaced format with a blank line of space between items. References should provide readers with enough information to find the cited material. See **Example A** 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.

Example A: 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 113th 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.

Submitting Your Manuscript

When you are ready to submit your paper, please make sure that the last name of the primary author is used as the file name and then:

1. Go to the ProgramMaster web site and log in using the same username and password that were used when you submitted your abstract.
2. Follow the "Presenter/Author Tools" link from the main menu.
3. In the list that you are presented, click on the "Upload Manuscript" link.
4. From the Manuscript Submission page, follow the prompts on how to upload your file.
5. You can submit only a PDF version of your manuscript. Please be sure that all fonts are embedded within the file.

A copyright form must be submitted at the time you upload your manuscript. Please do not add the title page copyright information or page numbering to your finished manuscript. These will be added at the time of manufacture.

(SEE NEXT PAGE FOR PAGE LAYOUT DIAGRAM)

Left Margin: 4.5 picas; 0.75 inch; 19.05 mm

54 picas; 9 inches; 228.6 mm

NOTHING SHOULD LAY OUTSIDE OF MARGINS

PAPER TITLE

Author(s) Names(s)[1], Author(s) Names(s)[2]

[1]Authors(s) Affiliation(s) (Name of Company; Complete Address)
[2]Authors(s) Affiliation(s) (Name of Company; Complete Address)

Keywords: Keyword, Keyword, Keyword

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

Margin Between Columns: 2 picas; 0.333 inches; 8.467 mm

42 picas; 7 inches; 177.8 mm

Right Margin: 4.5 picas; 0.75 inch; 19.05 mm