

Instructions for authors

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The ***International Journal of Molecular and Physical Gastronomy (Int J Mol Phys Gast)*** is a scientific journal published by the *Inrae-AgroParisTech International Centre for Molecular and Physical Gastronomy* (<https://icmpg.hub.inrae.fr/international-activities-of-the-international-centre-of-molecular-gastronomy>).

With various sections (original research articles, data articles, conjuncture notes, reviews, reports, syntheses, lecture reports, letters opinions, editorials, etc.), the journal is giving informed and knowledgeable information regarding every aspect of molecular and physical gastronomy, from scientific research to educational applications.

The manuscripts submitted to the journal have to be fully in accordance with the following instructions, derived from the standards for manuscripts preparation as proposed by the International Committee of Medical Journal Editors – ICMJE (www.icmje.org).

Below, a shortened version of these instructions is given, with a full version and a checklist to be used by authors before sending the manuscripts.

1. The short version

To the authors of manuscripts submitted to the *International Journal of Molecular and Physical Gastronomy*

In 2014, the *International Centre for Molecular and Physical Gastronomy* created, on its internet site, a section for scientific publication which displayed works of academic quality in the field of molecular and physical gastronomy; educational and technological applications of molecular, physical and biological gastronomy are also considered.

The journal is on line, free (authors do not pay for publishing), open (published articles are freely available to readers), with double blind peer review, at: <https://icmpg.hub.inrae.fr/international-activities-of-the-international-centre-of-molecular-gastronomy/international-journal-of-molecular-and-physical-gastronomy>

The Editorial Board in charge of the journal is happy to receive manuscripts at icmg@agroparistech.fr.

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1.1. Which articles?

The manuscripts can be of various kinds:

1 News Part

1.1. Short News

1.2. Editorials (Section Editor: Herve This vo Kientza)

1.3. Book reviews and article reviews (Section Editor : Pr Clark Danderson)

2 Scientific Part

2.1. Research Notes (Section Editor: Hervé This vo Kientza)

2.2. Image for thought (Section Editor : Pr José Miguel Aguilera)

2.3. Commentaries (including Commentaries by Reviewers)

2.4. Letters to the Editors (Section Editor : Pr Volker Hessel)

2.5. Reports

2.6. Opinions

2.7. Perspectives

2.8. Literature Reviews (including discussions of “culinary precisions”) (Section Editor: Reine Barbar)

2.9. Synthesis

2.10. Debates

2.11. Conference Proceedings

2.12. Data Articles

3 Molecular Gastronomy and Education/Communication

3.1. Research papers in education/communication (Section Editor: Pr Roisin Burke):

3.2. Development, practices and policy (Section Editor: Pr Roisin Burke): (main heading)

3.2.1. New instructional methods, and pedagogies (Section Editor Reine Barbar)

3.2.2. Courses (subheading)

3.2.3. How to do and educational material (Section Editor Patricia O’Hara)

3.2.4. Practices, trends and policy (Section Editor: Roisin Burke)

4 "Edible Ideas" (applications of molecular and physical gastronomy to cooking)

4.1. Recipes (Section Editor : Paulina Mata)

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4.2. Questions and answers

4.3 Techniques and Tips (Section Editor :
Laura Febvay)

4.4 Experimental tests of culinary precisions
(Section Editor : Mark Traynor)

The Editorial Board will meet regularly in
order to revise these possibilities.

Please also consider submitting audio or
video podcasts.

1.2. Published in which context?

The publications will be made only on line (no
printed articles). The are free and open, that
is the authors have nothing to pay, and their
articles will be freely accessible on line.

The articles have references: Authors. Year of
publication. Title, Journal, N° of publication,
Pages.

1.3. The editorial preparation

Manuscripts are only accepted in English
(U.K. spelling).

When received, they are immediately
registered officially, and deposited in a safe,
official, private directory (for later priority
discussions if any).

They are given an anonymous number that
will be used for all correspondence, as well as
for exchanges between the editors and the

reviewers, on one side, and between the
editors and the authors on the other.

Each manuscript has to be proposed as two
files:

- a file including the names of authors, their
affiliations, the email of all authors
- a file containing the article itself, entirely
anonymous.

Each of these two files has to be given in the
two formats .doc and .pdf.

Inside the files, only one typeface should be
used: Times New Roman size 12, double
spacing, black colour. Lines should be
numbered. No special fields should be used
(in particular, references should be in plain
text).

Further details

The first file should contain:

- a title
- the name of authors
- their affiliations
- their email
- the designation of the corresponding author
(only they will be exchanging with the
journal)
- acknowledgment or dedication
- declaration of interests.

The second file should contain:

- the title
- an abstract (less than 130 words)
- keywords (between 3 and 6)
- the text (Times New Roman, size 12,
double spacing), with no blank lines, no

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special formats, no special fields.

In the text, there will be only one level of subtitles (written according the AFNOR rule), in bold, using the same character (kind, size) as for the text, namely Times New Roman, size 12.

Footnotes are not accepted.

Names should be given in non capital letters, excepting the initial letter.

Terms in foreign language such as Latin or Greek have to be in italics.

Units have to be given using the International System of Units.

Scientific names are to be in accordance with the International Union of Pure and Applied Chemistry (in particular the Gold Book of IUPAC: <https://goldbook.iupac.org/>).

Abbreviations have to be defined the first time that they appear in the text; e.g.: triacylglycerol (TAG).

Units have to be from the International System of Units (<https://www.bipm.org/en/publications/si-brochure>) and the NIST rules for typography should be followed : <https://physics.nist.gov/cuu/pdf/typefaces.pdf> and <https://www.nist.gov/pml/special-publication-811/nist-guide-si-chapter-6-rules-and-style-conventions-printing-and-using>

Bibliographical references, in the end of the text, will be given by alphabetical order of the name of the first author, according to the following rules (mind that the manuscript will not be published unless the authors give the correct format):

- books: Malecot G. 1948. *Les mathématiques de l'hérédité*. Masson, Paris, 428 p. [or the pages corresponding to the part of interest].

- articles: Dupont JN, Durand A. 1992. Molecular biology of methanogens, *Annual Review of Microbiology*, 46, 165-191. DOI:xxxxxxx.

- internet site :
https://scholar.google.fr/scholar?q=%22maillard+reaction%22&btnG=&hl=fr&as_sdt=0%2C5 , last access 2019-12-23.

For sources, no time limit should be considered, as the ethics rules ask for citing the first scientists who established a fact or an idea. Only primary sources can be given.

DOIs are highly recommended.

References of articles accepted for publication have to be quoted as the others, including "in press" after the name of the journal.

Figures, picture or schemes have to be given as digital files (format jpg), of printable quality (e.g. 300 dpi) free of rights.

The figures can have two sizes: either 8 cm wide, or 17 cm wide. The text in them should

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be in Arial 12 roman, except for symbols (italics).

The figures have to be called in the text, and put in it at the place where they have to appear, with a caption (under the figure), in italics.

Tables are in the text and referenced separately, but the number will be put before the table.

Acknowledgments—especially for any financial support—are given as a separate paragraph at the end of the main text. They should be strictly professional and limited to contributions within the field of the article. All acknowledgments are subject to approval by the Editor.

The dedication should be very short. It is placed between the end of the text and the references. All dedications are subject to approval by the Editor.

The length of the articles is at will except for specific information of the contrary.

When authors propose a manuscript, they can indicate preferred reviewers (if no conflict of interest) and reviewers that have to be avoided (because of competition).

1.4. The editorial circuit

The goal, for the Board of Editors, is to promote the publication of manuscripts that have academic quality.

In order to reach it, the editors and reviewers are invited to exchange anonymously with authors until the required academic quality is reached, and publication can be done.

In order to reach this quality, the journal is based on an international Editorial Board: <https://icmpg.hub.inrae.fr/international-activities-of-the-international-centre-of-molecular-gastronomy/international-journal-of-molecular-and-physical-gastronomy/editorial-board> .

The manuscripts will be published after the following steps:

- Manuscripts are received by the secretarial office, at icmg@agroparistech.fr.
- At reception, the text is deposited officially in a private directory of the *Inrae-AgroParisTech International Centre for Molecular and Physical Gastronomy*; anonymity is checked, and a number is given.
- The anonymous manuscript is sent to the secretaries of the Editorial Board
- Members of the Editorial Board are invited to designate for an Editor in charge
- The Editor in charge is invited to look for two specialized reviewers
- The reports (critical analysis including advice to authors, rather than evaluation) are transmitted from the reviewers to the Editor in charge, and then from the editor to the Editor secretary, who sends the reviews to the authors
- The authors have to answer to the reviewers and editor in the text (.doc), showing clearly the modifications made; they have to send along an explanatory

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document telling what they did and what they did not do (with explanations of why).

- The modified manuscript and the explanatory document (after checking for anonymity) are sent to the editor in charge, and the process is repeated until the reviewers and the editor consider that the text can be published.
- The accepted version is processed for layout, and proofs (pdf only) are sent to the author, who can make only minor changes (large changes call for new reviewing).
- The corrected layout is sent to the Editorial Board for approval.

About peer review:

This journal operates a double anonymized review process. All contributions will be initially assessed by the editorial board for suitability for the journal. Papers deemed suitable are then typically sent to an “editor in charge”, who sends the anonymized manuscript to a minimum of two independent expert reviewers to assess the scientific quality of the paper.

The editor in charge of a particular manuscript is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final.

Of course, editors and reviewers 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.

For this journal, the editors in charge and the reviewers are invited to make positive observations, in order to help the authors to improve the quality of their manuscript. Their name is printed on the final document (only if they accept), after knowing the identity of the authors of the accepted manuscript. Part of their report can also be published along with the manuscript when they want (only for scientific discussions, or comments).

For research notes and similar articles in which personal results can be given, the classic rules of scientific reviewing apply.

For “Perspectives”, articles in this section may present the author's opinion and ideas regarding current research and future directions. They should be concise and clearly demonstrate a new and original perspective on existing problems, fundamental concepts, or commonplace notions, propose and support a new hypothesis, or discuss the implications of a recently implemented innovation. The editorial guidelines for "Opinion Notes" apply to these texts (see below).

For “Opinions”, articles in this section must not contain unpublished or unevaluated original data. Similarly, the *International Journal of Molecular and Physical Gastronomy* does not accept articles that promote specific products.

An opinion, however, remains "an opinion

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given on a question", a "feeling, idea, point of view, judgment that one makes without the mind holding it to be certain, on a given question" (Dictionary of the French Academy, 2022). As a result, the reviewers cannot contest this opinion as such, or refuse the publication of a manuscript submitted in this section solely on the grounds that their opinion differs from that of the authors: they must limit themselves to requests aimed at making the manuscript conform to the criteria mentioned above and improving its quality. Thus, beyond factual criticisms (faulty reasoning, insufficiently clear arguments, scientific untruths, etc.), they verify that the authors have properly stated the premises necessary for their conclusions.

In the event of disagreement with the opinions presented by the authors, referees are invited to publish their own opinions in a "Note Commentary" (same section group).

It is recommended that "Opinion Notes" be relatively short (2,000–2,500 words), as a succinct argument is often more effective when stripped of excessive documentation. However, manuscripts may need to be supplemented with responses to requests from the referees or the editor.

Texts in this section do not have to follow a strict structure like the classic IMRaD (Introduction, Materials and Methods, Results, Discussion) already mentioned: as long as the ideas flow logically, the author is free to structure the article as they wish. These texts must nevertheless include an abstract and keywords (in French and English), an introduction, a few paragraphs, a conclusion, and references.

The title should be informative and thought-provoking; the sequence of ideas should be logical and well-argued; all significant work related to the topic should be cited in the text and listed in the bibliography. References to unpublished data should be avoided.

For these articles, authors are also asked to disclose any potential interests they may have related to the theme of the article.

Finally, a few rules apply: the opinion presented must be original (not already published or widely known). Authors must aim for a certain effectiveness (to convince, arguments must be presented and, in particular, provide readers with knowledge and information they do not have). The text must be written with expertise, in the authors' field of activity; the authors must be precise, and their arguments must be based on solid, well-referenced research; the writing must be respectful, calm, and demonstrate a balance between opinion and recognizable truths. It must be "judicious," with a close analysis of the subject, without superficial statements; the text must be succinct and clear, and the subject of the article obvious from the first two sentences (the hook).

Opinion articles can have be made of two parts, written by two different authors, in case of controversies or different opinions. All the rules above have to be applied for each of the two texts (for ethical reasons, the authors should not exchange their texts before publication.

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The Editorial Board:

In October 2025, the Editorial Board is made of:

Jose Miguel Aguilera, Emeritus Professor University Santiago, Chile, Editor in charge of the section “Image for thought”.

Imran Ahmad, Food, Agriculture and Biotechnology Innovation Lab (FABIL), Chaplin School of Hospitality, Florida International University, Miami, FL.

Reine Barbar, Associate Professor in Food Engineering and Physical Chemistry, Institut Agro-Montpellier, France : Editor in charge of the section “New Instructional Methods”.

Roisin Burke, Technological University Dublin, Ireland. In charge of the Sections on Education and of the Meetings of the Board.

Nicola Caporaso, Research Engineer Buhler sortex, London, UK.

Davide Cassi, Professor, Parma, Italy.

Clark A. Danderson, Assistant Professor/Director of Brewing Science and Operations, Horst Schulze School of Hospitality Management, College of Human Sciences, Auburn University (USA).

Zeynep Delen Nircan, SUNUM Visiting Researcher at Sabancı University Nanotechnology Center, Turkey.

Rachel Edwards-Stuart, Consultant and educator in food and flavour science, London, UK

Esteban Guillermo Echeverria Jaramillo, Denmark.

Laura Febvay, , Analytical project manager, Solvias Kaiseraugst, Switzerland.

Maria Cruz Figueroa Espinoza, Professor, L’Institut Agro Montpellier, Montpellier, France

Erik Fooladi, Professor in Interdisciplinary Education and Communication, Volda University College, Norway.

Purificación García Segovia, Food Technology Department in Universitat Politecnica de Valencia

Volker Hessel, Professor at the University of Adelaide, Australia

Anu Hopia, Professor University of Turku, Finland.

Ashraf Ismail, Professor, Department of Food Science and Agricultural Chemistry, Macdonald Campus of McGill University, Canada

Christophe Lavelle, Museum National of Natural History, Paris, France.

Erik van der Linden, Wageningen University, The Netherlands

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Linda Luck, Retired Professor, formerly at State University of New York at Plattsburgh, USA.

Paulina Mata, Retired Assistant Professor, having collaboration contract with Nova FCT.

Javier Martínez Monzó, Agronomist and professor of food science and technology, University Polytechnic of Valencia

Aida Moreira da Silva, Professor coordinator at the Escola Superior Agraria of the Instituto Politécnico de Coimbra, Portugal

Bruno Moreira Leite, NOVA University, Lisbon, Portugal

Francesco Noci, Doctor, Atlantic Technological University, Galway, Ireland

Patricia O'Hara, Professor, Amanda and Lisa Cross Professor of Chemistry, Amherst, Massachusetts, USA

Lauriane Pierrot-Deseilligny, Ecole Normale Supérieure Lyon, Lyon, France.

Elke Scholten, Wageningen University and Research, Wageningen, The Netherlands.

Weon-Sun Shin, Professor, Seoul University, Seoul, South Korea.

Paulo Sobral, Professor, University of Sao Paulo, Brazil

Paulo Henrique Machado de Sousa,

professor at the Federal University of Ceará (Brazil).

Rohit Srivastava, CESC Inrae, Dijon India/France

Hervé This et Kientza, INRAE-AgroParisTech International Centre of Molecular and Physical Gastronomy, Paris, France : Editor in charge of the Sections Editorial, and Research Notes.

Mark Traynor, Professor, Auburn University, Alabama, USA : Editor in charge of the section "Experimental tests of culinary precisions"

Juan Valverde, Dublin, Ireland.

Thomas Vilgis, Max Planck Institute, Mainz, Germany

For submitting manuscripts:
icgm@agroparistech.fr

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2. The comprehensive version

2.1. Ethics

Any submission must comply with the institutional workplace ethical requirements of the authors. This includes question of copyright, in particular for figures.

For any information on the ethical rules of scientific publishing, see:

<https://pubs.acs.org/userimages/ContentEditor/1218054468605/ethics.pdf>
<http://www.elsevier.com/publishingethics>
<http://www.elsevier.com/journal-authors/ethics>

For studies done on man or with animal, the authors have to ensure that their studies were done in accordance to the The Code of Ethics of the World Medical Association (Helsinki Statement) :

- for studies involving men and women:

<https://www.wma.net/> and
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3593469/>

- for experimentation with animals:

http://ec.europa.eu/environment/chemicals/lab_animals/legislation_en.htm and EU directive
<https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:276:0033:0079:en:PDF>

The works have to be in accordance to the Helsinki Statement, and they have to have been declared, if needed, to a Consultative Committee for the Protection of Human Beings in Biomedical Research (CCPPRB), or to a Committee of Ethics. When such an

institution was consulted, the manuscript should declare it.

For manuscripts in the fields of science of human beings or science of society, the authors have, according to the best practices of such disciplines, indicated the historiography context and recalled the researches prior to them, and differences with such works.

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) 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 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

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(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

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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.

2.2. Statement of submission

Submitting a manuscript implies that this text was not proposed previously to the same journal, and that is not being reviewed in another journal.

The submission has to be accepted by all authors.

The authors accept that, if the manuscript is accepted and published, only the .pdf file produced by the IJMPG can be distributed (freely) under the cc by 4.0 licence.

In order to check the originality of the text, the manuscript can be submitted to a checking software or anti-plagiarism tool such as CrossCheck.

2.3. Submission of manuscripts

The texts have to be given as .doc or .docx files.

The manuscript is to be submitted by using the email address:

icgm@agroparistech.fr

• BE AWARE: this journal is using an organization of double blind peer review. This means that the identity of authors is not known by editors and reviewers, and vice versa.

As a consequence, different files are needed:

1. File 1: A first .doc file should contain the title in English (compulsory) and information on authors (including their email). Each author is designated (in this order) by: their name, the name of the institution, the postal address, the telephone number, the email address.

This separate file containing the title and the names of authors will be kept secret by the secretaries of the Editorial Board, for double anonymity, excluding personal data from the manuscript., until acceptance of the manuscript.

2. File 2: It is the anonymous manuscript. This .doc file, along with a .pdf file, must contain an abstract in English and keywords, in English. The text of the article should be in English (with U.K spelling). The file has also to include bibliographical references, captions for Tables and Figures.

The file containing the manuscript should never contain information on the author(s): no name, no post or email address, no telephone number.

The text should be Times New Roman, size 12, double spacing, and lines have to be numbered.

3. Files 3 and more: figures and

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supplemental data. These files can include schemes, pictures in black and white or in colour. The various elements have to be given as separate files, with one file by figure, or as one compressed (zip) file.

2.4. Presentation of the manuscripts

The manuscript is to be prepared according to all following rules (when the rules are not used, the manuscript is sent back).

1. Title:

The title (in English), concise, giving in a precise way the topic of the work, should not include abbreviations; it should be less than 4 lines in the final layout.

2. Abstracts and keywords

Each manuscript has to include an abstract in English, without abbreviation or reference.

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. 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 maximum length is 130 words.

For scientific notes, the abstracts have to have the following structure:

- Objectives;
- Materials and Methods;
- Results;

- Discussion;
- Conclusions.

For sciences of nature, the discoveries and conclusions should be clearly given. For sciences of human beings and society, sources, methods, conclusions and proposed hypothesis should be given.

Keywords, in English should be from 3 to 6. They will be discussed by the journal for indexing. Immediately after the abstract, provide a maximum of 6 keywords, using UK 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. These keywords will be used for indexing purposes.

3. The text

Style. The text has to be clear, concise and precise. It should be understood by a reader outside the particular scientific field of the authors. Using the first person is to be avoided. Information published earlier should be avoided as much as possible, and given only in order to explain the discussed matters.

Dividing the text into small paragraphs is not a good option.

The past events should be described using past tenses. This is the case, in particular, for the "Materials and Methods", but also for the Results.

When authors are quoted in the text, both are quoted if they are two; if the group includes more than two authors, only the first

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name is given, followed by “*et al.*”.

Titles and subtitles of the same hierarchical order have to be given in the same way; they should not include references.

Expressions and abbreviations in Latin are in italics (*et al.*, *a priori*, *in vitro*...).

The text can be followed by acknowledgments, references, captions of figures and tables.

The lines of the manuscript should be numbered by increasing order, for making the exchange between authors and reviewers more easy.

Figures are in separate files.

Abbreviations

Only usual abbreviations are accepted. The whole term should be before the abbreviation, given the first time that the word appears, except for units in the International System of Units. Once abbreviation have been introduced, the full term should be avoided.

Using abbreviations in the title is forbidden except for very common abbreviations such as DNA, NMR.

The % abbreviation should be separated from the previous number by a space, according the NIST rules.

Abbreviations should be avoided in abstracts.

Ensure consistency of abbreviations throughout the article.

Formulae

1. Formulae should be typewritten. Leave ample space around the formulae and number them in brackets).

2. Subscripts and superscripts should be clear.

3. Greek letters and other non-Latin or handwritten symbols should be explained where they are first used. Take special care to show clearly the difference between zero (0) and the letter O, and between one (1) and the letter I.

4. Give the meaning of all symbols immediately after the equation in which they are first used.

5. Equations should be numbered serially at the right-hand side in brackets. In general only equations explicitly referred to in the text need be numbered.

6. The use of fractional powers instead of root signs is recommended. Also powers of *e* are often more conveniently denoted by *exp.*

Footnotes

These notes are not the same as bibliographical references. They are not accepted.

Units, symbols and brand names

Symbols and units have to be given according to the international rules:

<https://www.bipm.org/en/home>

<http://goldbook.iupac.org/>

<https://www.bipm.org/en/publications/si-brochure>

<https://physics.nist.gov/cuu/pdf/typefaces.pdf>

<https://www.nist.gov/pml/special-publication-811/nist-guide-si-chapter-6-rules-and-style-conventions-printing-and-using>

Units of length, mass, volumes are m, kg, L, or their multiples.

The brand name of a material, or a product, should be given along with the abbreviation

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TM and, in parentheses, the name of the producer.

In a sentence, the numbers from 0 to 10 are written entirely (zero, ten). A dot is before decimal digits. Isotopes are given with the atomic mass in exponent at the left of the symbol of the element (¹³¹I).

Tables

Tables have to be given on separated pages, with their caption. They are numbered with Arabic numbers, and indexed in the text by order of appearance (number in parentheses).

Figures, pictures

Figures are given only under digital format (jpg or png, or jpeg).

The caption is to be given separately, with clear information on the object of the figure, and with the explanation of possible abbreviations.

The figures can be in black and white or in colour. When the figures were previously published, the authors have to ensure that they have to right to use them, with a written authorization of the publisher and of the authors of the picture.

The Editors can refuse figures when their number is too much or when the quality is not enough, in accordance to the information given.

The width of figures can be 8 or 17 cm.

In order to more clearly identify the figures, it is recommended to include the number of the figure in the name of the file containing the figure. For example the file« fig1.jpg » could

contain the first figure, as a jpg format. The minimum resolution of figures should be 300 DPI for pictures, and 500 to 1000 DPI for graphs or schemes. High resolution is needed.

Supplemental materials

The journal accepts supplemental materials, but it recommends publication as data articles (see this type).

Supplemental materials can include tables, figures, videos, MCQ, etc. Such information is sometimes helpful (for example, when a table is too big or pictures are too many). They can give experimental details or give data.

This information (pictures, videos, audio files, archives, spreadsheets...) will be given as separate files.

Various formats are possible:

- for pictures: .gif, .tif, .jpg, .svg, .png, etc.
- for videos: .mov, .avi, etc.
- for podcasts: .mp3, .wma, .wav
- for documents: .doc, .pdf, etc.
- for spreadsheets: .xls, .cvs, etc.
- for presentations: .ppt, .pps, etc.

Acknowledgments

They appear at the end of articles, before references. They include the description of the works for which the authorship is not required, such as thanks for technical help, material contribution, funding. In particular, they can included the description of interests for which a conflict is possible (see below).

For each author of the publication, complementary information can be given:

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experimental work, technical assistance, redaction... (in the File 1). They should be strictly professional (it is not the use to thank the family, friends, etc.).

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.

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.

Bibliographical References

For references, no time limit of published documents should be considered, as the ethics rules ask for citing the first scientists who established a fact or an idea. More generally, only primary sources should be given.

References are selected by the authors, and their precision is to be checked before sending the manuscript. They should be accessible, and it is not recommended to quote articles from journals that do not apply peer reviewing. References should be primary ones.

References are described in the text between parentheses including the family name of the first or the two first authors, and a date, separated by a comma. When two authors are given, their names are separated by "and". When the quoted publication has more than two authors, the name for the first authors is to be followed by "*et al.*". In a parenthesis giving references, the chronological increasing order should be followed).

At the end of the manuscript, the references

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are given in alphabetical order of the name of first authors.

All references quoted in the text have to be present in the list of references at the end of the text, and *vice versa*.

Accepted but non published articles can be given only when the articles are accepted; they have to give the journal, the year and the volume of publication, and the mention [in press].

References to personal communications, memoirs, non submitted manuscripts are to be quoted in the text only (not in the final list of references), with special information (such as “personal communication”).

References are given according as:

Article in a scientific journal :

Dupont JN, Durand A. 1992. *Molecular biology of methanogens*. Annual Review of Microbiology, 46, 165-191.
DOI:xxxxxxxxxxxxxx.

Article in a supplement of a volume

Dupont JN, Durand A. 1992. Molecular biology of methanogens. *Annual Review of Microbiology Supplement*, 34–6.

Books

Malecot G. 1948. *Les mathématiques de l'hérédité*. Masson, Paris, 428 p. (or the pages quoted).

Chapter of books

This H. 2012. Gastronomie moléculaire et olfaction. In *Odorat et goût* (Salesse R and

Gervais R eds). Editions Quae, Paris, 439-449.

Proceedings

Dupont JN, Durand A. 1992. Molecular biology of methanogens. *Proceedings of the 7th Life Sciences Symposium*, Oct. 29-31, Knoxville (TN), 69-78.

Thesis

Valverde J. 2007. Study of the modifications induced by various culinary and industrial treatments of pigment systems from immature pods of green beans (*Phaseolus vulgaris* L.) ; introduction of new analytical methods for the study of such systems) [PhD Dissertation]. University Paris VI, Paris.

Reference on line

Morse SS. 1995. Factors in the emergence of infectious diseases. *Emerging Infectious Disease* [serial online]. <http://www.cdc.gov/ncidod/EID/eid.htm>, last access YYYY-MM-DD.

For all kind of references, DOIs are highly recommended.

2.5. Interests

The journal is following the international rules relative to conflicting interests. Any interest should be given, at the end of the text.

All authors have to declare their interests following the rules below:

An interest is to be declared when an author

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or a co-author has personal or financial relationship with other persons or organizations who can influence his/her judgment (loyalty of research). The principal interests are financial, including clinical tests for drug companies, consulting, familial...

When there are one or more interests for one or more authors, the whole list of interest should be given at the end of the manuscript, before the references.

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.

2.6. Use of Artificial Intelligence

Today artificial intelligence (AI) systems are behind many tools used by scientists, such as bibliography or editing, but for now, it is not accepted that papers are written by AI

systems. In these times of practice changes, the authors are asked to declare how they used AI if they used it.

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.

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,

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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.

2.6. Advice for redaction

Abstracts and Keywords: all articles should abstract and keywords (between 3 and 6 words).

Translations

The English version of abstracts and keywords should be grammatically correct.

Types of articles and length

The presentation and length of manuscript (not including title, abstract, references, tables and figures) are different depending on the particular kind of articles:

1. News Part:

1.1. Short News

The articles for the News section should not include original scientific results. They are limited to giving factual information.

They should include an abstract, keywords, the names and affiliation of authors. They can include pictures and downloadable files.

1.2. Editorials

The author(s) discuss a topic or give an opinion. Editorials can discuss a current hot topic, ask fresh questions or give answers with arguments. They cannot include original scientific results. They can be proposed to the Editorial Board or be invited.

They should have an abstract (100-150 words) and up to 5 keywords.

1.3. Image for thought

These articles should be focused on one (only one) stunning picture with gastronomic relevance, that attracts the reader's attention. The aim of these articles revolves around the inquisitive aspects of the image, and its scientific implications.

The title should be concise and informative.

The picture should depict a novel food ingredient, or a culinary physical and chemical phenomenon, transformation, or process (with a scale bar for dimension where applicable).

Examples;

- photomicrographs of the food structure
- novel imaging technique to explore the gastronomic value
- standard image of food and beverage fermentation or a soufflé rising,
- microstructure view of food emulsion composition,

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- scanning electron microscope (SEM) images of food structure,
-chromatogram detailing the volatile compounds in foods and beverages.

The text (less than 1000 words) should

- (1) include a short abstract,
- (2) explain the scientific content and discuss the culinary, chemical, physical and biological phenomenon, transformation or process in relation to the image,
- (3) explain the relevance to molecular and physical gastronomy,
- (4) clearly explain how the picture was produced (materials and methods have to be given),
- (5) give a sufficient number of references.

1.4. Books reviews and articles reviews

The section invites reviews of recently published books and articles that focus on molecular gastronomy and culinary topics.

The books and articles reviewed can be meant for both scholarly and general audiences. Reviews of historical and contemporary cookbooks are also permitted. Multiple volumes in a series can be reviewed as well.

It is important that the review be more than just a summary and should exhibit engaging and creative discussion of the book or article and its contents. Additionally, the review should address the value of the work considering the goals it seeks to accomplish. It should focus on why the work is notable and worthy of the reader's attention. To make the review more accessible, the use of technical jargon and field-specific terminology should be limited.

Book and article reviews do not follow a specific formula but draw from a combination of elements. Below are the elements and some related questions to consider when writing the review:

Context: How does the book or article fit into the broader scholarly, societal, gastronomical, culinary, or literary context?

Objectives: What does the book or article seek to address? What are its primary objectives? What does it show or teach readers?

Methodology: Is the book or article successful at achieving its objectives? Does it communicate its points effectively to its readers? If scholarly in nature, it may be relevant to discuss the methodology and structure of the work. Does it use visuals effectively and does the narrative facilitate a better understanding of the topic?

Themes: What are the themes that tie the chapters or sections together? How do these themes relate to other studies or books on the subject?

Audience: Who is the book or article's target audience? Who would find this work interesting, useful, or challenging? Does it take a provocative or controversial stance on an issue?

Reactions: What are your feelings or observations on the work as the reviewer? Did it elicit specific emotions, ideas, or questions? If reviewing a cookbook, it may be appropriate to describe the experience of

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preparing and tasting a few recipes. What are your overall thoughts on the work and topic?

Contributions: What does this book or article contribute to the broader field of molecular and physical gastronomy, or the culinary technology? Does this work have significant value to scholars and/or the public? If the work is relevant to teaching, how would it benefit undergraduate or graduate courses?

The review should be between 500 and 1000 words (excluding citations and references) if you review a single article or book. If reviewing multiple volumes, the limit is 5000 words. Quotes from the book or article should be used sparingly.

The citation and reference format described in the *Instructions to Authors* should be used. As for other texts, these texts are reviewed double blind. They include a title, an abstract giving the title of the book or article reviewed, keywords, and a text with references. Pictures can be included (with captions).

In reviews, only published results (including those from the authors of the review) can be cited; they have to be published in a peer reviewed journal.

2. Scientific Part

2.1. Research Articles

New scientific results are published in scientific articles. They have to be given in a way allowing reproduction, as for any other scientific journal.

Research papers should report the results of original research. The material should not have been previously published elsewhere, except in a preliminary form.

They include title, abstracts and keywords. The manuscripts include six sections: Introduction, Materials and Methods, Results, Discussion, Conclusion and Perspectives, References.

Long articles are preferably divided using short subtitles. Only two levels of division are accepted.

The Introduction justifies the work, explaining the goals and the scientific basis of the study (with references according to the ethical rules given in the reference section). Verbs are in the present tense.

In the Materials and Methods section, all conditions for producing results have to be given. 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. This paragraph does not give results. It is to end with the presentation of statistical tests which were implemented. Verbs are in the past.

In the Results section, depending on their number or type, the results are given as groups, with mean and standard deviation, median (with external values), and probabilities with confidence intervals. Results should be clear and concise. It is

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better to use figures and tables added to the description of the results in natural language. Long lists of data should be avoided. This paragraph is to be written using in the past tenses.

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. This paragraph is commenting on the results, but it should not give new results or repeat results previously given. The results of the study can be put in context of already published results from quoted articles. Quantitative analysis should be preferred to simple comparisons.

To be noted: Editors and Reviewers who would like to propose alternative interpretations can do it in "Commentaries" (see this section).

Conclusion.

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

It should be short, including answers to the question(s) given in the Introduction. It has to be clearly a consequence of the results, and should not include ideas which cannot be justified by data from the Results. It should not be a reproduction of the abstract.

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.

Please note that audio and video documents are welcome.

2.2. Commentaries (including Commentaries by Reviewers)

In this section, reflections can be published about articles formerly published, discussing scientific, technological or technical interpretation which were give in the commented text.

Commentaries are narrowly focused articles. They can take one of two forms.

The first form aims to highlight one or few interesting research articles formerly published in one scientific journal, to discuss specific issues within a subject area. Opinions can be expressed as long as they are factually based (references).

The second form is a commentary on a study or review that was formerly published or that is soon to be published, and that is interesting enough to warrant further comment or explanation. This type of commentary discusses specific issues within a subject area rather than the whole field, explains the implications of the article, and puts it in context. Opinions are welcome as long as they are factually based.

Commentaries appear as: "Answer to the

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article of “name of authors of the article” [et al. when more than two authors] », year of publication”, or “Comments to the article...”.

2.3. Letters to the Editors

Post-publication commentaries on published research are necessary to advance scientific knowledge, taking a second review step after essential new evidence has provided a new vantage point.

In that context, post-publication commentaries on published papers can involve either the ideation of new challenges and opportunities in the context of new eminent evidence (from the authors or the global society), clarifications or in some cases, replication of the published work. They may, after peer review, be published online as a “Letter to the Editors”, usually alongside a reply from the original authors.

Letters to the Editors should ideally be based on knowledge contemporaneous with the original paper, rather than subsequent scientific developments.

The Letters to the Editors are different from correspondence or commentaries (bringing new reflections or reactions induced by a publication. They can also deal with news.

If the submission serves only to identify an important error or mistake in the published paper, it will usually lead to the publication of a clarification statement (correction of retraction, for example); this does not serve the idea of a Letter to the Editors.

The journal does not consider Letters to the Editors on papers published in other

journals;

Letters to the Editors should be less than 1000 words, excluding references. They should be written in a neutral tone, and all comments/discussion must relate to the original published article. These articles considered for publication will be subject to peer review.

Reviewers of such articles are asked to judge on the significance of the new information provided, and if it is orchestrated well contextually to the original paper, combining it the a new entity of information.

2.4. Reports

A report is an article which aims less at showing the novelty of a scientific work than showing the importance or novelty of a research.

The key difference between article writing and report writing is that article writing involves the writer's personal work whereas reports include external factual information and evidence. In addition, articles tend to be shorter than reports. A report is detailed usually written in chapters while an article is a concise extract from a report prepared for the purpose of publication in a journal.

These articles can include the opinion of the authors for questions which are not discussed in the literature. The personal opinion of the expert, which should not be confused with professional recommendations, is the characteristic of such articles. They can include Tables, Figures.

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2.5. Opinions and hypothesis

Opinions are like Editorials, but they are different because they express personal ideas and do not correspond necessarily to the ideas of the Editors. They are longer and structured, with subtitles and conclusion. References are very important.

In the Opinion section authors (understood as expert, citizen, scientist, technologist, technician, whatever the field covered within the limit given above) present and discuss their point of view on the strengths and weaknesses of a scientific hypothesis or theory, of a technical, technological or scientific practice, of an implemented policy or of technical, technological or scientific programs.

These articles encourage a debate that challenges the current state of knowledge or practice in particular field.

These articles are critically reviewed by peers on a double-anonymity basis, but of course the reviewers can only check the factual validity of the information on which the opinions are based, and are not allowed to reject the manuscript when they have a different opinion (if they disagree, they can themselves publish a Commentary).

Opinion articles should not be research notes in disguise, with unpublished or original data not reviewed. Similarly, the International Journal of Molecular and Physical Gastronomy does not accept articles that tout specific products.

In contrast, the journal does accept manuscripts written :

- by authors of technical, technological, or scientific journal articles (both the natural and

human/social sciences) that explain their findings to a non-specialist audience,
- or by people from industry who discuss trends in the fields in which they operate
- or by administrators or managers in charge of public policy issues.

For these articles, authors are asked to disclose any potential interests they may have in relation to the theme of the article.

It is good practice for articles of this type to include constructive criticism and to be supported by evidence.

Opinions articles are typically relatively short (2000-2500 words), and this is useful, as often

a succinct argument is more effective when it is free of excessive documentation (which can make a "Report").

2.6. Perspectives

Perspective articles point to recent and noteworthy work, whether technical, technological or scientific, but authors should not focus on their own work. Such articles may contextualize recent results, show their intrinsic importance, or point out their relevance to other disciplines. These papers should be novel and not simply summarize published work. They can be requested by the editors, or submitted spontaneously. These articles inform a wide readership of exciting scientific developments in the authors' area of expertise. Other appropriate topics include discussions of methods, books, or meeting highlights (see corresponding sections).

A Perspective article, presenting the author's views and ideas about current research or

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other topics of interest to scientists, should be concise, and well show a new and original view of existing problems, fundamental concepts, or current notions, propose and support a new hypothesis, or discuss the implications of a recently implemented innovation. Perspective articles may focus on current advances and future directions on a topic, and may include original data as well as personal opinion. Note that the same writing guidelines as for "Opinions" apply to these pieces.

These papers should include a short title (in English), an abstract (less than 150 words), references and may be accompanied by figures and tables. They are subject to the same editorial treatment as all other articles (double anonymous critical analysis, in order to produce texts of academic quality).

2.7. Reviews of the literature

Such texts are making updates of the knowledge on particular topics. They can discuss the data of the literature and possible controversies. They are critical syntheses of published works, and should lead to useful proposals.

A review article is not an original study, presenting non already published results. It examines previous studies and compiles their data and evidence.

Review papers will be accepted in areas of topical interest and will normally focus on literature published over the previous five years, but of course the rules of ethical reference apply (that is only primary literature should be given).

In reviews, only published results (possibly

from the authors of the review) can be cited; they have to be published in a peer reviewed journal.

They are subjected to peer reviewing.

2.8. Synthesis

A synthesis is a written discussion incorporating support from several sources of differing views.

In order to write a successful synthesis essay, one must gather research on a chosen topic, discover meaningful connections throughout the research, and develop a distinctive and interesting argument or perspective. A synthesis is not a summary.

The goal of these mini reviews, signed by a maximum of three authors, is to give a very short and focused reports of literature, through an important article of the discipline; this article should have been published within the last year, and should have an impact on practices.

The content is a short introduction, an abstract of two to five articles and a conclusion.

The number of references should be less than six. The number of words should be less than 1,000.

2.9. Debates

The goal is to give the divergent opinions of two or three authors, on a particular topic. The arguments are to be given under a concise, but discussed and referenced format.

The goal of this column is to show different perspectives. The topic is given under the

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form of a question (« Can we... ? Should we ... ? Is it interesting to ... ? »), closed question for which there are two or perhaps three possible answers. Each author has to demonstrate (“why?” - “because”) the hypothesis he/she proposed, in view of a conclusion (perhaps not definitive).

A Debate article is different from a Review, as the goal is not to show knowledge and practices, but on the contrary to discuss such knowledge and practices, in relationship with the current development of a field.

The text includes a title, keywords, but no abstract.

Before publication, each of the authors gets the article of his/her opponent, with the possibility to change some aspects of his own text, if necessary.

2.10. Conference and Workshop proceedings

Proceedings of conferences or workshops with topics within the scope of the International Journals of Molecular and Physical Gastronomy are welcome.

Manuscripts from oral presentations or texts discussing posters follow in general the advices for research papers, but should be named as “proceedings” and indicate the name of the conference. The organizers are invited to define scope and topics of the workshop/conference by an introduction. Important and substantial questions, answers and discussions after the presentations can be added as an appendix after the manuscript to encourage further ideas and thoughts. Submissions will be peer-reviewed as well.

These are written texts, not just quick notes.

They should be structured like reviews or summaries.

2.10. Data articles

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. The Int J Mol Phys Gasto 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.

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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..

Data articles describe research data that the authors have made publicly available through a repository. These articles ensure that raw data, which is often buried in supplementary material, is peer-reviewed, curated, formatted, indexed, given a DOI and made publicly available upon publication. All data articles must link to a repository that stores data produced and owned by either the author or the author's institution. Since data articles are templated, we require that you complete and submit the template. The journal will not accept any submissions that contain datasets with insufficient variables or samples.

The manuscripts should include:

- title
- authors
- affiliation

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- abstract
- keywords
- specifications table including:
- subject
- specific subject area
- type of data
- data collection
- data source location
- data accessibility

Then, the text should contain

1. value of the data
2. Background
3. Data description, with figures and tables
4. Experimental Design, Materials and Methods
5. Limitations
6. CRediT authorship contribution statement
7. Acknowledgements
8. Declaration of Competing Interests
9. Data Availability
10. References

3. Molecular and Physical Gastronomy and Education/Communication

3.1. Research papers (Section Editor: Pr Roisin Burke):

Manuscripts submitted in this part should address educational aspects on teaching and learning of, in or related to molecular and physical gastronomy. The journal accepts both quantitative, qualitative and mixed methods studies, where research papers discern themselves from development work in that they are analytical, rather than purely

descriptive, thus contributing to new knowledge of education, teaching or learning.

The work should show a connection to relevant educational contexts, such as curricula and knowledge and skills mapping, coursework, public communication, public understanding etc. Relevant arenas in focus include formal education (schools, universities, technical units etc.) as well as non-formal education (museums, exhibitions, forums, etc.), of various age groups, from pre-school to tertiary education and life-long learning, also including in-service education and learning.

Multiple perspectives on education are possible, such as art, history, anthropology, social sciences, education, educational philosophy/theory, educational systems and policy, teaching/learning practices, methods-outcomes and impacts, learners' and/or educators' engagement and attitudes, assessment, educational technologies etc., as molecular and physical gastronomy is concerned.

Manuscripts are also accepted on topics related to molecular and physical gastronomy and communication, such as (but not restricted to):

- communication, collaboration and knowledge transfer between fields of practice and actors therein
- history of communication
- communication-oriented literary/linguistic aspects
- journalism and media
- public engagement / understanding / perception

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- discourse/debates / controversies (public or otherwise)
- education and learning in non-formal contexts (museums, exhibitions etc.),
- medialisisation and mediating tools
- publication and social media
- molecular and physical gastronomy in the public sphere
- discussions of proto-science / anti-science / para-science
- popularisation
- policy and politics

3.2. Development, practices and policy (Section Editor: Pr Roisin Burke):

The journal accepts descriptive manuscripts about educational development and innovation (courses, sequences, teaching materials, etc.), "how to do" (practical, multimedia material), educational documents, trends and policy documents etc. Here the aim is to share/develop materials and methods rather than to produce new knowledge. The novelty/originality criterion still applies, and the section should not publish material found elsewhere (regardless of medium). Translated versions of existing content with the intention to share material internationally are accepted only if they are reconceptualised to an international context, without wording overlap.

3.2.1. New instructional methods, and pedagogies

This category may have a certain overlap with educational research papers, the main

difference being that articles in this "New instructional methods and pedagogies" section aim to share methods/thinking rather than develop new knowledge on teaching, learning or communication.

A submission in this section must:

- demonstrate scientific and scholarly rigour, supported by up-to-date citations to relevant literature and guided by a rationale for how the work fits into existing knowledge
- exhibit novelty through original scholarship or a creative or innovative practice.
- have pedagogical content and educational relevance and insight that demonstrate an impact on teaching and learning while articulating audience level, use with students, and details for adopting and adapting the material, if applicable
- be useful to readers by showing a connection to teaching and learning within the context of curricula or coursework
- present well-developed ideas in a comprehensive, organized discussion written in clear, concise English (UK spelling)
- making effective use of display elements (figures, diagrams, tables, etc.). Submitted material may include digital multimedia material.

3.2.2. Courses

Course descriptions can be given at any level, from primary school to continuous education, spanning from teaching molecular gastronomy to using molecular gastronomy for teaching.

An introduction is needed for explaining the context in which the course is given.

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Submitting of plain educational material (copies of slides etc.) is not sufficient, and the accounts must include descriptions of context, aims, and explanations of topics taught. The reviewing process cannot reproach to the authors of teaching a matter that is discussed elsewhere, but they will consider the originality of the material proposed and propose improvements (without obligation for the authors to accept them in their teaching). Among the review criteria are the coherence and originality of the course, in view of the context given in the introduction of the manuscript.

3.2.3. How to do and educational material

The “How to do” articles describe a process for making a special technical procedure easier. Here, a bibliography is not needed, but it is appropriate when it describes a new version of an already published process (two references maximum). Material used for teaching can be published, i.e., presentation of videos, protocols for practical experiments, etc. Such materials should be accompanied by descriptions of context, level, aims etc. Submissions may include digital multimedia material. Review rules apply as for other original articles.

For the purpose of indexing, a title and keywords are necessary. Tables, diagrams and figures can be included. Authors can also submit videos or other multimedia as supplemental material. Examples of submissions include but are not limited to reviews of the literature on a fresh or controversial topic (based on bibliography) or

a technical procedure. For the general structure, see the instructions of the original articles and reviews.

3.2.4. Practices, trends and policy

Submissions in this category may give a review of what is planned for new scientific, technical practices in education and communication, or descriptions of policy and societal trends with relevance to molecular and physical gastronomy and education or communication. Digital multimedia content can be included as part of these submissions.

4. Edible ideas (applications of molecular and physical gastronomy to cooking)

The sections in this part of the journal deal with the culinary applications of molecular and physical gastronomy, such as molecular cooking (techniques), molecular cuisine (recipes), synthetic cooking, note by note cooking, etc.

4.1. Recipes

Manuscripts submitted to this section must focus on original recipes with an innovative character. These, for example, may involve techniques not considered classical (molecular cuisine), or they may involve the use of ingredients which were not used in the past in occidental cuisines (for example, algae or algae extracts, plants fractions, etc.) .

Instruction for authors

Manuscripts must include

- Title;
- Abstract;
- Keywords.

And also the following five sections:

- Introduction: giving a contextualization and justification of the work and indication of the objectives;
- Materials and Methods: with the presentation of the recipe (see rules below) in a complete, precise and concise manner, which must be clear and easy to follow;
- Results and Discussion: the results must be clear and concise and include relevant photos; the discussion should comment on the techniques used and the results obtained, as well as the social, artistic and technical aspects of the dish and how the objectives were achieved, the innovative nature of the work must also be justified;
- Conclusions: these should be short, consequential to the results and mention how the work contributes to the field of culinary technology;
- References - relevant references should always be included. The citation and reference format described in the *Instructions for Authors* must be used.

The recipe must be reproducible from the information provided and must be formatted according to the following rules:

- The dish must have a name;
- Recipes should start with the overall design of the dish (parts and relationship between them);
- If possible, the number of servings should

be included;

- If the recipe has different parts, each one must be presented separately, with their respective titles, and each one must include the list of ingredients and the method of preparation;
- Ingredient lists must be written in the order in which they are used;
- If an ingredient starts with a letter instead of a number, capitalize the first letter;
- Values must be accurate;
- Weight and volume units throughout the recipe must be consistent (metric system always);
- The recipe should end with instructions on how to assemble the different components in the final dish, including a photo of the dish.

Audio and video documents are welcome.

4.2. Questions and answers

Often, chefs, students and the public have questions whose answers can be useful for the whole community. Such texts can be short or long, but they should always include references for the answers.

Please note that audio and video documents are welcome.

4.3. Techniques and tips

These articles explain how to get some special culinary products, such as making a hollow sphere of ice cream, foaming oil, etc. A thorough discussion of the needed ingredients has to be made.

Please note that audio and video documents are welcome.

Instruction for authors

4.4. Experimental tests of culinary precisions

Articles of this section should include references of the document or circumstances in which the culinary precisions were given.

The Materials and Methods section of the manuscript is important, and it should be enough for reproduction by the readers.

Please note that audio and video documents are welcome.

2.7. The editorial circuit

The principle is to promote the publication of manuscripts, by organizing exchanges between authors and reviewers, so that finally academic quality is reached.

In order to get this result, the journal is run by an Editorial Board, and the following process is applied:

- manuscripts are sent to icmg@agroparistech.fr
- the anonymous text is transmitted to the secretaries of the board, who check if the manuscript is indeed within the scope of the journal
- one qualified member of the Editorial Board is invited to organize the reviewing process, with two reviewers or more
- observations from reviewers are transmitted blind to the author(s)
- the authors have to answer directly in the .doc document given by the Editor, using a clear display of changes; it can refuse to do some changes, but the Editor is the last judge in case of disagreement ; the author can also

make an answer remark after remark, and submit a modified version, showing the modifications

- the process of evaluation is repeated until the manuscript is accepted
- the manuscript is then processed and proofs are sent to the corresponding authors. No major changes are then allowed, unless a new processing review is organized.

With this process, the goal is that the reviewers contribute positively to the quality of the publication.

When major modifications are asked to the authors, this does not mean that the article will be published. The final decision is taken on the last version.

2.8. Refusals of manuscripts

All manuscripts within the scope of the journal (i.e. molecular and physical gastronomy, and its use in education or in the kitchen) are accepted for publication when all changes proposed by the reviewers and editors are made, or when sufficient explanation is given. However the fact that these explanations are given is a demonstration that changes including these explanations are to be made in the manuscript.

2.9. Corrections of proofs, reproduction

The proofs are sent to the corresponding

Instruction for authors

author by email (format pdf) after the final acceptance of the manuscript.

The corrections should only deal with typography, spelling or grammar. No change can concern scientific facts.

The authors cannot ask changes of the layout.

No addition to the manuscript can be made.

The corresponding author has to give the corrected proof with a "OK for publication" letter.

Checklist that authors should use before submission

Was the manuscript 'spell checked' and 'grammar checked'

Title

Does the title of the article suits its content?

Is the length of the title all right?

Does the title correctly inform the reader of the content?

Is the title in English?

Abstract

Does the abstract correspond to the content of the text?

Is the Abstract (for an original article) structured as: Introduction, Materials and Methods, Results, Discussion, Conclusion?

Is the abstract precise enough to explain the content of the text?

Is the Abstract given in English?

Is the abstract corrected by a Native English Speaker?

Keywords

Are the key words suitable, in accordance with the text?

Are they less than 6 keywords?

Are the keywords given in English?

Introduction

Does the Introduction deal with known and unknown elements in relationship with the topic of the study?

Does the introduction end with the goal of the article?

Materials and Methods

Does this section include enough information in order to understand and reproduce how the work was done?

Was the study evaluated by an Ethics committee?

Was special equipment used for this study? If yes, avoid pictures showing the commercial names.

Results

Did you check that there is no error when giving data (in Figures, Tables, etc.)?

Did you check that there is no redundancy in the presentation of data (graphs and tables showing the same data, text giving the same data as graphs, etc.)?

Did you check that the results are synthesized?

Did you check that no assumption was used in showing the results (this should be done in the Discussion part, except for implementing complementary experiments)?

Are statistical tests enough and appropriate?

Instruction for authors

Discussion

Are the major consequences of the results shown?
Are the strength and weaknesses of the work shown?
Are the limits of the study discussed?
Are the weaknesses of the Materials and Methods section discussed, in relationship with other publications?
Are the explanatory hypotheses related to the results shown?
Are the open questions exposed?

Aknowledgments and funding

Did you get the written agreement of the people that you aknowledged?
If the work was funded, did you quote the funding organization? Did you get a written acceptance of these fundind agencies?

Contribution of the authors

Is the role of each author of the article given?

Declaration of interests

Are all interests declared for each author ?

References

Are the references written according to the Instructions to authors?
Were the references all checked?
Are all references quoted in the text given in the list of references?
Are the references ranked in alphabetical order?
Are the references selected according to pertinence?

Tables

Did you mention all Tables in the text?

Did you give an explicit title to all tables?

Are all abbreviations given in tables described in the caption of the table?

Are the line of the tables ranked in a coherent way?

Are the important data selected?

If data from a previously source is given, did you get permission, and get, the agreement of the publisher (copyright) ?

Are the tables listed by order of appearance?

Are all table necessary?

Figures

Are all figures mentioned in the text?

Does any figure have an explicit caption?

Are the important figures given?

If data is taken from a previously published source, did you ask the permission of reproduction (copyright) ?

Are the figures given in the right order?

Is the resolution of the figure enough?

Did you remove all personal or confidential information from the figures?

Format and content

Is the length according to the Instruction of authors?

Did you respect all recommendations of the Instructions to Authors

Are all the text files in .doc?

Did you check the spelling and grammar?

Is the text clear?

Was it checked that no parts of the manuscript were duplicated or plagiarized?

Did you check that the article contains no insultant or defamatory sentence?

Instruction for authors

Process of revision when returning the manuscript after the reviewing

Received :
3 February 2024

If you submit a revised version, did you answer to all commentaries of the reviewers, either in the article (.doc) or in a separate letter?

Accepted :
February 2024

Do all modified parts appear clearly (colour, information in the accompanying letter)?

Published :
February 2024

Did you answer to all queries of the reviewers?

Editor:
Editorial Board

Did you avoid introducing new mistakes in the revised part?

Did you answer to the reviewers in a polite, ethical and professional way?

Sending files

Manuscript

Is there a .doc AND a .pdf file for the manuscript ?

Are all figures in separate files?

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(Int J Mol Phys Gast)

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