

## TYPES OF PAPERS

---

*JOM* contributors can select from a variety of approaches for articles that fall within the journal's [Editorial Calendar topics](#). These article approaches include, but are not limited to:

**Original Paper:** Describes a novel, technically in-depth investigation from the minerals, metals, and materials community.

- 3,000-6,000 words (including abstract and references) and a maximum of 8 figures/tables.
- Additional materials, including figures, tables, datasets, and videos can be included as Electronic Supplementary Materials. These are accessible online, but not in print. They are exempt from the word count limit.

**Review Paper:** A thorough compilation and succinct summary of research performed in an area of interest to *JOM* readers.

- Although lengths can vary depending on subject matter, the typical review paper ranges from 6,000-10,000 words (including abstract and references) and no more than 15 figures/tables.
- Additional materials, including figures, tables, datasets, and videos can be included as Electronic Supplementary Materials. These are accessible online, but not in print. They are exempt from the word count limit.

**Industrial Application/Case Study:** A noncommercial discussion of practical applications of research and technology.

- 2,000-4,000 words
- Each figure/table counts as 250 words and must be factored into the total word count.

**Editorial Notes:** (800–1,600 words) Reserved for Guest Editors to summarize the theme of a special topic.

## AUTHOR OBLIGATIONS

---

### Manuscript Submission

Submission of a manuscript implies:

- The work described has not been published before.
- It is not under consideration for publication anywhere else.

- Its publication has been approved by all co-authors, if any, as well as by the responsible authorities—tacitly or explicitly—at the organization where the work has been done.

Authors are responsible for submitting manuscripts in clear English language and should obtain assistance from an independent professional editor, if necessary. A list of independent editing services is provided below (this list is not comprehensive, but a sampling of available services):

<http://www.aje.com>

<http://www.editage.com>

<http://www.edanzediting.com>

The publisher will not be held legally responsible should there be any claims for compensation. If part of a contribution has appeared or has been submitted elsewhere, the paper is not automatically rejected so long as the main result, conclusion and implications are substantially enhanced or different as compared to the other work. In this event, the corresponding author must specify in the cover letter which part of the contribution will appear or has appeared elsewhere, in what publication, and how the submitted manuscript differs from previously disseminated versions.

### Manuscript Resubmission

Authors of papers containing any amount of material previously rejected by this journal must identify the manuscript number of the previously rejected manuscript in the cover letter and clearly state the reasons for resubmission.

### Permissions

Authors wishing to include figures, tables, or text passages that have already been published elsewhere are required to obtain permission from the copyright owner(s) for both the print and online format of *JOM* and to include evidence that such permission has been granted when submitting their papers. Any material received without such evidence will be assumed to originate from the authors.

### Conflict of Interest

Authors must indicate whether or not they have a financial relationship with the organization that sponsored the research. This note should be added in a separate section before the reference list. If no conflict exists, authors should state: "The authors declare that they have no conflict of interest".

## Ethics

Originality of the manuscript submitted is the author's responsibility, and authors must avoid duplicate submission, plagiarism, and self-plagiarism. All manuscript submissions will be screened against the CrossCheck database (powered by [iThenticate](#)). iThenticate is a plagiarism screening service that verifies the originality of content submitted. Authors can also use iThenticate to screen their work before submission by visiting [www.ithenticate.com](http://www.ithenticate.com). JOM ascribes to the codes of conduct and best practices guidelines of the Committee on Publication Ethics.

## Co-Author Guidelines

The co-authors of a paper should be all persons who have participated sufficiently in the work reported to take public responsibility and be accountable for appropriate portions of the content. Changes to the author names listed in the original manuscript during revision or after acceptance, including additions, deletions, or change in author order, require proof of agreement of all coauthors.

## Suggested Reviewers

Suggesting three reviewers is required for submission. These reviewers should have expertise specific to the manuscript, have recently published, and still be active in the field. In the manuscript submission form, authors will be asked to provide one or more verified links to each reviewer's recent publications, publication history, or CV. Please note that the editorial office may not use your suggestions, but providing names of reviewers may speed up the selection of appropriate reviewers.

## Online Submission

All JOM authors submit their manuscripts online. Please go to [JOM Editorial Manager](#) to upload all of your manuscript files, following the instructions that will be presented on the screen.

## Author Query Application

Upon acceptance of your article, you will receive a link to the special Author Query Application at Springer's web page where you can sign the Copyright Transfer Statement online and indicate whether you wish to order Open Choice, offprints, or printing of figures in color.

Once the Author Query Application has been completed, your article will be processed and you will receive the proofs.

## JOM STYLE GUIDE

---

### Title Page

The title page should include:

- A concise and informative title (do not use all uppercase text in the title).
- The name(s) of the author(s) [(first name (given name) followed by last name (family name)]
- The affiliation(s) of all authors with their city, state, and zip code if U.S., or city, country, country code if outside the U.S.
- The e-mail address of the corresponding author

### Abstract

Please provide an abstract of not more than 150 words. The abstract should not contain any undefined abbreviations or cite any references.

### Text

#### Text Formatting

Manuscripts should be submitted in Word.

- Use a normal, plain font (e.g., 10-point Times Roman) for text.
- Use U.S. English spelling.
- Use italics for emphasis.
- Use the automatic page numbering function to number the pages.
- Do not use field functions.
- Use tab stops or other commands for indents, not the space bar.
- Use the table function, not spreadsheets, to make tables.
- Use the equation editor or MathType for equations. **Note:** If you use Word 2007, do not create the equations with the default equation editor. Instead, use the Microsoft equation editor or MathType instead.

Manuscripts with mathematical content can also be submitted in LaTeX. Upload a PDF file of the LaTeX document as the manuscript file, in addition to uploading the .tex file as a supplementary material file. For information on creating and uploading LaTeX documents, go to [www.editorialmanager.de/pdf/latex/](http://www.editorialmanager.de/pdf/latex/).

### Headings

Please use no more than three levels of displayed headings.

### Abbreviations

Abbreviations should be defined at first mention and used consistently after that occurrence. If the abbreviation occurs first in the abstract, it should be defined both there and at first mention in the text.

### Footnotes

Footnotes can be used to give additional information. This may include the citation of a reference included in the reference list. They should not consist solely of a reference citation, and should never include the bibliographic details of a reference. They should also not contain any figures or tables.

Footnotes to the text are identified in consecutive order using lower-case letters. Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data). Footnotes to the title or the authors of the article are not given reference symbols.

*Always use footnotes instead of endnotes.*

### Acknowledgements

Acknowledgments of people, grants, funds, etc. should be placed in a separate section before the reference list. The names of funding organizations should be written in full.

### Scientific Style

Please always use internationally accepted signs and symbols for units, SI units.

### Revised Papers

When a revision is submitted, you must include a point-by-point response to the reviewer comments. You also must upload a clean version of the revised paper and a track changes version showing all changes made during revision.

## REFERENCES

### Citation

References must be numbered and must be cited in ascending numerical order, and citations in the text should be identified by numbers in square brackets. Some examples:

- Negotiation research spans many disciplines [3].
- This result was later contradicted by Becker and Seligman [5].
- This effect has been widely studied [1-3, 7].

### Styling of References

1. A journal reference should be readily available on subscription and included in most library collections. Use journal abbreviations as given in the current listing of Chemical Abstracts Service at this [link](#). Article titles are not to be included. List all authors' names—do not use et al.  
*Form:* Author, italicized and abbreviated journal title, volume number, opening page number (year). *Example:* R.M. Horn and Robert O. Ritchie, *Metall. Trans. A*, 9A, 1039 (1978).
2. References to books should include the italicized book title, and pages within the book:  
*Form:* Author: Book title, edition (publisher location: publisher name, date), pages.  
*Example:* George E. Dieter, *Mechanical Metallurgy*, 2nd ed. (New York, NY: McGraw-Hill Book Co., 1976), pp. 160-165.
3. Book chapters or sections within a book:  
*Example:* D.M. Abrams, This appears to be deleted for publication, *Conductive Polymers*, ed. R.S. Seymour and A. Smith (New York, NY: Springer, 1973), p. 307.
4. A “private communication” or “unpublished research” may be referenced when required to give proper credit. The citation must include the affiliation and location of the person involved, as well as the year. Papers presented at meetings, but not published, fall under this category.  
*Example:* J.J. Doe, AAA Company, Washington, D.C., unpublished research, 2004.
5. References to internal reports and other publications of limited availability (not available by subscription) are not desirable. However, they will be permitted when the use results in a saving of page space or is required for proper recognition. In these matters, the author's judgment must be supported by the review committee and editor. The report should be available on request and include the source from which a copy may be obtained.  
*Example:* J.J. Doe, Report No. 738, AAA Company, Washington, D.C., January 2004.
6. Article by DOI  
*Example:* M.K. Slifka and J.L. Whitton, *J. Mol. Med.* (2000) doi:10.1007/s001090000086.
7. Online document:  
*Example:* J. Cartwright, “Big Stars Have Weather Too” (IOP Publishing PhysicsWeb, 2007), <http://physicsweb.org/articles/news/11/6/16/1>. Accessed 26 June 2007.

8. "In Press" references must include the name of the journal. Complete publication information should be supplied when available. This may be done on the proofs.
9. References such as "submitted for publication" and "to be published" are not acceptable. If the item is still undergoing review, use same format as "unpublished research" above.
10. No other references will be published.

### Tables

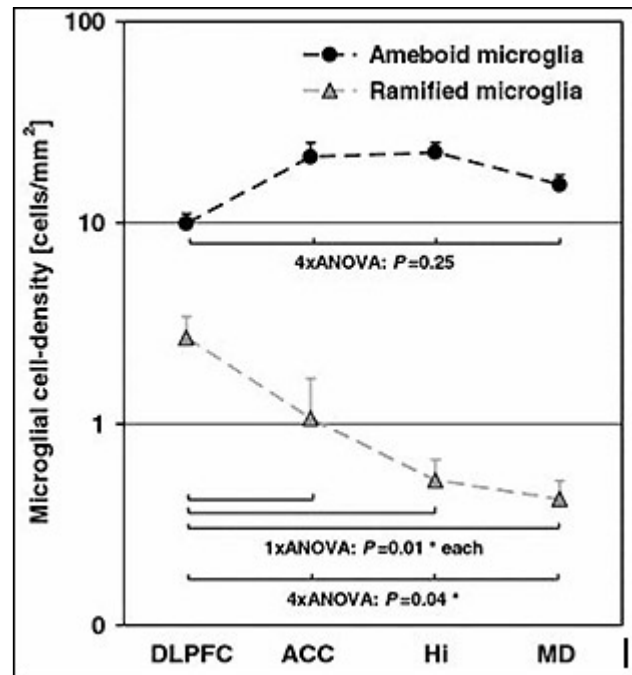
- All tables are to be numbered using Roman numerals.
- Tables should always be cited in text in consecutive numerical order.
- For each table, please supply a table caption (title) explaining the components of the table.
- Identify any previously published material by giving the original source in the form of a reference at the end of the table caption.
- Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body.

## ARTWORK AND ILLUSTRATIONS

### Preparing Electronic Figure Submission

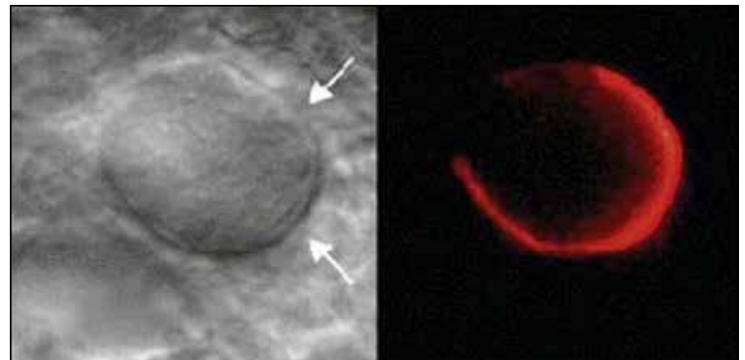
- For vector graphics, the preferred format is EPS; for halftones, please use JPG, PNG, or TIFF format.
- Vector graphics containing fonts must have the fonts embedded in the files.
- Name your figure files with "Fig" and the figure number, e.g., Fig1.eps.
- When preparing image files, size figures to fit in the column width. For most journals, the figure width should be 39 mm, 84 mm, 129 mm, or 174 mm and the height not more than 234 mm.

### Line Art



- *Definition:* Black and white graphic with no shading.
- Do not use faint lines and/or lettering and check that all lines and lettering within the figures are legible at final size.
- Vector graphics containing fonts must have the fonts embedded in the files.
- All lines should be at least 0.1 mm (0.3 pt) wide.
- Scanned line drawings and line drawings in bitmap format should have a minimum resolution of 1200 dpi.

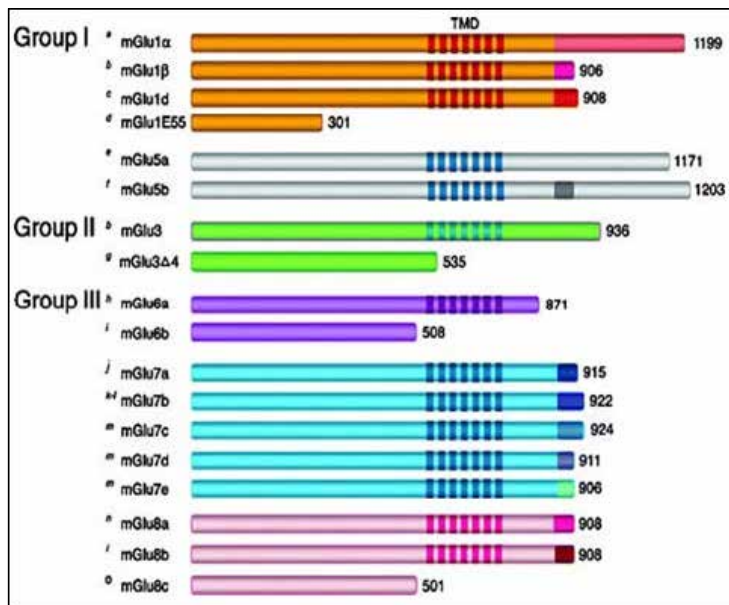
### Halftone Art





- *Definition:* Photographs, drawings or paintings with fine shading, etc.
- If any magnification is used in the photographs, indicate this by using scale bars within the figures themselves.
- Halftones should have a minimum resolution of 300 dpi.
- Proof of the subject's consent to publish must be provided for photographs featuring people.

### Combination Art



- *Definition:* A combination of halftone and line art, e.g., halftones containing line drawing, extensive lettering, color diagrams, etc.
- Combination artwork should have a minimum resolution of 600 dpi.

### Color Art

- Color art is free of charge for online publication. Color printing of figures, micrographs, etc. is available at a cost of US\$1,150 per article.
- If black and white will be shown in the print version, make sure that the main information will still be visible. Many colors are not distinguishable from one another when converted to black and white. A simple way to check this is to make a printout to see if the necessary distinctions between the different colors are still apparent.
- If the figures will be printed in black and white, do not refer to color in the captions.
- Color illustrations should be submitted as RGB (8 bits per channel).

### Figure Lettering

- To add lettering, it is best to use Helvetica or Arial (sans serif fonts).
- Keep lettering consistently sized throughout your final-sized artwork, usually about 2–3 mm (8–12 pt).
- Variance of type size within an illustration should be minimal, e.g., do not use 8-pt type on an axis and 20-pt type for the axis label.
- Avoid effects such as shading, outline letters, etc.
- Do not include titles or captions within your illustrations.

### Figure Numbering

- All figures are to be numbered using Arabic numerals (1, 2, 3, etc.).
- Figures should always be cited in the text in consecutive numerical order.
- Figure parts should be denoted by lowercase letters (a, b, c, etc.) and described in the figure caption.
- If an appendix appears in your article and it contains one or more figures, continue the consecutive numbering of the main text. Do not number the appendix figures, "A1, A2, A3, etc." Figures in online appendices (Electronic Supplementary Material) should, however, be numbered separately.

### Figure Captions

- Each figure should have a concise caption describing accurately what the figure depicts. Include the captions in the text file of the manuscript, not in the figure file.
- Figure captions begin with the term Fig., followed by the figure number and a period. Also include punctuation at the end of the caption text.  
*Example:* Fig. 4a. Steady state creep rate vs. applied stress for a P91 steel.
- Identify all elements found in the figure in the figure caption, and describe each part of multi-part figures. Use boxes, circles, etc., as coordinate points in graphs.

- Identify previously published material by giving the original source in the form of a reference citation at the end of the figure caption. For figures being reprinted, indicate “Reprinted with permission from [reference number]” at the end of the figure caption. For figures being adapted from another source, state “Adapted from [reference number].”

### Figure Placement and Size

- When preparing your figures, size figures to fit in the column width.
- For most journals, the figures should be 39 mm, 84 mm, 129 mm, or 174 mm wide and not higher than 234 mm.

### Permissions

If you include figures that have already been published elsewhere, you must obtain permission from the copyright owner(s) for both the print and online formats. Please be aware that some publishers do not grant electronic rights for free and that Springer will not be able to refund any costs that may have occurred to receive these permissions. In such cases, material from other sources should be used. When submitting figures adapted from another source, copies of those source images must be uploaded as “permission” files.

### Electronic Supplementary Material

Electronic supplementary material (ESM) must be submitted as a single pdf file. The first page should include the heading “Supplementary material for:” followed by the manuscript title along with the author names and affiliations. Figures with captions, tables, and text intended to publish as ESM should be identified as “Fig. S-1,” “Table S-1,” etc. and cited in the manuscript as “supplementary Fig. S-1,” “supplementary Table S-1,” etc. At first mention of the ESM within the text, include the phrase “(refer to online supplementary material)”. Videos and spreadsheets are also acceptable as ESM. Note that ESM will be published “as is” without benefit of copyediting or formatting and should contain all information necessary to be easily understood by the readers.

### Accessibility

To give people of all abilities access to your content, please make sure that:

- All figures have descriptive captions to enable visually impaired users to use a text-to-speech software or a text-to-Braille hardware.

- Patterns are used instead of or in addition to colors for conveying information.
- Any figure lettering has a contrast ratio of at least 4.5:1.

### JOM MANUSCRIPT SUBMISSION CHECKLIST

Before you submit your manuscript online to *JOM*, please review the following checklist to make sure all of your information and materials are assembled and readily accessible. This will save time and avoid confusion during the submission and review process.

- Make sure your manuscript is appropriate for publication in *JOM*. Refer to Author’s Obligations and Types of Papers accepted sections of this document, as well as the current *JOM* Editorial Calendar at [jom.tms.org](http://jom.tms.org).
- Obtain any necessary permissions.
- Have your text ready to submit in Microsoft Word.
  - Refer to the *JOM* Style Guide section of this document for specific formatting instructions.
  - Use the Microsoft equation editor or MathType for equations.
  - Manuscripts with mathematical content can also be submitted in LaTeX. For information on creating and uploading LaTeX documents, go to [www.editorialmanager.de/pdf/latex/](http://www.editorialmanager.de/pdf/latex/).
- Make sure you have a maximum 150-word abstract prepared and all information required for the title page discussed in the *JOM* Style Guide section of this document.
- Have your figures ready to submit in a high-resolution format. For vector graphics, the preferred format is EPS. 1200 dpi is the minimum resolution accepted for line drawings; halftones require a minimum resolution of 300 dpi.

**You may embed your figures in your Word document, but the individual source files must be provided as well.** For additional details on submitting figures, refer to the Artwork and Illustrations section of this document.

## AFTER ACCEPTANCE

---

### Open Choice

In addition to the normal publication process (an article is submitted to the journal and access to that article is granted to customers who have purchased a subscription), Springer provides an alternative publishing option: Springer Open Choice. A Springer Open Choice article receives all the benefits of a regular subscription-based article, but in addition, is made available publicly through Springer's online platform, SpringerLink. We regret that Springer Open Choice cannot be ordered for published articles. For additional information, go to [Springer Open Choice](#).

### Copyright Transfer

Authors will be asked to transfer copyright of the article to the Publisher (or grant the Publisher exclusive publication and dissemination rights). This will ensure the widest possible protection and dissemination of information under copyright laws. Open Choice articles do not require transfer of copyright as the copyright remains with the author. In opting for Open Choice, authors agree to the Springer Open Choice License.

### Offprints

Offprints can be ordered by the corresponding author.

### Color Illustrations

Online publication of color illustrations is free of charge. For color in the print version, authors will be expected to make a contribution towards the extra costs.

### Proofs

The purpose of the proof is to check for typesetting or conversion errors and the completeness and accuracy of the text, tables, and figures. Substantial changes in content, e.g., new results, corrected values, title, and authorship, are not allowed without the approval of the *JOM* Editor. To ensure timely publication of the journal, it is important that your corrected proof be returned within 48 hours of receipt.

After online publication, further changes can only be made in the form of an Erratum, which will be hyperlinked to the article.

For complex corrections, such as table changes and figure label corrections, please use the traditional method of marking the correction on a hard copy of your proof and faxing it to the number indicated on your proof.

### Online First

The article will be published online after receipt of the corrected proofs. This is the official first publication citable with the DOI. After release of the printed version, the paper can also be cited by issue and page numbers.

# JOM

---

## CONTACT INFORMATION

*JOM* (ISSN 1047-4838) is published monthly by Springer, 233 Spring St., New York, NY 10013 in cooperation with The Minerals, Metals & Materials Society (TMS).

**Editorial Offices:**

*JOM*

5700 Corporate Drive Suite 750  
Pittsburgh, PA 15237, USA  
Telephone: 1-724-776-9000  
1-800-759-4867 (U.S. and Canada)  
Fax: 1-724-776-3770





<http://www.springer.com/journal/11837>

JOM

The Journal of The Minerals, Metals & Materials Society  
(TMS)

Editor: Scott, J.

ISSN: 1047-4838 (print version)

ISSN: 1543-1851 (electronic version)

Journal no. 11837