

Instructions to authors for *Environmental Science & Technology*

Updated May 2014

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Environmental Science & Technology (ES&T) is an authoritative source of information for professionals in a wide range of environmental disciplines. The journal combines magazine and research sections and is published both online and in print. The electronic version of *ES&T* includes all of the material found in the print version plus Supporting Information.

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Scientific ethics are taken very seriously by *ES&T* and ACS. All authors should read and adhere to ACS's Ethical Guidelines to Publication of Chemical Research, which are available on the web at <http://pubs.acs.org/page/policy/ethics/index.html>.

For all manuscripts, the contact author is required to read, sign, and submit an *ES&T*-specific Ethics form on behalf of all authors. The signed Ethics form can be scanned and emailed or faxed to the relevant editorial office.

Conflict of Interest Disclosure

A statement describing any financial conflicts of interest or lack thereof is published with each manuscript. During the submission process, the corresponding author must provide this statement on behalf of all authors of the manuscript. The statement should describe all potential sources of bias, including affiliations, funding sources, and financial or management relationships, that may constitute conflicts of interest (please see the ACS Ethical Guidelines). The statement will be published in the final article. If no conflict of interest is declared, the following statement will be published in the article: "The authors declare no competing financial interest."

Funding Sources

During manuscript submission, the submitting author is asked to select funding sources from the list of agencies included in the FundRef Registry <http://www.crossref.org/fundref/>

Author List

During manuscript submission, the submitting author must provide contact information (full name, email address (institutional email address preferred), institutional affiliation and mailing address) for all of the co-authors. Because all of the author names are automatically imported into the electronic Journal Publishing Agreement, the names must be entered into ACS Paragon Plus in the same sequence as they appear on the first page of the manuscript. The author who submits the manuscript for publication accepts the responsibility of notifying all co-authors that the manuscript is being submitted. Deletion of an author after the manuscript has been submitted requires a confirming email to the Editor-in-Chief from the author whose name is being deleted. For more information on ethical responsibilities of authors, see the Ethical Guidelines to Publication of Chemical Research.

Prior publication

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publication or parallel submission of the same paper to another journal eliminates the paper from consideration by *ES&T*. You must attest in your cover letter that the manuscript has not been previously published, in whole or in part, and that it is not under consideration by any other journal. Additionally, you must affirm that all authors are aware of, and accept responsibility for, the manuscript.

Duplication of already published data eliminates the paper from consideration unless the paper contains significant further analysis and interpretation. If you have any questions or concerns, please contact the Editor-in-Chief's office (est@uiowa.edu). If a directly related paper is in press or has been submitted to another journal, upload a copy upon submission to Paragon Plus (designated "Supporting Information for Review Only"). Indicate the status of the related paper in the cover letter.

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Contact Information

For queries and information prior to submission, please contact the appropriate office below:

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Note: the Editor-in-Chief is not available to prescreen potential submissions.

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Summary of Manuscript Types and General Formatting

ES&T publishes several different types of manuscripts; these guidelines contain detailed information as to scope, specific formatting styles, length limits and other requirements for the various manuscript types. There is a summary and [submission checklist at the end of this document](#). For additional advice, please refer to *The ACS Style Guide* [which](#) can be found in ACS ChemWorx by registering for a free account. General instructions as to all aspects of preparing and submitting a manuscript for ACS journals may be found at <http://pubs.acs.org/page/4authors/submission/index.html>.

Word Limits. Unless explicitly stated otherwise (Viewpoints and Letters to the Editor), word counts INCLUDE the text count plus a separate count for the tables, figures, and schemes.

Count all text except the title page, references, and figure and table captions (captions are considered part of the figure or table). This includes the Abstract, the body of the manuscript, the Acknowledgments, and the description of Supporting Information. (Do not count the Supporting Information itself.)

To the text count add the count for figures, schemes and tables. Small figures, schemes, and tables usually count as 300 word equivalents; large figures, schemes, and tables

count as 600 or more word equivalents. Abstract art (i.e., TOC art) is not included in the word count. For example, a research article with 6000 words, excluding references, and containing 4 small figures is considered a 7200 word article.

Manuscripts that exceed the word limit will be unsubmitted (returned to draft) with a request to shorten or immediately rejected. We note that manuscript text can often be shortened by 10% with no loss of context. Place tables and figures that augment the article but are otherwise unessential to the major themes in Supporting Information (which is freely accessible on the web). Authors who believe that exceeding the word limit is essential must include a compelling argument in their cover letter. Please note that this does not guarantee a decision in the author's favor – ultimately, the decision lies with the Editor.

TOC/Abstract Art. This art or photograph appears next to the abstract in the online version of the paper, in the electronic TOC for the given issue, and in the print issue.

Creating a Representative Graphic

The graphic submitted for use on the table of contents is used for multiple purposes, including the document abstract and other situations where a representative graphic is required. For the greatest impact, authors should create an image that represents the work while adhering to size constraints. Keeping in mind that various devices may be involved, some of the best images are simple, relatively free of text and technical characters, and make use of color for visual impact. It is best to stay away from complex structure schemes and small-sized details.

TOC/Abstract graphic image are the same image and sized the same.

TOC/ABS Sizes	
Width	Depth
240 points	135 points
3.33 inches	1.875 inches
8.47 cm	4.76 cm

Submission of Table of Contents (TOC) Art is required for Research Articles, Policy Analysis articles, Critical Reviews, and Features. TOC/Abstract art should be submitted with the original paper and will go through peer review. *TOC/Abstract Art will not be considered in the calculation of the word equivalents.* Do not submit TOC/Abstract Art for Viewpoints, Correspondence, Letters to the Editor, or Corrections. TOC/Abstract art should be submitted in the same manner as other graphics: within the manuscript file unambiguously identified as TOC/Abstract art, or as a clearly labeled graphic under the file designation “graphic for manuscript.” Do not submit TOC/Abstract art in your cover letter.

Good TOC/Abstract art should illustrate the article, akin to a “visual abstract.” It should capture the readers’ attention and, in conjunction with the manuscript title, give readers a visual impression of the essence of the paper without providing specific results. Imagery

can range from a single in-context photograph of a field site to that of a “cartoon” schematic explaining the central method or findings of the paper.

Specific Advice Regarding TOC/Abstract Art

- a. Authors must clearly designate their TOC Art figure in the original manuscript submission. Failure to do so may delay the production schedule for accepted manuscripts.
- b. **TOC/Abstract Art cannot have a caption** (legend) minimalist text may be used as labels in the imagery
- c. Figures and other material created by the author(s) may be used. A single impactful image makes for the best cover art. On occasion, simple collages containing only material created by the author(s) are suitable. Complex, “busy” graphics make poor TOC art.
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Currently acceptable word-processing packages. Macintosh: WordPerfect 3.5, Microsoft Word '98 and higher. IBM and compatibles: WordPerfect up to version 9.0,

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Using TeX/LaTeX

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Manuscript preparation and submission

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Reviewer list. Authors are required to provide names and contact information (affiliation and email address) of at least four experts in the field as possible reviewers for the manuscript (lesser known experts are the most helpful suggestions). You may also include the names of people you do not want to review the paper. Do not suggest as potential reviewers anyone who may have a conflict of interest in reviewing your manuscript, such as former advisers, students, recent collaborators, or persons based at your institution.

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Review process and editorial decision. Manuscripts that are sent for outside review will be sent to two to four experts in the field for review. However, a significant fraction of manuscripts are declined after editorial review and are not sent for outside review. Common reasons include: insufficient novelty and/or originality; lack of sufficient environmental relevance; failure to place the rationale for the study or the results in the context of existing literature; data that describe a case study or offer only an incremental advance in the scientific topic; insufficient quality of the data; and problems with manuscript presentation (e.g., adherence to length limits, inadequate English, figure quality, etc.).

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reasons for declining to do so. If you believe strongly that the paper was not judged fairly, make your case in your cover letter. The manuscript should be submitted on Paragon Plus, 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 essentially resubmissions of previously submitted manuscripts that do not comply with these rules will not be considered for publication.

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Post-acceptance process

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interpretation or corrections of data, or other important changes, including changes to the title or the list of authors, are subject to editorial review and may delay or cancel publication.

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Manuscript Format and Expectations

ES&T divides its manuscripts between two sections of the journal: research and front matter. The research section includes Research Articles, Policy Analysis, Critical Reviews, Correspondence/Rebuttal, and Additions and Corrections. Manuscripts are initially reviewed by the assigned editor and, if appropriate, by other scientists who assess the significance, originality, and validity of the work. The Editor-in-Chief and Associate Editors, listed in the masthead, are responsible for all research material published in *ES&T*.

The front matter consists of Features, Viewpoints, and Letters to the Editor, along with staff-written Comments, annual informational content, and occasional Perspectives for special issues. The Managing Editor handles all front matter.

This section of the Instructions addresses the content expected of each manuscript type. Detailed instructions as to format and style then follow, ending with a summary and checklist by manuscript type. Authors are reminded to heed the word limits noted above.

Research Articles. These manuscripts, with a 7000 word-equivalent limit, are articles concerning the scientific understanding of natural environments and engineered environmental systems and technologies. *ES&T* focuses particularly on the chemistry of processes in the environment, including those affected by human activities. This includes biological and physical phenomena as well as mathematical and computational methods that are directly relevant to the understanding and management of the environment. *ES&T* also publishes articles that describe significant scientific advances or novel technologies for remediation, control, and pollution prevention. Research articles are assigned to one of the following sections: characterization of natural and affected environments, environmental processes, environmental modeling, environmental measurements methods, remediation and control technologies, sustainability engineering and green chemistry, energy and the environment, and ecotoxicology and human environmental health.

ES&T strives to publish only original work of broad scientific significance and environmental importance. Originality is defined as new experimental data, new interpretations of existing data, or new theoretical analyses of environmental phenomena. Significance will be judged with respect to the breadth of impact of the reported findings. *Manuscripts that report data of a routine nature will not be accepted.* For example, manuscripts that report only values of molecular parameters without employing them in or demonstrating their relevance to a model will be declined. The scope of the reported data in ambient monitoring studies must yield conclusions applicable to more than the particular site or time when the data were taken. Studies that only describe the outcomes of standard laboratory or field tests are not appropriate for publication in *ES&T*.

Articles published in *ES&T* must be relevant to the study of natural systems and/or engineered environmental systems and technologies. You must make this connection apparent – manuscripts that fail to demonstrate their environmental relevance will be rejected, usually without external review. For example, it is not sufficient that the paper describe work on a compound that may occur in the environment if the study does not provide information that is clearly related to that compound's fate, transport, transformation or effects in the environment. Manuscripts that emphasize chemical engineering, new catalysts synthesis or analytical chemistry must provide a concise argument that the research represents an advance that is of primary importance to the environmental field. Manuscripts that do not include results with real or simulated environmental samples will be declined. Authors should show that a new analytical method has been thoroughly developed and its quality ensured.

Research articles that describe advances in environmental technologies may include works on remediation and control processes and on new processes for sustainability. These manuscripts should include evaluations performed under environmentally-realistic conditions. Articles that describe laboratory-scale studies should make meaningful and unbiased comparisons to existing approaches but should not make claims about the economics or relative advantages of the technology without pilot- or full-scale validation studies or properly validated models. Articles describing advances in treatment technologies for remediation of contaminated environments or control of emissions should go beyond kinetics and treatability studies by exploring the mechanisms of the technology, or develop process models to describe the technique.

Articles in the area of ecotoxicology and human environmental health should provide novel information on effects of chemicals or lead to new insights into the mechanisms and processes behind effects of chemicals and other stressors. Specific attention should be given to exposure characterization in effect studies: effect concentrations should be based on measured exposure concentrations whenever possible. The primary emphasis and relevance of the study must be environmental. Articles with little direct environmental relevance should be submitted elsewhere. Most studies of human toxicology, medicine, epidemiology, and studies of human or animal physiology and biochemistry will be declined without external review.

Policy Analysis. These manuscripts present original research in environmental management and policy, especially where science and engineering interface with public policy. Topics include risk assessment, evaluation and design of environmental regulations, pollution prevention and life-cycle analysis, and international environmental trends. These contributions are peer-reviewed. The format of these manuscripts follows the general style of research articles, with an abstract, introduction, body, discussion, and references. However, unique section headings may be used as needed. Please limit to 7000 word-equivalents.

Criteria for ES&T Policy Analysis Policy Analysis articles can be characterized by the three elements below. An ideal Policy Analysis paper will include all three of these elements, integrated in a rigorous and innovative way to provide valuable policy insight for understanding and managing human-environmental systems. However, if done well, two out of three are acceptable.

1. Explicit Policy Relevance: providing decision support or related valuable information for near- or medium-term decisions, faced by regulatory agencies, intergovernmental programs, industry, consumers, and/or research funders
2. Fundamental Science and/or Engineering Content: the extent to which scientific and engineering methods are applied and extended to derive new knowledge
3. Fundamental Social Science Content: the extent to which social science methods from law, political science, economics, psychology, and related human behavioral studies are applied and extended to derive new knowledge

Critical Reviews. Critical Reviews are thoroughly documented assessments of selected areas of the environmental science and technology research literature. These are limited to 10,000 word-equivalents. Critical Reviews generally include more than 100 references. Critical Reviews should increase readers' knowledge through discriminating comparisons and insightful organization of the material. Criteria for acceptability include current importance of the field under review, thoroughness of the literature coverage, clarity, and clear identification of research needs.

Correspondence. Readers are encouraged to provide scholarly comment on articles appearing in the research section. Both comments and responses are termed "Correspondence"; both are limited to 1000 word equivalents. Supporting Information is not allowed. Comments must raise scientific or technical questions about an article; correspondence that is mainly opinion will not be accepted. Correspondence should be submitted within 6 months of the date of publication of the original article. The author(s) of the original article will be allowed to respond. Correspondence on previously

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Additions and Corrections (Errata). When a correction to published material must be made, it should be done quickly. *ES&T* is willing to publish corrections to long-published work if the author provides a convincing argument; the decision rests with the Editor. Additions are a form of Errata; they are not a mechanism for publishing updates. Errata must be uploaded on Paragon Plus under the manuscript type Additions and Corrections. This submission must include the authors and title of the original manuscript. It should also include either a citation, DOI number, or the original manuscript number.

Front Matter

Features. These 5000 word equivalent maximum manuscripts provide a balanced examination of significant developments and issues affecting the environmental community. **Features cannot have Supporting Information.** Probing timely topics from multiple perspectives—scientific, regulatory, technical—provides readers with an authoritative and up-to-date understanding of the subject. Features are written in a magazine or journalistic style rather than as a scientific article. **Authors can assume that the average news and features reader has had 1 year of university-level chemistry, physics, and environmental science/engineering. Authors must include a 3-5 sentence synopsis titled “Abstract,” written at a level comprehensible to the scientifically literate general public.**

Structure your Feature like a good lecture: begin with first principles then develop the main theme. The introductory paragraph should speak to the content of the article, but not in the manner of a research abstract. We suggest you read previous Features to get a feel for this manuscript type: <http://pubs.acs.org/toc/esthag/current>. Note that review of Features differs somewhat from the review of research manuscripts. Note also that the magazine style of a Feature permits more liberal citation to stable websites, though authors must ensure that the content accuracy of their Feature is also supported by relevant citable literature. **If upon drafting a Feature, authors find it difficult to exclude research data, please consider submitting a Research Article or Policy Analysis instead. If the topic cannot be easily confined to 5000 words and/or there is an extensive list of references, a Critical Review would be a better option. Short manuscripts with a commentary style should be revised into a Viewpoint.**

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The remarks that follow are most relevant to research articles, but should be read by all authors. The [submission checklists by manuscript type that follow](#) should be followed by all authors to ensure that their manuscript meets the expectations in form.

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Divide the article into sections, three are often sufficient: Introduction, Experimental, and Results and Discussion (see below). Do not use footnotes; include the information in the text. Number all pages and lines of the manuscript.

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Do not include a Conclusions or Summary section in research Articles. Include major conclusions in the body of the Results and Discussion sections.

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Journal article

Travis, E. R.; Hannink, N. K.; van der Gast, C. J.; Thompson, I. P.; Rosser, S. J.; Bruce, N. C. Impact of transgenic tobacco on trinitrotoluene (TNT) contaminated soil community. *Environ. Sci. Technol.* **2007**, *41* (16), 5854–5861; DOI 10.1021/es070507a.

Book with author

Criss, R. E. *Principles of Stable Isotope Distribution*; Oxford University Press: Oxford, U.K., 1999.

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Coghill, A. M., Garson, L. R., Eds. *The ACS Style Guide*, 3rd, ed.; Oxford University Press: New York, 2006.

Chapter in edited book

Snape, I.; et al. Contamination, regulation, and remediation: an introduction to bioremediation of petroleum hydrocarbons in cold regions. In *Bioremediation of Petroleum Hydrocarbons in Cold Regions*; Filler, D. M., Snape, I., Barnes, D. L., Eds.; Cambridge University Press: New York 2008; pp 1 □37.

Thesis

Masson, J.-F. Surface plasmon resonance sensors for biochemical and chemical monitoring. Ph.D. Dissertation, Arizona State University, Tempe, AZ, 2005.

Institutional report (e.g. U.S. or international government; private institution)

Biofuels: DOE lacks a strategic approach to coordinate increasing production with infrastructure development and special needs; Highlights of GAO-07-713; United States Government Accountability Office: Washington, DC, 2007; www.gao.gov/new.items/d07713.pdf.

Law

Energy independence and security act of 2007. Public Law 110-140, 2007; <http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/html/PLAW-110publ140.htm>.

Legal decision

State of New Jersey v. EPA, No. 05-1097 (D.C. Cir. Feb 8, 2008).

Website-homepage

Environmental Science & Technology Website;
<http://pubs.acs.org/journals/esthag/index.html>.

Webpage within a large site

Tracking the millennium goals-map; www.mdgmonitor.org/map.cfm?goal-6&indicator--0&cd-.

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A primary research report should contain sufficient detail and reference to public sources of information to permit the author's peers to repeat the work. When requested, the authors should 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.

Sequence data. DNA sequence data must be submitted to GenBank (<http://www.ncbi.nlm.nih.gov/genbank/>), EMBL Nucleotide Sequence Database

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Protein sequence data should be deposited with the Protein Identification Resource at Georgetown University Medical Center, Washington (<http://pir.georgetown.edu/>), the European Bioinformatics Institute (EBI) (<http://www.ebi.ac.uk/>) or the Swiss Institute of Bioinformatics (<http://www.isb-sib.ch>).

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Data from proteomics experiments. 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 (http://pubs.acs.org/paragonplus/submission/jprobs/jprobs_proteomics_guidelines.pdf).

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Authors are encouraged to check that their manuscript includes all of the items listed below. (Any items in parentheses are optional). Text shaded in gray constitutes the indicated word equivalent limit. Details as to their formatting may be found in this

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Item	Notes	Check
Query Letter	Contact Managing Editor before submission with short outline; wait for approval.	
Title	Magazine style – approachable and inviting to generalists	
Author(s) with affiliations	Indicate corresponding author with *	
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Author(s) biographical statement	Institutions and titles plus any other information not to exceed 200 words	
Line numbers		
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Item	Notes	Check
Title	Concise and brief	
Author(s) with affiliations.	Indicate corresponding author with *	

Text	1000 Words Maximum	
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6. What other journals have covered, or may in the future, cover this topic?
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