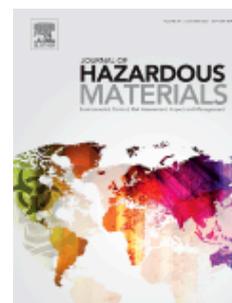




TABLE OF CONTENTS

●	Description	p.1
●	Audience	p.2
●	Impact Factor	p.2
●	Abstracting and Indexing	p.2
●	Editorial Board	p.2
●	Guide for Authors	p.6



ISSN: 0304-3894

DESCRIPTION

The Journal of Hazardous Materials is an international forum that advances world class research by publishing articles in the areas of Environmental Science and Engineering. We publish full-length research papers, review articles, and perspectives that improve our understanding of the hazards and risks that certain materials pose to public health and the environment. Papers that deal with ways of assessing environmental impact (Environmental Science) and risk mitigation (Environmental Engineering) of hazardous materials (HM) are within the scope of the journal. The Journal publishes high-impact contributions on:

Characterization of the harmful effects of chemicals and materials (including contaminants of emerging concern). Studies of harmful effects are restricted to their impact on model organisms or cell-based assays typically used in environmental science and engineering studies. Some examples of model organisms include, but are not limited to, plants, microbes (viruses, bacteria, fungi, algae), zooplankton, phytoplankton, zebrafish, and *C. elegans* Field studies monitoring HM concentrations and bioaccumulation in organisms or microorganisms to determine fate and impact of contaminants in the environment Advances in measurement and monitoring of HM with relevant numbers of replicates Transport, fate and removal or transformation of environmentally relevant concentrations of HM in the environment Physico-chemical and separation processes for HM removal Advanced Oxidation Process for HM Removal Thermal Processes for HM Removal Biological processes for HM removal including biodegradation and elucidation of biodegradation pathways. Demonstrated safer and cleaner technologies and biotechnologies with minimization of the environmental impact of HM Resource recovery (Energy and Materials) from HM with reduction of their environmental impact Modeling related to HM fate and transport

However, the following areas are excluded:

Non-hazardous materials Work place health and safety Municipal wastewater treatment research focusing on the removal of regular organic and nutrient compounds Greenhouse gas mitigation The manufacturing of explosives Epidemiological studies (e.g. studies involving patients or cohort studies) Fire/flame and/or flame retardants that do not focus on hazardous effects of the materials. Characterization of harmful effects on arthropods, reptiles, fish, birds or mammals (including humans), as well as tissues/organs/organelles (e.g. mitochondria) of such organisms, which would more effectively be conveyed in specialized journals Studies with a materials engineering focus that primarily deal with material synthesis, characterization, and utilization for contaminant sequestration under conditions that are not environmentally relevant or conducted with non-hazardous contaminants

AUDIENCE

Chemists, Chemical Engineers, Manufacturers of Chemicals, Designers of Chemical Plants, Local Authorities, Emergency Services, Transportation Services, Safety Engineers and Inspectors.

IMPACT FACTOR

2019: 9.038 © Clarivate Analytics Journal Citation Reports 2020

ABSTRACTING AND INDEXING

Applied Science & Technology Abstracts
Elsevier BIOBASE
Cambridge Scientific Abstracts
Pascal Francis
Chemical Abstracts
CIS
Coal Abstracts
Current Contents - Engineering, Technology & Applied Sciences
Engineering Index
Environmental Periodicals Bibliography
Laboratory Hazards Bulletin/Chemical Hazards in Industry
NIOSHTIC
Système de Documentation et Information Métallurgique
ASM
Scopus
Embase
INSPEC

EDITORIAL BOARD

Editors

Diana Aga, University at Buffalo Department of Chemistry, Buffalo, New York, United States
Environmental Analysis, Emerging Contaminants, Persistent Organic Pollutants, Wastewater Treatment, Biodegradation, Antibiotic Resistance, Mass Spectrometry, Ecotoxicity

Andrew J. Daugulis, Queen's University Department of Chemistry, Kingston, Ontario, Canada
Environmental Biotechnology, Bioresource Engineering, Cell Culture Engineering, and Industrial Bioprocessing

Zhen (Jason) He, Washington University in St. Louis, Department of Energy, Environmental and Chemical Engineering, St. Louis, Missouri, United States

Water pollution and treatment; Environmental biotechnology; Resource recovery from wastes; Bioelectrochemical systems; Bioenergy; Membrane technology; Bioremediation; Desalination

Éder Claudio Lima, Federal University of Rio Grande do Sul Chemistry Institute, Brazil
Emerging contaminants, adsorption, biosorption, preparation of adsorbents, green chemistry, Advanced Oxidative Process, Nanomaterials, Heavy metals, Soil, Environmental Chemistry, catalysis, photocatalysis

Gerasimos Lyberatos, National Technical University of Athens School of Chemical Engineering, Athens, Greece
Bioprocesses, Environmental Engineering, Biodegradation, Water And Wastewater Treatment, Solid Waste Management, Industrial Waste Management, Combined Chemical And Biological Treatment, Energy From Biomass, Life Cycle Analysis

Special Issues Editor

Jörg Rinklebe, University of Wuppertal, Wuppertal, Germany
Soils, sediments, waters, plants, and their pollutions (in particular trace elements and nutrients) and linked biogeochemical issues with a special focus in redox chemistry; Remediation of soils and soil microbiology.

Associate Editors

Lingxin Chen, CAS Key Laboratory of Coastal Environmental Processes and Ecological Remediation, Yantai, China

Analytical Chemistry: Surface-enhanced Raman scattering, Fluorescence probe and imaging, Paper-based analysis, Nanosensors, Molecular imprinting, Metal-organic framework, Analysis related to Heavy metals, Persistent organic pollutants, Polycyclic aromatic hydrocarbons; Pesticides, Herbicides, Pharmaceuticals including antibiotics, etc. Environmental Chemistry: Environmental analysis, Environmental monitoring, Preparation of adsorbents, Adsorption/Sorption, Wastewater treatment, Heavy metal removal; Nanotoxicology, Nanomaterial-biological interactions; Green chemistry, Green remediation, Bioremediation, Biodegradation, Biosorption; Microplastics, Nanoplastic

Xiaohong Guan, Tongji University School of Environmental Science and Engineering, Shanghai, China

Advanced oxidation processes; Permanganate oxidation; Ferrate oxidation; Disinfection by-products; Zerovalent iron; Drinking water treatment; Heavy metals; Emerging organic contaminants; Adsorption; Catalysis

Zaher Hashisho, University of Alberta, Edmonton, Alberta, Canada

expertise: adsorption, desorption, adsorbents, microwave chemistry, air pollution control, air quality, emissions of air pollutants and greenhouse gases, flux measurement.

Arturo Hernández-Maldonado, University of Puerto Rico - Mayaguez Campus Department of Chemical Engineering, Mayaguez, Puerto Rico

Adsorption, nanoporous materials, nanomaterials, contaminants of emerging concern, ultra-purification of gases and water via adsorption

Angela Yu-Chen Lin, National Taiwan University Graduate Institute of Environmental Engineering, Taipei, Taiwan

Emerging contaminants, Environmental photochemistry, Environmental chemistry and analysis, Transformation and risk of organic micropollutants, Water/wastewater treatment technology and reuse

Shaily Mahendra, University of California Los Angeles, Los Angeles, California, United States

Environmental microbiology, bioremediation, emerging contaminants, aerobic, microbiome

Teresa Rocha-Santos, University of Aveiro, Aveiro, Portugal

Micro(nano)plastic, Plastic, Microfibres, Organic contaminants, Marine monitoring, Environmental monitoring, Wastewater treatment, Biodegradation of microplastics, Sensors, Biosensors

Debora Rodrigues, University of Houston, Houston, Texas, United States

Nanotechnology, nanotoxicology, bioremediation, microbial ecology, biotoxicity, heavy metal pollution, biotechnology, water and wastewater treatment, biosorption, photocatalysis

María Sonia Rodríguez-Cruz, Institute for Natural Resources and Agrobiological of Salamanca, Salamanca, Spain

Sorption-desorption, leaching/transport/mobility, degradation/dissipation of pesticides and organic compounds in soil at laboratory and field scale. Bioavailability, formation of bound-residues (non-extractable residues), mineralization of pesticides in soil. Effect of organic wastes in the fate of pesticides in soil, including immobilization, transport and biodegradation studies. Effect of pesticides and organic wastes on soil microbial abundance, activity and structure. Remediation of contaminated soils by physicochemical and biological techniques. Analysis of pesticides and their transformation products in soil and water.

Sara Rodriguez-Mozaz, Catalan Institute of Investigation of Water, Girona, Spain

Environmental chemistry and analysis related to organic micropollutants, Analysis of organic emerging pollutants in wastewater, surface, marine and groundwater, sediments and biota, Endocrine disruptors, cancer drugs, Pharmaceuticals, including antibiotics, Transformation products, Bioaccumulation of micropollutants in aquatic organisms, Biomonitoring, Metabolomics, Wastewater Epidemiology, Environmental impact, Human Health impact

Navid B. Saleh, The University of Texas at Austin, Austin, Texas, United States

Nanomaterials; Water pollution and treatment; Emerging contaminants; Appropriate treatment technologies for low-income communities; contaminant fate and transport.

Nan Sang, Shanxi University, College of Environment and Resource, Research Center of Environment and Health, Taiyuan, China

Toxicology, Environmental exposure, Atmospheric pollutant, Neurotoxicity

Danmeng Shuai, The George Washington University, Department of Civil and Environmental Engineering, Washington, Washington, United States

Catalysis, Nanotechnology, Membrane separation, Nanomaterial-biological interactions

Meiping Tong, Peking University College of Environmental Science and Engineering, Beijing, China

Transport of nanoparticles, bacteria, microplastics in natural and engineered systems; Heteroaggregation of colloids; Toxicity of nanomaterials; Bacterial disinfection; Organic pollutant degradation; Heavy metal removal.

Daniel Tsang, The Hong Kong Polytechnic University Department of Civil and Environmental Engineering, Hong Kong, Hong Kong

Green chemistry/engineering, Soil/sediment remediation, Engineered biochar, Waste valorization, Resource recovery, Wastewater/stormwater treatment, Catalytic conversion/degradation, Pollutant transport, Environmental pollution | Sustainable urban development, urban wastes, contaminated land and water, waste management (food, wood, plastic agro, sludge), green remediation, wastewater treatment.

Editorial Board

Roberto Andreozzi, University of Naples Federico II, Napoli, Italy

Shannon Leigh Bartelt-Hunt, University of Nebraska-Lincoln Department of Civil Engineering, Omaha, Nebraska, United States

Contaminant transport; Water quality; Water reuse

Enric Brillas, University of Barcelona, Barcelona, Spain

Anodic oxidation; Electrochemical advanced oxidation processes; Electro-Fenton; Photoelectrocatalysis; Photoelectro-Fenton

Valerio Cozzani, University of Bologna, Bologna, Italy

Hazardous substances, Domino effect, Risk assessment, Inherent safety, Sustainability.

Yang Deng, Montclair State University Department of Earth and Environmental Studies, Montclair, New Jersey, United States

Innovative Water Treatment and Reuse Processes; Stormwater Treatment; Chemical Oxidation and Reduction; Adsorption Processes; Sustainable Landfill Leachate Management

Mehmet Erdem, Firat University, Department of Environmental Engineering, Elazığ, Turkey

Water pollution and treatment, Emerging contaminants, Advanced oxidation processes, Heavy metal pollution, Stabilization and solidification of industrial solid wastes, Preparation and characterization of catalysts, biochar and activated carbon

Santi Esplugas, University of Barcelona, Barcelona, Spain

Advanced Oxidation Processes, Photocatalysis, Fenton, Ozonation, Wastewater treatment

Zhengping Hao, Research Centre for Eco-Environmental Sciences Chinese Academy of Sciences, Beijing, China
Air pollution control, nano porous materials, green catalysis, absorption/separation, and environmental engineering

Panagiotis Lianos, University of Patras School of Engineering, Patra, Greece

-Photocatalysis for water cleaning: photodegradation of organic pollutants -Photocatalysis for energy applications: production of hydrogen by photodegradation of water pollutants or products of biomass; dye-sensitized solar cells -New materials for adsorption and retention of pollutants from water.

Raffaele Marotta, University of Naples Federico II Department of Chemistry, Napoli, Italy

Patryk Oleszczuk, Maria Curie-Skłodowska University, Lublin, Poland

Biochar; organic contaminants; heavy metals; polycyclic aromatic hydrocarbons; nanoparticles; sewage sludge; ecotoxicology; remediation

David O'Connor, Tsinghua University, Beijing, China

Soil and groundwater pollution; Biochar; Microplastics (MPs); Green and sustainable solutions; Contaminated land remediation

Jong Moon Park, Pohang University of Science and Technology, Pohang, Korea, Republic of

Bioenergy, Biosorption, Biological wastewater treatment

Hans Pasman, TNO, Delft, Netherlands

Process safety, Risk assessment and management, Plant/process resilience, Chemical engineering

Spyros G. Pavlostathis, Georgia Institute of Technology, Atlanta, Georgia, United States

Environmental biotechnology; Bioprocess engineering; Wastewater treatment; Anaerobic digestion; Biotransformation; Bioremediation; Bioenergy and biofuels; Bioelectrochemical systems; Kinetics and modeling

Anushka Upamali Rajapaksha, University of Sri Jayewardenepura, Faculty of Applied Sciences, Nugegoda, Sri Lanka

Adsorption/Sorption, Remediation, Environmental Chemistry, Heavy metals

Manuel Andres Rodrigo, University of Castilla-La Mancha, Ciudad Real, Spain

Virender K Sharma, Texas A&M University College Station, College Station, Texas, United States

Advanced Oxidation Processes; Ferrate; Engineered and Natural Nanoparticles; Disinfection Byproducts; Remediation

Hocheol Song, Sejong University Department of Energy and Environment, Seoul, Korea, Republic of

Shaobin Wang, The University of Adelaide School of Chemical Engineering and Advanced Materials, Adelaide, South Australia, Australia

Nanoparticles and nanotechnology; Advanced oxidation processes; Air pollution and control; Wastewater treatment technology; Solid waste conversion and treatment

Xin Wang, Nankai University College of Environmental Science and Engineering, Jinnan District, Tianjin, China
Microbial electrochemical technology; Electroactive biofilm; Anaerobic digestion; Nitrogen recovery, DNRA

Xin YANG, Sun Yat-Sen University School of Environmental Science and Engineering, Guangzhou, China

Water treatment, Chemical oxidation, Emerging contaminants

Yi Yang, East China Normal University, School of Geographical Sciences; State Key Laboratory of Estuarine and Coastal Research, Shanghai, China

Nanoparticles, Behavior, Incidental, POPs, ARGs , ,

Siming You, University of Glasgow School of Engineering, Glasgow, United Kingdom

Waste management; Waste to Resource; Biochar; Optimisation; Process modelling

Jiaguo Yu, Wuhan University of Technology, Wuhan, China

Preparation, modification, characterization and application of porous and nano-structured materials; semiconductor photocatalysis for water and air purification; photocatalytic hydrogen production; dye-sensitized solar cells and adsorption

Young-Shin Jun, Washington University in St. Louis, Department of Energy, Environmental and Chemical Engineering, St. Louis, Missouri, United States

Nanochemistry, Nucleation, CO₂ sequestration, desalination, water reuse and resource recovery

Early Career Advisory Board

Adeyemi Adeleye, University of California Irvine, Department of Civil and Environmental Engineering, Irvine, California, United States

Environmental chemistry, Water pollution and treatment, Emerging contaminants, Environmental nanotechnology, Per- and poly-fluoroalkyl substances

Nikiforos Alygizakis, National and Kapodistrian University of Athens Department of Chemistry, Athens, Greece
Analytical chemistry, environmental chemistry, high-resolution mass spectrometry, non-target screening, chemical risk assessment

Brandon Boor, Purdue University Lyles School of Civil Engineering, West Lafayette, Indiana, United States

Air pollution, indoor air quality, airborne nanoparticles, human exposure assessment, aerosol filtration

Kerry A. Hamilton, Arizona State University School of Sustainable Engineering and the Built Environment, Tempe, Arizona, United States

Keywords: Risk assessment, Microbiology, water, Public health, Decision analysis

Bing Li, Tsinghua University, Tsinghua Shenzhen International Graduate School, Division of Energy & Environment, Shenzhen, China

Antibiotic resistant bacteria and antibiotic resistance genes, Microbial ecology, Environmental microbiology, Metagenomics and metatranscriptomics, Microbial biotransformation of environmental contaminants

Lucia Rodriguez-Freire, New Jersey Institute of Technology Department of Chemical and Material Engineering, Newark, New Jersey, United States

Biogeochemistry; Environmental Chemistry; Bioremediation; Resource Biorecovery; Contaminants Fate and Transport

Mingming Sun, Nanjing Agricultural University (NAU), Department of Soil Ecology, Nanjing, China

Emerging contaminants; Pollutant bioaccessibility and detoxification; Bacteriophage technology; Antibiotic resistance; Soil bioremediation and microbiome; Soil Science: Management of contaminated soil

Qilin Wang, University of Technology Sydney Faculty of Engineering and Information Technology, Sydney, New South Wales, Australia

Biological wastewater treatment; Anaerobic digestion; Sludge treatment; Nutrient removal; Process modelling of biological wastewater treatment; Greenhouse gas production; Algae; Biochar; Bioenergy and value-added products; Aerobic digestion

Genbo (Elvis) Xu, University of Southern Denmark Department of Biology, Odense, Denmark

Environmental Pollution, Micro/Nanoplastics, Crude oil, Transcriptomics, Bioinformatics, Marine Protected Area, Embryonic Models, Crumb rubber

Fang Zhang, Tsinghua University School of Environment, Beijing, China

Soil and groundwater remediation, Transport and fate of contaminants, DNAPL, Electro-remediation technologies, microbial electrochemical technologies

GUIDE FOR AUTHORS

Your Paper Your Way

We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article.

To find out more, please visit the Preparation section below.

INTRODUCTION

The *Journal of Hazardous Materials* is an international journal for publication of original research that can improve our understanding of materials that pose to public health and the environment.

The Journal publishes papers with significant novelty and scientific impact. The Editors reserve the right to decline, without external review, papers that do not meet these criteria, including papers that: Are very similar to previous publications, with changed target substrates, employed materials, analyzed sites or experimental methods, Deal with parameter optimization of known processes without new concepts and/or interpretations, Report the environmental analysis and monitoring of specific geographic areas without presenting new insights and/or hypothesis testing, or Do not focus on the environmental relevance and significance of the studied materials.

A 100 word (maximum) "statement of novelty" explaining why the work should be published in Journal of Hazardous Materials in two brief paragraphs. It must be provided as a separate document upon submission of your manuscript. The "statement of novelty" must not be a retelling of the abstract. When preparing the statement please make sure to address (a) the significance and novelty of the work, with respect to existing literature, and (b) why the studied material should be considered "hazardous material". Papers that lack significant novelty will be rejected.

Types of Paper

Full-length research papers within the above stated Aims and Scope are welcome. Such contributions are not to be submitted in two parts (i.e. Part I and Part II) - these must be consolidated into one manuscript. Short communications are not considered.

Review Article - Critical evaluation of existing data, defined topics or emerging fields of investigation, critical issues of public concern. For Review Articles please include the following in your Cover Letter: (1) a clear indication of the novelty and urgency of such a review paper at this time, in light of other review a brief on the same topic, (2) a brief description of the authors' academic background and research areas, and (3) a list of all authors' publications related to the review article topic.

Letter to the Editor - A written discussion of papers published in the journal. Authors of earlier papers, if the Letter concerns a prior publication, will also be given an opportunity to respond.

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
- Include Line Numbers
- 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](#).

Policy and ethics

It is understood that with submission of this article the authors have complied with the institutional policies governing the humane and ethical treatment of the experimental subjects, and that they are willing to share the original data and materials if so requested.

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](#).

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. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions. We advise to seek gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability or health condition unless they are relevant and valid. These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

Author contributions

For transparency, we encourage authors to submit an author statement file outlining their individual contributions to the paper using the relevant CRediT roles: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing - original draft; Writing - review & editing. Authorship statements should be formatted with the names of authors first and CRediT role(s) following. [More details and an example](#)

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.

Open access

Please visit our [Open Access page](#) for more information.

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 Author Services.

Authors may submit their articles electronically to this journal. The system automatically converts source files to a single PDF file of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to a PDF file 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, removing the need for a paper trail.

Note that contributions may be either submitted online or sent by mail. Please do NOT submit via both routes. This will cause confusion and may lead to your article being reviewed and published twice!

For any technical queries please visit our [Support Center](#).

Cover Letter

The corresponding author must state explicitly in a paragraph how the paper fits the Aims and Scope of the journal. Failure to include the paragraph will result in returning the paper to the author.

PREPARATION

NEW SUBMISSIONS

Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts your files to a single PDF file, which is used in the peer-review process.

As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or layout that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.

References

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 article number or 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.

Formatting requirements

There are no strict formatting requirements but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions.

If your article includes any Videos and/or other Supplementary material, this should be included in your initial submission for peer review purposes.

Divide the article into clearly defined sections.

Please ensure that your manuscript file contains line numbering. Line numbers should be included manually before uploading your files.

Please submit Figures and Tables in separate files in an approved format (TIFF, EPS or MS Office files) with the correct resolution.

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.](#)

REVISED SUBMISSIONS

Use of word processing software

Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the [Guide to Publishing with Elsevier](#)). 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

There is no restriction on the number of pages but brevity of papers is greatly encouraged. The length of a paper should be commensurate with the scientific information being reported. In particular, the introductory material should be limited to a few paragraphs and results presented in figures should not be repeated in tables.

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.

Experimental

Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.

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. Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author.

Corresponding author. Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. **The submitting author and the corresponding author must be the same person. Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.**

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.

Highlights

Highlights are mandatory for this journal as they help increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: [example Highlights](#).

Highlights 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).

Abstract

A concise and factual abstract is required (100–200 words). 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, they must be cited in full, without reference to the reference list. Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Graphical abstract

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

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

Keywords

The key words of the paper should not contain any words already in the title, but can include abbreviated terms or location information not suitable for the title.

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.

Nomenclature and units

Follow internationally accepted rules and conventions: use the international system of units (SI). If other quantities are mentioned, give their equivalent in SI. You are urged to consult the International Union of Pure and Applied Chemistry (IUPAC) <http://www.iupac.org/> for further information.

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article.

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.
- Ensure that color images are accessible to all, including those with impaired color vision.

A detailed [guide on electronic artwork](#) is available.

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

Formats

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

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

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

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

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

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

Please do not:

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

Color artwork

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) 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. 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.

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/science-of-the-total-environment>

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

Reference formatting

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 article number or 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 examples:

Reference style

Text: All citations in the text should refer to:

1. *Single author:* the author's name (without initials, unless there is ambiguity) and the year of publication;
2. *Two authors:* both authors' names and the year of publication;
3. *Three or more authors:* first author's name followed by 'et al.' and the year of publication.

Citations may be made directly (or parenthetically). Groups of references can be listed either first alphabetically, then chronologically, or vice versa.

Examples: 'as demonstrated (Allan, 2000a, 2000b, 1999; Allan and Jones, 1999)... Or, as demonstrated (Jones, 1999; Allan, 2000)... Kramer et al. (2010) have recently shown ...'

List: References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.

Examples:

Reference to a journal publication:

Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2010. The art of writing a scientific article. *J. Sci. Commun.* 163, 51–59. <https://doi.org/10.1016/j.Sc.2010.00372>.

Reference to a journal publication with an article number:

Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2018. The art of writing a scientific article. *Heliyon.* 19, e00205. <https://doi.org/10.1016/j.heliyon.2018.e00205>.

Reference to a book:

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

Reference to a chapter in an edited book:

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

Reference to a website:

Cancer Research UK, 1975. Cancer statistics reports for the UK. <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/> (accessed 13 March 2003).

Reference to a dataset:

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

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. Before submitting your article, you can deposit the relevant datasets to *Mendeley Data*. Please include the DOI of the deposited dataset(s) in your main manuscript file. The datasets will be listed and directly accessible to readers next to your published article online.

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

Data in Brief

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

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

To ensure a fast publication process of the article, we kindly ask authors to provide us with their proof corrections within two days. 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.

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. Proof reading is solely your responsibility. **Any late corrections, after this proofing stage will not be entertained as this will delay the publication process of the articles in the journal. If in case, your late corrections are being so important, Erratum/Corrigendum can be published accordingly so that, it will also be mapped to your already published original article.**

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 [Author Services](#). 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](#).

Author inquires

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 find out [when your accepted article will be published](#).

Revision submissions:

If you have any specific questions related due date extensions for revision, please contact the Journal Manager, Pallavi Das at j.scitotenv@elsevier.com.

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