COMPOSITES PART B: ENGINEERING
An International Journal

TABLE OF CONTENTS

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

DESCRIPTION

The aim of Composites Part B: Engineering is to provide a balance between mechanics and materials science aspects, basic and applied research, and high technology and high volume (low cost) composite development.

The Journal aims to provide a forum for the prompt publication of original research on all areas of composites and nano-engineered materials, with emphasis being placed on evaluation and modelling of engineering details and concepts. Basic research papers are welcomed as well as proposals for review articles. Authors are encouraged to discuss the issues relative to application in the short or long-term in various areas, such as aerospace, automotive and other surface transportation, infrastructure, ship-building, off-shore piping, and recreational products.

Current topics of interest to readers include durability, functionally gradient materials, interfaces, interlaminar fracture, joints and adhesion, smart composites, textile composites, thermoplastics, wave propagation, and non-destructive testing.

Composites Part B: Engineering ranks 7 out of 90 (top 8%) of all journals in Engineering Multidisciplinary category © Thomson Reuters ISI Subject Category 2012

Benefits to authors
We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.

Please see our Guide for Authors for information on article submission. If you require any further information or help, please visit our Support Center

AUDIENCE

Materials Scientists, Aeronautical, Structural & Mechanical Engineers, Stress Analysts.

IMPACT FACTOR

2018: 6.864 © Clarivate Analytics Journal Citation Reports 2019
ABSTRACTING AND INDEXING

Adhesive Abstracts  
Engineering Index  
INSPEC  
MSCI  
Rapra Abstracts  
Research Alert  
Science Citation Index  
Web of Science  
Current Contents - Engineering, Technology & Applied Sciences  
Scopus

EDITORIAL BOARD

Editor-in-Chief  
Hao Wang, Center for Future Materials, University of Southern Queensland, Toowoomba, Queensland, Australia  
Uday Kumar Vaidya, University of Tennessee, Knoxville, 37996 USA  
Oak Ridge National Laboratory, Oak Ridge, TN 37932 USA

Editors  
L. Feo, Università degli Studi di Salerno, Fisciano (SA), Italy  
J. H. Lee, Chonbuk National University, Jeonbuk, The Republic of Korea  
O.T. Thomsen, University of Southampton, Southampton, England, UK

Editorial Board  
A.L. Araújo, University of Lisbon, Lisbon, Portugal  
A. Arias, Universidad Carlos III de Madrid, Madrid, Spain  
Y. Bai, Monash University, Clayton, Australia  
D. Bhattacharya, University of Auckland, Auckland, New Zealand  
V. Birman, Missouri University of Science and Technology, St. Louis, Missouri, USA  
P. Boisse, INSA de Lyon, Villeurbanne, France  
T. Duc Ngo, University of Melbourne, Victoria, Australia  
Mizi Fan, Brunel University, Middlesex, UK  
W. Gao, UNSW Australia, Sydney, New South Wales, Australia  
M. Godlewski, Polish Academy of Sciences, Warsaw, Poland  
Jihua Gou, University of Central Florida, Orlando, FL, USA  
V. Gribniak, Vilnius Gediminas Technical University, Vilnius, Lithuania  
N. Gupta, New York University, Brooklyn, New York, USA  
Jiecai Han, Harbin Institute of Technology, Harbin, China  
N.V. Hieu, Université Paris-Est, Créteil, France  
M. Ionita, Politehnica University of Bucharest, Bucharest, Romania  
L. Lapcik, Tomas Bata University in Zlín, ZLÍN, Czech Republic  
A. K-T. Lau, Swinburne University of Technology, Melbourne, Victoria, Australia  
D. Lau, City University of Hong Kong, Kowloon, Hong Kong  
Leo W.M. Lau, Beijing Computational Science Research Center, Beijing, China  
S.N. Leung, York University, Toronto, Ontario, Canada  
Guoqiang Li, Louisiana State University, Baton Rouge, LA, USA  
R. Luciano, Università degli Studi di Cassino e del Lazio Meridionale, Cassino, Italy  
A. Mosallam, University of California at Irvine, Irvine, California, USA  
Y.B. Park, Ulsan National Institute of Science and Technology (UNIST), Ulju-gun Ulsan, The Republic of Korea  
R. Penna, University of Salerno, Fisciano (SA), Italy  
M.J. Pindera, The University of Virginia, Charlottesville, VA, USA  
Y.D.S. Rajapakse, Office of Naval Research, Arlington, Virginia, USA  
K.Y. Rhee, Kyung Hee University, Yongin, The Republic of Korea  
T.C. Rousakis, Democritus University of Thrace, Xanthi, Greece  
J. Sankar, North Carolina Agricultural and Technical State University, Greensboro, North Carolina, USA  
A.H. Sofiyev, Suleyman Demirel University, Isparta, Turkey  
C.P. Tsui, The Hong Kong Polytechnic University, Kowloon, Hong Kong  
Shiren Wang, Texas Tech University, Lubbock, TX, USA  
G. Westin, Uppsala University, Uppsala, Sweden  
N. Wu, University of Manitoba, Winnipeg, Canada  
F. Xu, Donghua University, Shanghai, China  
Zuowan Zhou, Southwest Jiaotong University, Chengdu, China
GUIDE FOR AUTHORS

INTRODUCTION
The aim of Composites Part B: Engineering is to provide a balance between mechanics and materials science aspects, basic and applied research, and high technology and high volume (low cost) composite development.

The Journal aims to provide a forum for the prompt publication of original research on all areas of composites and nano-engineered materials, with emphasis being placed on evaluation and modelling of engineering details and concepts. Basic research papers are welcomed as well as proposals for review articles. Authors are encouraged to discuss the issues relative to application in the short or long-term in various areas, such as aerospace, automotive and other surface transportation, infrastructure, ship-building, off-shore piping, and recreational products.

Current topics of interest to readers include durability, functionally gradient materials, interfaces, interlaminar fracture, joints and adhesion, smart composites, textile composites, thermoplastics, wave propagation, and non-destructive testing.

Types of paper
Original high-quality research papers; letters commenting on recently published papers, on matters of general interest to readers, or on matters concerned with editorial policy.

Composites also publishes book review, conference reports and a calendar of forthcoming events.

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.
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.

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').

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 2850**, 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.](https://www.elsevier.com/openaccess)

This journal has an embargo period of 24 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.

**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/jcomb/](http://ees.elsevier.com/jcomb/)

**Referees**
Please submit, with the manuscript, the names, addresses and e-mails of 2 potential referees. Note that the editor retains the sole right to decide whether or not that suggested referees are used.

**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 two independent expert reviewers 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.](https://www.elsevier.com/openaccess)

**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.
LaTeX
You are recommended to use the latest Elsevier article class to prepare your manuscript and BibTeX to generate your bibliography.
Our LaTeX site has detailed submission instructions, templates and other information.

Article structure
Manuscripts should be written clearly and concisely. The journal does not accept sequential papers (labeled as Part 1 and Part 2). Authors should be able to present their material within a single, well-structured concise manuscript.

Follow this order when typing manuscripts: Title, Authors, Affiliations, Abstract, Keywords, Main text, Acknowledgements, Appendix, References, Figure Captions and then Tables.
Research papers should be no more than 20 double line spaced manuscript pages, including tables and illustrations.
Short Communications should be no more than 10 double line spaced manuscript pages, including tables and illustrations.

Text layout:
Use double spacing and wide (3 cm) margins. (Avoid full justification, i.e., do not use a constant right-hand margin.) Ensure that each new paragraph is clearly indicated. Present tables and figure legends on separate pages at the end of the manuscript. If possible, consult a recent issue of the journal to become familiar with layout and conventions. Number all pages consecutively, use 12 or 10 pt font size and standard fonts.

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.

Introduction
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods
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.

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
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

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 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.

The abstract must be approximately 100 words, outlined in a single paragraph.

**Keywords**

Authors should select a maximum of four keywords from the Keyword List shown at the end of these instructions. Each Keyword should be accompanied by the capital letter denoting the category from which the keyword has been selected [e.g., A. Carbon-carbon composites (CCCs)]. If authors wish they may nominate one additional keyword, which is not included in the list below. Keywords should appear on the title page of each paper submitted for consideration, following the abstract.

**Abbreviations**

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. 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 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.
Units
All measurements and data should be given in SI units, or if SI units do not exist, in an internationally accepted unit. If you use any symbol or unit that may not be generally recognized, please include an explanatory footnote the first time it is used, to help the referees, editors and readers. It is also helpful to identify Greek symbols by name in the margin the first time they appear. Abbreviations and acronyms should only be used for unwieldy terms and names which occur frequently in the manuscript. Abbreviations should be used consistently throughout the text, and must be clearly defined in full on first use. If you use several symbol, a list of definitions (not necessarily for publication) will help the editor. Journal style for letter symbols is as follows: variables, italic type (indicated by underlining); constants, roman type; matrices and vectors, bold type (indicated by wavy underlining).

Math formulae
Detailed mathematical discussion should be placed in an appendix. Equations and formulae should be typewritten wherever possible. Equations should be numbered consecutively with Arabic numerals in parentheses on the right hand side of the page. Type or mark mathematical equations exactly as they should appear in print.

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.
• 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, half-tones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (half-tones), 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) 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. Supply captions separately, not attached to the figure. 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
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.

Reference to arXiv
As with unpublished results and personal communications, references to arXiv documents are not recommended in the reference list. Please make every effort to obtain the full reference of the published version of an arXiv document. If a reference to an arXiv document must be included in the references list it should follow the standard reference style of the journal and should include a substitution of the volume and page numbers with 'arXiv:YYMM.NNNN' or 'arXiv:archive/YYMMNNN' for articles submitted to arXiv before April 2007.

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.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/composites-part-b
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

**Reference style**

All publications cited in the text should be presented in a list of references following the text of the manuscript. In the text refer to references by a number in square brackets on the line (e.g. Since Peterson[1]), and the full reference should be given in a numerical list at the end of the paper.

References should be given in the following form:


**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 'still's' 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 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 600 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.

List of keywords
The keywords for Composites Parts A and B are separated into five categories:

A. Material
Aramid fibre
Carbon fibre
Carbon-carbon composites (CCCs)
Ceramic fibre
Ceramic-matrix composites (CMCs)
Discontinuous reinforcement
Fabrics/textiles
Fibres
Foams
Glass fibres
Glasses
Honeycomb
Hybrid
Intermetallics
Lamina/ply
Laminates
Layered structures
Metal-matrix composites (MMCs)
Moulding compounds
Nano-structures
Particle-reinforcement
Plates
Polymer (textile) fibre
Polymer-matrix composites (PMCs)
Preform
Prepreg
Recycling
Resins
Smart materials
Strand
Tape
Thermoplastic resin
Theromosetting resin
Thin films
Tow
3-Dimensional reinforcement
Wood
Yarn

B. Property
Adhesion
Anisotropy
Buckling
Chemical properties
Corrosion
Creep
Cure behaviour
Damage tolerance
Debonding
Defects
Delamination
Directional orientation
Elasticity
Electrical properties
Embrittlement
Environmental degradation
Fatigue
Fibre/matrix bond
Fracture
Fracture toughness
Fragmentation
Hardness
High-temperature properties
Impact behaviour
Interface/interphase
Internal friction/damping
Magnetic properties
Mechanical properties
Microstructures
Optical properties/techniques
Physical properties
Plastic deformation
Porosity
Residual/internal stress
Rheological properties
Strength
Stress concentrations
Stress relaxation
Stress transfer
Surface properties
Thermal properties
Thermomechanical
Transverse cracking
Vibration
Wear
Wettability

C. Analysis

Analytical modelling
Computational modelling
Damage mechanics
Finite element analysis (FEA)
Laminate mechanics
Micro-mechanics
Numerical analysis
Statistical properties/methods

D. Testing
Acoustic emission
Chemical analysis
Electron microscopy
Fractography
Mechanical testing
Non-destructive testing
Optical microscopy
Physical methods of analysis
Process monitoring
Radiography
Surface analysis
Thermal analysis
Ultrasonics

E. Manufacturing / Processing

Assembly
Autoclave
Automation
Braiding
Casting
Chemical vapour deposition (CVD)
Compression moulding
Consolidation
Cure
Cutting
Extrusion
Fibre conversion processes
Filament winding
Forging
Forming
Heat treatment
Injection moulding
Isostatic processing
Joints/joining
Knitting
Lay-up (manual/automated)
Liquid metal infiltration
Machining
Melt-spinning
Moulding compounds
Powder processing
Preform
Prepreg
Pultrusion
Recycling
Resin film infiltration (RFI)
Resin flow
Resin transfer moulding (RTM)
Sintering
Slip casting
Stitching
Surface treatments
Tape
Thermal analysis
Thermoplastic resin
Thermosetting resin
Tooling
Tow
Weaving