DESCRIPTION

Food Research International provides a forum for the rapid dissemination of significant novel and high impact research in food science, technology, engineering and nutrition. The journal only publishes novel, high quality and high impact review papers, original research papers and letters to the editors, in the various disciplines encompassing the science and technology of food. It is journal policy to publish special issues on topical and emergent subjects of food research or food research-related areas. Special issues of selected, peer-reviewed papers from scientific meetings, workshops, conferences on the science, technology and engineering of foods will be also published.

Food Research International is the successor to the Canadian Institute of Food Science and Technology Journal. Building on the quality and strengths of its predecessor, Food Research International has been developed to create a truly international forum for the communication of research in food science.

Topics covered by the journal include:
food chemistry food microbiology and safety microbiome food toxicity materials science of foods food engineering physical properties of foods sensory science food quality health and nutrition food biophysics analysis of foods food nanotechnology emerging technologies

Subjects that will not be considered for publication in Food Research International, and will be rejected as being outside of scope, include:
Studies testing different formulations and ingredients leading to the choice of the best formulation or ingredient to be used in the manufacture of a specified food; Optimization studies aiming to determine processing conditions and/or raw materials that increase the yield of a production process or improve nutritional and sensorial qualities; Studies describing the production of ingredients and only their characterization without a strong mechanistic emphasis; Studies describing the biological activity of foods lacking identification of the compounds responsible for the reported activity will not be published. This is also valid for any other chemical compounds such as phytochemicals and minor components of foods. Compounds of interest need to be characterized at least by mass spectrometry-based methods. Studies that do not clearly prove the relationship between the structure of the compounds and their activity; Fingerprinting studies lacking molecular insights and validation sets; Studies on antimicrobial compounds that do not consider a validation step in foods, lacking full data on chemical composition indicating the compounds responsible for the inhibitory activity and, when appropriate, the use of molecular biology approaches to support the findings; Development of analytical methods not comprising a validation step in situ that represent the range of conditions faced during their application will not be considered; Surveys of chemical, nutritional, physical and microbiological hazards will not be considered. Only papers presenting a significant data set, wide
coverage, novel and supported by adequate chemical or microbiological techniques will be considered; Pharmacology and nutritional studies papers focusing in hosts rather than in foods. Pharmacology and nutritional studies that do not contain bioavailability or biofunctionality. Engineering studies lacking of mathematical verification or validation in situ, when appropriate; Fragmented studies, of low scientific quality, or poorly written. Studies with no food component.

ABSTRACTING AND INDEXING

CAB International
EMBiology
AGRICOLA
BIOSIS Citation Index
Elsevier BIOBASE
FSTA (Food Science and Technology Abstracts)
International Packaging Abstracts
Science Citation Index
Publications in Food Microbiology
Index to Scientific Reviews
Current Packaging Abstracts
Chemical Abstracts
Current Contents - Agriculture, Biology & Environmental Sciences
Scopus
PubMed/Medline

EDITORIAL BOARD

Editor-in-Chief
Anderson Sant’Ana, UNICAMP - University of Campinas, SAO PAULO, Brazil
Predictive microbiology, predictive modeling, risk analysis, quantitative microbial risk assessment, challenge tests, foodborne pathogens (Salmonella, Listeria, Bacillus cereus, Clostridium perfringens, Clostridium botulinum), probiotics, spoilage microorganisms (Alicyclobacillus, Clostridium, Bacillus, fungi), effects of processing on the microbial quality and safety of foods, GC-MS, HPLC, MS-MS and molecular tools

Emerging Technologies
Tian Ding, Zhejiang University, Hangzhou, China
Nonthermal processing technology, Foodborne pathogens, Quantitative microbial risk assessment

Food Chemistry and Analysis
Senem Kamiloglu, Bursa Uludag University, Bursa, Turkey
Polyphenols, Bioavailability, Authenticity
Sascha Rohn, TU Berlin University, Berlin, Germany
Secondary Plant Metabolites, Food Chemistry, Food Analysis, Proteins, Interactions
Patricia Valentão, University of Porto, Faculty of Pharmacy, Porto, Portugal
Natural Products, Phenolic compounds, Antioxidant, Diabetes, Inflammation

Food Engineering and Materials Science of Foods
Pedro Augusto, Paris-Saclay University, St Aubin, France
Process engineering, food processing, emerging technologies, process-structure-properties relationships, physical properties of biological material, bioproducts processing, biomaterials
Athina Lazaridou, Aristotle University of Thessaloniki, Department of Food Science and Technology, Thessaloniki, Greece
Structure and Physicochemical Properties of Polysaccharides, Food Calorimetry, Food Texture, Food rheology

Food Microbiology, Safety and Quality
Marciane Magnani, Federal University of Paraíba, Department of Food Engineering, JOÃO PESSOA, Brazil
Salmonella, Essential oils, Antimicrobial resistance, Food microbiology, Food safety, Mycotoxins in foods, Probiotics, Prebiotic
**Food Omics**

Alessandra Bordoni, University of Bologna, Department of Agri-Food Sciences and Technologies, Bologna, Italy

Nutrition, Biochemistry, In vitro digestion

**Food Toxicology**

Ana Juan-García, University of Valencia, Department of Preventive Medicine and Public Health Food Science Toxicology and Legal Medicine, Valencia, Spain

Mycotoxins, Food safety, Food toxicology, In vitro, Cytoprotection

**Functional Foods**

Sonia G. Sáyago-Ayerdi, Technological Institute of Tepic, Tepic, Mexico


Baojun (Bruce) Xu, Beijing Normal University-Hong Kong Baptist University United International College, Zhumai, China

Functional food, phytochemicals, nutraceuticals, health promoting effects, bioactive food components, food chemistry

**Microbiome**

Francesca De Filippis, University of Naples Federico II, Napoli, Italy

Microbiology, Food microbiome, Human microbiome, microbial fermentation, food spoilage

**Nutrigenomics**

Alan Mackie, University of Leeds, Leeds, United Kingdom

Food science and nutrition, colloid science, digestion

**Sensory Aspects of Foods**

Han-Seok Seo, University of Arkansas, Fayetteville, Arkansas, United States of America

Sensory science, Cross-modal interaction, Consumer behavior, Food psychology, Neuroscience

**Review Editor**

Gongjian Fan, Nanjing Forestry University, Nanjing, China

Food processing, Food biotechnology, Food storage and preservation, Anthocyanin

**Editorial Board Members**

Nathalia D. Aceval Arriola, National University of the East, Ciudad Del Este, Paraguay

Bioactive compounds, food chemistry, polyphenols, encapsulation, food metabolomics

Halise Gül Akilloğlu, University of Copenhagen, København, Denmark

Food science, food chemistry, chemical kinetics

Gitana Alenčikienė, Kaunas University of Technology, Kaunas, Lithuania

Sensory analysis, food biotechnology

Arzu Altunkaya, Republic of Turkey Ministry of Agriculture and Forestry, Ankara, Turkey

Emilio Alvarez-Parrilla, Autonomous University of Ciudad Juarez Institute of Biomedical Sciences, Ciudad Juarez, Mexico

Antioxidants, Food chemistry

Farid Amidi Fazli, Islamic Azad University, Department of Food Science and Technology, Soufian, Iran

Biocomposites, Active packaging, Smart packaging, Nanocomposites

Saber Amiri, Urmia University, Urmia, Iran

Food Microbiology and Biotechnology, Food Safety, Functional Food, Food Bioprocessing, Lactic acid Bacteria and Probiotics

Paula Andrade, University of Porto, Porto, Portugal

Pharmacognosy, inflammation, neurodegeneration

Agata Antoniewska-Krzeska, Warsaw University of Life Sciences, Institute of Human Nutrition Sciences, Department of Functional and Ecological Food, Warsaw, Poland

Food Chemistry, Chromatography, Volatile Compounds, Lipid Oxidation, Antioxidants

Adriane Antunes, State University of Campinas School of Applied Sciences, Limeira, Brazil

Microbiology, food safety, probiotics and prebiotics

Gastón Ares, University of the Republic Uruguay, Montevideo, Uruguay

Eating behavior, Public policies

Tolulope Ashaolu, Duy Tan University, Institute of Research and Development, Da Nang, Viet Nam

Functional foods, Food proteins, Food microbiology, Nutrition, Biopeptides

J. Fernando Ayala-Zavala, Center for Food Research and Development Emerging Technologies Laboratory, Hermosillo, Sonora, Mexico
Food Science, Food Chemistry, Functional Foods, Antioxidants, in vitro digestion, Thermal Contaminants, Advanced glycation end products

Wenjiang Dong, Chinese Academy of Tropical Agricultural Sciences Spice and Beverage Crops Research Institute, Wanning, China
Food flavor chemistry, Non-thermal processing, Food drying and storage, Coffee processing

Osman Duman, Akdeniz University, Antalya, Turkey
Adsorption, Water purification, Sorption, Separation of oil-water mixtures, Superhydrophobic surfaces, Surface properties, Mechanical properties, Clay-polymer nanocomposites, Clay-biopolymer nanocomposites, Clay-based materials, Kinetic, Isotherm, Hydrophobic, Antibacterial

Aly Farag El Sheikha, McMaster University, Hamilton, Ontario, Canada
Meat Science, Flavor Chemistry, Sensory Evaluation, Food Quality

Virginia Fernandez-Ruiz, Complutense University of Madrid, Madrid, Spain
Ilario Ferrocino, University of Turin, Torino, Italy
microbiome, food microbiota, gut, metagenomics

Susana Fiszman, Institute of Agrochemistry and Food Technology Research, Department on Food Conservation and Quality, Valencia, Spain
Texture creation; Texture modification; Food sensory perception; Food ingredient’s interaction; Food oral processing

Victor de Freitas, University of Porto, Porto, Portugal
Charis M. Galanakis, Galanakis Laboratories, Chania, Greece
Food processing by-products, food waste recovery, antioxidants, emerging technologies, food security

Jose Alberto Gallegos Infante, National Technology of Mexico, , Mexico
Functional foods Processing and Physical chemistry of foods

Efstathios (Stathis) Giaouris, University of the Aegean, Department of Food Science and Nutrition, Myrina, Greece
Bacterial attachment and biofilms, Microbial stress response, Microbial interactions, Quorum sensing, Disinfection, Fermented foods, Pathogen detection, Identification and quantification, Listeria, Salmonella, Lactococcus

Manuela Giordano, University of Turin, Torino, Italy
Food field, food chemical analyses, gas chromatography-mass spectrometry, spme extraction method, volatile metabolites, Food science

Anupam Giri, SABIC Netherlands, Bergen op Zoom, Netherlands
Chromatography, Mass spectrometry, GC×GC, Food, Petroleum

Vural Gökmên, Hacettepe University, Ankara, Turkey
Food Science and Technology

Carlos Gomez-Corona, Firmenich SA, Satigny, Switzerland
Consumer research, Social responsibility, Gender studies, Drinking experience, Beer

Andrea Gomez-Zavaglia, Center for Research and Development in Food Cryotechnology, La Plata, Argentina
Probiotics, Prebiotics, Functional ingredients, Vibrational spectroscopy, Circular economy

Neslihan Goncuoglu Tas, Hacettepe University, Ankara, Turkey
Maillard reaction, caramelization, bioactive compounds, Flavour

Shela Gorinstein, Hebrew University of Jerusalem, Jerusalem, Israel

Jose Alberto Gallegos Infante, National Technology of Mexico, , Mexico
Functional foods Processing and Physical chemistry of foods

Efstathios (Stathis) Giaouris, University of the Aegean, Department of Food Science and Nutrition, Myrina, Greece
Bacterial attachment and biofilms, Microbial stress response, Microbial interactions, Quorum sensing, Disinfection, Fermented foods, Pathogen detection, Identification and quantification, Listeria, Salmonella, Lactococcus

Manuela Giordano, University of Turin, Torino, Italy
Food field, food chemical analyses, gas chromatography-mass spectrometry, spme extraction method, volatile metabolites, Food science

Anupam Giri, SABIC Netherlands, Bergen op Zoom, Netherlands
Chromatography, Mass spectrometry, GC×GC, Food, Petroleum

Vural Gökmên, Hacettepe University, Ankara, Turkey
Food Science and Technology

Carlos Gomez-Corona, Firmenich SA, Satigny, Switzerland
Consumer research, Social responsibility, Gender studies, Drinking experience, Beer

Andrea Gomez-Zavaglia, Center for Research and Development in Food Cryotechnology, La Plata, Argentina
Probiotics, Prebiotics, Functional ingredients, Vibrational spectroscopy, Circular economy

Neslihan Goncuoglu Tas, Hacettepe University, Ankara, Turkey
Maillard reaction, caramelization, bioactive compounds, Flavour

Shela Gorinstein, Hebrew University of Jerusalem, Jerusalem, Israel

Daniel Granato, University of Limerick, Faculty of Science and Engineering, Limerick, Ireland

Aparna H.S, University of Mysore, Department of Biotechnology, Mysore, India

Protéomics, drug discovery

Aytul Hamzalioglu, Hacettepe University, Ankara, Turkey
food science, nutrition, food processing, food technology

Shahzad Zafar Iqbal, Government College University Faisalabad, Faisalabad, Pakistan
Mycotoxins, Heavy metals toxicity in foods, Acrylamide formation, Antioxidant, Phytochemicals

Maria Jaramillo-Flores, Instituto Politécnico Nacional Secretaría de Investigación y Posgrado, Ciudad de México Mexico
Functional foods, Nutraceuticals, Obesity, Inflammation, Nutrigenomic, Metabolic disorders

Panagiotis Kandylis, Ionian University - Argostoli, Argostoli, Greece
Food Science, Food Microbiology, Oenology, Alcoholic Beverages, Dairy products, GC/MS, Food Technology, Meat, Probiotics, Prebiotics, Encapsulation

Meral Kilic-Akyilmaz, Istanbul Technical University, İstanbul, Turkey
Dairy Technology, Food Technology, Shelf life, Food rheology and texture, food waste

Hector Koolen, University of Amazonas State, MANAUS, Brazil
Natural Products, Mass Spectrometry, Food Chemistry

Ji Li, Nutraceutical Corp, Park City, Utah, United States of America
Functional food, Smart packaging, bioaccessibility, emerging technology

Selim Silbir, Iğdır University, Iğdır, Turkey
Food Biotechnology, Food Chemistry, Spectroscopy, Optimisation, RSM

Weizheng Sun, South China University of Technology School of Food Science and Engineering, Guangzhou, China
Food proteins; Peptide; Functional properties; Digestive behaviours; Sensors, Digestive behaviours, Food protein, Protein oxidation, Sensor, Peptide, Food flavour

Chuan-He Tang, South China University of Technology School of Food Science and Engineering, Guangzhou, China
Food proteins, emulsions, functional properties, nanoencapsulation, bioaccessibility

Ittipon Techakriengkrai, Ramkhamhaeng University, Bangkok, Thailand
Food Technology

Zi Teng, University of Maryland, College Park, Maryland, United States of America
Wine microbiology

Antonio Dario Troise, University of Naples Federico II, Napoli, Italy
Maillard reaction, mass spectrometry, analytical chemistry, food chemistry, glycation

Elizabeth Troncoso Ahués, Metropolitan Technological University, Santiago, Chile
LIPID; FOOD MATRIX; BIOAVAILABILITY; IN VITRO DIGESTION

Vasillis P. Valdramidis, National and Kapodistrian University of Athens, Department of Chemistry, Athens, Greece
Air filtration, Cold atmospheric plasma, Decontamination, High power ultrasound, Nanoparticles, predictive microbiology, Predictive modeling, Shelf-life, Model-based optimization of thermal and non-thermal technologies, Antifungal compounds for post-harvesting preservation

Manuel Viuda-Martos, Miguel Hernandez University of Elche Agro-Food Technology Department, Orihuela, Spain
Coproducts, Fibre, Antioxidant, Antibacterial, Foods

Bin Wang, Zhejiang Ocean University, Zhoushan, China
Bioactive peptide; Collagen; Antioxidant activity; Functional Foods

Jenny Weissbrodt, Symrise AG, Holzminden, Germany
Microencapsulation, Flavour, Delivery, Engineering, Food Technology, Powder Characterization

Marek Wesolowski, Medical University of Gdansk, Gdansk, Poland
Qiang Xia, Ningbo University, Ningbo, China
Flavor Chemistry, Food Omics, Emerging food processing technologies, Nonthermal processing, Meat and meat products, Food Hydrocolloids

Qisen Xiang, Zhangzhou Institute of Technology College of Food and Biological Engineering, Zhangzhou, China
Emerging technology, Non-thermal technologies, Food microbiology, Food processing, Health promoting effects

Gökçen YILDIZ, Bursa Technical University, Bursa, Turkey
Drying technology, Fruit and vegetable processing, Functional foods, Fermented foods

Swee Keong Yeap, Xianning University - Malaysia, Sepang, Malaysia
Immunology, Drug discovery, Natural Products, Molecular Biology, Vaccine

Cemile Yılmaz, Hacettepe University, Ankara, Turkey
Yusuf Yılmaz, Burdur Mehmet Akif Ersoy University, Burdur, Turkey
Long Yu, CSIRO Australian Manufacturing and Materials Precinct, Clayton, Australia
Biao Yuan, China Pharmaceutical University, Nanjing, China
Nutraceuticals, Functionality, Delivery systems, Proteins, Polysaccharides

Giovanne Leone Zabot, Federal University of Santa Maria - Cachoeira do Sul Campus, Cachoeira do Sul, Brazil
Food processing; extraction; supercritical fluids; hydrolysis; emulsions

Wei-Cai Zeng, Sichuan University College of Biomass Science and Engineering, Chengdu, China
Food Science and Technology

Xin Zhang, Ningbo University, Department of Food Science and Engineering, Ningbo, China
Polyphenols, Intestinal microbiota, Metabolism, Prebiotic, Probiotic

Haifeng Zhao, South China University of Technology, Guangzhou, China
Fermented food, Beverage, Yeast, Food microbiology, Food nutrition, Food flavour, Food constitutes, Natural products, Non-thermal processing technologies, By-products, Bioactive peptides

Slađana Žilić, Maize Research Institute Zemun Polje, Beograd, Serbia
Emerging technology, Non-thermal technologies, Food microbiology, Food processing, Health promoting effects
GUIDE FOR AUTHORS

INTRODUCTION

Food Research International is the successor to the Canadian Institute of Food Science and Technology Journal. Building on the quality and strengths of its predecessor, Food Research International has been developed to create a truly international forum for the communication of research in food science.

Food Research International provides a forum for the rapid dissemination of significant novel and high impact research in food science, technology, engineering and nutrition. The journal only publishes novel, high quality and high impact review papers, original research papers and letters to the editors, in the various disciplines encompassing the science and technology of food. It is journal policy to publish special issues on topical and emergent subjects of food research or food research-related areas. Special issues of selected, peer-reviewed papers from scientific meetings, workshops, conferences on the science, technology and engineering of foods will be also published.

Food Research International does not publish papers with a product development emphasis, statistical optimizations of processes or surveys. This is based on the editorial policy of the journal to publish more fundamental work with a strong quantitative emphasis and of a general nature.

Topics covered by the journal include:
Emerging Technologies Sensory Aspects of Foods Food Toxicology Food Chemistry and Analysis Food Omics Nutrition, health and food digestion Food Engineering and Materials Science of Foods Functional Foods Food Microbiology, Safety and Quality

Please also refer to the list of subjects not considered in Food Research International before you submit your paper. These topics can be found in the full aims and scope of the journal.

Types of paper

Research papers - original full-length research papers which have not been published previously, except in a preliminary form. It is preferable that manuscripts do not exceed 6,000 words. The word count refers to the text of the manuscript per se, i.e., references, figures and tables are not considered. This limit might be exceeded as required for manuscripts to be as complete as possible towards ensuring quality, novelty and impact. There are no limits on the figures and tables to ensure manuscripts are thorough. Review articles - will be accepted in all areas of food science covered by the scope of the journal. Review articles focused on recent literature published (over the previous 2-5 years) as well as comprehensive and definitive reviews will be considered. Review articles aim to provide a critical and comprehensive assessment of published material to extend and gain new insights in past research. They also aim to elucidate the current state of knowledge of a topic and highlight aspects of the experimental design, specific insights and methodologies/research techniques employed. Review articles must also identify gaps in the field of study that can be useful for future studies. They must contain the author's critical assessment of the topic, revealing inconsistencies, diverse results and the potential reasons for them. Besides, review articles must also resolve conceptual ambiguities and present harmonized definitions. Last but not least, review articles must be precise, making reference to the original source. There are no word counts and reference numbers limit for review papers. Short communications - Food Research International does not publish short communication papers. Letters to the Editor - Letters are published from time to time on matters of topical interest. Book Reviews

Food Research International is concerned with safeguarding the rights and welfare of animals and human research subjects. Authors must provide a letter with the approval from the ethics committee from the respective University or research center where the study was performed.

The list of references must be as updated as possible. Making reference to recent work in the field is particularly key to highlight the current context of the manuscript and to make it more comprehensive, to highlight the novelty to the readers as well as its contribution to the field.

Contact details for submission

Submission for all types of manuscripts to Food Research International proceeds totally online. Via the Editorial Manager (EM) website for this journal, https://www.editorialmanager.com/foodres/default.aspx, you will be guided step-by-step through the creation and uploading of the various files.
Questions regarding content of a proposed submission can be directed to: fri.journal@elsevier.com.

**Submission checklist**
You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

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

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

All necessary files have been uploaded:
- **Cover Letter**, clearly stating the novelty of your research
- **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](https://www.elsevier.com/locate/foodres).

**BEFORE YOU BEGIN**

**Ethics in publishing**
Please see our information on Ethics in publishing.

**Studies in humans and animals**

**Research involving humans**

If the work involves the use of human subjects or human data, the author should ensure that the work described has been carried out in accordance with [The Code of Ethics of the World Medical Association (Declaration of Helsinki)](https://www.wma.net/e/policy/ethics-code/) for experiments involving humans. The manuscript should be in line with the [Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals](https://www.icmje.org/recommendations/) and aim for the inclusion of representative human populations (sex, age and ethnicity) as per those recommendations. The terms *sex* and *gender* should be used correctly. A statement including the project identification code, date of approval, and name of the ethics committee or institutional review board must be provided in the 'Ethical Statement' section of the manuscript.

By definition, sensory evaluation by trained or naive panelists and other sensory-consumer research involve humans and requires an ethical statement. If ethical approval is not required by national laws, authors must state that an exemption from ethics committee approval was obtained (with relevant reference number) or, if no human ethics committee or formal documentation process is available, the statement should explain this and confirm that the appropriate protocols for protecting the rights and privacy of all participants were utilized during the execution of the research, e.g. no coercion to participate, full disclosure of study requirements and risks, written or verbal consent of participants, no release of participant data without their knowledge, ability to withdraw from the study at any time. If vulnerable populations (e.g. children, individuals with diminished physical or
intellectual capacity, the socially or economically vulnerable or institutionalized individuals) are used in the research, evidence of permission for them to participate from parents or guardians must be obtained. Publication of photographs that reveal a participant's identity must be accompanied by a release signed by the participant.

For non-interventional studies (e.g. surveys, questionnaires......), all participants must be fully informed why the research is being conducted, how their data will be used and if there are any risks associated with it. Some cases (for example social media research, etc.) might not require full disclosure, e.g. if de-identified data are obtained or if subject blinding to the manipulation or the purpose of the study is required. In the latter case, such details should be explained in the Ethical Statement and de-briefing of participants should be conducted. All relevant privacy protections related to disclosure of subject identities must be strictly maintained.

Editors reserve the right to reject any submission that does not meet the above requirements.

Examples of Ethical Statements:

1. "Ethical approval for the involvement of human subjects in this study was granted by XXX University Research Ethics Committee, Reference number XXX, dtd m/d/y."

2. "Participants gave informed consent via the statement "I am aware that my responses are confidential, and I agree to participate in this survey" where an affirmative reply was required to enter the survey. They were able to withdraw from the survey at any time without giving a reason. The products tested were safe for consumption."

3. "The study was explained to consumers in the online questionnaire. They were informed that they would participate in the survey using their personal smartphone, that all data will be de-identified and only reported in the aggregate. All participants acknowledged an informed consent statement in order to participate in the study. They were financially compensated for their participation in the amount of XX"

Research involving animals

All animal experiments should comply with the ARRIVE guidelines and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, EU Directive 2010/63/EU for animal experiments, or the National Research Council's Guide for the Care and Use of Laboratory Animals and the authors should clearly indicate in the manuscript that such guidelines have been followed. The sex of animals must be indicated, and where appropriate, the influence (or association) of sex on the results of the study.

Declaration of interest

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

Declaration of generative AI in scientific writing

The below guidance only refers to the writing process, and not to the use of AI tools to analyse and draw insights from data as part of the research process.

Where authors use generative artificial intelligence (AI) and AI-assisted technologies in the writing process, authors should only use these technologies to improve readability and language. Applying the technology should be done with human oversight and control, and authors should carefully review and edit the result, as AI can generate authoritative-sounding output that can be incorrect, incomplete or
biased. AI and AI-assisted technologies should not be listed as an author or co-author, or be cited as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans, as outlined in Elsevier’s AI policy for authors.

Authors should disclose in their manuscript the use of AI and AI-assisted technologies in the writing process by following the instructions below. A statement will appear in the published work. Please note that authors are ultimately responsible and accountable for the contents of the work.

**Disclosure instructions**

Authors must disclose the use of generative AI and AI-assisted technologies in the writing process by adding a statement at the end of their manuscript in the core manuscript file, before the References list. The statement should be placed in a new section entitled ‘Declaration of Generative AI and AI-assisted technologies in the writing process’.

**Statement:** During the preparation of this work the author(s) used [NAME TOOL / SERVICE] in order to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

This declaration does not apply to the use of basic tools for checking grammar, spelling, references etc. If there is nothing to disclose, there is no need to add a statement.

**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 compliance, your article may be checked by Crossref Similarity Check and other originality or duplicate checking software.

**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. When coding terminology is used, we recommend to avoid offensive or exclusionary terms such as "master", "slave", "blacklist" and "whitelist". We suggest using alternatives that are more appropriate and (self-) explanatory such as "primary", "secondary", "blocklist" and "allowlist". These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

**Reporting sex- and gender-based analyses**

**Reporting guidance**

For research involving or pertaining to humans, animals or eukaryotic cells, investigators should integrate sex and gender-based analyses (SGBA) into their research design according to funder/sponsor requirements and best practices within a field. Authors should address the sex and/or gender dimensions of their research in their article. In cases where they cannot, they should discuss this as a limitation to their research’s generalizability. Importantly, authors should explicitly state what definitions of sex and/or gender they are applying to enhance the precision, rigor and reproducibility of their research and to avoid ambiguity or conflation of terms and the constructs to which they refer (see Definitions section below). Authors can refer to the Sex and Gender Equity in Research
(SAGER) guidelines and the SAGER guidelines checklist. These offer systematic approaches to the use and editorial review of sex and gender information in study design, data analysis, outcome reporting and research interpretation - however, please note there is no single, universally agreed-upon set of guidelines for defining sex and gender.

Definitions
Sex generally refers to a set of biological attributes that are associated with physical and physiological features (e.g., chromosomal genotype, hormonal levels, internal and external anatomy). A binary sex categorization (male/female) is usually designated at birth ("sex assigned at birth"), most often based solely on the visible external anatomy of a newborn. Gender generally refers to socially constructed roles, behaviors, and identities of women, men and gender-diverse people that occur in a historical and cultural context and may vary across societies and over time. Gender influences how people view themselves and each other, how they behave and interact and how power is distributed in society. Sex and gender are often incorrectly portrayed as binary (female/male or woman/man) and unchanging whereas these constructs actually exist along a spectrum and include additional sex categorizations and gender identities such as people who are intersex/have differences of sex development (DSD) or identify as non-binary. Moreover, the terms "sex" and "gender" can be ambiguous—thus it is important for authors to define the manner in which they are used. In addition to this definition guidance and the SAGER guidelines, the resources on this page offer further insight around sex and gender in research studies.

Author contributions
For transparency, we require corresponding authors to provide co-author contributions to the manuscript using the relevant CRediT roles. The CRediT taxonomy includes 14 different roles describing each contributor's specific contribution to the scholarly output. The roles are: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing - original draft; and Writing - review & editing. Note that not all roles may apply to every manuscript, and authors may have contributed through multiple roles. 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 uses the Elsevier Article Transfer Service to find the best home for your manuscript. This means that if an editor feels your manuscript is more suitable for an alternative journal, you might be asked to consider transferring the manuscript to such a journal. The recommendation might be provided by a Journal Editor, a dedicated Scientific Managing Editor, a tool assisted recommendation, or a combination. If you agree, your manuscript will be transferred, though you will have the opportunity to make changes to the manuscript before the submission is complete. Please note that your manuscript will be independently reviewed 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 a '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, it is recommended to state this.

**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.

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

Authors must provide and use an email address unique to themselves and not shared with another author registered in EM, or a department. It is mandatory to upload a Cover Letter together with your manuscript that explain in details the novelty of your research and why it is suitable for Food Research International. If the novelty of your research is not clear, the paper can be rejected by the editors or reviewers.

**Suggesting reviewers**
Please submit the names and institutional e-mail addresses of several potential reviewers.

You should not suggest reviewers who are colleagues, or who have co-authored or collaborated with you during the last three years. Editors do not invite reviewers who have potential competing interests with the authors. Further, in order to provide a broad and balanced assessment of the work, and ensure scientific rigor, please suggest diverse candidate reviewers who are located in different countries/regions from the author group. Also consider other diversity attributes e.g. gender, race and ethnicity, career stage, etc. Finally, you should not include existing members of the journal's editorial team, of whom the journal are already aware.

Note: the editor decides whether or not to invite your suggested reviewers.
**PREPARATION**

**Queries**
For questions about the editorial process (including the status of manuscripts under review) or for technical support on submissions, please visit our Support Center.

**Peer review**
This journal operates a single anonymized 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. Editors are not involved in decisions about papers which they have written themselves or have been written by family members or colleagues or which relate to products or services in which the editor has an interest. Any such submission is subject to all of the journal’s usual procedures, with peer review handled independently of the relevant editor and their research groups. 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.

Please ensure that the text of your paper has page numbering and consecutive line numbering, this is an essential requirement to facilitate peer review. In Word files, this can be found under File - Page Setup - Layout - Line numbers - Add line numbering - Continuous.

**Cover Letter**
Manuscript submissions must be accompanied by a cover letter. The corresponding author must state explicitly in a paragraph how the paper fits the Aims and Scope of the journal. The cover letter should also outline the novelty and impact of the work. Authors are invited to briefly comment on how the work presented in the manuscript advances the knowledge in the field.

For review articles, authors must also clearly disclose how the article adds new insights to the field and how it differs from recently published review articles in the same or similar subjects. Authors must also ensure in the cover letter that the review article contains critical assessment of the literature and perspectives to the field. For shorter review articles, authors must ensure that literature reviewed is recent (last 3 years).

Any statement regarding conflict of interest or duplicate submission should be included in the cover letter. Approvals of the ethical committee when the work involves human or animal experiments must also be disclosed in the cover letter.

Only submissions following these guidelines will be considered.

**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.

**Introduction**
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.
Material and methods
Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

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

Authors are encouraged to read the helpful notes on statistics applied in the planning of experiments and assessment of results in the field of food science and technology. The more important univariate and bivariate parametric and non-parametric methods, their advantages and disadvantages are presented in "Observations on the use of statistical methods in Food Science and Technology by Granato (http://www.sciencedirect.com/science/article/pii/S0963996913005723).

All the data must be provided considering not only the average values, but also the associated deviation (such as using the standard deviation, etc), for all the tables and figures. Moreover, when relevant, statistics must be provided and discussed.

Follow this order when typing manuscripts: Title, Authors, Affiliations, Abstract, Keywords, Main text (Introduction, Material and Methods, Results, Conclusion), Acknowledgements, Appendix, References. The corresponding author should be identified with an asterisk and footnote. All other footnotes (except for table footnotes) should be identified with superscript Arabic numbers. The title of the paper should unambiguously reflect its contents.

Results
Results should be clear and concise.

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

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

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

Essential title page information
• Title. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
• Author names and affiliations. Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
• Corresponding author. Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.
• Present/permanent address. If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.
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. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

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.

Keywords
Immediately after the abstract, provide at least 6 keywords (maximum allowed: 12 keywords), using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. Keywords must be different from title to enhance searchability and findability. These keywords will be used for indexing purposes.

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, it is recommended to include the following sentence:

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

Units
Follow internationally accepted rules and conventions: use the international system of units (SI). If other units are mentioned, please give their equivalent in SI.
**Math formulae**
Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

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

**Artwork**

**Image manipulation**
Whilst it is accepted that authors sometimes need to manipulate images for clarity, manipulation for purposes of deception or fraud will be seen as scientific ethical abuse and will be dealt with accordingly. For graphical images, this journal is applying the following policy: no specific feature within an image may be enhanced, obscured, moved, removed, or introduced. Adjustments of brightness, contrast, or color balance are acceptable if and as long as they do not obscure or eliminate any information present in the original. Nonlinear adjustments (e.g. changes to gamma settings) must be disclosed in the figure legend.

**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. Supply captions separately, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables
Please submit tables as editable text and not as images. Tables must be placed on separate page(s) at the end of the manuscript. 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.

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.

The list of references must be as updated as possible. Making reference to recent work in the field is particularly key to highlight the current context of the manuscript and to make it more comprehensive, to highlight the novelty to the readers as well as its contribution to the field.

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.

Preprint references
Where a preprint has subsequently become available as a peer-reviewed publication, the formal publication should be used as the reference. If there are preprints that are central to your work or that cover crucial developments in the topic, but are not yet formally published, these may be referenced. Preprints should be clearly marked as such, for example by including the word preprint, or the name of the preprint server, as part of the reference. The preprint DOI should also be provided.

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

Reference management software
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.
Reference style
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:
Reference to a journal publication with an article number:
Reference to a book:
Reference to a chapter in an edited book:
Reference to a website:
Reference to a dataset:
Reference to a conference paper or poster presentation:
Reference to software:

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 requires 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, which may also include 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. When sharing data in one of these ways, you are expected 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).

Research Elements
This journal enables you to publish research objects related to your original research – such as data, methods, protocols, software and hardware – as an additional paper in a Research Elements journal.

Research Elements is a suite of peer-reviewed, open access journals which make your research objects findable, accessible and reusable. Articles place research objects into context by providing detailed descriptions of objects and their application, and linking to the associated original research articles. Research Elements articles can be prepared by you, or by one of your collaborators.

During submission, you will be alerted to the opportunity to prepare and submit a manuscript to one of the Research Elements journals.

More information can be found on the Research Elements page.

Data statement
To foster transparency, we require you to state the availability of your data in your submission if your data is unavailable to access or unsuitable to post. This may also be a requirement of your funding body or institution. You will have the opportunity to provide a data statement during the submission process. 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.

**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. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

**AUTHOR INQUIRIES**

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

You can also check the status of your submitted article or find out when your accepted article will be published.

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