

METALLURGICAL AND MATERIALS TRANSACTIONS

INSTRUCTIONS FOR AUTHORS

Metallurgical and Materials Transactions publishes contributions on all aspects of research and significant engineering advances in materials science and metallurgy.

Metallurgical and Materials Transactions A (MMTA) publishes contributions on all aspects of physical metallurgy and materials science, with a special emphasis on relationships among the processing, structure, and properties of materials.

Metallurgical and Materials Transactions B (MMTB) publishes contributions on the theoretical and engineering aspects of the processing of metals and other materials, including studies of electro- and physical chemistry, mass transport, modeling, and related computer applications.

All manuscripts will be judged by qualified reviewers according to established criteria for technical merit. The review procedure begins as a Key Reader is assigned by an Editor. The Key Reader chooses reviewers for the manuscript and submits his or her recommendation, based on his or her own and the reviewer(s)' judgments. The highest-level handling Editor then makes a final decision on the paper.

Submission of a manuscript is representation that it has not been copyrighted, published, or submitted for publication elsewhere. Prior publication is a basis for rejection. Appearance in a conference proceedings or similar special presentation with limited distribution is not necessarily prior publication depending on the similarity of the manuscripts. In such cases, the article should be so referenced. **Permission to reproduce any previously published figures or tables should be presented and uploaded at the time of first submission. (See the section on Permissions below.)**

It is the policy of the journal that a previously rejected manuscript may be revised and resubmitted only once.

When an article is submitted, it is implied that publication has been approved by all coauthors, if any, as well as by the responsible authorities—tacitly or explicitly—at the organization where the work has been done. The coauthors of a manuscript must be persons who have participated sufficiently in the work reported to take public responsibility and be accountable for appropriate portions of the content. Any change to the author names listed in the original manuscript in a subsequent version of the manuscript, including additions, deletions, and/or a change in order of appearance, requires proof of agreement of all coauthors. Further, **changes to the author list are not permitted after the manuscript has been accepted.** Exceptional cases may be considered by the Editor. A change to the corresponding author can be made in a revised manuscript or accepted article with proof of agreement of only the new corresponding author.

Conflict of Interest: Authors of Original Research Articles, Review Articles, and Brief Communications 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.”

There are three classes of articles in the journals:

Original Research Article: Manuscripts should represent completed original work embodying the results of extensive field, plant, laboratory, or theoretical investigation, or new interpretations of existing problems. Materials must be considered to have significant permanent value. In addition to technical acceptability, material should be presented clearly and concisely. Of particular importance is the description of the experimental procedures involved in the experiment. It is important that critical information about experimental conditions be included so that the work can be verified by other scientists.

Brief Communication: This class provides more-rapid publication of short items and theoretical or experimental work of immediate current interest. Divisional headings are not used. The length for a Brief Communication should be approximately 2500 words of text (with an abstract of approximately 75 words), accompanied by whatever figures and tables may be required to support this text.

Letter to the Editor: These are short discussions of Original Research Articles and Brief Communications, which should contribute to the original article by providing confirmation or additional interpretation. They will be referred to the original authors for reply. Letters and the authors’ replies are published concurrently when possible.

SUBMISSION OF MANUSCRIPTS

Manuscripts must be submitted electronically. For MMTA, the site is <https://mmta.msubmit.net/>; for MMTB, the site is <https://mmtb.msubmit.net/>. All reviews will occur online in a secure environment, and letters and comments concerning the submissions will be transmitted via e-mail to the corresponding author.

Color printing can be arranged. This will involve an additional charge per article with color art. Color artwork will be published for free in the online version of the article.

The abstract should be concise and informative, and only in exceptional cases exceed 200 words (for an Original Research Article) or 75 words (for a Brief Communication).

References must be numbered sequentially throughout the manuscript and listed numerically in the list. The required format is shown in the section titled “Styling of References.”

If the submission depends on unpublished work, files of the unpublished materials should be uploaded as Related Manuscript Files (**not** Supplemental Material Files) to assist the referees in their evaluation.

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>
- <https://authorservices.springernature.com>

TMS members are entitled to a 15% discount with Springer Author Services. Members should first log in on [this page](#), at which point a link will be visible.

Use of a language editing service is not a requirement for publication in this journal and does not imply or guarantee that the article will be selected for peer review or will be accepted. If your manuscript is accepted, it will be checked by copyeditors before publication.

The policy of *Metallurgical and Materials Transactions* is to use the International System of Units (SI). If other units are required for special situations, a conversion to SI units must be provided in parentheses or in a table. Avoid the use of proprietary information whenever possible. Such use can occasionally be justified if this is the best way to specify a particular material or process.

Multipart articles with divisions such as Part I, Part II, etc. may not be submitted.

Submissions with such divisions will be returned to the author unreviewed. If an author submits a series of manuscripts on the same topic, each must be complete on its own, and if accepted be able to stand alone as a published article without regard to other articles in the series. Further, the journal will not make any allowances to publish the accepted articles together or in a particular order.

A Table of Symbols should be included when symbols are used extensively throughout a paper.

AUTHOR INSTRUCTIONS FOR ELECTRONIC SUBMISSION

Review Process

The manuscript submission and peer-review process occurs in the following eight steps:

1. Author submits manuscript.
2. Principal Editor assigns an Editor to manuscript.
3. Editor assigns a Key Reader to manuscript.
4. Key Reader assigns reviewers.
5. Reviewers review the manuscript.
6. Key Reader makes a recommendation to Editor.
7. Editor makes a final decision.
8. Editorial office contacts author with decision.

Submission Process

The manuscript submission process is broken into a series of screens that gather detailed information about the manuscript and allow an author to upload the pertinent files. The sequence of screens is as follows:

1. A screen asking for the actual file locations (via an open file dialog); after completing this screen, files will be uploaded to the server

2. Various screens that will ask for manuscript data information (author information and affiliations, manuscript title and abstract, keywords, and other pertinent information)
3. A completion screen that will provide a specific manuscript number for the manuscript
4. An approval screen that will allow verification that the manuscript has been uploaded and converted to a PDF correctly

Before submitting a manuscript, please gather the following information:

- Author names, affiliations, addresses, and e-mail addresses;
- The city/state/zip code (for U.S.) and city/country/postal code (for non-U.S.) of each author's institution;
- Manuscript title (can be copied and pasted from your manuscript);
- Abstract (can be copied and pasted from your manuscript); and
- Name and contact information (e-mail address and institution) of desired possible peer reviewers (if any).

The following requirements must be met, or the manuscript will be sent back for correction:

- **All authors on a manuscript must verify authorship or the paper will not be processed for submission.** Links to verify authorship will be sent to all coauthors by email. It is the corresponding author's responsibility to ensure that all coauthor email addresses are correct and valid, and to follow-up with coauthors as needed to be sure they complete the author acknowledgment step. Make sure that all authors on the submission are listed in the submission system with their valid email addresses.
- A cover letter is required for all new submissions. The cover letter should highlight the article's most important findings, discuss the originality of those findings, and outline why the authors believe the article is suitable for submission to the journal. Further, for submissions that are to be included in a topical collection, indicate the name of the collection. Finally, if this is a resubmission of a previously rejected article, note that in the cover letter, list the reviewer comments of the prior submission, and present a point-by-point response to those comments. Submissions that do not include a proper cover letter will not be considered for publication.
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- Tables must be in Word or LaTeX, and the text must be editable (no graphics). They may be included in the manuscript file or submitted separately. Tables should be numbered using Roman numerals.
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- Appendices will be published with the article, online and in print. The appendix must be added at the end of the manuscript file after the references and not uploaded as a separate file. Figures, tables, and equations for an appendix should be labeled as "Figure A1, Figure A2; Table AI, Table AII; (A1), (A2)," etc." Appendix figures must be embedded in the appendix and uploaded as separate figure files. Captions for appendix figures should appear at the end of the appendix. Appendix tables should be placed at the end of the appendix or uploaded as separate files.
- For revised manuscripts, in addition to the revised, clean manuscript file, a file with tracked changes must also be uploaded to show all changes made to the paper during the revision process.
- For revised manuscripts, the Response Letter file must list each reviewer comment and your response to that comment.
- Any files that are for reviewers only should be clearly marked as such in the file name (e.g., Text for reviewers, Table for reviewers, etc.) and uploaded as a Related Manuscript file.

After the manuscript is submitted, you will be taken to a page that will allow you to review your manuscript's converted PDF file. If the conversion is not correct, you can replace or delete the manuscript files as necessary. After you have reviewed the converted files, you will need to click on "Approve Manuscript." This link will have a red arrow next to it. Throughout the system, red arrows reflect pending action that you should address. If you need additional help, you can click on the Help signs spread throughout the system. A help dialog will pop up with context-sensitive help.

Electronic Supplementary Material

The journal accepts electronic multimedia files (movies, audio, etc.) and other supplementary files to be published online along with an article. All electronic supplementary material (ESM) must be submitted as a single PDFfile, uploaded as file type Supplemental Material 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-I,” etc. and cited in the manuscript as “supplementary Fig. S-1,” “supplementary Table S-I,” etc. At first mention of the ESM within the text, include the phrase “(refer to electronic supplementary material)”. 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. **Do not upload any material as ESM that should not be published.**

Audio, Video, and Animation Guidelines for ESM

- Aspect ratio: 16:9 or 4:3
- Maximum file size: 25 GB
- Minimum video duration: 1 sec
- Supported file formats: avi, wmv, mp4, mov, m2p, mp2, mpg, mpeg, flv, mxf, mts, m4v, 3gp

GUIDELINES FOR ELECTRONIC IMAGE SUBMISSION

The following are guidelines for formatting electronic images depending on the image type, size, and layout. These guidelines should be considered minimum in terms of image resolution. Higher resolutions are also acceptable.

Image 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.

Image File Formats and Resolution

For vector graphics, the preferred format is EPS; for halftones, TIFF format is preferred. Vector graphics containing fonts must have the fonts embedded in the files.

The recommended resolution for black-and-white photographs is 300 dpi (dots per inch). The recommended resolution for line art (charts or images that contain typographic elements) is 800 dpi. Line art images should contain rules with a thickness of at least 0.1 mm (0.3 pt).

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Color art is free of charge for online publication. 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

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STYLING OF REFERENCES

References must be numbered sequentially throughout the manuscript and presented in consecutive numerical order in the reference list.

Use journal abbreviations as given in the current listing of *Chemical Abstracts Service Source Index*. List the names of all authors; do not use et al. Article titles are not to be included in journal article references.

Example: Author: Journal, year, ser., vol., pp.

R.M. Horn and Robert O. Ritchie: *Metall. Trans. A*, 1978, vol. 9A, pp. 1039-53.

References to books should include the title and pages within the book. List the names of all authors and/or editors; do not use et al.

Example: Author: Book, edition, publisher, place, date, pages.

George E. Dieter: *Mechanical Metallurgy*, 2nd ed., McGraw-Hill Book Co., New York, NY, 1976, pp. 160–65.

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Example: J.J. Doe: AAA Company, Washington, DC, unpublished research, 2004.

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Online document: J. Cartwright, Big stars have weather too. (IOP Publishing PhysicsWeb, 2007), <http://physicsweb.org/articles/news/11/6/16/1>. Accessed 26 June 2007

Online database: Healthwise Knowledgebase (US Pharmacopeia, Rockville, 1998), <http://www.healthwise.org>. Accessed 21 Sept 1998

Organization site: ISSN International Centre: The ISSN register (2006), <http://www.issn.org>. Accessed 20 Feb 2007

PUBLICATION OF TOPICAL COLLECTIONS

There are situations when it is desirable to publish a topical collection of articles in *Metallurgical and Materials Transactions*. To obtain approval, the organizer should write to the Principal Editor, outlining the scope of the collection and listing the papers to be considered (with abstracts if available). All manuscripts in the collection will be reviewed according to the *Metallurgical and Materials Transactions* standard review procedure.

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