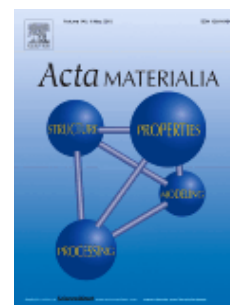




### TABLE OF CONTENTS

---

●	<b>Description</b>	<b>p.1</b>
●	<b>Audience</b>	<b>p.1</b>
●	<b>Impact Factor</b>	<b>p.1</b>
●	<b>Abstracting and Indexing</b>	<b>p.2</b>
●	<b>Editorial Board</b>	<b>p.2</b>
●	<b>Guide for Authors</b>	<b>p.4</b>



ISSN: 1359-6454

### DESCRIPTION

---

*Acta Materialia* provides a forum for publishing full-length, original papers and commissioned overviews that advance the in-depth understanding of the relationship between the processing, the structure and the properties of inorganic materials. Papers that have a high impact potential and/or substantially advance the field are sought. The structure encompasses atomic and molecular arrangements, chemical and electronic structures, and microstructure. Emphasis is on either the mechanical or functional behavior of inorganic solids at all length scales down to nanostructures.

The following aspects of the science and engineering of inorganic materials are of particular interest:

- (i) Cutting-edge experiments and theory as they relate to the understanding of the properties,
- (ii) Elucidation of the mechanisms involved in the synthesis and processing of materials specifically as they relate to the understanding of the properties, and
- (iii) Characterization of the structure and chemistry of materials specifically as it relates to the understanding of the properties.

*Acta Materialia* welcomes papers that employ theory and/or simulation (or numerical methods) that substantially advance our understanding of the structure and properties of inorganic materials. Such papers should demonstrate relevance to the materials community by, for example, making a comparison with experimental results (in the literature or in the present study), making testable microstructural or property predictions or elucidating an important phenomenon. Papers that focus primarily on model parameter studies, development of methodology or those employing existing software packages to obtain standard or incremental results are discouraged.

Short communications and comments to papers published in *Acta Materialia* may be [submitted to Scripta Materialia](#).

### AUDIENCE

---

Materials Scientists and Engineers, Applied Physicists and Solid State Chemists

### IMPACT FACTOR

---

2016: 5.301 © Clarivate Analytics Journal Citation Reports 2017

## ABSTRACTING AND INDEXING

---

Materials Science Citation Index  
Current Contents  
Chemical Abstracts  
Engineering Index  
INSPEC  
PASCAL/CNRS  
Applied Mechanics Reviews  
Cambridge Scientific Abstracts  
Metals Abstracts  
Scopus

## EDITORIAL BOARD

---

### *Coordinating Editor*

**C. A. Schuh**, Dept. of Materials Science and Engineering, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139, USA  
Editorial Assistant/Associate: Rebecca Monahan, Becky Houston

### *Editors*

**I. J. Beyerlein**, Mechanical Engineering, Materials Departments, University of California, Santa Barbara, 2326 Engineering II, Santa Barbara, CA 93106-5070, USA

Editorial Assistant: Julie Brown

**T. Furuhashi**, Inst. for Materials Research, Tohoku University, 2-1-1 Katahira, 980-8577, Aoba, Sendai, Japan,  
Editorial Assistant: Mika Terada

**G. Gottstein**, Inst. für Metallkunde und Metallphysik, RWTH Aachen University (RWTH), Kopernikusstr. 14, D-52056, Aachen, Germany

Editorial Assistant: Norma Gottstein

**C. Hutchinson**, Dept. of Materials Science and Engineering, Clayton Campus, Monash University, Wellington Road, Clayton, VIC 3800, Victoria, Australia

Associate Editor: Professor Ma Qian

**S. Jin, Emeritus**, University of California at San Diego, 9500 Gilman Dr, La Jolla, CA 92093-0411, USA

Editorial Assistant: Michael Reiss

**R. Kirchheim**, Inst. für Materialphysik, Georg-August Universität Göttingen, Friedrich-Hund-Platz. 1, 37077, Göttingen, Germany

Editorial Assistant: Dorothea Kirchheim

**L. Lu**, Inst. of Metal Research, Chinese Academy of Sciences, Shenyang National Laboratory for Materials Sciences, 72 Wenhua Road, 110016, Shenyang, China

Editorial Assistant: Shuai Jin

**N. P. Padture**, School of Engineering, Brown University, Providence, Rhode Island, RI 02912, USA

Editorial Assistant: Sherilyn A. Padture

**U. Ramamurty**, Dept. of Materials Engineering, Indian Institute of Science, C.V. Raman Avenue, 560012, Bangalore, India

Editorial Assistant: Hema Gurumurthy

**J. Rickman**, Dept. of Materials Science & Engineering, Lehigh University, 27 Memorial Drive West, Bethlehem, PA. 18015, USA

Editorial Assistant: Deanne Hoenscheid

**D. Rodney**, Institut Lumière Matière, Institut Lumière Matière, University of Lyon, Lyon Tech-La Doua, Bâtiment Brillouin, 6 rue Ada B, 69622, Villeurbanne, France

Associate Editors: Dr. Emmanuel Clouet, Professor Chad Sinclair

**G. S. Rohrer**, Dept. of Materials Science and Engineering, Carnegie Mellon University, 5000 Forbes Ave., Pittsburgh, PA 15213-3890, USA,

Editorial Assistant: Deanne Hoenscheid

### *The Board of Governors of Acta Materialia*

#### **J. Ågren**

Swedish Society for Metallurgy and Materials Representative Governor

#### **H. Ai**

Chinese Society for Biomaterials, Governor

#### **K. S. Anseth**

Governor

#### **E. Cole, Jr.**

ASM Governor  
**A. J. Coury**  
Board Governor  
**G. Dehm**  
Cooperating Society Governor  
**A. Deschamps**  
French Metallurgical Society Representative Governor  
**G. T. Gray, III**  
Chair, Treasurer and Board Governor  
**C. Hansson**  
Executive Secretary and Cooperating Society Governor  
**T. Ohji**  
ASM Governor  
**G. B. Olson**  
ASM Governor  
**J. A. Schneider**  
TMS Board Governor  
**C. A. Schuh**  
Coordinating Editor and Governor  
**M. Singh**  
ASM Governor  
**G. W. Warren**  
TMS Governor

## GUIDE FOR AUTHORS

---

### INTRODUCTION

*Acta Materialia* provides a forum for publishing full-length, original papers and commissioned overviews that advance the in-depth understanding of the relationship between the processing, the structure and the properties of **inorganic materials**. Papers that have a high impact potential and/or substantially advance the field are sought. The structure encompasses atomic and molecular arrangements, chemical and electronic structures, and microstructure. Emphasis is on either the **mechanical** or **functional behavior** of **inorganic solids** at all length scales down to nanostructures.

The following aspects of the science and engineering of inorganic materials are of particular interest:

- (i) Cutting-edge experiments and theory as they relate to the understanding of the properties,
- (ii) Elucidation of the mechanisms involved in the synthesis and processing of materials specifically as they relate to the understanding of the properties, and
- (iii) Characterization of the structure and chemistry of materials specifically as it relates to the understanding of the properties.

*Acta Materialia* welcomes papers that employ theory and/or simulation (or numerical methods) that substantially advance our understanding of the structure and properties of inorganic materials. Such papers should demonstrate relevance to the materials community by, for example, making a comparison with experimental results (in the literature or in the present study), making testable microstructural or property predictions or elucidating an important phenomenon. Papers that focus primarily on model parameter studies, development of methodology or those employing existing software packages to obtain standard or incremental results are discouraged.

Short communications and comments to papers published in *Acta Materialia* may be [submitted to Scripta Materialia](#).

### BEFORE YOU BEGIN

#### **Ethics in publishing**

Please see our information pages on [Ethics in publishing](#) and [Ethical guidelines for journal publication](#).

#### **Declaration of interest**

All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. [More information](#).

#### **Submission declaration and verification**

Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see '[Multiple, redundant or concurrent publication](#)' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service [Crossref Similarity Check](#).

#### **Preprints**

Please note that [preprints](#) can be shared anywhere at any time, in line with Elsevier's [sharing policy](#). Sharing your preprints e.g. on a preprint server will not count as prior publication (see '[Multiple, redundant or concurrent publication](#)' for more information).

### *Changes to authorship*

Author names may not be added, deleted or rearranged once the paper has been processed and accepted. Please ensure that the author list is complete and in the proper order when submitting your final version to the processing editor.

### *Article transfer service*

This journal is part of our Article Transfer Service. This means that if the Editor feels your article is more suitable in one of our other participating journals, then you may be asked to consider transferring the article to one of those. If you agree, your article will be transferred automatically on your behalf with no need to reformat. Please note that your article will be reviewed again by the new journal. [More information](#).

### **Copyright**

Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see [more information](#) on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. [Permission](#) of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has [preprinted forms](#) for use by authors in these cases.

### **Author rights**

As an author you (or your employer or institution) have certain rights to reuse your work. [More information](#).

### **Role of the funding source**

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

### *Funding body agreements and policies*

Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of [existing agreements](#) are available online.

### **Open access**

This journal offers authors a choice in publishing their research:

#### **Subscription**

- Articles are made available to subscribers as well as developing countries and patient groups through our [universal access programs](#).
- No open access publication fee payable by authors.
- The Author is entitled to post the [accepted manuscript](#) in their institution's repository and make this public after an embargo period (known as green Open Access). The [published journal article](#) cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

#### **Gold open access**

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following [Creative Commons user licenses](#):

### *Creative Commons Attribution (CC BY)*

Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

### *Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)*

For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is **USD 3000**, excluding taxes. Learn more about Elsevier's pricing policy: <https://www.elsevier.com/openaccesspricing>.

### *Green open access*

Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our [green open access page](#) for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. [Find out more](#).

This journal has an embargo period of 24 months.

### *Language (usage and editing services)*

Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the [English Language Editing service](#) available from Elsevier's WebShop.

### **Submission**

Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

### **Submit your article**

Please submit your article via <http://ees.elsevier.com/am/>.

### **Referees**

Please submit, with the manuscript, the names, affiliations, and institutional e-mail addresses of 4 potential referees. Please do not list Acta Materialia or Scripta Editors, colleagues from the authors' institutions(s), or colleagues with whom the authors have recently collaborated, due to potential conflict of interest. Note that the editor retains the sole right to decide whether or not the suggested reviewers are used.

## **PREPARATION**

### *Use of word processing software*

It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the [Guide to Publishing with Elsevier](#)). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

### **Article structure**

General guidelines for online submission:

Elsevier can accept text files in most standard word-processing formats but Microsoft Word is preferred. Alternatively, the initial submission can be in PDF format. Please note, however, that the text file of a revision must be uploaded in an editable format, either Microsoft Word or LaTeX. Graphics should be high-resolution and the preferred formats are either TIFF or JPEG. For further information on the preparation of electronic artwork please refer to the following website: <http://www.elsevier.com/artworkinstructions>.

All online submissions must be accompanied by a covering letter detailing what you are submitting. Please indicate the author to whom correspondence should be addressed (in the case of multiple authors) and include a contact address, telephone/fax numbers for the corresponding author and e-mail addresses for **all** authors. Please include details of any previous or concurrent submissions and also any information that will support your submission (e.g. original or confirmatory data, relevance, topicality). Please indicate if this is a resubmission of a paper previously rejected by an Acta Materialia editor and, if so, provide the manuscript number of the rejected paper along with the name of the processing editor. (Referees are chosen carefully and all editorial decisions are considered final. Please see the below section on Rebuttals for more information.) Please note that when your manuscript is received at Elsevier it is considered to be in its final form. Therefore you need to check your manuscript carefully before you submit it online. It is also very important to thoroughly check the system-generated PDF before approving it. If the paper is sent for review, this PDF is what the referee will use.

### **Length of papers**

Published articles are normally less than 10 printed pages; this approximately equals a typewritten paper of 20 double-spaced pages plus a typical number of figures (8 or so). Use double spacing and minimum 1-inch (3 cm) margins, and 12 pt font size standard fonts. The pressure for publication space in Acta Materialia is extreme. Therefore, at the processing editor's discretion, manuscripts which are longer than 25 double-spaced pages may be returned to the authors with a request that they be shortened before being considered further (this upward limit includes references, tables, figures and captions – everything except supplemental files and graphical abstracts). On the other hand, extremely short papers less than 3300 words will not be processed by Acta Materialia. Short communications and comments to papers published in Acta Materialia should be submitted to Scripta Materialia.

### **Pagination**

Please ensure that your manuscript is paginated, as this will help both editors and reviewers to process it promptly.

#### *Subdivision - numbered sections*

Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line. As a general guideline, the preferred order for sections is: abstract, introduction, experimental, results, discussion, conclusion, acknowledgements, references, appendices.

#### *Introduction*

Provide a critical assessment of the literature relevant to the problem at hand, delineating unresolved issues. State clear objectives to explain how this study will take the field forward.

#### *Experimental*

Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

### **Error bars:**

Error bars are required on all experimental and calculated data points with an explanation in the text as to how the errors were determined.



## SI Units

SI units should be used throughout.

### *Theory/calculation*

A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

### *Results*

Results should be clear and concise.

### *Discussion*

Should develop cogent explanation for the results and explore their significance. In the case of computational studies, results should be compared with information available from published experimental work, if possible.

### *Conclusions*

The main conclusions of the study may be presented in a short Conclusions section, which should stand alone.

### *Appendices*

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

## **Essential title page information**

- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations, acronyms and formulae where possible.
  - **Author names and affiliations.** Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author. **Author names may not be added after a paper has been accepted.**
  - **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that phone numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Contact details must be kept up to date by the corresponding author.**
  - **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.
- It is not necessary to submit the title page as a separate document. However, if this option is chosen, please also include title page information at the beginning of the text document.

## **Abstract**

An abstract is required for all papers. The abstract should indicate the content of the paper, and should describe the main conclusions. An effective abstract is brief and normally less than 200 words. Abstracts should not exceed 250 words. References should be avoided, but if essential, they must be cited in full, without reference to the reference list.

### *Graphical abstract*

A graphical abstract is mandatory for this journal. It should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership online. Authors must provide images that clearly represent the work described in the article. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view [Example Graphical Abstracts](#) on our information site. Authors can make use of Elsevier's [Illustration Services](#) to ensure the best presentation of their images also in accordance with all technical requirements.



## Keywords

Immediately following the Abstract, provide a maximum of 5 keywords which appropriately represent the contents of the paper. The keywords must be selected from the Keywords list in the most recently published issue of the Journal (also available: [Keyword Index](#)); however, authors may provide one keyword (out of the five) which is not listed in the Keywords list.

## Abbreviations

Define abbreviations and acronyms when they first appear in the article. Ensure consistency of abbreviations throughout the article.

### Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

### Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### Math formulae

Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

### Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

## Artwork

### Electronic artwork

#### General points

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Figures and captions to illustrations should be submitted on the same page.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.

A detailed guide on electronic artwork is available on our website:

<http://www.elsevier.com/artworkinstructions>.

**You are urged to visit this site; some excerpts from the detailed information are given here.**

#### Formats

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

EPS (or PDF): Vector drawings, embed all used fonts.

TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.

TIFF (or JPEG): Bitmapped (pure black and white pixels) line drawings, keep to a minimum of 1000 dpi.

TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

**Please do not:**

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

*Color artwork*

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or online only. [Further information on the preparation of electronic artwork.](#)

*Figure captions*

Ensure that each illustration has a caption. Figures and captions should be submitted on the same page. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

**Tables**

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

**References**

All references to other papers, books, etc., must be given at the end of the paper. They should be numbered in sequence starting at the beginning of the paper. The numbers (in brackets) should appear in the text at the appropriate places.

*Citation in text*

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

*Web references*

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

*Data references*

This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

### References in a special issue

Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

### Reference management software

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support [Citation Style Language styles](#), such as [Mendeley](#) and [Zotero](#), as well as [EndNote](#). Using the word processor plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link and choosing Elsevier (numeric, with title):

<http://open.mendeley.com/use-citation-style/acta-materialia>

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice. For Zotero, please choose Elsevier (numeric, with titles):

<https://www.zotero.org/styles/elsevier-with-titles>.

### Reference style

**Text:** Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.

Example: '..... as demonstrated [3,6]. Barnaby and Jones [8] obtained a different result ....'

**List:** Number the references (numbers in square brackets) in the list in the order in which they appear in the text. **Please include all author names. Please include article titles of all cited articles** as in the following examples.

#### Examples:

Reference to a journal publication:

[1] J. van der Geer, J.A.J. Hanraads, R.A. Lupton, The art of writing a scientific article, *J. Sci. Commun.* 163 (2010) 51–59.

Reference to a book:

[2] W. Strunk Jr., E.B. White, *The Elements of Style*, fourth ed., Longman, New York, 2000.

Reference to a chapter in an edited book:

[3] G.R. Mettam, L.B. Adams, How to prepare an electronic version of your article, in: B.S. Jones, R.Z. Smith (Eds.), *Introduction to the Electronic Age*, E-Publishing Inc., New York, 2009, pp. 281–304.

[dataset] [4] M. Oguro, S. Imahiro, S. Saito, T. Nakashizuka, Mortality data for Japanese oak wilt disease and surrounding forest compositions, *Mendeley Data*, v1, 2015. <http://dx.doi.org/10.17632/xwj98nb39r.1>.

### A LaTeX bibliography style and article template file can be downloaded from this page:

<https://www.elsevier.com/authors/author-schemas/latex-instructions>

### Journal abbreviations source

Journal names should be abbreviated according to the [List of Title Word Abbreviations](#).

### Video

Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. . In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including [ScienceDirect](#). Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our [video instruction pages](#). Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

### *Recommended Upper Limit*

For ease of download, the recommended upper limit for the size of a single video/animation file is 50 MB. When the size of a single file is bigger than this, some users may experience problems when downloading.

### **AudioSlides**

The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. [More information and examples are available](#). Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

### **Data visualization**

Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions [here](#) to find out about available data visualization options and how to include them with your article.

### **Supplementary material**

Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

### **Research data**

This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the [research data](#) page.

#### *Data linking*

If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the [database linking page](#).

For [supported data repositories](#) a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

#### *Open data*

This journal supports Open data, enabling authors to submit any raw (unprocessed) research data with their article for open access publication under the CC BY license. [More information](#).

### *Mendeley Data*

This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. Before submitting your article, you can deposit the relevant datasets to *Mendeley Data*. Please include the DOI of the deposited dataset(s) in your main manuscript file. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the [Mendeley Data for journals page](#).

### *Data in Brief*

You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for *Data in Brief* as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to *Data in Brief* where it will be editorially reviewed and published in the open access data journal, *Data in Brief*. Please note an open access fee of 500 USD is payable for publication in *Data in Brief*. Full details can be found on the [Data in Brief website](#). Please use [this template](#) to write your Data in Brief.

### *Data statement*

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the [Data Statement page](#).

### **Submission checklist**

It is hoped that this list will be useful during the final checking of an article prior to sending it to the journal's Editor for review. Please consult this Guide for Authors for further details of any item.

#### **Ensure that the following items are present:**

One Author designated as corresponding Author:

- E-mail address
- Full postal address
- Telephone and fax numbers
- Email addresses provided for all authors

All necessary files have been uploaded

- Keywords
- All figure captions
- All tables (including title, description, footnotes)

Further considerations

- Manuscript has been "spellchecked" and "grammar-checked"
- References are in the correct format for this journal
- All references mentioned in the Reference list are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Web)
- Color figures are clearly marked as being intended for color reproduction on the Web (free of charge) and in print or to be reproduced in color on the Web (free of charge) and in black-and-white in print
- If only color on the Web is required, black and white versions of the figures are also supplied for printing purposes

For any further information please visit our customer support site at [service.elsevier.com](http://service.elsevier.com).

### **Overview Articles**

Overview articles for *Acta Materialia* are by invitation only and are initiated in one of two ways: (1) the editors decide that a particular topic would make a good Overview, identify experts in the field and solicit an Overview article; or (2) an author who wishes to write an Overview approaches an *Acta Materialia* editor, usually by email, and requests to submit a proposal. The next step is to provide a detailed outline of the proposed article along with brief bios for all potential co-authors. These documents will be circulated among the *Acta Materialia* editors for approval. If the majority of the editors approve the proposal, then a formal invitation will be sent to the author(s) by email.



If you have been invited by an *Acta Materialia* editor to submit an Overview, please consult the Guide for Authors when preparing your article. The format is the same as for a regular full-length article, except Overviews are expected to be longer and may have more than the usual number of figures if needed. In other words, there will be a title page with essential title page information as described in the Guide for Authors (including Abstract and keywords) and sections are numbered with appropriate headings, beginning with an Introduction and ending with Conclusions or a Summary. References should be in *Acta Materialia* style; this and other paper preparation details such as font size, etc., are covered elsewhere in the Guide for Authors.

Overview review time may be longer than regular length articles due to their length and extensive content, and usually three reviews are sought whereas the regular articles are typically reviewed by only one referee.

### **Rebuttals**

Referees and processing editors are chosen carefully and all editorial decisions are considered final. However, authors may appeal the decision on a rejected paper if compelling evidence can be provided to answer the concerns of the reviewers and the editor. In the event of rebuttal by the authors, complete statements must be emailed directly to the processing editor, including detailed responses to the reviewer and editor's comments. An attached rebuttal revision with highlighted changes should accompany the rebuttal email. The editor will invite resubmission if he or she determines that the argument supports it.

**Authors should note:** Authors may not resubmit online via EES without first receiving the approval from the processing editor. An appeal can be made only once for a manuscript and therefore the decision on the appeal is final; a manuscript that has been rejected twice is no longer eligible for resubmission.

## **AFTER ACCEPTANCE**

### **Online proof correction**

Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

### **Offprints**

The corresponding author will, at no cost, receive a customized [Share Link](#) providing 50 days free access to the final published version of the article on [ScienceDirect](#). The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's [Webshop](#). Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

## **AUTHOR INQUIRIES**

Visit the [Elsevier Support Center](#) to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch.

You can also [check the status of your submitted article](#) or find out [when your accepted article will be published](#).

© Copyright 2018 Elsevier | <https://www.elsevier.com>