DESCRIPTION

The *Journal of Food Composition and Analysis* publishes manuscripts on scientific aspects of data on the chemical composition of human foods, with particular emphasis on actual data on composition of foods; analytical methods; studies on the manipulation, storage, distribution and use of food composition data; and studies on the statistics, use and distribution of such data and data systems. The Journal's basis is nutrient composition, with increasing emphasis on bioactive non-nutrient and anti-nutrient components. Papers must provide sufficient description of the food samples, analytical methods, quality control procedures and statistical treatments of the data to permit the end users of the food composition data to evaluate the appropriateness of such data in their projects.

The Journal does not publish papers on: microbiological compounds; sensory quality; aromatics/volatiles in food and wine; essential oils; organoleptic characteristics of food; physical properties; or clinical papers and pharmacology-related papers.

Features:

- Original research
- Short communications
- Critical reviews
- Study reviews
- Commentaries

Research Areas Include:

- New and rapid methods of analyses
- Nutrient, bioactive non-nutrient and anti-nutrient data
- Data on wild and under-utilized foods, including intra-varietal differences
- Computer technology and information systems theory directly relating to food composition database development, management, and utilization
- Processes of development and selection of single-value entries for food composition tables
- Quality control procedures and standard reference materials for use in the assay of food components
- Statistical and mathematical manipulations involved with the preparation and utilization of food composition data

Database coverage includes AGORA, AGRICOLA, Biological Abstracts, CAB ABSTRACTS, CAB HEALTH, Current Contents, Dairy Science Abstracts, Food Science and Technology Abstracts, Foodline (R): Food
Science and Technology, Nutrition Abstracts and Reviews, ScienceDirect, Scopus, and Vitis Viticulture and Enology Abstracts.

**IMPACT FACTOR**

2018: 2.994 © Clarivate Analytics Journal Citation Reports 2019

**ABSTRACTING AND INDEXING**

- Scopus
- AGRICOLA
- Biological Abstracts
- CAB International
- CAB Health
- Current Contents
- Dairy Science Abstracts
- FSTA (Food Science and Technology Abstracts)
- Nutrition Abstracts
- ScienceDirect
- AGORA
- Foodline: Food Science and Technology
- Vitis Viticulture and Enology Abstracts
- EMBiology

**EDITORIAL BOARD**

*Editor-in-Chief*

S. Elmore, University of Reading, Reading, United Kingdom

*Assistant Editor*

C. Girardot

*Consulting and Founding Editor*

K.K. Stewart, University of Texas System, Austin, Texas, United States

*Editors*

- F.J. Barba, University of Valencia Faculty of Pharmacy, Burjassot, Spain
- L. Bell, University of Reading, Reading, United Kingdom
- P. Chen, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Food Composition and Methods Development, Beltsville, Maryland, United States
- F.Y Chye, Universiti Malaysia Sabah, Faculty of Food Science and Nutrition, Sabah, Malaysia
- S. Elmore, University of Reading, Reading, United Kingdom
- A. R. Ipeaiyeda, University of Ibadan, Ibadan, Nigeria
- P.C. Onianwa, University of Ibadan, Ibadan, Nigeria
- K. Phillips, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, United States
- M.T. Tarrago-Trani, Virginia Tech University Bookstore, Blacksburg, Virginia, United States

*Editorial Board Members*

- A.A. Almeida, University of Porto, Porto, Portugal
- J. Amaya-Farfán, Universidade Estadual de Campinas (UNICAMP), Dept. of Food and Nutrition, Campinas, SP, Brazil
- L.B. Barros, Polytechnic Institute of Bragança, Bragança, Portugal
- D. de Beer, Agricultural Research Council (ARC), Infruitec-Nietvoorbij - Post-Harvest and Wine Technology Division, Stellenbosch, South Africa
- M.M. Campo, University of Zaragoza, Zaragoza, Spain
- E. Cantos-Villar, IFAPA - Rancho de La Merced. Junta de Andalucia, Jerez de la Frontera, Cadiz, Spain
- C.L. Cardoso
- I. Castanheira, National Health Institute Doctor Ricardo Jorge, Lisboa, Portugal
- C.M. Champagne, Pennington Biomedical Research Center/Louisiana State University System, Baton Rouge, Louisiana, United States
- R.C. Chisté, Universidade Federal do Pará (UFPA), Institute of Technology (ITEC), Belém, Pará, Brazil
- D. Cozzolino, CQUniversity Australia, North Rockhampton, Queensland, Australia
C. Díaz Romero, Universidad de La Laguna, Dept. of Analytical Chemistry, Nutrition and Food Science, Santa Cruz de Tenerife, Spain
M. Dueñas Patón, University of Salamanca, Salamanca, Spain
K.G. Duodu, University of Pretoria, Pretoria, South Africa
N.-E. Es-Safi, Mohammed V University of Rabat, Rabat, Morocco
T. Gallina Toschi, University of Bologna, Bologna, Italy
V. Gökmen, Hacettepe University, Ankara, Turkey
M.C. González, Autonomous University of Madrid, Madrid, Spain
J.L. Guil-Guerrero, University of Almeria, Almeria, Spain
C. Güler, Mersin University, Mersin, Turkey
J.-F. Hausman, Luxembourg Institute of Science and Technology, Esch-Sur-Alzette, Luxembourg
D. Haytowitz, USDA-ARS Beltsville Human Nutrition Research Center, Beltsville, Maryland, United States
D. Hornero-Méndez, Instituto de la Grasa (IG), Department of Food Phytochemistry, Seville, Spain
P.J.M. Hulshof, Wageningen University, Wageningen, Netherlands
L. Husáková, University of Pardubice, Pardubice, Czech Republic
G.V. Iyengar, Biomineral Sciences International Inc., Bethesda, Maryland, United States
P. van Jaarsveld, South African Medical Research Council, Tygerberg, South Africa
J. Jakobsen, Danmarks Tekniske Universitet (DTU), Fødevareinstituttet- National Food Inst., Søborg, Denmark
J. Klensin
H.V. Kuhnlein, McGill University, Ste Anne de Bellevue, Quebec, Canada
J. Lee, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Horticultural Crops Research (HCRU) Worksite, Parma, Idaho, United States
L.R.B Mariutti, State University of Campinas, CAMPINAS, Brazil
A.J. Meléndez-Martínez, University of Seville, Seville, Spain
B. Min, University of Maryland Eastern Shore, Princess Anne, Maryland, United States
M. Netzel, University of Queensland, Brisbane, Australia
P.R. Pehrsson, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Nutrient Data Laboratory, Beltsville, Maryland, United States
J. Porubska
D. Restuccia, University of Calabria, Arcavacata di Rende, Italy
E. Rodrigues, Federal University of Rio Grande do Sul, PORTO ALEGRE, Brazil
R.M. Schweiggert, University of Hohenheim, Stuttgart, Germany
D. Thavarajah, Clemson University, Clemson, South Carolina, United States
W.R. Wolf, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Food Composition Methods Development Lab., Beltsville, Maryland, United States
GUIDE FOR AUTHORS

INTRODUCTION

The *Journal of Food Composition and Analysis* publishes manuscripts on scientific aspects of data on the chemical composition of human foods, with particular emphasis on actual data on composition of foods; analytical methods; studies on the manipulation, storage, distribution and use of food composition data; and studies on the statistics, use and distribution of such data and data systems. The Journal's basis is nutrient composition, with increasing emphasis on bioactive non-nutrient and anti-nutrient components. Papers must provide sufficient description of the food samples, analytical methods, quality control procedures and statistical treatments of the data to permit the end users of the food composition data to evaluate the appropriateness of such data in their projects.

The Journal does not publish papers on:
- microbiological compounds;
- sensory quality;
- aromatics/volatiles in food and wine;
- essential oils;
- organoleptic characteristics of food;
- physical properties; or
- clinical papers or pharmacology-related papers.

Research may be published as Original Research Articles, Short Communications, Critical Reviews, Study Reviews, Reports or Commentaries, according to subject matter and presentation. Editor assignment will be made by the Managing Editor, but author guidance is appreciated. Only original papers will be considered. Manuscripts are submitted for review with the understanding that the same work has not been copyrighted, published, or submitted for publication elsewhere.

*Types of paper*

The following types of papers are published:

- **Original Research Articles** are complete reports of original, scientifically sound research. They must contribute new knowledge and be organized as described in this Guide. Please follow carefully the organization of the sections described in Article Structure (see below).

- **Short Communications** are brief reports of scientifically sound research, but of limited scope (for example, limited number of samples analysed), that contribute new knowledge. They may be preliminary reports of new findings, in which case the author is expected to publish complete findings later in an article.

- **Reviews** are papers which provide an analysis of a scientific or applied field, which include all important findings and bring together reports from a number of sources. There are two categories of reviews:
  - Critical reviews provide a comprehensive, extensive review of a topic and a thorough referencing of the relevant literature. Study reviews provide an analysis of a selected number of published or unpublished studies.

Review articles may be invited by the Editor or the Editorial Board. Alternatively, potential authors considering the preparation of a Review article should contact the Editor to suggest the topic and its scope, providing an outline in the form of major headings and a summary statement. In any case, such articles are subject to the normal processes of peer review and revision.

- **Reports** are papers presenting the results of an expert consultation, or a scientific or regional committee, in the field of food composition and analysis.

- **Commentaries** are opinion pieces, focused on some scientific or applied aspect of food composition. They are informative, and may link diverse disciplines or address difficult implications or issues. Controversial commentaries are acceptable, as are ones expressing contrasting opinions. In most cases, these will be invited, but suggestions and unsolicited submissions will be considered by the Editor.
• **Symposium Papers** are special situations when a group of papers from a scientific meeting may be published together in a regular issue of the *Journal of Food Composition and Analysis*. In addition, there are scientifically specialized conferences and symposia on food composition, of two to three days duration, that may be published as a special issue or supplement. In all cases, the material must be original research or up-to-the minute reviews, of high quality and importance to the food composition community. To obtain approval, the convenor of the meeting, symposium or conference should contact the Editor outlining the symposium scope and the papers to be considered, with abstracts if available. On receipt of this information, the Editor will determine suitability of the material for a focused regular issue or special supplement. All manuscripts will be reviewed according to the Journal’s standard review procedure.

**Review Process**
A peer review system is used to ensure high quality of manuscripts accepted for publication. The Editor-in-Chief and Editors have the right to decline formal review of the manuscript when it is deemed that the manuscript is 1) on a topic outside the scope of the Journal, 2) lacking technical merit, 3) fragmentary and provides marginally incremental results, 4) is poorly written or 5) is not innovative, or closely duplicates research previously published by the author. Manuscripts which meet the journal’s criteria for scope, relevance and scientific quality will be sent for peer review to at least two qualified reviewers, assigned by the Editor. The review will be conducted against established criteria to determine technical quality. Reviewers each submit a recommendation regarding the merit of the manuscript, but the Editor provides the final decision on acceptance of the paper for publication.

**Contact details for submission**
All manuscripts for *Journal of Food Composition and Analysis* should be submitted online via the Elsevier Editorial System (https://www.evise.com/profile/#/JFCA/).

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

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

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

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

Further considerations
- Manuscript has been ‘spell checked’ and ‘grammar checked’
- All references mentioned in the Reference List are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Internet)
- A competing interests statement is provided, even if the authors have no competing interests to declare
- Journal policies detailed in this guide have been reviewed
- Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

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

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

**Submission declaration and verification**
Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service Crossref Similarity Check.

**Preprints**
Please note that preprints can be shared anywhere at any time, in line with Elsevier's sharing policy. Sharing your preprints e.g. on a preprint server will not count as prior publication (see 'Multiple, redundant or concurrent publication' for more information).

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

**Changes to authorship**
Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

**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 preprint forms for use by authors in these cases.

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

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

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

**Role of the funding source**
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

**Funding body agreements and policies**
Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of existing agreements are available online.

**Open access**
This journal offers authors a choice in publishing their research:

**Subscription**
- Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
- No open access publication fee payable by authors.
- The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

**Gold open access**
- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

**Creative Commons Attribution (CC BY)**
Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

**Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)**
For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is USD 3000, excluding taxes. Learn more about Elsevier's pricing policy: https://www.elsevier.com/openaccesspricing.
Green open access
Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. Find out more.
This journal has an embargo period of 12 months.

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

Language (usage and editing services)
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's WebShop.

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 EES, or a department.

PREPARATION
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.

When preparing your manuscript, set 2-2.5 cm margins throughout the document, double space the text and use a 12 pt font, preferably Times Roman. Activate continuous line numbering throughout the manuscript so that line numbers appear in the left-hand margin. Pages must be numbered.

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

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.

Under Materials and Methods, describe and cite where applicable sampling protocols, sample handling/preparation, and all experimental conditions and procedures (including quality control/quality assurance procedures), with sufficient clarity to permit qualified researchers to repeat the work. This section must include the number/size of samples collected, prepared and extracted, as well as number of analytical replicates per sample; and the statistical procedures/programs used to assess the work should be cited. A minimum of three individual samples must be analysed for each reported mean value, along with some indication of variability. When only one or two samples have been analysed, notwithstanding the number of replicates, authors should present the normal precision of their assays and then report the mean (without a standard deviation). Data must be reported to the appropriate number of significant digits for that precision and instrumental sensitivity.

Results
Results should be clear and concise.

Actual analytical data should be reported. For example, report nitrogen in addition to a calculated protein value, or define the nitrogen to protein ratio clearly under Materials and Methods and thereafter use protein. All factors used in calculations (e.g. energy), and all components used in aggregations (e.g. retinol equivalents), should be specified. Carbohydrate reported as "Total carbohydrate by difference" is not acceptable in Results or in tables; however, it may be used in discussions. Use of "crude fibre" is discouraged.

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. The title should be limited to 15 words or 80 characters.
• **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 will handle correspondence at all stages of refereeing and publication, also post-publication. **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. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). You can view example Highlights on our information site.

**Abstract**

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

The abstract (200 words maximum) must briefly summarize major findings and conclusions. Do not use statements such as "Results are discussed". Many abstracting services use abstracts without modification, so this section should be able to stand alone and be comprehensible without the rest of the paper (do not refer to items in the reference list which will not accompany the abstract in some instances).

**Keywords**

A minimum of 6-10 keywords must be listed. Authors should bear in mind that keywords allow the article to be found by Internet database search engines and considerably increase article citations when they are as numerous and comprehensive as possible.

**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**

The decimal point, not the decimal comma, should be used when reporting numeric data in tables and text. Insert a zero in front of a decimal point when it applies. For instance, instead of .36 use 0.36. All numeric data must be presented to an appropriate number of significant digits (for a discussion of significant digits in food composition data, see Greenfield, H. and Southgate, D.A.T., 2003, Food composition data: Production, Management and Use, 2nd ed., FAO, Rome; in particular ch. 9 (pp. 163-170), and Table 9.1. Download at [http://www.fao.org/infoods/publications_en.stm](http://www.fao.org/infoods/publications_en.stm).
The International System of Units (SI, Systeme International d' Unites) or the SI-derived system should be used in reporting units of measurement, including dates in the format of year-month-day. If other units are mentioned, please give their equivalent in SI. Energy should be given as kJ or MJ (equivalent kcal or Mcal may be given in parentheses). The Centigrade scale (°C) may be used for temperature.

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
Electronic artwork
General points
• Make sure you use uniform lettering and sizing of your original artwork.
• Embed the used fonts if the application provides that option.
• Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Provide captions to illustrations separately.
• Size the illustrations close to the desired dimensions of the published version.
• Submit each illustration as a separate file.
A detailed guide on electronic artwork is available.
You are urged to visit this site; some excerpts from the detailed information are given here.

Formats
If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply ‘as is’ in the native document format.
Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please ‘Save as’ or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
• Supply files that are too low in resolution;
• Submit graphics that are disproportionately large for the content.

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

Text graphics
Text graphics may be embedded in the text at the appropriate position. If you are working with LaTeX and have such features embedded in the text, these can be left. See further under Electronic artwork.

Tables
Please submit tables as editable text and not as images. Tables are to be collected together into a single file and uploaded separately from the body of the manuscript; do not embed tables (or figures) in 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
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:
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference style
Responsibility for the accuracy of bibliographic citations lies entirely with the authors. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list.

Please ensure that every reference cited in the text is also present in the reference list at the end of the manuscript (and vice versa).

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 should be listed first alphabetically, then chronologically. Examples: "as demonstrated (Allan, 1996a, b, 1999; Allan & Jones, 1995). Kramer et al. (2000) have recently shown..."
References cited together in the text should be arranged chronologically. The list of references must be arranged alphabetically on authors' names, and should be as full as possible, listing all authors, the full title of articles and full title of journals, publisher and year.

Titles of periodicals mentioned in the list of references must be spelled out in full.

In the case of publications in any language other than English, the original title is to be retained. However, the titles of publications in non-Latin alphabets should be transliterated, and a notation such as "(in Russian)" or "(in Greek, with English abstract)" should be added.

References concerning unpublished data and "personal communications" must not be cited in the reference list but may be mentioned in the text, giving the full details (name and affiliation of the contact). References included in the reference list as "in press" should follow the standard reference style of the journal and should include a substitution of the publication data with "in press". Citation of a reference as "in press" implies that the item has been accepted for publication. In the final publication, material referenced as "submitted" is not acceptable - if it cannot be referenced as "in press" then the text needs to be revised to state "unpublished results" and the reference deleted from the reference list.

The following are examples of reference layouts. Please use a hanging indent (second and subsequent lines indented).

**Reference to a chapter in a monograph:**


**Reference to a chapter in a book**


**Reference to an article in a journal:**


Note: If necessary, cite issue number if page numbering is not continuous.

**Reference to a book**


**Reference to a published standard**


**Reference to a paper in published conference proceedings**


**Reference to a thesis**

Note: The thesis should be publicly available

For Website references:


When reporting results of studies using nutrient databases, authors should cite and reference the database and/or software product with name, version number, release date, and vendor.

Journal abbreviations source

Video
Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file’s content. In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

Data visualization
Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions here to find out about available data visualization options and how to include them with your article.

Supplementary material
Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

Research data
This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.
Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the research data page.

**Data linking**

If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the database linking page.

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

**Mendeley Data**

This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the Mendeley Data for journals page.

**Data in Brief**

You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for Data in Brief as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to Data in Brief where it will be editorially reviewed and published in the open access data journal, Data in Brief. Please note an open access fee of 600 USD is payable for publication in Data in Brief. Full details can be found on the Data in Brief website. Please use this template to write your Data in Brief.

**Data statement**

To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

**AFTER ACCEPTANCE**

**Online proof correction**

Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors. If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.
We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

**Offprints**

The corresponding author will, at no cost, receive a customized [Share Link](https://www.elsevier.com) providing 50 days free access to the final published version of the article on [ScienceDirect](https://www.sciencedirect.com). The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's [Webshop](https://www.elsevier.com). 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](https://www.elsevier.com) 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.

**Disclaimer**

Articles and any other material published in the *Journal of Food Composition and Analysis* represent the opinions of the authors and should not be construed to reflect the opinions of the Editors or the publishers. Any data included in articles on commercial foods are reported solely as factual information and are limited to the samples analysed. No warranty or guarantee is made or implied that other samples of these products will have the same or similar composition. The inclusion of such articles or data does not imply endorsement of any product.

All enquiries may be addressed to:

Journal of Food Composition and Analysis

Email: jfca@elsevier.com

© Copyright 2018 Elsevier | [https://www.elsevier.com](https://www.elsevier.com)