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Scope of the Journal

ACS Materials Letters publishes **high quality and urgent contributions** on the forefront of fundamental and applied research, at the interface between materials and other disciplines, such as chemistry, engineering and biology. Papers that showcase multidisciplinary and innovative materials research addressing global challenges are especially welcome. Submissions to *ACS Materials Letters* should clearly justify the need for rapid disclosure of key results. Areas of interest include, but are not limited to:

- Design, synthesis, characterization, and evaluation of forefront and emerging materials
- Understand structure, property, performance relationships and their underlying mechanisms
- Develop materials for energy, environmental, biomedical, electronic, and catalysis applications

ACS Materials Letters is dedicated to publishing the most transformative materials research **with very fast processing times**.

Manuscript Types

ACS Materials Letters publishes the following manuscript types: **Letters, Reviews, Perspectives, Viewpoints, Previews, and Comments**.

Letters – short articles (4 formatted journal page; approximately ~3,000-4,000 words) with high urgency to be immediately available to the scientific community.

Perspectives – brief reviews/reports highlighting an emerging topic of broad interest to materials community.

Reviews – detailed overview of a materials-related and current area of research.

Viewpoints – short editorial features that comment on a specific research topic, provide educational insight into a research problem, or share scientific analysis/views on a materials-related topic.

Previews – editorial features that alert the readership to exciting materials-related developments.

Comments – technical contributions that provide new information or an alternative perspective regarding a prior publication in the journal. These may include additional information from one or more of the original authors that changes or modifies the conclusions reached in their prior publication, as well as comments, reinterpretations, or corrections that are provided by others. The original authors are given the opportunity to provide an appropriate rebuttal or addendum. The final decision regarding publication of a Comment will rest with the assigned Editor, who may choose to seek the advice of one or more expert reviewers before reaching this decision. The submission of supporting data, figures, etc. that might be useful to the Editor and/or the reviewers in evaluating the case for publication of the Comment is encouraged.

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).

Document Templates and Format

General information on the preparation of manuscripts may be found in the [ACS Guide to Scholarly Communication](#).

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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

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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.

The cover letter must include all of the following points:

- Manuscript title and authors, including the full names, and titles of ALL authors (undergraduate or graduate student, post-doc, professor, etc.).
- All authors must have accounts in ACS Paragon Plus. The Corresponding Author must be a Senior Author (Professor, Research Associate, or similar), not a student. Please list the Corresponding Author's name, address, telephone number, and current institution e-mail address.
- Explanation of the manuscript's significance, including its originality and its contribution to new knowledge in the field. Submissions to *ACS Materials Letters* should clearly justify the need for rapid disclosure of key results.
- Submission history, if previously submitted to another ACS journal. Provide the previous manuscript number and Editor's name. To help expedite the processing of your manuscript, also indicate whether the manuscript was sent for peer review or not. If the manuscript has already been reviewed by another ACS journal, inclusion of your response to Reviewers' comments will speed up the review process.
- Statement that the manuscript is not being considered by any other journal.

Manuscript Text Components

The various sections of the manuscript should be assembled in the order listed below without section headers, with the exception of a header for the Experimental Section and/or Computational Methods, which should be included at the end of the main text of the manuscript.

- Title, Authorship, Affiliations, and Corresponding Author(s) e-mail address(es) (single page)
- Abstract, Table of Contents Image (in this order, preferably on a single page)
- Main text: Introductory paragraph(s) – without “Introduction” header followed by discussion of Results – without “Results” header. Figures, Figure Captions, and Tables should be embedded within the text and not at the end of the manuscript (Paragraph headers may be used, as needed)
- Experimental Methods
- Supporting information description, if any Supporting Information, in Supporting Information paragraph

Schemes, tables and figures, with their captions, should be inserted as close as possible to their first reference in the text to facilitate review of the manuscript. Pages must be numbered consecutively, beginning with the title page and ending with the figures. Figures, tables, charts, and schemes should be numbered with Arabic numerals.

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

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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: ^1H 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.

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.

Data Requirements

Guidelines for Reporting the Properties of Devices (e.g., solar cells, batteries, capacitors, etc.)

A fraction of manuscripts received by *ACS Materials Letters* include, or are focused on, devices made with new or modified known materials. Authors need to consider basic standards for the information provided about device properties that extends beyond what is usually reported for papers reporting classical bulk materials properties. Typical devices include but are not limited to those reporting photovoltaic, semiconductor transport and gain behavior, luminescence, or performance as thermoelectric, battery and capacitor materials. For more information, read this virtual issue: “[Best Practices for Reporting the Properties of Materials and Devices](#)”.

Statistics about device properties are required in order to consider a paper beyond initial editorial review. Authors are asked to include the following when writing their manuscript:

1. The number of devices examined and the range of results. This can be conveyed in bar graphs (histograms) to represent data for a statistically meaningful number of samples, or could be reported as a specific number of samples with an accompanying specified standard deviation. The journal will not accept a single result that appears to be the best obtained. It is

important to emphasize typical results and the degree of variation so that reviewers and future readers can assess reproducibility, and hence the validity, of the work.

2. Sufficient experimental data to reproduce the results and enable valid comparisons with other work. Manuscripts that report devices must provide additional important characteristics beyond those above to enable comparison with prior work by the authors or others. For example, efficiency depends on, but is not limited to, the area and architecture of a photovoltaic device; such parameters should be included in the manuscript, either in the main body or supporting information.
3. Careful attention must be given to significant figures of experimental results. The final result cannot exceed the precision of the measurement with the smallest number of significant figures.

Crystal Structure Reports

(A) Crystal Structure Studies

Crystal structure reports should only be submitted if the structure is an essential part of the article. If the structure is not included with the submission, however, the author should include a footnote indicating where detailed results can be found. If a crystal structure is an essential part of the manuscript, the author is required to make the structural data available for the review process and to notify the Editor in the cover letter that structural data accompanies the manuscript. Authors must provide an electronic copy of the structural data in Crystallographic Information File (CIF) format.

Authors submitting manuscripts can upload CIFs directly as **Supporting Information for Publication**. CIFs are automatically linked to the manuscript, which is assigned a number by ACS. No information other than the CIF itself should be included inside the file, which should be saved as “text only” and named with the file extension “cif”.

It is the Author's responsibility to check for syntax errors, examine for numerical self-consistency of the data, examine the structure for significant void volume, and search for possible higher symmetry in the space group assignment. Prior to submission, the CIF **must** be checked using the free on-line Checkcif service provided by the International Union of Crystallography (available on the Web at <http://checkcif.iucr.org/>). Authors must verify that their structure(s) have passed the Checkcif test and submit the Checkcif report as **Supporting Information for Review Only** for all submissions (**Note**: Do not submit the Checkcif as Supporting Information). If the Checkcif report is not included, the manuscript will not be sent for review.

Authors must confirm that the data in the CIF file correspond to the structures reported in the manuscript. The CIFs will be available only to the reviewers of the manuscript and will remain confidential during the review process. Authors are encouraged to combine multiple CIFs for a given manuscript into a single file. This minimizes the chance of files becoming lost or associated with the wrong manuscript. The individual structures in the combined file are to be separated from each other by the sequence

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at the beginning of a new line. Failure to provide an electronic CIF and to follow these guidelines

will delay review of the manuscript. After review and acceptance, the CIF will become part of the general Supporting Information and will be available to subscribers on the journal website.

Authors should note that the ACS does not forward coordinates to crystallographic databases such as the Fachinformationszentrum Karlsruhe (FIZ) or the Cambridge Structural Database (CSD). This is the responsibility of the author.

(1) Structure Reports (in Articles)

(a) **Experimental Data.** Every effort should be made to minimize the quantity of tabular material appearing in the manuscript text. The collection of data and refinement usually are routine, and a concise description generally is sufficient. The following data should be included as a table in the main body of the manuscript: crystal dimensions, crystal system, space group, unit cell dimensions and volume, λ_{calc} , $2\theta_{\text{max}}$, radiation, wavelength, scan mode, temperature of measurement, number of measured and independent reflections, number of reflections included in the refinement, limits, whether absorption corrections were performed (μ , min/max transmission), method of structure solution and program, method of refinement and program, number of parameters, treatment of H atoms, R , wR , whether refined against $|F|$ or $|F^2|$, residual electron density, and the database at which the detailed results are deposited. Tabulations of fractional coordinates generally will not be printed in the text; however, authors should provide this information as part of the crystal structure report supplied for Supporting Information. Authors of papers containing single crystal XRD studies are strongly encouraged to provide powder XRD data (see below) on bulk samples to confirm that the single crystal structure is representative of the entire sample. A clear statement of this result should be provided in the manuscript text.

(b) **Tabular Material.** For the manuscript text, tables of refined atomic coordinates, bond lengths, and angles (with esd's), should be restricted to only the most significant values. Complete listings of refined atomic coordinates, including those of all peripheral atoms and/or atoms of counterions not playing a significant role in the structure, and bond lengths and angles should be deposited as Supporting Information. Generally, atomic coordinates will not be published as part of the manuscript. Authors are strongly encouraged to use the Crystallographic Information File (CIF) format.

(c) **Figures.** Drawings of crystal or molecular structures should be made with the noncrystallographer in mind. For structures refined anisotropically, ellipsoid plots are preferred to ball-and-stick drawings. Stereoscopic pairs of perspective drawings and unit cell and packing diagrams should not be included in the printed text unless they are absolutely necessary for the discussion. These drawings, however, can be deposited as Supporting Information.

(2) Abbreviated Structure Reports (Articles).

In the case where a structure study plays a supporting role in a full paper devoted to another principal objective, a good molecular or unit cell diagram should appear as a figure. A few significant distances and angles should be placed in the figure caption or in a short table. All other information which would otherwise be included in a Structure Report should be in Supporting Information, preferably deposited as a CIF.

(B) Crystallographic Data

Supplementary X-ray data should be provided in the Supporting Information section of the manuscript (see section on Supporting Information). The CIF when prepared with a standard set of crystallographic analysis programs will include: complete information on collection of data and refinement of the structure in tabular form; final values of all refined atomic coordinates (with esd's) including all calculated atomic coordinates (especially calculated positions for hydrogen atoms and positions of atoms calculated from refinement of rigid groups); all anisotropic thermal parameters, which should be provided as U_{ij} 's or B_{ij} 's, rather than ij 's; and all nonessential bond lengths and angles. Common problems found with CIFs include incorrect absorption connection, space group and crystal size information. The CIF should be examined and corrected by authors prior to submission. Authors are encouraged to check the quality of their CIFs through the checkCIF website of the International Union of Crystallography (checkcif.iucr.org). In addition to the crystallographic data supplied in the CIF, other information such as least-squares planes and atomic deviations therefrom, closest intermolecular contacts including items such as details of intermolecular hydrogen bonding, unit cell and packing diagrams stylized to emphasize packing information and drawn with right-handed axes should be deposited in PDF format as Supporting Information. Submission of the structure factor table(s) is not required, but authors should be prepared to submit a copy of the structure factor table(s) if it is requested during the review process. The structure factor table(s) will not be deposited and the authors are requested to retain a copy (which should list h , k , l , F_o , F_c , and $|F_o|$ values) for at least 2 years, so that it can be consulted should any questions concerning the published structure arise. A suitable paragraph should appear at the end of the manuscript enumerating the contents of the Supporting Information.

(C) Powder Diffraction Data

The presentation of X-ray powder diffraction data for new materials or for materials previously uncharacterized by this technique is encouraged. Data from X-ray powder measurements should be accompanied by details of the experimental technique: the radiation, its wavelength, filters or monochromators, camera diameter, the type of X-ray recording, and the technique for estimating intensities. In cases of an unindexed listing of the data, the d spacings of all observed lines should be listed in sequence, together with their relative intensities. In cases where filtered radiation is used, every effort should be made to identify residual lines. Where resolution into 1–2 doublets occurs, the identification of the d spacing for each line as d_1 , d_2 gives a measure of the quality of the photograph. When an indexing of the data is offered, the observed and calculated $1/d^2$ values should be listed side by side along with the observed relative intensities (it is superfluous to give d spacings in this instance). All calculated $1/d^2$ values should be listed (exclusive of systematic absences), to the limit of the data quoted. If possible, the crystal system should be specified. Possible space groups may also be listed if the data warrant it. Relevant information about the specimen used should be included.

(D) Corrections

Errors discovered in published structure reports should be communicated directly to the corresponding author of the work. The Editor should be kept informed by a copy of such correspondence. Upon verifying the error, the author or authors should submit a suitable correction to the Editor without delay, carrying an acknowledgment of the colleagues who brought the matter to their attention.

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[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.](#)

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

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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.

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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

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ACS Materials Letters authors are allowed to deposit an initial draft of their manuscript in [ChemRxiv](#), bioRxiv, and arXiv, prior to submission. Please note that the use of any other preprint server must be indicated in the cover letter and include a link to the preprint, and as appropriate, state how the manuscript has been adjusted/updated between deposition and submission. All other prior/redundant publication is forbidden. Reprinting of text and data from student theses is permitted. For the ACS Publications policy on theses and dissertations, [click here](#). Upon publication in *ACS Materials Letters*, authors are advised to add a link from the preprint to the published paper via the Digital Object Identifier (DOI). For further details, contact the [Editorial Office](#).

Editorial Policies

Peer Review Process

Upon receipt, all papers will be reviewed by the Deputy Editor and one other Editor to determine whether they are appropriate for the journal in terms of subject matter, overall quality, and significance. Papers that do not meet the description of a “**high quality and urgent contributions** on the forefront of fundamental and applied research, at the interface between materials and other disciplines, such as chemistry, engineering and biology” will be returned to the author without further evaluation. After assignment to a subject Editor, further screening is carried out to determine if the paper meets our requirements for publication. Generally, after both levels of screening are completed, less than one-half of the papers received are sent to external reviewers for a detailed technical evaluation.

It should be recognized that reviewers act only in an advisory capacity and that the final decision concerning a manuscript is the responsibility of the Editors. In addition to the following criteria, reviewers will be asked to determine whether the information reported in the manuscript represents a significant advance in the field of materials chemistry. Other criteria include relevance of the work to the fields of both chemistry and materials science; its overall quality and completeness; its originality and significance; the quality, clarity, and conciseness of the manuscript; the quality and appropriate use of figures, tables, etc.; whether the conclusions reached are adequately supported by the data; the use of satisfactory nomenclature; whether the potential hazards have been adequately described; and whether the references given are appropriate and adequate. In the case of Communications, the completeness of the work will not be among the criteria, but the additional requirement of unusual urgency, significance, and interest to the materials chemistry community will be applied in addition to the limitation on length. All manuscripts will be handled expeditiously to ensure rapid consideration for publication; however, Communications will be given special consideration in both the reviewing and publication processes to minimize the time from receipt to publication.

In addition to applying these criteria, reviewers will be asked to determine whether or not the paper constitutes a significant advancement in the state of understanding, or development, of the particular area of materials chemistry concerned. To assist the reviewers and Editors in determining which papers meet this criterion, **authors are requested to describe in the paper, as well as in the cover letter accompanying the submitted paper, how these findings constitute a significant advance in the particular area of materials chemistry.** In general, papers that are judged by the reviewers and/or the Editors to be of high quality but of a more

routine or incremental nature will be referred elsewhere for publication.

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Appeals involve compiling the original manuscript, all associated correspondence, and any revisions into an organized PDF document that is then shared between a subset of editors with proficiency and interest in the research area. Comments are collected and a decision on whether or not to overturn is made. The overall process can take several weeks given the seriousness of appeals and the workload of our editorial team. Please note that authors may contact the editorial team for more information without appealing a decision.

References

In the Web edition of this journal, references will be linked to various electronic sources (e.g., the corresponding abstract from Chemical Abstracts Service, full text from other American Chemical Society journals, etc.); therefore, the accuracy of the references is critical. Authors are responsible for the accuracy of the references.

References to the literature should be numbered in one consecutive series in the text. Each literature reference should be assigned one number and placed in the text as a superscript arabic numeral. The complete list of references should be double-spaced beginning on a separate page after the Acknowledgment and following the format illustrated below (see The ACS Style Guide, 3rd ed. (2006), available from Oxford University Press, Order Department, 201 Evans Road, Cary, NC 27513, for further details concerning the preparation of manuscripts and the format for tables, figures, and references). Footnotes to the text should be combined with references and numbered in ordinal sequence. If the identities of the authors' institutions are not obvious from the heading of the manuscript, use symbols or numbers separate from the reference/footnote list for clarification.

Publications: Mann, A. K. P.; Skrabalak, S. E. Synthesis of Single-Crystalline Nanoplates by Spray Pyrolysis: A Metathesis Route to Bi₂O₆. *Chem. Mater.* **2011**, 23, 1017-1022.

Books: McQuarrie, D. A. *Statistical Mechanics*; University Science Books: Sausalito, CA, 2000.

Edited books: Wong, K. T.; Bent, S. F. In *Functionalization of Semiconductor Surfaces*; Tao, F., Bernasek, S. L., Eds.; Wiley: Hoboken, NJ, 2012; Chapter 5, pp 89103.

Theses: Li, D. Nanoscale Phase Segregation of Block Copolymers on Surfaces for Nanopatterning Applications. Ph.D. Thesis, Tsinghua University, Beijing, China, 2012.

Papers published online, or in-press: Yu, K.; Carter, E. A. A Strategy to Stabilize Kesterite CZTS for High-Performance Solar Cells. *Chem. Mater.* **2015**, DOI: 10.1021/acs.chemmater.5b00172.

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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.

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- an investigation into alleged misconduct related to the publication either has not been, or would not be, fair and impartial or conclusive;
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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](#).

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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

Consult the Guidelines for [Table of Contents/Abstract Graphics](#) for specifications.

Our team of subject-matter experts and graphical designers can also help generate a compelling TOC graphic to convey your key findings. Learn more about our [Graphical Abstract service](#).

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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