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Manuscript Submission Requirements Checklist

- Cover letter
- Title: Titles should be clear and concise; they must match between manuscript file and electronic submission.
- Author list with affiliations: must match between electronic entry and manuscript file
- Abstract
- Manuscript File: Clean with no highlighting or comments and all changes accepted
- (Highly encouraged) Have a colleague in another field read as test for accessibility
- Tables/Schemes/Figures: Text should be clear and legible, with fonts no smaller than 8 pt.
- Figures: must be labeled sequentially and match numbered references in article (manuscript and Supporting Information). Where appropriate, label all subsections by letter
- Supporting Information (if any) must be included in the electronic submission
- Table of Contents Graphic
- References: no specific format required, but must be sufficient to aid referees in their reviewing duties

Scope of the Journal

[ACS ES&T Air](#) welcomes novel, cutting-edge, and globally relevant original research on all aspects of indoor and outdoor air quality sciences and engineering. The journal focuses on investigations of atmospheric chemistry and physics, air pollution, and climate change that impact human and ecosystem health, encompassing laboratory and in-situ measurements, remote sensing observations, and computational and modeling studies. Specific topics of interest may include (but are not limited to):

- Chemical, physical, and biological processes in the atmosphere
- Gases, aerosols, and clouds
- Climate change and air quality across scales
- Health impacts of air pollution
- Effects of air pollution on ecosystems
- Atmosphere-biosphere interactions
- Atmosphere-hydrosphere interactions
- Air pollution sources, control technologies and atmospheric implications
- Advances in instrumentation, model development, and remote sensing techniques
- Indoor air chemistry and air quality
- Science/Policy interface
- Air quality in disproportionately impacted communities

Manuscript Types

Research Article

Research Articles (length typically up to 10,000 word-equivalents) in *ACS ES&T Air* report original research and innovative advances that are expected to contribute new insights and knowledge on all aspects of research on air quality, chemistry and physics, treatment, climate change, and human health and ecological impacts. Contributions are expected to have a definable impact in the fields of air quality research and/or policy. Manuscripts that report data of a routine nature or that address topics that are already well understood will not be considered.

Research articles consist of the following sections: Abstract; Introduction; Experimental/Methods; Results and Discussion; References. The experimental/method section should include only pertinent information involved in the work and details not essential for understanding the paper should be placed in supporting information (SI). Research articles are reviewed initially by editors and then, if appropriate, sent for peer review. The Editor-in-Chief and Associate Editors, listed in the *ACS ES&T Air* masthead, make final decisions about all material published in *ACS ES&T Air*.

Review

Reviews (length typically up to 14,000 word-equivalents) describe and discuss thoroughly documented developments and issues in air research and/or policy. Reviews should summarize prior research and should also provide insights into the reviewed themes through analysis and organization of the published literature. Potential authors of a Review must first submit a proposal and cover letter (via the *ACS ES&T Air* submission site in the ACS Paragon Plus Environment). The proposal, to be uploaded as a single manuscript file, should include the following details:

1. Proposed title
2. Author names and affiliations
3. Corresponding author's email address, profile on institutional website (if available), and Google Scholar, Web of Science, or Scopus profile
4. Abstract (length limit: 500 words)
5. Topical outline (length limit: three pages), indicating the headings of sections and subsections, a brief discussion of the proposed content of each section, and key references for each section
6. List of up to five of the authors' papers related to the review topic
7. List of key previous reviews on the subject in the past 10 years
8. Justification for the need for a review on the topic targeting the specialist readership of *ACS ES&T Air*.

An assigned editor will issue a decision on the proposal and if approved, the authors will be invited to submit a full Review for further consideration. All review articles will undergo full peer review.

Perspective

Perspectives (length limit typically between 5,000 and 7,000 word-equivalents) are reviews of a field or area and are focused rather than comprehensive. Perspective papers will assess the current status of a chosen field with an emphasis toward identifying key progress being made and identifying future research that is needed to advance the field. Perspective articles will undergo full peer review.

Corresponding authors of accepted articles will also be requested to provide a short biography (up

to 200 words) and headshot for inclusion at the end of the published article. Model release and copyright forms are required for author photographs and will be provided by the Journal office.

Feature

Feature articles (length limit typically up to 5,000 word-equivalents) are generally invited by editors and are written in a magazine or journalistic style rather than as a scientific article. This article type should provide a balanced examination of significant developments and issues affecting the air research community. The assessment of timely topics from multiple perspectives—scientific, regulatory, technical—should provide readers with an authoritative and up-to-date understanding of the subject. Features will undergo full peer review, with reviewers providing comments on the factual accuracy, clarity, and significance of the contribution. Corresponding authors of accepted articles will also be requested to provide a short biography (up to 200 words) and headshot for inclusion at the end of the published article. Model release and copyright forms are required for author photographs and will be provided by the Journal office.

Viewpoint

Viewpoints (length limit typically up to 1,000 to 1,500 word-equivalents + author affiliations + 5-10 references + 1 single-frame figure with 50-word caption OR a 350-word table) are short opinion-style manuscripts, written in the journalistic style of an opinion piece in a newspaper or magazine. They provide authors with a venue to comment on an issue of pressing importance to *ACS ES&T Air's* readership. Viewpoint articles should express an opinion of a clear scientific nature, based on rigorous scientific research in an environmental discipline. They should not be wholly political or summary in nature. Viewpoints are not generally peer reviewed but are subject to editorial approval. Corresponding authors of accepted articles will also be requested to provide a short biography (up to 200 words) and headshot for inclusion at the end of the published article. Model release and copyright forms are required for author photographs and will be provided by the Journal office. A TOC graphic is not required for this manuscript type.

Policy Analysis

Policy Analysis manuscripts (length limit typically up to 7,000 word-equivalents) focus on the interface of air research with public policy. Topics of particular interest include risk assessment, critical evaluations of air pollution regulations, and cost-benefit analysis. Policy analysis articles will undergo full peer review.

Letter to the Editor

Letter to the Editor contributions (length limit typically 500 word-equivalents + author affiliations + 250 words of references) provide comments on the following already published journalistic article types only: Features, Viewpoints and Editorials (Comments). Letters to the Editor should be submitted within two months of the publication date of the original material. The author(s) of the original material will be given an opportunity to reply. If appropriate, both articles will be published in the same issue. These articles are not peer reviewed.

Correspondence/Rebuttal

Correspondence/Rebuttal manuscripts (length limit typically 1,000 word-equivalents, including citations) provide scholarly comment on papers appearing in the research section (Research Articles, Policy Analysis, Review, Perspective, and Additions and Corrections). Correspondence should be submitted within six months of the publication date of the original paper and must raise substantive scientific or technical questions. Correspondence that consists mainly of opinion will not be considered. The author(s) of the original paper will be given an opportunity to respond. Correspondence on previously published Correspondence will not be considered, and personal invective will not be tolerated. Correspondence/Rebuttal may undergo peer review under the direction of the assigned editor. The correspondence and the rebuttal will be published consecutively in the same issue.

Special Issues

ACS ES&T Air has a required template that must be completed for all proposals for special issues. If you would like to propose a special issue, please contact the managing editor for more information (managing.editor@estair.acs.org).

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

Templates are not required for manuscript submission.

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

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.

The cover letter should list the authors, and their affiliations and contact details, and provide the manuscript title. If you have a non-preferred editor, you may explain your reason for making the request in your cover letter. The cover letter must also include a rationale for consideration by *ACS ES&T Air*, to explain why your manuscript is appropriate for publication in *ACS ES&T Air*. A substantial fraction of submissions to *ACS ES&T Air* are not sent out for review because an editor concludes that the manuscript does not meet the journal's standards for novelty, scientific merit, or environmental importance. The cover letter is your opportunity to convince the editor that this is not the case.

Manuscript Text Components

Assume *ACS ES&T Air* readers are professionals but not necessarily experts in your particular field. Spell out all acronyms on first use in the abstract and in the body of the article. *ACS ES&T Air* does not allow footnotes, with the exception of an author information footnote on the title page and table detail/definition footnotes.

The various sections of the manuscript are described in detail below:

- Title and Authorship
- Abstract, Keywords and Synopsis
- Introduction

- Materials and Methods
- Results and Discussion
- Abbreviations
- Acknowledgment
- References
- Formulae and Equations

Title

Use a brief, specific, and informative title. Keywords in titles assist in effective literature retrieval. If trade names are used, give generic names in parentheses.

Authorship

List the full first name, middle initial(s), and last name of each author. Omit professional and official titles. An author's affiliation should be based on where they were when the work was performed. When the present address of an author is different, include the new information in a footnote. In a paper with more than one author, the name of the corresponding author, to whom post-publication inquiries should be addressed, carries an asterisk (*). Provide an email address for the corresponding author.

Many funders and institutions require that institutional affiliations are identified for all authors listed in the work being submitted. ACS facilitates this requirement by collecting institution information during the manuscript submission process in ACS Paragon Plus (Step 3 in Paragon Plus: Authors & Institutions).

Include as co-authors all those who have made a substantial contribution to the work. Addition or deletion of an author(s) after submission of the manuscript requires justification from the corresponding author and is subject to editorial approval. Deceased persons who meet the criteria for inclusion as coauthors should be included, with an 'Author Information' note, indicating the date of death.

Abstract, Keywords, and Synopsis

Abstract

A 150–200-word clear and concise abstract must accompany Research Articles, Critical Review, Policy Analysis, and Perspective manuscripts. As a one-paragraph summary, describe the purpose, methods or procedures, significant new results, and implications. Define any abbreviations or acronyms used in the abstract. Include major quantitative data if they can be stated briefly, but do not include background material. Do not include reference numbers in the abstract.

For Features, include a shorter 3–5 sentence Abstract, written at a level comprehensible to the scientifically literate general public. An abstract is not required for Viewpoint manuscripts.

Keywords

Research Articles, Policy Analysis, Reviews, Perspectives, and Features must be accompanied by 5–8 keywords. Authors are encouraged to include significant keywords that do not appear in the title to expand discoverability and aid the reader in literature retrieval. The keywords are published immediately before the text, following the abstract.

Synopsis

A synopsis is a succinct, simple, non-technical statement (~30 words) articulating the environmental context and environmental impact of your research or policy. The synopsis is mandatory for Research Articles, Policy Analysis, Perspectives, and Features and must be present at submission. The synopsis should use complete sentences. The synopsis is NOT a repeat of the abstract or a description of the TOC/Abstract graphic.

Example of an *ACS ES&T Air* synopsis: 'Minimal research exists on microplastics exposure from indoor air. This study reports microplastics at higher concentrations in indoor air and dust compared to outdoors with implications for human health.'

Introduction

The introduction should clearly and concisely explain the motivation for the work, its importance and originality, where it fits in the development of the field and why it should be of interest to *ACS ES&T Air* readers. Discuss relationships of the study to previously published work, but do not reiterate or provide a complete literature survey. Current findings should not be included or summarized in this section. Introduction sections are typically around 500 words in length.

Materials and Methods

Describe pertinent and critical factors involved in the experimental work but avoid excessive description. Details not essential for understanding the paper can be placed in Supporting Information (SI). Specific experimental methods should be sufficiently detailed for others to repeat the experiments unequivocally. List devices of a specialized nature or instruments that may vary in performance or affect the quality of the data obtained (e.g., spectroscopic resolution), including the vendor. If the procedures are already published, provide citations to previous publications and expand only on differences in the current work. Authors must emphasize any unexpected, new, and/or significant hazards or risks associated with the reported work and this safety information must be included in the Materials and Methods section.

Results and Discussion

Be complete but concise. Discuss your findings, postulate explanations for the data, elucidate models and compare your results with those of others. Avoid irrelevant comparisons or contrasts, any speculation unsupported by the data presented and verbose discussion. A separate conclusion is not to be used; any concluding statements are to be incorporated under Results and Discussion.

Abbreviations

Specialized abbreviations may be used provided they are placed in parentheses after the word(s) at first point of use. Do not include a separate Abbreviations list. Use SI units and consult the [ACS Guide to Scholarly Communication](#) for lists of SI units and preferred forms of commonly used abbreviations.

Acknowledgment

Include only essential credits to acknowledge financial or professional assistance to the conduct of research. Sources of financial support must be acknowledged. Omit academic and social titles.

Author Information

A section may be included, as needed, entitled “Author Information” to provide pertinent information on the authors, such as the names of authors who contributed equally to the article, or details of the date of death of a deceased author.

References

Literature references in *ACS ES&T Air* must be numbered in order of appearance, and the corresponding numbers placed at the appropriate locations in the text as superscripted numerals. The accuracy of the references is the responsibility of the authors, who are encouraged to avoid references to works that have not been peer reviewed. DOI numbers are helpful but not mandatory unless they are the only identifying information available (e.g., for recently published articles). Excessive self-citation is not permitted. Any references in publications that would be difficult for most reviewers to obtain or are unpublished should be uploaded into the *ACS ES&T Air* manuscript submission site as Information for ‘Review Only’.

Formulae and Equations

Chemical formulas should be embedded in the text at the point of relevance and should correspond to the [ACS Guide to Scholarly Communication](#). Chemical equations should be balanced and numbered consecutively along with mathematical equations. Mathematical arguments should be as brief as possible.

Components Described Elsewhere in these Guidelines

- [TOC/Abstract Graphic](#)
- [Funder Reporting Requirement](#)
- [Tables, Figures, and Chemical Structures](#)
- [Web Enhanced Objects \(WEO\)](#)
- [Supporting Information](#)
- [Cover Art](#)

Length Limits

The length limits for each article type are listed in the [Manuscript Types](#) section. Article length can

be determined by counting all text, excluding title page, references, and figure/table captions. Next, add 200 words for each small figure, scheme, or table that takes up part of a page. Large multipart figures, extensive tables, detailed maps, or chemical pathways taking up a page or more should be counted as 600 words. At the discretion of the assigned editor, some figures or tables may be counted as more than 600 words.

Manuscripts that exceed the length limit will be un-submitted (returned to the Draft section in ACS Paragon Plus) with a request to shorten, or they may be immediately rejected. To reduce length, make the Introduction and Discussion sections more concise. In addition, make appropriate use of Supporting Information, which is readily available to all readers of the manuscripts on the ACS *ES&T Air* website.

Authors who believe that exceeding the length limit is essential must include a compelling argument in their cover letters. Ultimately, however, the decision about whether a manuscript that exceeds the recommended length is appropriate for review is made by the assigned editor.

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: ^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

Nomenclature

Use abbreviations and acronyms sparingly, and all usage should be defined at the first occurrence in the text. Whenever possible, use systematic nomenclature as recommended by IUPAC and IUBMB for chemical compounds and biomolecules, and SI units. The [ACS](#) and [IUPAC](#) websites have links to nomenclature recommendations. Usually, the chemical name or composition should be given in parentheses or in a reference at the first occurrence of such a name. Names of organisms should comply with genetic conventions, with genus and species names written in italics and spelled out in full on first appearance. Trademark names should be defined at the point of first use and registered trademark names should be capitalized whenever used. Registration marks are not required to ensure legal protection for the trademark. Trade and trivial names should not be capitalized.

Data Presentation

Data should be presented in a way that makes interpretation clear to the reader. For more information on data presentation, see:

1. [Quantifying the Interactions between Biomolecules: Guidelines for Assay Design and Data Analysis](#)
2. [Beyond Bar and Line Graphs: Time for a New Data Presentation Paradigm](#)
3. [Reporting standards and availability of data, materials, code and protocols.](#)
4. MIQE guidelines for ddPCR and QPCR by [Bustin et al. 2009](#) and [Hugget et al. 2020](#); [EMMI guidelines by Borchardt et al. 2021](#)
5. [Best practice for 16S Microbiome studies](#)

Biological Assays

Exposure protocols and methods must be referenced or described in sufficient detail to permit the experiments to be repeated by other investigators. This includes for example information on the preparation of the test materials, medium components, and duration of exposure. In addition, the applied dose or dose range should be given in a meaningful unit and the relevance of the applied dose should be substantiated. Doses and concentrations should be expressed as molar quantities (e.g., mol/kg, mM, etc.), particularly when comparisons of potencies are made on compounds having large differences in molecular weights. The routes of administration of test compounds and vehicles should be indicated. Benchmarks should be included in form of appropriate positive or negative control substances or reference materials. Especially for studies on nanomaterials, assays should be checked for interference induced by nanomaterials, e.g., optical or chemical interference, masking of the analyte or other interference mechanisms by inclusion of appropriate controls. Also, for studies on nanomaterials, sterilization procedures and specification of dilution steps as well as the order of addition should be provided, and as far as possible, various measuring units related to dose (e.g., surface area, mass, particle number per surface area, volume, cell number) should be given to increase comparability with other studies. Data may be presented as numerical expressions or in graphical form. Statistical limits (statistical significance) for the biological data are usually required. If statistical limits cannot be provided, the number of determinations and some indication of the variability and reliability of the results should be given. References to statistical methods of calculation should be included.

Use of Human Subjects or Animals in Research

For information about carrying out and reporting on Human and Animal Studies, please refer to the Biological Data section of the [ACS Research Data Guidelines](#).

Database Deposition

Advancing scientific discoveries can be enhanced when data and materials are made available and readily exchanged. *ACS ES&T Air* requires for all published articles that authors make materials, data, and protocols available to readers through deposition in a public database. A statement must appear in the submitted manuscript confirming submission of the data and indicating the data bank and any pertinent accession codes/ID.

To identify the repository that meets your particular needs, you may find [FAIR Sharing Databases](#), [Registry of Research Data Repositories](#), and [Repository Finder](#) helpful. Authors may also want to further investigate unstructured and/or large data repositories, such as [Dryad Digital Repository](#), [figshare](#), [Open Science Framework](#), and [Zenodo](#), or institutional repositories for depositing data. If there is no appropriate repository available, general publicly available repositories should be used.

In addition, ACS Publications' figshare houses all Supporting Information within the HTML presentation of the paper and at acs.figshare.com. Authors also agree to make available to interested academic researchers for their own use any materials reported in the manuscript that are not otherwise obtainable. Any restrictions to the availability of materials or information must be stated at the time of submission. The [ACS Math Style Sheet](#) and [NMR Guidelines](#) are available on the ACS Publishing Center.

Sequence Data

DNA and RNA sequence data can be submitted to suitable public repositories such as [GenBank](#), [European Nucleotide Archive \(ENA\)](#), the [DNA Data Bank of Japan \(DDBJ\)](#), [dbSNP](#), [dbVar](#), [Database of Genomic Variants archive \(DGVa\)](#), [MGnify](#), [miRBase](#), [NCBI Sequence Read Archive \(SRA\)](#), and [NCBI Trace Archives](#). Protein sequence data should be deposited with the [Protein Identification Recourse](#) at Georgetown University Medical Center, Washington, the [European Bioinformatics Institute \(EBI\)](#), the [Swiss Institute of Bioinformatics](#), or [UniProt](#).

Omics Data

Manuscripts that present microarray data should follow the MIAME (Minimum Information About a Microarray Experiment) [guidelines](#). Data should be submitted to suitable public repositories such as [ArrayExpress](#), [Database of Interacting Proteins \(DIP\)](#), [dbGaP](#), [Genomic Expression Archive \(GEA\)](#), [Gene Expression Omnibus \(GEO\)](#), [IntAct Molecular Interaction Database](#), [Global Natural Products Social Molecular Networking \(GNPS\)](#), [MassIVE](#), [MetaboLights](#), [Proteomics Identifications \(PRIDE\) Archive](#), and [ProteomeXchange](#).

For sequence data and microarray data, the relevant accession numbers should be available at the time that the revision is submitted and should be listed at the end of the Materials and Methods section in the revised version of the manuscript.

Proteomics Data

Proteomic experiments must meet the standards established by the *Journal of Proteome Research*. More information is available in the [Publication Guidelines](#) for the Analysis and Documentation of Peptide and Protein Identifications. Protein sequences should be handled in the same way as described above, and accession number and database source should be included.

Computer Codes

When computer codes are developed or used and are an essential part of a manuscript, sufficient detail must be given, either within the paper or in the SI. Types of languages that are used in the computer codes, compiler/interpreter, and operating system with a specific version must be provided or properly cited. Upon request, after appropriate material transfer agreements to restrict the use of the materials so as to protect the legitimate interests of the authors, codes and input data must be made available for others to validate the calculations. Regardless of whether the source code is open or closed source, it must be properly cited in the References.

Computational Chemistry Calculations

When computational chemistry calculations are performed, input data—including force field parameters, equations defining the model (or references to where such material is available in the open literature), methods and approaches, and basis sets—must be given either within the paper or in the SI. If the software used for calculations is generally available, it must be properly cited in the References. References to the methods upon which the software is based must also be provided.

Materials

When requested, the authors should also make a reasonable effort to provide samples of unusual materials unavailable elsewhere, including, but not limited to, clones, microorganism strains, antibodies, computer codes, etc., to other researchers, with appropriate material transfer agreements to restrict the field of use of the materials so as to protect the legitimate interests of the authors. Any restrictions to the availability of materials or information must be stated at the time of submission.

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

ACS ES&T Air considers only original work for publication that has not been previously published and is not under consideration for publication elsewhere. Related work under consideration for publication in any medium must be cited in the manuscript and the Editor-in-Chief informed at the time of submission. In addition, an author must inform the Editor-in-Chief of prior dissemination of the content in print or electronic formats in the cover letter. Posting of pre-prints to a pre-print server such as [ChemRxiv](#), [bioRxiv](#), [arXiv](#), or applicable repository for their discipline before the manuscript is accepted for publication is considered acceptable but requires citing of the pre-print. Authors may revise the preprint version of their manuscript up until a final acceptance decision has been issued. Please note the use of a pre-print server in the cover letter and provide 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. Failure to alert *ACS ES&T Air* in your cover letter to any prior publication of your submission may be viewed as an ethical violation. Upon publication in *ACS ES&T Air*, authors are advised to add a link from the pre-print to the published paper via the Digital Object Identified (DOI) that is assigned to the published article. Some preprint servers, including [ChemRxiv](#) and [bioRxiv](#), include this link for authors automatically after publication.

Theses/Dissertations

Authors submitting material that has been used in their thesis/dissertation must contact the Editor-in-Chief for approval. Authors will be asked to confirm that they alone hold the copyright to the work and to read and comply with the [ACS Publications policy on theses and dissertations](#), as well as the conditions and procedures laid out in the ACS Journal Publishing Agreement (JPA).

Authors wishing to include published *ACS ES&T Air* material in their thesis/dissertation should follow the guidelines of the [ACS Publications policy on theses dissertations](#).

Proceedings of Conferences and Symposia

Authors cannot publish presentations in proceedings (paper or electronic) that are copyrighted (except by ACS) and then submit them to *ACS ES&T Air* due to copyright concerns. If the proceedings are not copyrighted, publishing a short abstract without figures or tables is permissible. It is the responsibility of authors to notify *ACS ES&T Air* of any abstracts that have been published in any form.

Websites

ACS ES&T Air will consider for publication a paper or presentation that has been posted on a website available to the general public, provided that the site is the personal site of the author and is not connected to a commercial site. Authors must notify the journal at the time of submission if the material has been available on the Internet or equivalent electronic media and must remove the material from the site at the time of submission. When the paper is published, authors may provide an electronic link from that site to the *ACS ES&T Air* homepage. If the website is a commercial site not owned by ACS, the authors are advised that consideration of the paper may be endangered.

Reports

Authors must confirm that they alone hold the copyright to the report. If a government or funding organization requires posting of a related report, please contact the Editor-in-Chief and provide specific details.

Editorial Policies

Submitting Revised Manuscripts and Response to Reviewers

If you are submitting a revised manuscript or an authorized resubmission of a manuscript that was already peer reviewed, you must submit point-by-point responses to each of the comments of the reviewers. We recommend that you copy the reviewer's comment into the text immediately prior to your response. You should also upload, as 'Information for Review Only', a version of the manuscript with changes highlighted to allow the editor to easily discern the revisions that have been made.

Resubmission of Previously Declined Manuscripts to ACS ES&T Air

If your manuscript is declined by ACS ES&T Air, read the decision letter carefully. Manuscripts are often declined because the editor determines that the subject matter is not appropriate for ACS ES&T Air or that the novelty or significance of the manuscript is insufficient. If the author believes an error has been made, ACS ES&T Air has a process for appealing decisions on manuscripts, which is described in the Appeal Process section of this Guide. **If you wish to submit a revised version of a declined manuscript to ACS ES&T Air, you must first contact the associate editor who handled your original submission to request permission to resubmit.**

If you receive permission to resubmit, indicate in your cover letter that it is an authorized revision of a previously submitted manuscript, provide the original manuscript number, and state how the manuscript has changed. If the manuscript was reviewed, submit a detailed, point-by-point list of your responses to each of the comments of the reviewers or provide convincing reasons for declining to do so. The manuscript should be submitted online (see the Manuscript Submission section of this Guide, below), where it will receive a new manuscript number. During the submission process, mark “Yes” when asked if the manuscript has been previously submitted “in whole or in part.” Manuscripts that editors judge to be resubmissions, in whole or in part, of previously submitted manuscripts that do not comply with these rules will not be considered for publication. Moreover, failure to alert ACS ES&T Air to a resubmission, even in part, is an ethical violation.

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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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