



# WATER RESEARCH

A Journal of the [International Water Association \(IWA\)](#)

## AUTHOR INFORMATION PACK

### TABLE OF CONTENTS

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



ISSN: 0043-1354

### DESCRIPTION

*Water Research* has an open access mirror journal [Water Research X](#), sharing the same aims and scope, editorial team, submission system and rigorous peer review.

#### **Water Research**

Welcome to the online submission and editorial system for Water Research.

*Water Research* publishes refereed, original research papers on all aspects of the science and technology of water quality and its management worldwide. A broad outline of the journal's scope includes:

Treatment processes for water and wastewaters, municipal, agricultural and industrial, including residuals management. Water quality monitoring and assessment, based on chemical, physical and biological methods. Studies on inland, tidal or coastal waters and urban waters, including surface and ground waters, and point and non-point sources of pollution. The limnology of lakes, impoundments and rivers. Solid and hazardous waste management, including source characterization and the effects and control of leachates and gaseous emissions. Environmental restoration, including soil and groundwater remediation. Analysis of the interfaces between sediments and water, and water/atmosphere interactions. The application of mathematical modelling and system analysis techniques. Public health and risk assessment. Socio-economic studies.

#### Audience

Biologists, chemical engineers, chemists, civil engineers, environmental engineers, limnologists and microbiologists.

#### **Benefits to authors**

We also provide many author benefits, including 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

---

Chemists, biologists, microbiologists, immunologists, limnologists, civil engineers, sanitary engineers and chemical engineers.

## IMPACT FACTOR

---

2017: 7.051 © Clarivate Analytics Journal Citation Reports 2018

## ABSTRACTING AND INDEXING

---

Current Contents/Agriculture, Biology & Environmental Sciences  
EIC/Intelligence  
Environmental Periodicals Bibliography  
Current Contents/SciSearch Database  
Aqualine Abstracts  
INSPEC  
BIOSIS  
Elsevier BIOBASE  
Chemical Abstracts  
Current Contents/Social & Behavioral Sciences  
EMBASE  
Engineering Village - GEOBASE  
Geo Bib & Index  
PASCAL/CNRS  
Research Alert  
Reference Update  
Scopus

## EDITORIAL BOARD

---

### *Editor-in-Chief*

**Mark van Loosdrecht**, Department of Biochemical Engineering  
Delft University of Technology  
KWR Watercycle Research  
Delft  
Netherlands

### *Editors*

**Guang-Hao Chen**, Dept. of Civil & Environmental Engineering, Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong

**Ana Deletic**, Office of the Pro Vice-Chancellor (Research), UNSW Australia, Sydney, New South Wales, Australia

**David Dixon**, Dept. of Chemical and Biomolecular Engineering, University of Melbourne, Parkville, Victoria, Australia

**Xiaodi Hao**, The Research Centre for Sustainable Env. Biotechnology, Beijing University of Civil Engineering and Architecture, Beijing, China

**Gregory Korshin**, Dept. of Civil Engineering, University of Washington, Seattle, Washington, USA

**Yoshihiko Matsui**, Dept. of Environmental Engineering, Hokkaido University, Sapporo, Japan

**Eberhard Morgenroth**, Eidg. Technische Hochschulen, Swiss Federal Institute of Aquatic Science & Technology (EAWAG), Dübendorf, Switzerland

**Maria Reis**, Dept. of Chemistry, Universidade NOVA de Lisboa, Caparica, Portugal

**Hang-Sik Shin**, Dept. of Environmental Engineering, Korea Advanced Institute of Science and Technology (KAIST), Yuseong-Gu, Daejeon, The Republic of Korea

**Thomas Ternes**, Federal Institute of Hydrology, Koblenz, Germany

**Stefan Wuertz**, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore, Singapore

**Zhiguo Yuan**, Advanced Water Management Centre, University of Queensland, Queensland, Australia

**Julie Zilles**, Dept. of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA

### **Associate Editors**

- Andy Baker**, Water Research Lab., University of New South Wales, Manly Vale, New South Wales, Australia  
**Damien Batstone**, Advanced Wastewater Management Centre, University of Queensland, St. Lucia, Queensland, Australia  
**Treavor H. Boyer**, School of Sustainable Engineering and the Built Environment, Arizona State University, Tempe, Arizona, USA  
**Bin Cao**, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore, Singapore  
**Yinguang Chen**, State key lab. of pollution control and resources reuse, Tongji University, Shanghai, China  
**Rob Eldridge**  
**Stephen Gray**, Institute for Sustainable Industries & Liveable Cities, University of Victoria, Melbourne, Victoria, Australia  
**Damian Helbling**, School of Civil and Environmental Engineering, Cornell University  
**Michihiko Ike**, Graduate School of Engineering Science, Osaka University, Osaka, Japan  
**Peter Jarvis**, Cranfield Water Sciences Institute, Cranfield University, Cranfield, Bedfordshire, England, UK  
**Seoktae Kang**  
**David Kay**, Centre for Research into Environment and Health (CREH), Aberystwyth University, Wales, UK  
**Katsuki Kimura**, Dept. of Environmental Engineering, Hokkaido University, Sapporo, Japan  
**Susanne Lackner**, Institute IWAR, Darmstadt University of Technology, Darmstadt, Germany  
**Gunter Langergraber**, University of Natural Resources and Applied Life Sciences Vienna, Wien, Austria  
**Qilin Li**, Dept. of Civil and Environmental Engineering, Rice University, Houston, Texas, USA  
**Shang-Lien Lo**, Graduate Inst. of Environmental Engineering, National Taiwan University, Taipei, Taiwan  
**Jun Ma**, School of Municipal and Environmental Engineering, Harbin Institute of Technology, Harbin, China  
**Dionisis Mantzavinos**, Dept. of Chemical Engineering, University of Patras, Patras, Greece  
**Armand Maul**, Laboratoire interdisciplinaire des environnements continentaux (LIEC), University of Lorraine, Metz, France  
**David McCarthy**, Dept. of Civil Engineering, Monash University, Clayton, Victoria, Australia  
**Peta Neale**, Australian Rivers Institute, School of Environment and Science, Griffith University, Southport, Queensland, Australia  
**How Yong Ng**, Div. of Environmental Science and Engineering, National University of Singapore, Singapore, Singapore  
**Adrian Oehmen**, Faculdade de Ciências e Tecnologia (FCT), New University of Lisbon, Caparica, Portugal  
**Ameet Pinto**, Dept. Civil & Environmental Engineering, Northeastern University (NU), Boston, Massachusetts, USA  
**Susan Richardson**, Dept. of Chemistry and Biochemistry, University of South Carolina, Columbia, South Carolina, USA  
**Miquel Salgot**, Fac. de Física (ECM), University of Barcelona, Barcelona, Spain  
**Masahiro Takahashi**, Div. of Field Engineering for Environment, Hokkaido University, Sapporo, Japan  
**Satoshi Takizawa**, Dept. of Urban Engineering, The University of Tokyo, Tokyo, Japan  
**Ed Topp**, General London, Agriculture and Agri-Food Canada (AAFC), London, Ontario, Canada  
**Vayalam Venugopalan**, Water & Steam Chemistry Division, BARC Facilities, Tamil Nadu, India  
**Yan Zhou**, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore, Singapore

## GUIDE FOR AUTHORS

---

### INTRODUCTION

Water Research has an open access mirror journal, Water Research X.

#### *Types of paper*

Papers are published either as a Research Paper or a Review Paper. Comments on these papers are also welcome.

(a) A RESEARCH PAPER is a contribution describing original research, including theoretical exposition, extensive data and in-depth critical evaluation, and is peer reviewed. Water Research does not accept case studies, unless it is a study that has a wide impact on the industry. The total length of the manuscript including references must not exceed 8000 words. Please note that figures and tables must be added to the manuscript only if they are really useful for the presentation.

(b) REVIEW PAPERS are encouraged. Only critical review papers will be considered. The format and length of review papers are more flexible than for a full paper. Review papers are peer reviewed.

(c) COMMENTS on papers already published are welcome, subject to the criteria of interest, originality and the approval of the appropriate Editor. Comments can include extensions to, or criticisms of, those papers. They must provide arguments that are reasoned, and not presented in a confrontational fashion. They will be sent to the author of the original paper for reply, the outcome of which may be publication in a future issue. Comments and Authors' Replies should not exceed 1200 words each and will be received until 4 months after publication. They will be accepted or rejected without corrections.

Comment or Reply papers should be submitted under the article type "Discussion" and should have an article title in the below format.

Comment on "TITLE of previously published article by AUTHORS [Water Research VOLUME YEAR PAGE-RANGE]".

Reply for Comment on "Title of previously published article by AUTHORS [Water Research VOLUME YEAR PAGE-RANGE]"

(d) MAKING WAVES is a new type of communication. Its aims and features are to identify emerging topics and approaches, provide opinions and perspectives, discuss a visionary way forward in a particular field, and present solutions for research bottlenecks. Submissions are usually limited to 3000 words accompanied by no more than two illustrations (figures or tables), plus a short abstract and up to three highlights. Use bullet points in Conclusions. Supplementary Information is not admissible.

#### *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 conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors should complete the declaration of interest statement using [this template](#) and upload to the submission system at the Attach/Upload Files step. If there are no interests to declare, please choose: 'Declarations of interest: none' in the template. This statement will be published within the article if accepted. [More information](#).

Note that conference proceedings are a form of publication.

### ***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.

### ***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.

### **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 3750**, excluding taxes. Learn more about Elsevier's pricing policy: <https://www.elsevier.com/openaccesspricing>.

Authors wishing to publish open access will be presented with the option to publish in *Water Research*, or in the journal's open access mirror journal, [Water Research X](#). One, unified editorial team manages the peer review for both titles using the same submission system. The choice of publishing model will be blinded to referees, ensuring the editorial process is identical.

#### *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 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 Services**

Manuscripts should be written in English. Authors who are unsure of correct English usage should have their manuscript checked by someone proficient in the language. Manuscripts in which the English is difficult to understand can be rejected.

Authors who require information about language editing and copyediting services pre- and post-submission please visit <https://www.elsevier.com/languagepolishing> or our customer support site at [service.elsevier.com](http://service.elsevier.com) for more information. Please note Elsevier neither endorses nor takes responsibility for any products, goods or services offered by outside vendors through our services or in any advertising. For more information please refer to our Terms & Conditions: <https://www.elsevier.com/termsandconditions>.

#### **Submission**

Submission to this journal proceeds totally online. Use the following guidelines to prepare your article. Via the homepage of this journal (<http://ees.elsevier.com/wr/>) you will be guided stepwise through the creation and uploading of the various files. The system automatically converts source files to a single Adobe Acrobat PDF version of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail and via the author's homepage, removing the need for a hard-copy paper trail.

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

## **Referees**

You are required to submit, with the manuscript, the names and addresses of 4 potential referees that can give an independent review.

## **Important notice**

Multi-part papers are not to be considered. Papers that are requested by the editors to be revised must be returned within 4 weeks or they will be regarded as withdrawn.

Water Research has no page charges.

## **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.](#)

### *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**

#### *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.

Use line numbering throughout your paper.

#### *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.

#### *Results*

Results should be clear and concise.

Show only those experimental results that are relevant to your objectives and conclusions and which you want to discuss.

### **Discussion**

This should explore the significance of the results of the work, not repeat them. It should integrate your findings in a comprehensive picture and place them in the context of the existing literature. A combined Results and Discussion section can be appropriate. Avoid extensive citations and discussion of published literature.



For reviews the organisation of the paper can be different. It is however important that a review is more than a summary of the literature, an in-depth critical discussion is essential for acceptance of a review paper.

### **Conclusions**

Conclusions section is mandatory for this journal. Conclusions contain essentially the 'take-home' message of a paper. Conclusions are not an extension of the discussion or a summary of the results. Authors are advised to list important implications of their work in form of a bulleted list. Conclusions must not contain references to the cited literature.

### *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.

It is also possible to add supplementary information on-line (see below).

### **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 message. 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, they must be cited in full, without reference to the reference list. Also, abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

### *Graphical abstract*

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view [Example Graphical Abstracts](#) on our information site.

Authors can make use of Elsevier's [Illustration Services](#) to ensure the best presentation of their images and in accordance with all technical requirements.

### *Highlights*

Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). You can view [example Highlights](#) on our information site.

## Keywords

Immediately after the abstract, provide a maximum of 6 keywords, avoid 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. Use keywords that make your paper easy detectable for interested readers in literature databases. Repeating terms in the title is usually not needed.

## Abbreviations

Nomenclature must be listed at the beginning of the paper and must conform to the system of standard SI units. Acronyms and abbreviations must be spelled out in full at their first occurrence in the text. Authors should consult - "Notation for Use in the Description of Wastewater Treatment Processes", Water Res.1987;(21)2:135-9. In general, minimise the use of abbreviations so the paper remains easily understood by the general reader.

## 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.

## Artwork

### Electronic artwork

#### General points

- Make sure you use uniform lettering and sizing of your original artwork.
- Save text in illustrations as "graphics" or enclose the font.
- Only use the following fonts in your illustrations: Arial, Courier, Times, Symbol.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Ensure that the figures can be understood without reading the text. Minimise use of abbreviations.
- Produce images near to the desired size of the printed version.
- For initial submission, figures can either be submitted next to the relevant text in the article or each figure can be submitted as a separate file. However, for revision, please ensure that you submit each figure as a separate file so that it can be used for production purpose if the manuscript gets accepted.

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

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

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

#### Formats

Regardless of the application used, when your electronic artwork is finalised, 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: Vector drawings. Embed the font or save the text as "graphics".

TIFF: color or grayscale photographs (halftones): always use a minimum of 300 dpi.

TIFF: Bitmapped line drawings: use a minimum of 1000 dpi.

TIFF: Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

DOC, XLS, PDF or PPT: If your electronic artwork is created in any of these Microsoft Office applications please supply "as is".

**Please do not:**

- Supply embedded graphics in your wordprocessor (spreadsheet, presentation) document;
- Supply files that are optimised for screen use (like GIF, BMP, PICT, WPG); the resolution is too low;
- 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. Submit each caption directly below each 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. The figure caption should be understandable independent of the text and abbreviations should be avoided.

**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.

Minimise the use of symbols and abbreviations in the tables.

**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.

Only cite the original papers and those relevant for the work, no need to give a full literature review in the introduction/discussion. A large fraction of self-citations is in general an indication that the authors didn't place their work well in the literature context.

*Reference links*

Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, CrossRef and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is highly encouraged.

A DOI is guaranteed never to change, so you can use it as a permanent link to any electronic article. An example of a citation using DOI for an article not yet in an issue is: VanDecar J.C., Russo R.M., James D.E., Ambeh W.B., Franke M. (2003). Aseismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. *Journal of Geophysical Research*, <https://doi.org/10.1029/2001JB000884>. Please note the format of such citations should be in the same style as all other references in the paper.

### *Web references*

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

### *Data references*

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

### *References in a special issue*

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

### *Reference management software*

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support [Citation Style Language styles](#), such as [Mendeley](#). 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/water-research>

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

### *Free Reference Style*

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct. If you do wish to format the references yourself they should be arranged according to the following example:

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

### **Reference style**

References to published literature must be cited in the text as follows:

Li and Gregory (2006) - the date of publication in parentheses after the authors' names. References must be listed together at the end of each paper and must not be given as footnotes. For other than review papers authors should aim to give no more than 20-30 recent, relevant references. They must be listed alphabetically starting with the surname of the first author, year followed by the title of the referenced paper and the full name of the periodical, as follows:

Li, G., Gregory, J., 2006. Flocculation and sedimentation of high-turbidity waters. *Water Research* 25 (9), 1137-1143.

It is particularly requested that (i) authors' initials, (ii) the title of the paper, and (iii) the volume, part number and first and last page numbers are given for each reference.

References to books, reports and theses must be cited in the narrative. They must include the author(s), date of publication, title of book, editor(s) name(s) if applicable, page numbers, name of publisher, and place of publication. The abbreviation et al. may be used in the text. However, the names of all authors must be given in the list of references. Personal communications and other unpublished works must be included in the reference list, giving full contact details (name and address of communicator).

Personal communications must be cited in the text as, for example, Champney (2006).

References in languages other than English must be referred to by an English translation (with the original language indicated in parentheses).

Citing and listing of web references. As a minimum, the full URL should be given. Any further information, if known (author names, dates, references 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.

### **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.

### *MethodsX*

You have the option of converting relevant protocols and methods into one or multiple MethodsX articles, a new kind of article that describes the details of customized research methods. Many researchers spend a significant amount of time on developing methods to fit their specific needs or setting, but often without getting credit for this part of their work. MethodsX, an open access journal, now publishes this information in order to make it searchable, peer reviewed, citable and reproducible. Authors are encouraged to submit their MethodsX article as an additional item directly alongside the revised version of their manuscript. If your research article is accepted, your methods article will automatically be transferred over to MethodsX where it will be editorially reviewed. Please note an open access fee is payable for publication in MethodsX. Full details can be found on the MethodsX website. Please use [this template](#) to prepare your MethodsX article.

### *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's Discount**

Contributors to Elsevier journals are entitled to a 30% discount on most Elsevier books, if ordered directly from Elsevier.

## **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>