

Molecular Nutrition & Food Research

Instructions to authors

(revised December 2007)

Authors are requested to follow these instructions carefully. Manuscripts not prepared accordingly will not be accepted.

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1 Aims and scope

Molecular Nutrition & Food Research (MNF) is a primary research journal devoted to health, safety and all aspects of molecular nutrition such as nutritional biochemistry, nutrigenomics and metabolomics aiming to link the information arising from the related disciplines Bioactivity & Safety, Immunology, Microbiology and Chemistry.

MNF is published in 12 issues *per* year, including regular issues as well as topical issues. Three categories of scientific contributions are accepted for publication:

- (i) research articles,
- (ii) reviews, and
- (iii) educational papers.

Our **Early View** online publication is updated weekly and enables papers to be available online and citable before going into print.

2 General terms of publication

The author vouches that the work has not been published elsewhere, either completely, in part, or in any other form and that the manuscript has not been submitted to another journal. The submitting author (listed under “Correspondence”) accepts the responsibility of having included as coauthors all appropriate persons. The submitting author certifies that all coauthors have seen a draft copy of the manuscript and agree with its publication.

Upon acceptance of the manuscript the author is required to fill in the “Copyright Transfer Agreement”, sign it and submit it along with hardcopies of the illustrations of the paper to:

Molecular Nutrition & Food Research

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Wiley-VCH Verlag

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Germany

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This mandatory copyright form can be found on the homepage of the journal at <http://www.mnf-journal.com> under the link “For Authors”. If the contribution contains one or more color figures the author is also required to submit the “Color Figures Order Form” to the above address (please see the journal homepage for color figure charges). This form can be found at the same site as the “Copyright Transfer Agreement”. Please note that if you are submitting material which has already been published elsewhere, you must also send to the Editorial Office permission in writing that this material may be reprinted in **MNF**. Authors are expected to carry any costs arising from permissions.

Scientific contributions will be peer-reviewed on the criteria of originality and quality. However, manuscripts may be returned by the Editor-in-Chief without external review if the topic is outside the scope of **MNF**, or if the topic is considered to be more appropriate for another journal. Authors may suggest up to five potential referees, including their e-mail addresses, as well as individuals whom they wish to be excluded from the review process. On acceptance, papers may be subjected to editorial changes. A revised paper will retain its original date of receipt only if it is resubmitted to the Editors within two months after revision was requested. Responsibility for the factual accuracy of a paper rests entirely with the author.

MNF publishes articles in English. Manuscripts must be grammatically and linguistically correct, and authors less familiar with English usage are advised to seek the help of English-speaking colleagues. American spelling is preferred.

Please note that the Ethical Guidelines for Publication of Chemical Research issued by the American Chemical Society are followed and applied by the Editors of **MNF**.

All instances of publishing misconduct, including, but not limited to, plagiarism, data fabrication, image/data manipulation to falsify/enhance results *etc.* will result in rejection/retraction of the manuscript.

3 Online submission of manuscripts

MNF offers a web-based manuscript submission and peer review system. This service guarantees fast and safe submission of manuscripts and rapid assessment. Using this system is obligatory, conventional submission of manuscripts is not accepted.

3.1 General remarks

To submit your manuscript online, please proceed along the following steps:

- Prepare your manuscript and illustrations in the appropriate format, according to the instructions given below (see Sections 4 to 9). Please also make sure that your paper conforms with the scientific and style instructions of MNF as given herein. You can also find a link to these instructions on the homepage of the journal at <http://www.mnf-journal.com> under the link “For Authors”. Links for English language assistance also provided here.
- If you have not already done so, create an account for yourself in the system at the submission site, <http://mc.manuscriptcentral.com/mnf/> by clicking on the “Create Account” button.
- Let the system guide you through the submission process. Online help is available to you at all times during the process. You are also able to exit/re-enter at any stage before finally “submitting” your work. All submissions are kept strictly confidential. To monitor the progress of your manuscript throughout the review process, just login periodically and check your Author Center.

If you have any questions concerning the online submission program, do not hesitate to contact Editorial Support at mnf@wiley-vch.de.

3.2 Electronic manuscripts

Please follow the instructions in Section 5 “Organization of manuscripts” when preparing the electronic version of the manuscript and ensure that data are given in the order and the correct style for the journal.

- Main text (incl. front material) as well as figure legends and tables (in this order) should be given in one file, preferably saved in .doc or .rtf format (Word 2003 or older, not .docx).
- Data should be typed unjustified, without hyphenation except for compound words. Use carriage returns only to end headings and paragraphs; spacing will be introduced by the typesetter.
- Do not use the space bar to make indents; where these are required (*e.g.* tables) use the TAB key.
- If working in Word for Windows, please create special characters through **Insert/Symbol**.

- Figures should preferably be in TIFF, EPS, PPT or the original format. Each figure should be given in a separate file and should have the following resolution:

| Type | Resolution |
|-------------------|----------------|
| Graphs | 800 – 1200 DPI |
| Photos | 400 – 800 DPI |
| Color (only CMYK) | 300 – 400 DPI |

All submissions will be converted to PDF format during the upload process. The system automatically generates one PDF file which contains all parts of the manuscript.

3.3 Revised manuscripts

In revised manuscripts the areas containing the major required changes should be marked and the script color changed. The file(s) with the changes visible on screen should be submitted to the online procedure.

Upon acceptance of the manuscript the final uploaded version will be taken as the basis for copy editing and the subsequent production process.

4 Types of contributions

Three types of scientific contributions are considered for publication:

- (i) **Research articles** describing complete investigations. Manuscripts may not have been published previously, except in the form of a preliminary communication.
- (ii) **Reviews** providing an overview on the current research in a specific field.
- (iii) **Educational papers** describing and/or explaining a method or technique used in food and nutrition research. They should be written in continuous style with headings (not numbered). An educational paper may be supplemented by multimedia material (*e.g.* animations or video sequences) which will be only available online.

Research articles should not exceed 6500 words in total; this includes references, figure legends, and tables.

Reviews and educational papers will normally be invited by the Editors. Authors wishing to submit a review or an educational paper should send a brief outline of its contents to the Editor-in-Chief (schreier@pzlc.uni-wuerzburg.de) before the manuscript is drafted.

5 Organization of manuscripts

Manuscripts must be typewritten with double spacing (including references, tables, legends, *etc.*).

5.1 Contents of first page of manuscript

The first page of the manuscript should contain only the following:

- 1) Title of the paper containing only the keywords pertaining to the subject matter. Standard abbreviations may be used in the title.
- 2) Full names (including first name) of the authors and the name of the institute. If the publication originates from several institutes the affiliations of all authors should be clearly stated by using superscript numbers after the name and before the institute.
- 3) Name (and title) and full postal address of the author to whom all correspondence (including galley proofs) is to be sent. E-mail and fax number must be included to speed up communication.
- 4) A list of abbreviations used in the paper excluding standard abbreviations (see list of “Standard Abbreviations”, Section 9).
- 5) Keywords (max. 5, in alphabetical order).

5.2 Abstract

The second and (if necessary) third page of the manuscript should contain the abstract only. This must be self-explanatory and intelligible without reference to the text. It should not exceed 200 words. Abbreviations, but not standard abbreviations, must be written in full when first used.

5.3 Division into sections

Manuscripts should be divided into the following sections:

“1 Introduction”: containing a description of the problem under investigation and a brief survey of the existing literature on the subject.

“2 Materials and methods”: for special materials and equipment, the manufacturer’s name and location should be provided.

“3 Results”

“4 Discussion”

“5 References”

Sections 3 and 4 may be combined and should then be followed by a short section entitled “Concluding remarks”.

Subdivisions of sections should be indicated by subheadings.

5.4 References

References should be numbered sequentially in the order in which they are cited in the text. The numbers should be set in brackets, thus [2, 18]. References are to be collected in numerical order at the end of the manuscript under the heading “References”; they should also be typed with double spacing throughout. Papers with multiple authors should be limited to listing five authors. Where there are more than five authors, the first four should be listed, followed by *et al.* Please include the title of the manuscript in full, followed by a full stop. Journal names should be abbreviated according to the practice of PubMed. The abbreviated journal name and the volume number should be in italics. Please note the following examples.

Journals:

- [1] Keppler, K., Hein, E.-M., Humpf, H.-U., Metabolism of quercetin and rutin by the pig caecal microflora prepared by freeze-preservation. *Mol. Nutr. Food Res.* 2006, 50, 686–695.

Other serial publications such as “*Advances in Food and Nutrition Research*” should be cited in the same manner as journals.

Books:

- [2] Eisenbrand, G., Dayan, A. D., Elias, P. S., Grunow, W., Schlatter, J. (Eds.), *Carcinogenic and Anticarcinogenic Factors in Food*, Wiley-VCH Verlag, Weinheim 2003.

Chapter in a book:

- [3] Geis, A., in: Heller, K. J. (Ed.), *Genetically Engineered Food – Methods and Detection*, Wiley-VCH Verlag, Weinheim 2003, pp. 100–118.

Allusions to “unpublished observations”, papers “to be published” or “submitted for publication” and the like should be a part of the text, in parentheses. Material “in press” should be entered under references along with the DOI (Digital Object Identifier), if available. Posters and abstracts in meetings books must not be cited unless they are generally accessible. Responsibility for the accuracy of bibliographic references rests entirely with the author.

A link to the latest EndNote style sheet can be found on the homepage <http://www.mnf-journal.com> under the link “For Authors”.

5.5 Acknowledgements

Acknowledgements as well as information regarding funding sources should be provided on a separate page and will appear at the end of the text (before the “References”).

5.6 Conflict of interest statement

All authors must declare financial/commercial conflicts of interest. Even if there are none, this should be stated in a separate paragraph following on from the acknowledgements section. This is a mandatory requirement for all articles.

5.7 Tables

Tables with suitable captions at the top and numbered with Arabic numerals should be collected at the end of the text on separate sheets (one page *per* table). Column headings should be kept as brief as possible and indicate units. Footnotes to tables should be indicated with a), b), c) *etc.* and typed on the same page as the table.

5.8 Supporting information

Extensive tables should be published online as supporting information. This material will not be typeset so authors should prepare it in the final form (preferably in PDF file format). Also for this reason there will be no galley proofs of this material. Supporting information will be made freely available on the web (similar to the table of contents and the article abstracts). Authors are permitted to place this material on their homepages when they are setting up a link to the full-text version of the article in Wiley InterScience.

Further, other files may be submitted as supporting information (*e.g.*, animations, video sequences). All supporting information will also undergo the peer-review process. Thus, this material has to be submitted electronically along with the main body of the article. It is in the hands of the Editor-in-Chief to decide which part of the manuscript will be published as supporting information.

5.9 Figures and legends

Diagrams and photographs should be submitted as separate files. Upon acceptance of the paper hardcopies of fine quality suitable for reproduction should be sent to the Editorial Office (address see Section 2). Figures should be numbered consecutively with Arabic numerals in the order of their appearance. Figures should be submitted in a format which can be reduced to a width of 50–80 mm or 120–170 mm, and symbols and labels to a height of 2.0 mm (after reduction). In electropherograms presented horizontally, the anode should be at the left while in vertical presentations the anode should be at the bottom. Two-dimensional presentations, *e.g.* with isoelectric focusing and sodium dodecyl sulfate-electrophoresis in the two dimensions, are thus presented consistent with the standard coordinate system. Each figure is to be accompanied by a legend, which should be self-explanatory. The legends should not appear under

the figures but be collected and typewritten with double spacing following the references.

Color figures can be reproduced, however, authors will be charged for additional costs incurred for the reproduction of color (see Section 2).

5.10 Image manipulation

Manipulation of images is strongly discouraged and all figures must accurately reflect the original data. Information should not be enhanced, eliminated, added, obscured or moved. In cases where manipulation is unavoidable, this should be clearly detailed in the Figure legend. All instruments, software and processes used to obtain the images must be fully detailed in the manuscript either in the Figure legends or the Materials and Methods. Acceptable image manipulation includes uniformly adjusting the contrast of an entire image, and any control images, ensuring that all original data, including the background, remains visible and that no new features are introduced. Cropping of gels, or re-positioning of lanes/fields, is permitted providing that all alterations are clearly indicated by the use of dividing lines in the image itself, vital data are not removed and an explanation of the alterations is included in the Figure legend. Unacceptable manipulation includes, but is not limited to, the enhancement of one feature/band over others, removal of background noise/bands and so on. Authors must be able to produce all data in their raw format upon editorial request.

5.11 Biographic material

Corresponding authors of review articles are invited to submit a portrait photograph of themselves and a short biographical text (no more than 80 words) which will appear at the very end of the article.

5.12 Structural formulae

Structural formulae should be drawn in the manuscript in the position where they belong. They must be numbered in consecutive order with the other figures.

5.13 Equations

Mathematical and chemical equations are to be written in the manuscript at the place in which they belong and should be marked by Arabic numerals in parentheses in the right margin in the order of their appearance.

5.14 Abbreviations

Abbreviations are hindrances to a reader working in a field other than that of the author, and to abstractors. Therefore, their use should be restricted to a minimum. Abbreviations should be introduced only when repeatedly used. Abbrevia-

tions used only in a table or a figure may be defined in the legend. Standard abbreviations may be used in the title and keywords. If nonstandard abbreviations are used in the Abstract they should be defined in the Abstract, in the list of abbreviations of the manuscript, as well as when first used in the body of the paper.

Section 9 at the end of these instructions contains the list of standard abbreviations which may be used without definition in the articles published in **MNF**.

5.15 Ethics

If the manuscript describes experiments using animals, the permission of the national or local authorities (giving the permission or the accreditation number of the laboratory and of the investigator) should be stated. If no such rules or permission are stipulated in the particular country, this must also be mentioned in the paper. In the case of human studies, it should be stated that local ethical committee approval has been received and that the informed consent of all participating subjects was obtained.

6 Proofs and reprints

Before publication authors will receive page proofs *via* E-mail in PDF low resolution file format, together with a sheet including instructions and a reprint order form, also as PDF files. The page proofs and the reprint order form should be printed out. The proofs should be carefully corrected following the instructions. In particular, authors should answer any editing queries. The reprint order form should be filled out (even if reprints are not required), and both should be returned, preferably by fax, to the **MNF** Editor-in-Chief at the following address:

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University of Würzburg
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E-mail: schreier@pzc.uni-wuerzburg.de
Fax: +49-931-8885 484

Authors will be charged for extensive alterations of their article. Reprints can be ordered at prices shown on the reprint order form. Upon publication the submitting author (listed under “Correspondence”) will receive a complimentary copy of the issue containing the article.

7 Funding information

7.1 NIH Authors

On behalf of our authors who are also NIH grantees, Wiley will deposit in PMC at the same time that the article is pub-

lished in our journal the peer-reviewed version of the author's manuscript. Wiley will stipulate that the manuscript may be available for “public access” in PMC 12 months after the date of publication.

By assuming this responsibility, Wiley will ensure that authors are in compliance with the NIH request, as well as make certain the appropriate version of the manuscript is deposited.

When an NIH grant is mentioned in the Acknowledgments, Wiley will assume that the author wants the manuscript deposited into PMC, unless the author states otherwise. The author can communicate this via e-mail, or a note in the manuscript. The version of the manuscript that Wiley sends to PMC will be the accepted version.

Because Wiley is taking the responsibility for sending the manuscripts to PMC, in order to ensure an orderly process, authors should not deposit Wiley articles to PMC themselves. Authors should not make corrections to their Wiley-deposited manuscripts in PMC.

Wiley reserves the right to change or rescind this policy.

For further information, please see the NIH Policy on Public Access, located at <http://publicaccess.nih.gov/>

7.2 Funded access

Wiley is now offering a funded access service for authors of journal articles whose funding agency requires deposit of an article in an archive. Interested authors should go to http://www3.interscience.wiley.com/authorresources/funded_access.html for further information.

8 Reporting specific data

8.1 Bioactivity of extracts and other mixtures

Manuscripts in which the individual components responsible for any biological activity have not been chemically characterized will be returned, unreviewed, to the author. Exceptions will only be made by the Editor-in-Chief in special cases.

8.2 Chemical structures

Structures should be produced with the use of a drawing program such as ChemDraw.

Structure drawing preferences are as follows:

As drawing settings select:

chain angle 120°

bond spacing 18% of width

fixed length 14.4 points (0.508 cm, 0.2 in.)

bold width 2.0 points (0.071 cm, 0.0278 in.)

line width 0.6 point (0.021 cm, 0.0084 in.)

margin width 1.6 points (0.056 cm, 0.0222 in.)

hash spacing 2.5 points (0.088 cm, 0.0347 in.)

As text setting select: font, Arial or Helvetica; size, 10 pt.

Under the preferences choose: units, points; tolerances, 3 pixels.

Under page setup choose: paper, US Letter; scale, 100%.

Using the ChemDraw ruler or appropriate margin settings, create structure blocks, schemes, and equations having maximum widths of 11.3 cm (one-column format) or 23.6 cm (two-column format). Note: if the foregoing preferences are selected as cm values, the ChemDraw ruler is calibrated in cm. Also note that a standard sheet of paper is only 21.6 cm wide, so all graphics submitted in two-column format must be prepared and printed in landscape mode.

Use boldface type for compound numbers but not for atom labels or captions.

Authors using other drawing packages should, as far as possible, modify their program's parameters to reflect the above guidelines.

8.3 Physical and other data

It is important that novel compounds, either synthetic or isolated/produced from natural sources, be characterized completely and unambiguously. Supporting data normally include physical form, melting point (if solid), UV/IR spectra, if appropriate, ^1H and ^{13}C NMR, mass spectral data, and optical rotations or CD information (when compounds have chiral centers).

Reports on flavor constituents should conform to the recommendations made by the International Organization of the Flavor Industry (IOFI). Thus, substances must be identified using the latest analytical techniques. In general, any particular substance must have its identity confirmed by at least two methods; that means, in practice, comparison of chromatographic and spectroscopic data (which may include GC, MS, IR, and NMR) with those of an authentic sample. If only one method has been applied, the identification has to be labeled as "tentative": This is also valid in case of identification performed only by comparison of literature data.

Equations should be numbered consecutively and referred to the text; *e.g.* defined as in Eq. (1).

Physical data should be quoted with decimal points (*e.g.* $25.8\text{ J K}^{-1}\text{ mol}^{-1}$), and arranged as follows where possible – but in any event in the same order within the manuscript (when measurement conditions remain unchanged they need only be mentioned once, for instance in the column headings): m.p./b.p. 20°C ; $[\alpha]_{\text{D}}^{20} = -13.5$ ($c = 0.2$ in acetone)

^1H NMR (200 MHz, $[\text{D}_8]\text{THF}$, 25°C , TMS): $\delta = 1.3$ (q, $^3J(\text{H}, \text{H}) = 8\text{ Hz}$, 2 H; CH_2), 0.9 ppm (t, $^3J(\text{H}, \text{H}) = 8\text{ Hz}$, 3 H; CH_3); IR(Nujol): $\tilde{\nu} = 1790\text{ cm}^{-1}$ (C=O); UV/Vis (*n*-hexane): $\lambda_{\text{max}}(\epsilon) = 320$ (5000), 270 nm (12000); MS (70 eV): m/z (%): 108 (20) $[\text{M}^+]$, 107 (60) $[\text{M}^+ - \text{H}]$, 91 (100) $[\text{C}_7\text{H}_7^+]$. Plane angles in products of units can have either $^\circ$ or deg as the unit.

Nomenclature, symbols, and units: The rules and recommendations of the International Union of Pure and Applied Chemistry (IUPAC), the International Union of Biochemistry (IUB), and the International Union of Pure and Applied Physics (IUPAP) should be adhered to.

8.4 Nucleotide and protein sequences

New nucleotide data must be submitted and deposited in the DDBJ/EMBL/GenBank databases and an accession number obtained before the paper can be accepted for publication. Submission to any one of the three collaborating databanks is sufficient to ensure data entry in all. The accession number should be included in the manuscript, *e.g.* as a footnote on the title page: 'Note: Nucleotide sequence data reported are available in the DDBJ/EMBL/GenBank databases under the accession number(s) –'. If requested the database will withhold release of data until publication. The most convenient method for submitting sequence data is by the World Wide Web:

EMBL *via* Webin:

<http://www.ebi.ac.uk/embl/Submission/webin.html>

GenBank *via* BankIt:

<http://www.ncbi.nlm.nih.gov/BankIt/>

DDBJ *via* Sakura:

<http://sakura.ddbj.nig.ac.jp/>

Alternatively, the stand-alone submission tool 'Sequin' is available from the EBI at <http://www3.ebi.ac.uk/Services/Sequin> and from NCBI at <http://www.ncbi.nlm.nih.gov/Sequin/>

For special types of submissions (*e.g.* genomes, bulk submissions *etc.*) additional submission systems are available from the above sites.

Database contact information:

EMBL: EMBL Nucleotide Sequence Submissions
European Bioinformatics Institute
Wellcome Trust Genome Campus, Hinxton,
Cambridge CB10 1SD, UK
Tel.: +44 1223 494400; fax: +44 1223 494472
E-mail: datasubs@ebi.ac.uk
WWW URL: <http://www.ebi.ac.uk>

GenBank: National Center for Biotechnology Information
National Library of Medicine,
Bldg. 38A, Rm 8 N-803
Bethesda, MD 20894, USA
Tel.: +1 301 496 2475; fax: +1 301 480 9241
E-mail: info@ncbi.nlm.nih.gov
WWW URL: <http://www.ncbi.nlm.nih.gov>

DDBJ: Center for Information Biology and
DNA Data Bank of Japan
National Institute of Genetics, 111 Yata,
Mishima, Shizuoka 411-8540, Japan
Tel.: +81 559 81 6853; fax: +81 559 81 6849
E-mail: ddbj@ddbj.nig.ac.jp
WWW URL: <http://www.ddbj.nig.ac.jp>

Protein sequences which have been determined by direct sequencing must be submitted to Swiss-Prot at the EMBL Outstation – The European Bioinformatics Institute. Please note that we do not provide accession numbers, **in advance**,

for protein sequences that are the result of translation of nucleic acid sequences. These translations will automatically be forwarded to us from the EMBL nucleotide database and are assigned Swiss-Prot accession numbers on incorporation into TrEMBL.

Results from characterization experiments should also be submitted to Swiss-Prot at the EBI. This can include such information as function, subcellular location, subunit *etc.*

Contact information:

Swiss-Prot submissions,
European Bioinformatics Institute
Wellcome Trust Genome Campus, Hinxton
Cambridge, CB10 1SD, UK
Tel.: +44 1223 494400; fax: +44 1223 494472
E-mail: datasubs@ebi.ac.uk (for sequence submissions); update@ebi.ac.uk (for characterization information)
WWW URL: <http://www.ebi.ac.uk>

9 Standard abbreviations

The abbreviations as listed below may be used without definition in the articles published in **MNF**. Please refer to Section 5.12 for the correct usage of abbreviations in **MNF**.

| | | | | | |
|-------|---|------------|--|--------|---|
| A | absorbance | FAME | fatty acid methyl esters | NMR | nuclear magnetic resonance |
| ACN | acetonitrile | FITC | fluorescein isothiocyanate | od | outside diameter |
| A/D | analog to digital converter | GC | gas chromatography | OD | optical density |
| amu | atomic mass unit | GMO | genetically modified organism | ORF | open reading frame |
| API | atmospheric pressure ionization | HDL | high density lipoprotein | PAGE | polyacrylamide gel electro- phoresis |
| BMI | body mass index | HEPES | <i>N</i> -(2-hydroxyethyl)piperazine- 2'-(2-ethane-sulfonic acid) | PBS | phosphate-buffered saline |
| bp | base pairs | HPCE | high-performance capillary elec- trophoresis | PCR | polymerase chain reaction |
| BSA | bovine serum albumin | HPLC | high-performance liquid chro- matography | PEG | polyethylene glycol |
| CBB | Coomassie Brilliant Blue | HSA | human serum albumin | pI | isoelectric point |
| CE | capillary electrophoresis | HTML | hypertext mark-up language | PMSF | phenylmethylsulfonyl fluoride |
| CEC | capillary electrochromatography | id | inside diameter | PMT | photomultiplier tube |
| CFE | continuous flow electrophoresis | IEF | isoelectric focusing | ppm | parts <i>per</i> million |
| CID | collision-induced dissociation | Ig | immunoglobulin | PTFE | polytetrafluoroethylene |
| cpm | counts per minute | IL | interleukin | PUFA | polyunsaturated fatty acid |
| CV | coefficient of variation | INF | interferon | PVP | polyvinylpyrrolidone |
| CZE | capillary zone electrophoresis | IT | ion trap | RIA | radioimmunoassay |
| 1-D | one-dimensional | kbp | kilobase pairs | RNA | ribonucleic acid |
| 2-D | two-dimensional | kDa | kilodalton (molecular mass) | RP | reversed phase |
| Da | dalton (molecular mass) | LC | liquid chromatography | rpm | rotations <i>per</i> minute |
| DAD | diode-array detection (or diode- array detector) | LDL | low density lipoprotein | RSD | relative standard deviation |
| 2-DE | two-dimensional gel electro- phoresis | LOD | limit of detection | RT-PCR | reverse transcriptase-PCR |
| DMEM | Dulbecco's modified Eagle medium | LOQ | limit of quantitation | SCFA | short chain fatty acid |
| DMF | <i>N,N</i> -dimethylformamide | LPS | lipopolysaccharide | SD | standard deviation |
| DMSO | dimethyl sulfoxide | mAb | monoclonal antibody | SDS | sodium dodecyl sulfate |
| dsDNA | double-stranded DNA | MALDI- | matrix-assisted laser desorption/ ionization mass spectrometry | SEM | standard error of the mean |
| DTT | dithiothreitol | MS | mass spectrometry | SIM | selected ion monitoring |
| EDTA | ethylenediaminetetraacetic acid | Mbp | megabase pairs | S/N | signal-to-noise ratio |
| EGTA | ethylene glycol-bis (β -amino- ethylether)- <i>N,N,N',N'</i> -tetraacetic acid | MHC | major histocompatibility com- plex | SPE | solid-phase extraction |
| ELISA | enzyme-linked immunosorbent assay | MOPS | 3-(<i>N</i> -morpholino)propanesulfo- nic acid | ssDNA | single-stranded DNA |
| EOF | electroosmotic flow | M_r | relative molecular mass (dimen- sionless) | TFA | trifluoroacetic acid |
| ER | endoplasmic reticulum | MS | mass spectrometry | THF | tetrahydrofuran |
| ESI | electrospray ionization | MS/MS | tandem mass spectrometry | TIC | total ion current |
| FAB | fast atomic bombardment | MUFA | monounsaturated fatty acid | TLC | thin-layer chromatography |
| | | <i>m/z</i> | mass-to-charge ratio | TOF | time of flight |
| | | | | Tris | tris(hydroxymethyl)amino- methane |
| | | | | URL | uniform resource locator |
| | | | | Vh | volt \times hours |
| | | | | VLDL | very low density lipoprotein |