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FORMATTING INSTRUCTIONS: ONE-COLUMN PUBLICATIONS

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184 Thorn Hill Road
Warrendale, PA 15086-7514, USA
Phone: (724) 776-9000
Fax: (724) 776-3770

FORMATTING INSTRUCTIONS: ONE-COLUMN PUBLICATIONS

TMS[1], Jane Doe[2], John Doe[2]

[1]TMS (The Minerals, Metals & Materials Society);
184 Thorn Hill Road; Warrendale, PA 15086-7514, USA
[2]Name of Company; Address; City, State, Postal Code, Country

Abstract

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Introduction

Layout

The following table contains the dimension for page set up for a TMS one-column publication.

Dimension for Page Setup				
Dimensions	Inches Decimal	Points	Picas	Millimeters
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	Top: .5	36	3	12.7
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Live Area:	6.417 x 10	462 x 720	38.5 x 60	163 x 254

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, E M I, and divacancies, E^{M}_{2V} , 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.

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A suitably-divided text enables easier reading. The paper title should be in all caps and bold; first-level subheadings: initial cap/lower case letter, bold, and centered on a separate line; second-level subheadings: initial cap/lower case letters, should be underlined and placed flush left on a separate line. If third-level subheadings are necessary: use upper and lower case, underline, but run in as part of the succeeding paragraph. (See examples)

Equations. (third-level subheading) 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.

$$CN + SO_2 + O_2 + H_2O - CNO + H_2SO_4 \quad (1)$$

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 text should appear on this page.

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_2O_3; Z = ZrO_2; S = Nickel aluminate spinel; a = 8.05 to 8.10 A; N = Nio; -NiAl matrix as weakest surface phse under oxides. The oxide surface phases present at various times, hr.]

Alloy	Run	Oxide surface phases present at various times, hr								Spall - when observed
1		100	200	500	1000	1500	2000	2500	3000	
Alloy 1 Ni-46.6%Al-0.%Zr	683-4	A	A	A	A[a]	A,S,N[b]	A,S[c]	S,N,A[d]	----------	2000 hr - A,S 2500 hr - N,S,A
	683-5	A	A	A	A[a]	A,S,N[b]	A,S[c]	S,N,A[d]	----------	2000 hr - A,S 2500 hr - N,S,A
Alloy 2 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 2000 hr - A,S,Z 2500 hr - A,Z,S
Alloy 3 Ni-38.1%Al-0.1%Zr	683-3	A	A,Z	A,Z,S	A,Z	A,Z,S	A,S,Z	A,Z,S	----------	1500 hr - A 2000 hr - A,S,Z 2500 hr - A
	683-6	A	A,Z	A,Z,S	A,Z	A,Z,S	A,Z,S[b]	A,Z,S	A,S,Z[c]	1500 hr - A 2000 hr - A,S,Z 2500 hr - N,S,A

[a] Martinsitic β-NiAl under scale
[b] β-NiAl and γ'Ni under scale
[c] γ'Ni- under scale
[d] γ'Ni and β-NiAl under scale

Figures

Original figures of your article 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. 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)

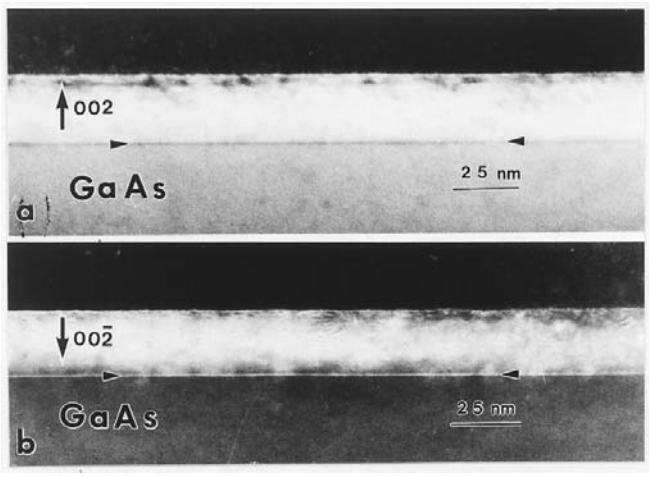

Figure 1: TEM (110) cross sections of (a) 002 and (b) 002 dark field images from a sample with 1 min Zn exposure of a As-stabilized GaAs-(2×4) epilayer prior to the growth of the thin ZnSe Layer. The Zn-As interfacial layer is marked by arrowheads.

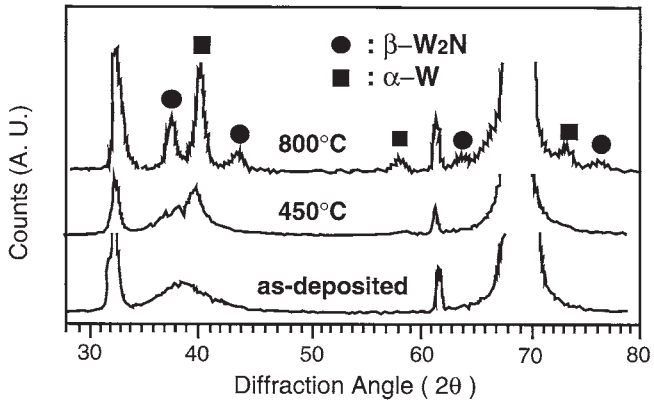

Figure 2: X-ray diffraction spectra of as-deposited and annealed films.

References

All text references should be consecutively numbered parenthetically. 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, titles of foreign and less-well known journals are best spelled out.

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tensile properties, 3-7
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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 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.

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