INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES
Structure, Function and Interactions

AUTHOR INFORMATION PACK

TABLE OF CONTENTS

- Description p.1
- Audience p.1
- Impact Factor p.2
- Abstracting and Indexing p.2
- Editorial Board p.2
- Guide for Authors p.3

DESCRIPTION

*International Journal of Biological Macromolecules* is an established international journal of research into chemical and biological aspects of all natural macromolecules. It presents the latest findings of studies on the molecular structure and properties of proteins, macromolecular carbohydrates, glycoproteins, proteoglycans, lignins, biological poly-acids, and nucleic acids. These findings must be new and novel rather than a repeat of earlier or analogous published work. The scope includes biological activities and interactions, molecular associations, chemical and biological modifications, and functional properties. Papers on related model systems, structural conformational studies, theoretical developments and new analytical techniques are also welcome. All papers are required to focus primarily on at least one named biological macromolecule. This naming should appear in the title, the abstract and the text of the paper.

Examples of papers which are not appropriate for *International Journal of Biological Macromolecules* include:
- papers where the biological macromolecule has not been characterized by modern analytical techniques (including molecular weight) rather than historical methods, e.g. colorimetric assays.
- papers which focus on biological, physiological and pharmacological aspects of non-macromolecules attached to, or mixed with, biological macromolecules.
- papers on the materials science of biocomposites where there is no mention of any specific biological macromolecule.
- papers where the structure or role of the biological macromolecule is not the major proportion of the study.
- routine studies of extraction of macromolecules without purification and characterization of the extracted molecule.
- applications of macromolecules where the structure of the macromolecule is completely unknown.
- papers where the molecular weight of the biological molecule is less than five thousand.
- paper which are majorly about clinical studies and animal trials, where a biological macromolecule is not the biologically active agent, and/or the biological macromolecule is not the major focus of the study.

AUDIENCE

Researchers, both academic and industrial, with an interest in structure/function relationships in proteins, carbohydrates and nucleic acids, including biophysics, physical and biological chemistry, and molecular and structural biology.
IMPACT FACTOR

2017: 3.909 © Clarivate Analytics Journal Citation Reports 2018

ABSTRACTING AND INDEXING

Current Contents
Polymer Contents
MEDLINE®
FSTA
EMBASE
Elsevier BIOBASE
EMBiology
Scopus

EDITORIAL BOARD

Editors in Chief
Aichun Dong, University of Northern Colorado, Greeley, Colorado, USA
John F. Kennedy, Chembiotech Laboratories, Tenbury Wells, England, UK

Editor
Maurice Collins, University of Limerick, Limerick, Ireland
Rizwan Khan, Aligarh Muslim University, Aligarh, Uttar Pradesh, India
Yangchao Luo, University of Connecticut, Storrs, Connecticut, USA
Ian Sims, Victoria University of Wellington, Petone, New Zealand
Xiaoxiong Zeng, Nanjing Agricultural University, Nanjing, China

Editorial Board
Terin Adali, Near East University, Lefkosa, North Cyprus via Mersin 10, Turkey
Saphwan Al-Assaf, Glyndwr University, Wrexham, UK
Tsutomu Arakawa, Alliance Protein Laboratories, San Diego, California, USA
Walther Burchard, Albert-Ludwigs-Universität Freiburg, Freiburg, Germany
Richard Haser, Centre National de la Recherche Scientifique (CNRS), Lyon, France
Yukio Imanishi, Graduate School of Materials Science, Ikoma-city, Nara, Japan
Rangasamy Jayakumar, Amrita Institute of Medical Sciences, Kochi, India
Charles Knill, Chembiotech Laboratories, Tenbury Wells, England, UK
Boris Kuriganov, Russian Academy of Sciences, Moscow, Russian Federation
Jian-Ping Luo, Hefei University of Technology, Hefei, China
Mohsen Miraftab, University of Bolton, Bolton, England, UK
Ali Moosavi-Movahedi, University of Tehran, Tehran, Iran
Vic Morris, Institute of Food Research, Norwich, UK
Parmjit Panesar, S.L. Institute of Engineering and Technology, Longowal (Punjab), India
Evaristo Peggion, Università degli Studi di Padova, Padova, Italy
Juan Subirana, Universitat Politècnica de Catalunya (UPC), Barcelona, Spain
Tomohiko Suzuki, Kochi University, Kochi, Japan
Chi Wu, The Chinese University of Hong Kong, Shatin, Hong Kong, China
Hai-Meng Zhou, Tsinghua University, Beijing, China
GUIDE FOR AUTHORS

INTRODUCTION

AIMS AND SCOPE

*International Journal of Biological Macromolecules* is an established international journal of research into chemical and biological aspects of all natural macromolecules. It presents the latest findings of studies on the molecular structure and properties of proteins, macromolecular carbohydrates, glycoproteins, proteoglycans, lignins, biological poly-acids, and nucleic acids. These findings must be new and novel rather than a repeat of earlier or analogous published work. The scope includes biological activities and interactions, molecular associations, chemical and biological modifications, and functional properties. Papers on related model systems, structural conformational studies, theoretical developments and new analytical techniques are also welcome. All papers are required to focus primarily on at least one named biological macromolecule. This naming should appear in the title, the abstract and the text of the paper.

Examples of papers which are not appropriate for *International Journal of Biological Macromolecules* include:

- papers where the biological macromolecule has not been characterized by modern analytical techniques (including molecular weight) rather than historical methods. e.g. colorimetric assays.
- papers which focus on biological, physiological and pharmacological aspects of non-macromolecules attached to, or mixed with, biological macromolecules.
- papers on the materials science of biocomposites where there is no mention of any specific biological macromolecule.
- papers where the structure or role of the biological macromolecule is not the major proportion of the study.
- routine studies of extraction of macromolecules without purification and characterization of the extracted molecule.
- applications of macromolecules where the structure of the macromolecule is completely unknown.
- papers where the molecular weight of the biological molecule is less than five thousand.
- papers which are majorly about clinical studies and animal trials, where a biological macromolecule is not the biologically active agent, and/or the biological macromolecule is not the major focus of the study.

Introductory information

Please follow the Guide For Authors instructions carefully to ensure that the review and publication of your paper is as swift and efficient as possible. These notes may be copied freely.

All contributions are read by two or more referees to ensure both accuracy and relevance, and revisions to the script may thus be required. On acceptance, contributions are subject to editorial amendment to suit house style.

When a manuscript is returned for revision prior to final acceptance, the revised version must be submitted as soon as possible after the author's receipt of the referee's reports. Revised manuscripts returned after four months will be considered as new submissions subject to full re-review.

Types of paper

Contributions falling into the following categories will be considered for publication:

- Regular Papers • Original high-quality research papers (preferably no more than 20 double-line-spaced manuscript pages, including tables and illustrations)
- Review Papers • Authors interested in writing review articles for the International Journal of Biological Macromolecules should contact the appropriate Editor-in-Chief before submitting their contribution. Review articles are typically contributions focusing on one topic within the scope of the journal. Review articles are meant to survey a particular topic of interest and present a position on current and future directions of research for the community.

Contact details for submission

Articles should be submitted to http://www.evise.com/evise/faces/pages/navigation/NavController.jspx?JRNL_ACR=IJBIOMAC. For queries, please refer to our support page at service.elsevier.com.

Submission checklist

You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.
Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:
• E-mail address
• Full postal address

All necessary files have been uploaded:
Manuscript:
• Include keywords
• All figures (include relevant captions)
• All tables (including titles, description, footnotes)
• Ensure all figure and table citations in the text match the files provided
• Indicate clearly if color should be used for any figures in print
Graphical Abstracts / Highlights files (where applicable)
Supplemental files (where applicable)

Further considerations
• Manuscript has been 'spell checked' and 'grammar checked'
• 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 Internet)
• A competing interests statement is provided, even if the authors have no competing interests to declare
• Journal policies detailed in this guide have been reviewed
• Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

Studies in humans and animals
If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans. The manuscript should be in line with the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals and aim for the inclusion of representative human populations (sex, age and ethnicity) as per those recommendations. The terms sex and gender should be used correctly.

Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

All animal experiments should comply with the ARRIVE guidelines and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, EU Directive 2010/63/EU for animal experiments, or the National Institutes of Health guide for the care and use of Laboratory animals (NIH Publications No. 8023, revised 1978) and the authors should clearly indicate in the manuscript that such guidelines have been followed. The sex of animals must be indicated, and where appropriate, the influence (or association) of sex on the results of the study.

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 competing interests 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.

Results submitted for publication should refer to their previous findings in the same way as they would refer to results from a different group. This applies not only to figures or tables, or parts of them, but has to be understood in a wider sense.

**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).

**Use of inclusive language**

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

**Contributors**

Each author is required to declare his or her individual contribution to the article: all authors must have materially participated in the research and/or article preparation, so roles for all authors should be described. The statement that all authors have approved the final article should be true and included in the disclosure.

Each author should have participated sufficiently in the work to justify authorship. This participation must include: (a) critically important intellectual contribution to the conception, design, and/or analysis and interpretation; (b) drafting the manuscript or critically reading it; and (c) thorough reading and final approval of the version to be published. Participation solely in the collection of data or provision of funds, space or equipment does not justify authorship. All authors take public responsibility for the paper as a whole, i.e., conception and design, data, analysis, and interpretation. The acknowledgement section should list (a) other contributors for whom authorship is not justified, e.g. technical help; (b) financial and material support.

**Changes to authorship**

Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed.

Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.
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.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an ‘Exclusive License Agreement’ (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

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

Elsevier supports responsible sharing
Find out how you can share your research published in Elsevier journals.

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](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 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 12 months.

**Elsevier Researcher Academy**
Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

**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.

**Informed consent and patient details**
Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals in an Elsevier publication. Written consents must be retained by the author but copies should not be provided to the journal. Only if specifically requested by the journal in exceptional circumstances (for example if a legal issue arises) the author must provide copies of the consents or evidence that such consents have been obtained. For more information, please review the Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.

**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.
**Referees**
Authors are required to submit with their articles, the names, complete affiliations (spelled out), country and contact details (including current and valid (preferably business) e-mail address) of six potential reviewers. Email addresses and reviewer names will be checked for validity. Please ensure that the e-mail addresses are current. Reviewers who do not have an institutional e-mail address will only be considered if their affiliations are given and can be verified. When compiling this list of potential reviewers please consider the following important criteria: they must be knowledgeable about the manuscript subject area; must not be from your own institution; at least two of the suggested reviewers must be from another country than the authors'; and they should not have recent (less than four years) joint publications with any of the authors. However, the final choice of reviewers is at the editors' discretion.

**PREPARATION**

**Peer review**
This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of one independent expert reviewer to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

**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**
You should arrange your contribution in the following order:
1. The paper title should be short, specific and informative. All author's names and affiliations should be clearly indicated. Please also indicate which author will deal with correspondence and supply full postal address, telephone and fax numbers, and e-mail address.
2. Self contained abstract of approximately 200 words, outlining in a single paragraph the aims, scope and conclusions of the paper.
3. Three keywords, for indexing purposes;
4. **The text** suitably divided under headings.
5. **Acknowledgments** (if any).
6. **References** (double spaced, and following the journal style).
7. **Appendices** (if any).
8. **Tables** (each on a separate sheet).
9. **Captions** to illustrations (grouped on a separate sheet or sheets).
10. **Illustrations**, each on a separate sheet containing no text, and clearly labelled with the journal title, author's name and illustration number.

**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.

**Essential title page information**
- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
• **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. 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.

• **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are 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.

**Abstract**
A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

**Keywords**
Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**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 aaaa].

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).

Figures (to be uploaded as separate file(s), see below) and tables should be numbered in Arabic numerals. In the text they should be referred to as Fig. 1, Table 2, e.g. 3 etc. (not as fig. 1, figure 1; tab. 2, table 2). A calibration bar should be given on all micrographs.

**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.
• Provide captions to illustrations separately.
• 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.

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 & 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) in addition to color reproduction in print. Further
information on the preparation of electronic artwork.

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
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.

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. Using citation 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. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

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.

Examples:
Reference to a journal publication:
Reference to a journal publication with an article number:
Reference to a book:
Reference to a chapter in an edited book:
Reference to a website:
Reference to a dataset:

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.

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).

**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. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. 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.

**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