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## Required Preliminary Approval of Articles

Articles for *Chemical Reviews* are considered according to two mechanisms:

(a) **Proposal.** Potential author submits a proposal via the [ACS Paragon Plus Environment](#) using the proposal [template](#). Authors are required to use the proposal template, which includes the following:

1. Proposal title
2. Author names, affiliations, and addresses
3. Two- or three-page detailed topical outline
4. List of previous reviews of the subject, including books or book chapters
5. List of five of the authors' papers that are most closely related to the review topic
6. Estimate of the number of references
7. Estimate of the number of double-spaced pages
8. Tentative submittal date

The entire proposal should not exceed five pages and should be submitted as the manuscript file. Authors must recommend at least five potential reviewers, who are experts in the field, at the time of submission of a proposal. This material will be examined by the Editor and often expert reviewers, and a decision is usually reached within two months.

(b) **Invitation from Editor.** Author submits a review via an invitation on his/her dashboard within the [ACS Paragon Plus Environment](#). All manuscripts will undergo a rigorous peer-review process. Authors must recommend at least five potential reviewers, who are experts in the field, at the time of submission of an invited review.

*Manuscripts submitted without an invitation or an approved proposal will not be considered.*

*All manuscripts are peer reviewed, and final acceptance is contingent upon satisfactory response by the author to the reviewers' comments.*

## Scope of the Journal

Articles for *Chemical Reviews* should be substantial, comprehensive, authoritative, critical, and accessible reviews of published results on recent topics in chemistry that have not been comprehensively and critically reviewed in the past three to four years. Reviews may cover either mature or emerging areas of research, but not inactive areas. Reviews of general interest and with high potential for broad impact are preferable to narrowly focused ones. The author should be a recognized expert in the field, and the scope of the subject area and the time period must be clearly defined in the introduction. All contributors to the subject should be considered when selecting material for discussion, although not all will be treated in depth, and the author's own work should not be singled out for emphasis. The presentation should be addressed to readers who are competent in fundamentals but need not have extensive knowledge of the topic. All articles must be comprehensive in the treatment of the subject matter within the scope defined in the Introduction, but comprehensive does not necessarily imply a specific length or style. Reviews

should provide a critical analysis of the topic and insights about the remaining challenges and future directions for the field.

## Manuscript Types

A typical Chemical Review is described above under Scope of the Journal. The Focus Review is a special type of manuscript that is distinct from a regular review because it is more concise and forward looking and typically addresses a rapidly evolving topic. These types of reviews must still retain the key characteristics associated with *Chemical Reviews*. Specifically, a Focus Review must be comprehensive within the scope defined in the Introduction, even if this scope is relatively narrow, and should not single out the author's own work for emphasis but rather should consider all significant contributions to the field. It must also contain a critical analysis, as well as a discussion of remaining challenges and future directions. A Focus Review should be no longer than 20 published pages, which corresponds to approximately 60 double-spaced submitted manuscript pages, including embedded figures, tables, and references. As with regular Reviews, a Focus Review can be submitted either through an invitation by an Editor or after submitting a proposal and receiving approval from the editors as described above. The criteria for publishing a Focus Review will be especially rigorous to maintain a high level of quality. Moreover, a Focus Review must be concise, and if a submitted Focus Review becomes too long, it may be converted to a regular review by the Editor handling the manuscript.

## ACS Publishing Center

While this document will provide basic information on how to prepare and submit the manuscript as well as other critical information about publishing, we also encourage authors to visit the [ACS Publishing Center](#) for additional information on everything that is needed to prepare (and review) manuscripts for ACS journals and partner journals, such as

- [Mastering the Art of Scientific Publication](#), which shares editor tips about a variety of topics including making your paper scientifically effective, preparing excellent graphics, and writing cover letters.
- Resources on [how to prepare and submit a manuscript](#) to ACS Paragon Plus, ACS Publications' manuscript submission and peer review environment, including details on selecting the applicable [Journal Publishing Agreement](#).
- [Sharing your research](#) with the public through the ACS Publications open access program.
- [ACS Reviewer Lab](#), a free online course covering best practices for peer review and related ethical considerations.
- [ACS Author Lab](#), a free online course that empowers authors to prepare and submit strong manuscripts, avoiding errors that could lead to delays in the publication process.
- [ACS Inclusivity Style Guide](#), a guide that helps researchers communicate in ways that recognize and respect diversity in all its forms.

## Manuscript Preparation

### Submit with Fast Format

All ACS journals and partner journals have simplified their formatting requirements in favor of a streamlined and standardized format for an initial manuscript submission. Read more about the requirements and the benefits these serves authors and reviewers [here](#).

Manuscripts submitted for initial consideration must adhere to these standards:

- Submissions must be complete with clearly identified standard sections used to report original research, free of annotations or highlights, and include all numbered and labeled components.
- Figures, charts, tables, schemes, and equations should be embedded in the text at the point of relevance. Separate graphics can be supplied later at revision, if necessary.
- When required by a journal's structure or length limitations, manuscript templates should be used.
- References can be provided in any style, but they must be complete, including titles. For information about the required components of different reference types, please refer to the [ACS Style Quick Guide](#).
- Supporting Information must be submitted as a separate file(s).

## Acceptable Software, File Designations, and TeX/LaTeX

See the list of [Acceptable Software](#) and appropriate [File Designations](#) to be sure your file types are compatible with ACS Paragon Plus. Information for manuscripts generated from [TeX/LaTeX](#) is also available.

## Cover Letter

A cover letter must accompany every manuscript submission. During the submission process, you may type it or paste it into the submission system, or you may attach it as a file.

## Manuscript Text Components

There are no specific recommendations on length, but it must be adequate for comprehensive coverage of the subject. The parts of the manuscript should be assembled in the following sequence:

1. The title should be concise and accurately reflect the content.
2. Full names and addresses of authors should be given after the title on the first page. Indicate the corresponding author with an asterisk and provide his or her e-mail address on this page.
3. The abstract should be a clear, concise, one-paragraph synopsis (100–200 words) placed directly after the title and author information. It should indicate the subject and scope of the review, listing the major topics covered, as well as the overall objectives. The abstract should be self-contained for direct use in *Chemical Abstracts* or other secondary services.
4. A table of contents for the entire manuscript is required. The main divisions and subdivisions must use the following designations: 1, 1.1, 1.2, 1.3, 2, 2.1, 2.2, 2.2.1, etc. The table of contents should reflect the first two divisions (e.g., 1, 1.1, 2, ...) and may list the third subdivision (e.g., 1.1.1, 1.1.2) if such sections of the manuscript are lengthy and not too numerous. Entries in the Table of Contents should be identical to those in the body of the article.
5. The Introduction, usually one or two manuscript pages, should state precisely the purpose and goals of the review and its scope and limitations, as well as the years of literature covered. Historical material and references to earlier pertinent reviews may be included. Any special nomenclature, notation, or symbols should be defined here.
6. Material in the body of the review should be logically arranged and presented in a clear and concise style.

7. Authors must emphasize any unexpected, new, and/or significant hazards or risks associated with the reported work. This information should be in the experimental details section.
8. The review must include a critical analysis of the field and insights about the remaining challenges and future directions.
9. A Supporting Information paragraph should be included using the format described below.
10. Each author should include a short biography.
11. The Acknowledgments should be placed in a separate paragraph after the text of the review.
12. A list of abbreviations should be included if applicable.
13. References should be included using the format described below.
14. A table of contents (TOC) graphic, as described below, should be placed on the last page of the manuscript. In published reviews, this graphic will appear on the first page of the manuscript with the abstract.
15. A brief addendum may be included as a note added in proof if there has been some delay in publication, or if some unusually significant, pertinent material appeared after the manuscript was accepted for publication.

## Supporting Information

This information is provided to the reviewers during the peer-review process (for Review Only) and is available to readers of the published work (for Publication). Supporting Information must be submitted at the same time as the manuscript. See the list of [Acceptable Software by File Designation](#) and confirm that your Supporting Information is [viewable](#).

If the manuscript is accompanied by any supporting information files for publication, these files will be made available free of charge to readers. A brief, nonsentence description of the actual contents of each file, including the file type extension, is required. This description should be labeled Supporting Information and should appear before the Acknowledgement and Reference sections. Examples of sufficient and insufficient descriptions are as follows:

Examples of sufficient descriptions: “Supporting Information:  $^1\text{H}$  NMR spectra for all compounds (PDF)” or “Additional experimental details, materials, and methods, including photographs of experimental setup (DOC)”.

Examples of insufficient descriptions: “Supporting Information: Figures S1-S3” or “Additional figures as mentioned in the text”.

When including supporting information for review only, include copies of references that are unpublished or in-press. These files are available only to editors and reviewers.

## Contributor Roles Taxonomy (CRediT)

[CRediT](#) is a high-level taxonomy used to identify and acknowledge the roles played by contributors to scientific scholarly output. During original submission and/or revision, there are 14

standard roles from which the submitting author can select to describe the specific contributions of each author. At this time, CRediT is optional for authors. Please note that author CRediT information will not transfer if the manuscript is transferred to a non-pilot journal. [Click here to learn more about the ACS CRediT pilot.](#)

## Research Data Policy

All ACS journals strongly encourage authors to make the research data underlying their articles publicly available at the time of publication.

*Research data* is defined as materials and information used in the experiments that enable the validation of the conclusions drawn in the article, including primary data produced by the authors for the study being reported, secondary data reused or analyzed by the authors for the study, and any other materials necessary to reproduce or replicate the results.

The [ACS Research Data Policy](#) provides additional information on Data Availability Statements, Data Citation, and Data Repositories.

## Language and Editing Services

A well-written paper helps share your results most clearly. ACS Publications' [English Editing Service](#) is designed to help scientists communicate their research effectively. Our subject-matter expert editors will edit your manuscript for grammar, spelling, and other language errors so your ideas are presented at their best.

## Preparing Graphics

The quality of illustrations in ACS journals and partner journals depends on the quality of the original files provided by the authors. Figures are not modified or enhanced by journal production staff. All graphics must be prepared and submitted in digital format.

Graphics should be inserted into the main body whenever possible. Please see Appendix 2 for additional information.

Any graphic (figure chart, scheme, or equation) that has appeared in an earlier publication should include a [credit line](#) citing the original source. Authors are responsible for [obtaining written permission](#) to re-use this material.

## Figure and Illustration Services

The impact of your research is not limited to what you can express with words. Tables and figures such as graphs, photographs, illustrations, diagrams, and other visuals can play a significant role in effectively communicating your findings. Our [Artwork Editing](#) and [Graphical Abstract](#) services generate publication-ready figures and Table of Contents (TOC) graphics that conform to your chosen journal's specifications. For figures, this includes changes to file type, resolution, color space, font, scale, line weights, and layout (to improve readability and professional appearance). For TOC graphics, our illustrators can work with a rough sketch or concept or help extract the key findings of your manuscript directly for use as a visual summary of your paper.

## Preparing for Submission

Manuscripts, graphics, supporting information, and required forms, as well as manuscript revisions, must all be submitted in digital format through [ACS Paragon Plus](#), which requires an ACS ID to log in. Registering for an ACS ID is fast, free, and does not require an ACS membership. Please refer to Appendix 1 for additional information on preparing your submission

## Prior Publication Policy

*Chemical Reviews* considers for publication only original work that has not been previously published and is not under consideration for publication elsewhere. When submitting a manuscript, an author should inform the editor of any prior dissemination of the content in print or electronic format. *Chemical Reviews* allows the posting of preprints to recognized preprint servers. When the ACS citation is assigned, authors should modify the preprint server to provide a permanent citation to the full ACS article.

## Editorial Policies

### Tables

Tables are numbered consecutively with Arabic numerals. The title should immediately follow the table number at the head of the table. Tables should appear within the manuscript when mentioned and should not be grouped at the end. Abbreviations and *linear* chemical formulas may be used in headings and columns of tables. *Structural* formulas should be avoided if possible in column headings or the body of tables but may be used in the main heading. See the section on references below regarding the formatting of references within tables.

### Structural Drawings

Structural formulas should be carefully drawn and numbered consecutively in the order of appearance in the text (with boldface Arabic numerals). *Structural artwork not labeled Scheme or Chart will be reduced to single-column width.* Structures should be produced with the use of a drawing program such as ChemDraw. Structure drawing preferences (preset in the ACS Stylesheet in ChemDraw) are as follows:

- As drawing settings, select: chain angle, 120°; bond spacing, 18% of width; fixed length, 14.4 pt (0.508 cm, 0.2 in.); bold width, 2.0 pt (0.071 cm, 0.0278 in.); line width, 0.6 pt (0.021 cm, 0.0084 in.); margin width, 1.6 pt (0.056 cm, 0.0222 in.); hash spacing, 2.5 pt (0.088 cm, 0.0347 in.)
- As text settings, select: font, Arial/Helvetica; size, 10 pt
- Under the preferences, choose: units, points; tolerances, 5 pixels
- Under page setup, choose: paper, US Letter; scale, 100%

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

### Figures

Figures are numbered consecutively with Arabic numerals. Captions for figures should follow on the same line as the figure number and should be placed under the figure. Figures should appear within the manuscript when mentioned and should not be grouped at the end.

*Original illustrations should be the actual size at which they are to appear in the journal.* Color illustrations are encouraged. Each figure must fit one column on the journal page (maximum 3.33



inches) or, in exceptional cases, two columns (maximum 7 inches).

Lettering should be no smaller than 4.5 points (Helvetica or Arial is preferred). Lines should be no thinner than 0.5 point. Lettering and lines should be of uniform density.

Avoid artwork that includes complex textures and shading used to achieve a three-dimensional effect. If a pattern must be shown, choose a simple cross-hatch design.

## Table of Contents Graphic

Every manuscript must include a table of contents (TOC) graphic on the last page. The TOC graphic must be entirely original, unpublished artwork created by one of the coauthors, including any background photographs and clip art contained in the image. Also, because of its highly visible nature, care should be taken to ensure that the content of the TOC graphic is appropriate. Examples of potentially inappropriate content are smiley faces, cartoons, colloquial sayings, slogans, and so forth. The TOC graphic should be 5 cm x 5 cm in size and should capture the eye and curiosity of a broad spectrum of readers. The type size of labels and symbols within the graphic must be legible. The TOC graphic will appear on the first page of the manuscript with the abstract, as the TOC graphic in the electronic table of contents, on the journal web site, and as the individual TOC entry for this paper when it is retrieved via search. It may also appear as an image highlight on the journal web site while the issue is current.

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## Equations

Chemical and mathematical equations are denoted by Arabic numerals in parentheses at the right side [i.e., (1), (2), etc.] and should be numbered consecutively. Mathematical equations must be typed and should be presented in the proper type style (i.e., italics, boldface, subscript, superscript, etc.).

## Nomenclature

Nomenclature should conform to current American usage. Authors should use systematic names similar to those used by Chemical Abstracts Service or the International Union of Pure and Applied Chemistry and the International Union of Biochemistry and Molecular Biology. *Chemical Abstracts* (CA) nomenclature rules are described in Appendix IV of the *Chemical Abstracts Index Guide*. A list of ring systems, including names and numbering systems, is in the *Ring Systems Handbook*, American Chemical Society, Columbus, OH, 1993.

For CA nomenclature advice, consult the Manager of Nomenclature Services, Chemical Abstracts Service, P.O. Box 3012, Columbus, OH 43210-0012. A name-generation service is available for a fee through CAS Client Services, 2450 Olentangy River Road, P.O. Box 3343, Columbus, OH 43210-0334; Telephone: (614) 447-3870; Telefax: (614) 447-3747; or e-mail: [answers@cas.org](mailto:answers@cas.org).

## References

In the Web edition, references will be linked to other electronic sources (Chemical Abstracts Service, journals, etc.). The accuracy of the references is critical and is the responsibility of the authors. Authors should refrain from using Wikipedia as a source.

No references to unpublished results are allowed, but citation of manuscripts that have been submitted or accepted for publication and have not yet appeared is acceptable with the expectation that a full reference will be available before the galley proof stage. However, such citations must be removed if the work has not been published or accepted for publication by the time the final version of the manuscript is submitted.

All references and notes (except those that appear only in tables) should be numbered in one consecutive series in the order of appearance in the text. Footnotes in the body of the review should be avoided. Reference numbers should be typed as *unparenthesized superscripts* in the text but should be enclosed in parentheses in the reference list. References and notes should be typed in *numerical order* at the end of the text. References should be individually numbered with only one reference per citation.

*References and footnotes that appear only in tables should be handled separately.* They should be given letter designations and cited in the table by superscript italic letters. The sequence of letters should proceed by line rather than by column. The references and footnotes should be placed directly below the table. If a table includes references that also appear earlier or later in the text, the numbers assigned to these references should be used.

Authors should follow [The ACS Style Guide](#) for reference format. The titles should be included in title case, and ending page numbers should be included. Official *Chemical Abstracts* abbreviations of journal names as given in *Chemical Abstracts Service Source Index* (CASSI) should be used. An example of a citation is as follows:



(1) Hammes-Schiffer, S.; Soudackov, A. V. Proton-Coupled Electron Transfer in Solution, Proteins, and Electrochemistry. *J. Phys. Chem. B* **2008**, *112*, 14108-14123.

References with more than 10 authors should list the first 10 authors followed by “et al.” The complete author list may be put into the Supporting Information.

If a reference is to a journal that is not generally available, the *Chemical Abstracts* reference should be given in addition to the original. References to translated journals should be clearly indicated as such, and original references should also be cited. References to materials that are “in press” should include the DOI when available.

For books, the author(s), title, publisher’s name and address, year of publication, and the chapter or page(s) should be included:

(1) Benson, S. W. *The Foundations of Chemical Kinetics*; McGraw-Hill: New York, 1960; p 342.

Citations of patents should include the author’s name (or company name if no individual is the patentee), the patent country, number, year, and a reference to *Chemical Abstracts* or another abstract source, as in:

(1) Wright, J. B. U.S. Patent 3,115,496, 1963; *Chem. Abstr.* **1964**, *60*, 5512c.

For websites, the author (if any), title of site, URL (accessed month day, year), and other identifying information (if any) should be included.

For complex citations, see [The ACS Style Guide](#).

## Supporting Information

Materials such as extensive tables, graphs, and spectra that are considered to be essential for the manuscript can be submitted electronically via the ACS Paragon Plus Environment. Once published, they are available free of charge by clicking on “Supporting Information” on the Web version Contents of the issue, under the title of the article. Supporting Information must be submitted at the same time as the manuscript and uploaded separately to the ACS Paragon Plus Environment. A [list of acceptable file types](#) is available on the Web. All Supporting Information files of the same type should be prepared as a single file (rather than submitted as a series of files containing individual images or structures). For example, all Supporting Information available as PDF files should be contained in one PDF file.

*Do not upload figures and tables that are to be published in the article into the Supporting Information file.*

The first page of the Supporting Information must be a title page containing the title of the manuscript, the names of all authors, and a table of contents. All pages must be consecutively numbered S1 (the title page), S2, etc. Captions should appear directly under the figures, not in a separate list of figure captions. Figures should be labeled Figure S1, Figure S2, etc.; tables should be designated Table S1, Table S2, etc.

A brief description of the Supporting Information material must be inserted in the manuscript text before the Acknowledgments and References. The appropriate format is: Supporting Information. Brief descriptions in nonsentence format listing the contents of the files supplied as Supporting

Information.

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An honorarium is payable to the corresponding author upon acceptance of the manuscript. The corresponding author is then free to share this honorarium with the other authors. A form will be provided for this purpose upon acceptance of the manuscript, and the honorarium will not be processed until the signed form has been received.

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Please suggest 5 reviewers. Authors are encouraged to avoid suggesting reviewers from the authors' institutions. Do not suggest reviewers who may have a [real or perceived conflict of interest](#). Whenever possible, suggest academic email addresses rather than personal email addresses.

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It is the responsibility of the Corresponding Author to ensure that all authors listed on the manuscript agree with the changes made on the proofs. Galley proofs should be returned within 48 hours in order to ensure timely publication of the manuscript.

## Publication Date and Patent Dates

Accepted manuscripts will be published on the ACS Publications Web site as soon as page proofs are corrected and all author concerns are resolved. The first date on which the document is published on the Web is considered the publication date.

Publication of manuscripts on the Web may occur weeks in advance of the cover date of the issue of publication. Authors should take this into account when planning their patent and intellectual property activities related to a document and should ensure that all patent information is available at the time of first publication, whether ASAP or issue publication.

All articles published ahead of print receive a unique Digital Object Identifier (DOI) number, which is used to cite the manuscript before and after the paper appears in an issue. Additionally, any supplemental information submitted along with the manuscript will automatically be assigned a DOI and hosted on Figshare to promote open data discoverability and use of your research outputs.

## ASAP Publication

Manuscripts will be published on the “Articles ASAP” page on the Web as soon as page proofs are corrected and all author concerns are resolved. ASAP publication usually occurs within a few working days of receipt of page proof corrections, which can be several weeks or longer in advance of the cover date of the issue.

## Post-Publication Policies

The American Chemical Society follows guidance from the [Committee on Publication Ethics](#) (COPE) when considering any ethical concerns regarding a published article, Retractions, and Expressions of Concern.

## Additions and Corrections

Additions and Corrections may be requested by the author(s) or initiated by the Editor to address important issues or correct errors and omissions of consequence that arise after publication of an article. All Additions and Corrections are subject to approval by the Editor, and should bring new and directly relevant information and corrections that fix scientific facts. Minor corrections and additions will not be published. Readers who detect errors of consequence in the work of others should contact the corresponding author of that work.

Additions and Corrections must be submitted as new manuscripts via ACS Paragon Plus by the Corresponding Author for publication in the “Addition/Correction” section of the Journal. The corresponding author should obtain approval from all coauthors prior to submitting or provide evidence that such approval has been solicited. The manuscript should include the original article title and author list, citation including DOI, and details of the correction.

## Retractions

Articles may be retracted for scientific or ethical reasons and may be requested by the article author(s) or by the journal Editor(s), but are ultimately published at the discretion of the Editor. Articles that contain seriously flawed or erroneous data such that their findings and conclusions cannot be relied upon may be retracted in order to correct the scientific record. When an article is retracted, a notice of Retraction will be published containing information about the reason for the Retraction. The originally published article will remain online except in extraordinary circumstances (e.g. where deemed legally necessary, or if the availability of the published content poses public health risks).

## Expressions of Concern

Expressions of Concern may be issued at the discretion of the Editor if:

- there is inconclusive evidence of research or publication misconduct by the authors;
- there is evidence that the findings are unreliable but the authors’ institution will not investigate the case;
- an investigation into alleged misconduct related to the publication either has not been, or would not be, fair and impartial or conclusive;
- an investigation is underway but a judgment will not be available for a considerable time.

Upon completion of any related investigation, and when a final determination is made about the outcome of the article, the Expression of Concern may be replaced with a Retraction notice or

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At ACS Publications, we know it is important for you to be able to share your peer reviewed, published work with colleagues in the global community of scientists. As sharing on sites known as scholarly collaboration networks (SCNs) is becoming increasingly prevalent in today's scholarly research ecosystem, we would like to remind you of the many ways in which you, a valued ACS author, can [share your published work](#).

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## Appendix 1: PREPARING FOR SUBMISSION

We've developed ACS' publishing and editorial policies in consultation with the research communities that we serve, including authors and librarians. Browse our policies below to learn more.

### Ethical Guidelines

ACS editors have provided [Ethical Guidelines](#) for persons engaged in the publication of chemical research—specifically, for editors, authors, and reviewers. Each journal also has a specific [policy on prior publication](#).

### OFAC Compliance

As a U.S.-based non-profit organization, the American Chemical Society (ACS) is required to comply with U.S. sanctions laws and regulations administered by the [U.S. Treasury Department's Office of Foreign Assets Control](#) (OFAC). While these laws and regulations permit U.S.-based publishers like ACS to engage in publishing-related activities with authors located in sanctioned regions in many cases, ACS may be prohibited under U.S. law from engaging in publishing-related

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## **Safety Considerations**

Authors must emphasize any unexpected, new, and/or significant hazards or risks associated with the reported work. This information should be in the Experimental Section of a full article and included in the main text of a letter. Statement examples can be found in the [Safety Statement Style Sheet](#) and additional information on communicating safety information from the *ACS Guide to Scholarly Communication* [is freely available here](#).

## **Conflict of Interest Disclosure**

A statement describing any financial conflicts of interest or lack thereof is published in each ACS journal and partner journal article.

During the submission process, the Corresponding Author must provide a statement on behalf of all authors of the manuscript, describing all potential sources of bias, including affiliations, funding sources, and financial or management relationships, that may constitute conflicts of interest. If the manuscript is accepted, the statement will be published in the final article.

If the manuscript is accepted and no conflict of interest has been declared, the following statement will be published in the final article: "The authors declare no competing financial interest."

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## **Authorship, Author List, and Coauthor Notification**

Authors are required to obtain the consent of all their coauthors prior to submitting a manuscript. The submitting author accepts the responsibility of notifying all coauthors that the manuscript is being submitted.

During manuscript submission, the submitting author must provide contact information (full name, email address, institutional affiliation, and mailing address) for all of the coauthors. Because all of the author names are automatically imported into the electronic [Journal Publishing Agreement](#), the names must be entered into ACS Paragon Plus. (Note that coauthors are not required to register



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## **Appendix 2: Preparing Graphics**

### **Resolution**

Digital graphics pasted into manuscripts should have the following minimum resolutions:

- Black and white line art, 1200 dpi
- Grayscale art, 600 dpi
- Color art, 300 dpi

### **Size**

Graphics must fit a one- or two-column format. Single-column graphics can be sized up to 240 points wide (3.33 in.) and double-column graphics must be sized between 300 and 504 points (4.167 in. and 7 in.). The maximum depth for all graphics is 660 points (9.167 in.) including the caption (allow 12 pts. For each line of caption text). Lettering should be no smaller than 4.5 points in the final published format. The text should be legible when the graphic is viewed full-size. Helvetica or Arial fonts work well for lettering. Lines should be no thinner than 0.5 point.

### **Color**

Color may be used to enhance the clarity of complex structures, figures, spectra, and schemes, etc., and color reproduction of graphics is provided at no additional cost to the author. Graphics intended to appear in black and white or grayscale should not be submitted in color.

### **Type of Graphics**

#### **Table of Contents (TOC)/Abstract Graphic**

Every manuscript must include a table of contents (TOC) graphic on the last page. The TOC graphic must be entirely original, unpublished artwork created by one of the coauthors, including any background photographs and clip art contained in the image. Also, because of its highly visible nature, care should be taken to ensure that the content of the TOC graphic is appropriate. Examples of potentially inappropriate content are smiley faces, cartoons, colloquial sayings, slogans, and so forth. The TOC graphic should be 5 cm x 5 cm in size and should capture the eye and curiosity of a broad spectrum of readers. The type size of labels and symbols within the graphic must be legible. The TOC graphic will appear on the first page of the manuscript with the abstract, as the TOC graphic in the electronic table of contents, on the journal web site, and as the individual TOC entry for this paper when it is retrieved via search. It may also appear as an image highlight on the journal web site while the issue is current.

#### **Guidelines for Table of Contents/Abstract Graphics**

A graphic must be included with each manuscript for display in the table of contents (TOC) and the abstract. This graphic should capture the reader's attention and, in conjunction with the manuscript title, should give the reader a quick visual impression of the essence of the manuscript without

providing specific results.

#### Choosing/Creating a TOC/Abstract Graphic:

- The graphic should be simple, but informative.
- The use of color is encouraged.
- The graphic should uphold the standards of a scholarly, professional publication.
- The graphic must be entirely original, unpublished artwork created by one of the coauthors.
- The graphic should not include a photograph, drawing, or caricature of any person, living or deceased.
- Do not include postage stamps or currency from any country, or trademarked items (company logos, images, and products).
- Avoid choosing a graphic that already appears within the text of the manuscript.

#### Specifications:

- The graphic should be in the form of a structure, graph, drawing, photograph, or scheme—or a combination.
- Text should usually be limited to the labeling of compounds, reaction arrows, and diagrams. Long phrases or sentences should be avoided.
- Submit the graphic at the actual size to be used for the TOC so that it will fit in an area no larger than 5 cm by 5 cm.
- Use a sans serif font type such as Helvetica, preferably at 8 pt. but no smaller than 6 pt. Do not make the reader strain to read it. The type should be of high quality in order to reproduce well.
- The graphic file should be saved as TIFF at 300 dpi for color and at 1200 dpi for black and white.
- Label the graphic “For Table of Contents Only” and provide it on the last page of the submitted manuscript.

### Before You Submit

Think of the TOC/Abstract graphic as a single PowerPoint slide that tells the story of your article.

- Ask someone who hasn't read the manuscript if they understand what the paper is about based on the TOC graphic. Is critical content missing? Can extraneous material be removed?
- Print out the graphic. Is the text readable? Do the graphics and lines look crisp and easy to see?

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### Figures

A caption giving the figure number and a brief description must be included below each figure. The caption should be understandable without reference to the text. It is preferable to place any key to symbols used in the artwork itself, not in the caption. Ensure that any symbols and abbreviations used in the text agree with those in the artwork.

### Charts

Charts (groups of structures that do not show reactions) may have a brief caption describing their contents.

## Tables

Each table must have a brief (one phrase or sentence) title that describes the contents. The title should be understandable without reference to the text. Details should be put in footnotes, not in the title. Tables should be used when the data cannot be presented clearly in the narrative, when many numbers must be presented, or when more meaningful inter-relationships can be conveyed by the tabular format. Tables should supplement, not duplicate, information presented in the text and figures. Tables should be simple and concise.

## Schemes

Each scheme (sequences of reactions) may have a brief caption describing its contents.

## Chemical Structures

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

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