

This short guide is intended to assist those preparing manuscripts for submission to *LCGC* and *Spectroscopy*, including columns, feature articles, and peer-reviewed articles.

Tips for Avoiding the Most Common Formatting Missteps

Abstract: An abstract of one or two short paragraphs describing what the paper is about and its significance to the field of analytical measurements. Do not include any references in this section.

Figures: Figures should be named and called out in text using Arabic numerals (Figure 1, 2, 3, and so on). Be sure to provide high-resolution graphics and send to us as original quality for each figure and subfigure. For excellent quality presentation in print we request that you email us your original artwork or graphics as high image resolution (>300 ppi) images. The original figures may be as TIFF, PDF, EPS, JPEG, PowerPoint, or Word but must be saved at higher than 300 ppi resolution. There are many sites online that instruct you in generating and saving high resolution files, depending on the software used to create the graphical images. Note that email is limited to 20 MB files and so we recommend that you send compressed .zip files or separate emails with less than 20 MB of attachments per email. Individual figures within a figure are designated as (a), (b), (c), and so on for both the figure and the explanations of the figures within the captions. Ensure that all axes in figures are clearly labeled and sufficient font size with what is being measured, followed by the unit of measure in parentheses. Common examples of ordinate (y-axis) labels include Milliabsorbance (mAU), Signal (mV), Intensity (a.u.), Counts (cps), Relative abundance, Absorbance (AU), Percent transmittance (%T), Reflectance (R); examples of abscissa (x-axis) labels include, Time (min), Mass (m/z), Wavenumbers (cm^{-1}), Nanometers (nm), and so on. If two words are used the first is upper case and second is lower case, for example Retention time (min).

Tables: The format is Table I, II, III, and so on—using Roman numerals. All tables must include an explanatory caption. Tables should be provided as Word or Excel tables (in editable format), not as images. The first column should be left justified and text and titles in all other columns should be centered.

Captions: Figures should not have subtitles or excessive extraneous labels or notations—it is preferred to share as much of the information as possible within the caption for figures and tables.

Scientific unit nomenclature, and usage: Our format does not use g L^{-1} or mg mL^{-1} nomenclature, but rather g/L or mg/mL . Do not use the form of unit^{-1} , except for cm^{-1} . Please do not use ‘&’ but rather ‘and’. Please do not use i.e. or e.g. abbreviations, but rather ‘that is’ or ‘for example’. Also do not use a forward slash (/) but rather ‘or’ except for MS/MS and specified scientific nomenclature.

Equations: All mathematical variables within the manuscript text and for equations are *italicized*. Equations are centered on the page with numerical designations for equations using Arabic numbering in brackets as [1], [2], [3], and so on. All variables must be explained within the text, most often immediately following the equation.

References: References are numbered as (1), (2), (3), and so on using Arabic numbering and following the formatting styles described below. Authors are not required to use automated reference management software, and it is preferred that it is not used.

Document format: Word as .docx is preferred.

Font and font size: Times New Roman at 11 or 12 font size is preferred.

General: Please use precise language, terminology, and hyphenation of terms per *The American Chemical Society (ACS) Style Guide*. We use American English for all publications.

Note: We follow *The ACS Style Guide (from the American Chemical Society)*, *Webster's International Dictionary*, and *The Chicago Manual of Style*, except where expanded upon or superseded by our in-house style guide.

Scientific Paper Structure

Most articles, other than review articles or tutorials, should follow the structure of a standard scientific paper, as described below.

1. Every paper should have an **Abstract** of one or two short paragraphs describing what the paper is about and its significance to the field of analytical measurements. Do not include any references in this section.
2. In the **Introduction**, provide a detailed technical overview of the technique described (what it is and how it differs from traditional techniques) and the relevance of the application to which it is being applied, if pertinent. What was the thought process (or theory) that led to the discovery or development of this method? What references from the literature would be appropriate to cite related to this discussion (such as previous work leading to this development as papers or patents)? Feel free to use schematics or equations to compare and contrast the theory of the described measurements with other similar techniques.
3. The **Materials and Methods** section should include as much detail about the method as possible, such as instrument name and type, sample containers, instrument preparation, sample preparation, specific details for making instrument measurements, data processing and algorithms, and data acquisition software used. Elaborate and describe these in sufficient detail so that anyone reading the paper would be able to replicate the method without asking the author(s) additional questions. We recommend including a table (with table number and caption) of performance data or comparison features to help readers understand the specifics of the actual differences between analytical methods, such as sample preparation time, resolution, or analytical performance errors (expand to include all known factors). To be clear, we do not publish comparisons of instrument performance from different manufacturers, so any discussion of performance comparisons must be specifically in regard to methods or techniques, not commercial instrument brands.
4. The **Results** section should include all measurement results and a description of what the results mean. This section could include most figures and figure captions with some additional details and explanations of the meaning of each of the figures. The Results section could include subsections such as Collection of Data and Data Analysis.
5. A final section named **Conclusion** would include the summary information and a stated argument that the results attained were meaningful and significant. This should be very specific information and include only provable claims that are based on the reported results and substantiated by available reference literature as patents, patent applications, or papers.
6. The **References** section should include all relevant reference papers and patents. One may also include personal communications with noted individuals in the field as part of the reference collection.

Author Guideline URLs for Manuscripts

LCGC: <http://www.chromatographyonline.com/lcgc-author-guidelines>
Spectroscopy: <http://www.spectroscopyonline.com/spectroscopy-author-guidelines>

Reference Style

We have made changes to our referencing format for 2023 and going forward. For detailed instructions please see this link for the ACS reference formatting and style. Use the [American Chemical Society \(ACS\) style for references](#).

Notes regarding journal articles:

Always include the article title of journal articles. If an article has many authors, list three, followed by “et al.” If an article has only four or five authors, list all of them.

Reference format examples

A fairly complete set of reference format examples is available in the open-access chapter of the ACS Style Guide at this link: <https://pubs.acs.org/doi/full/10.1021/acsguide.40303>

USE DOI CITATIONS OR OTHER LINKS FOR ALL REFERENCES

Books

- Book in print: (1) Frankel, F. *Picturing Science and Engineering*; MIT Press, 2018.
- ebook: (1) Hammond, C. *The Basics of Crystallography and Diffraction, 4th ed.*; *International Union of Crystallography Texts on Crystallography*, Vol. 21; Oxford University Press, 2015. DOI: 10.1093/acprof:oso/9780198738671.001.0001
- Book chapter: (1) Bard, A. J.; Faulkner, L. R. *Double-Layer Structure and Absorption. In Electrochemical Methods: Fundamentals and Applications*, 2nd ed.; John Wiley & Sons, 2001; pp 534–579.
- Book with editor(s): (1) *Mom the Chemistry Professor: Personal Accounts and Advice from Chemistry Professors Who Are Mothers*, 2nd ed.; Woznack, K., Charlebois, A., Cole, R. S., Marzabadi, C. H., Webster, G., Eds.; Springer, 2018. DOI: 10.1007/978-3-319-78972-9
- Chapter in a book: (1) J Bard, A. J.; Faulkner, L. R. *Double-Layer Structure and Absorption. In Electrochemical Methods: Fundamentals and Applications*, 2nd ed.; John Wiley & Sons, 2001; pp 534–579.
- Thesis: (1) Tsien, R. Y. *The Design and Use of Organic Chemical Tools in Cellular Physiology*. Ph.D. Thesis, University of Cambridge, Cambridge, U.K., 1976

JOURNALS AND MAGAZINES

- Journal article: (1) Foster, J. C.; Varlas, S.; Couturaud, B.; Coe, J.; O'Reilly, R. K. Getting into Shape: Reflections on a New Generation of Cylindrical Nanostructures' Self-Assembly Using Polymer Building Block. *J. Am. Chem. Soc.* **2019**, *141* (7), 2742–2753. DOI: 10.1021/jacs.8b08648
- Government publications: (1) Department of Commerce, United States Patent and Trademark Office. Section 706.02 Rejection of Prior Art [R-07.2015]. *Manual of Patent Examining Procedure (MPEP)*, 9th ed., rev. 08.2017, last revised January 2018. <https://www.uspto.gov/web/offices/pac/mpep/s706.html#d0e58220> (accessed 2019-03-20).
- Conference abstract: (1) Okita, J.; Iwamoto, T.; Kira, M. Novel Synthetic Route for Hydrosilyllithiums. In *Book of Abstracts, 2000 International Chemical Congress of Pacific Basin Societies (PACIFICHEM 2000)*, Honolulu, HI; Paper INOR 216.
- Database: (1) *SpectraBase*. Bio-Rad Laboratories. <https://spectrabase.com/> (accessed 2020-01-05).
- Patent: (1) Lois-Caballe, C.; Baltimore, D.; Qin, X.-F. Method for Expression of Small RNA Molecules within a Cell. US 7 732 193 B2, 2010.
- Software: (1) *Schrödinger Release 2019-3: BioLuminate*; Schrödinger, LLC: New York, 2019. <https://www.schrodinger.com/products/bioluminate> (accessed 2019-09-08)
- Standard: (1) ASTM International. *Standard Test Method for Tensile Properties of Plastics*; ASTM D638-14; West Conshohocken, PA, 2014. DOI: 10.1520/D0638-14
- Technical report: (1) Hung, C.-C.; Hurst, J.; Santiago, D. *Boron Nitride Nanoribbons from Exfoliation of Boron Nitride Nanotubes*; NASA/TM-2017-219455; National Aeronautics and Space Administration, Glenn Research Center: Cleveland, OH, 2017. <https://ntrs.nasa.gov/search.jsp?R=2017000388> (accessed 2019-09-10).