

ornl

OAK
RIDGE
NATIONAL
LABORATORY

UNION
CARBIDE

OAK RIDGE NATIONAL LABORATORY

CENTRAL RESEARCH LIBRARY

CIRCULATION SECTION

4500N ROOM 175

LIBRARY LOAN COPY

DO NOT TRANSFER TO ANOTHER PERSON

If you wish someone else to see this
report, send in name with report and
the library will arrange a loan.

OPERATED BY
UNION CARBIDE CORPORATION
FOR THE UNITED STATES
DEPARTMENT OF ENERGY

OAK RIDGE NATIONAL LABORATORY LIBRARIES

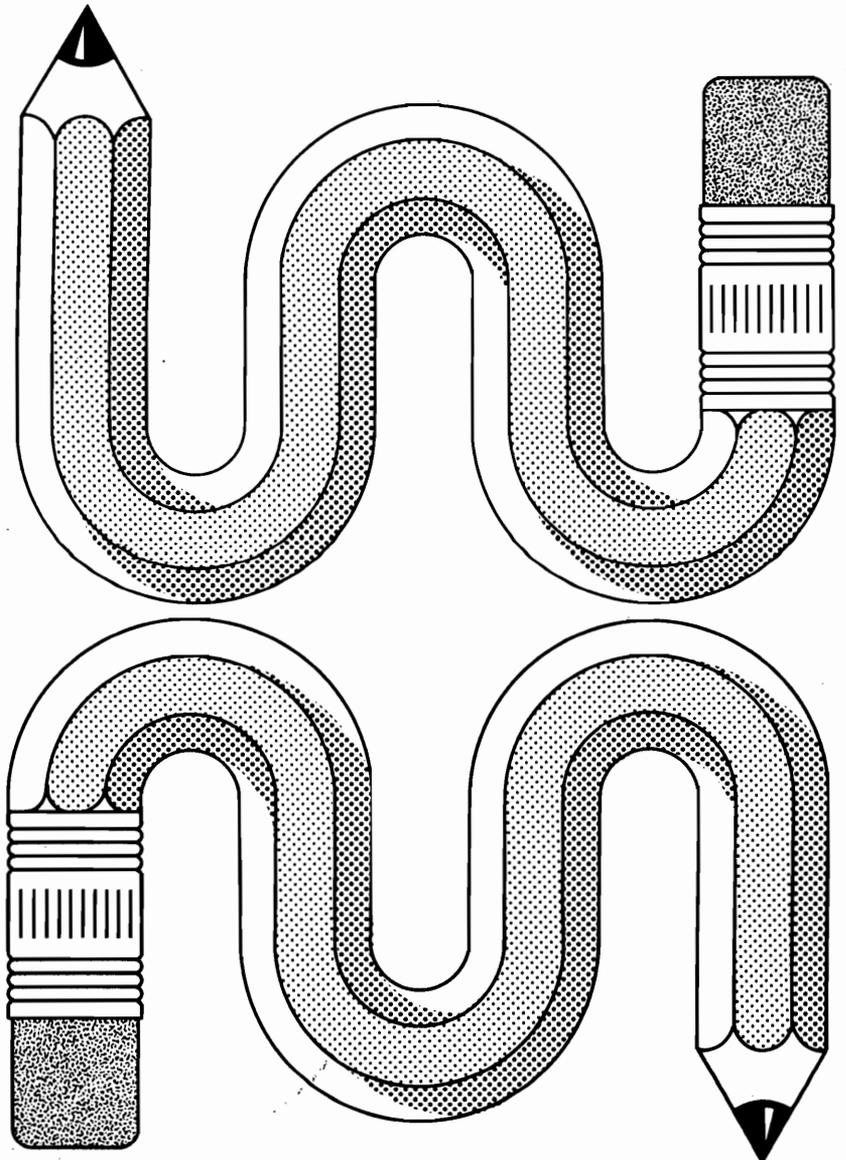


3 4456 0569840 2

ORNL/PPA-82/5

writer's manual

for publishing
in semitechnical journals



PROGRAM PLANNING AND ANALYSIS OFFICE

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.



**for publishing
in semitechnical journals**

**B. Y. Wilkes
D. S. Barnes**

February 1983

Contract No. W-7405-eng-26

Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830
operated by
Union Carbide Corporation
for the
Department of Energy

CONTENTS

Preface	v
Introduction	1
Subject Matter and Approach	1
Where to Publish	2
Improving Your Publication Chances	2
Know Your Journals	3
Consult the Editors	3
Write Clearly	3
Get Writing Help if You Need It	3
Persevere	4
Laboratory Resources Available	4
Laboratory Policy on Publishing	5
General Formatting Information	5
Journal Descriptions	7

If you cannot—in the long run—tell everyone what you have been doing, your doing has been worthless.

Erwin Schrödinger

PREFACE

It is not enough for the Oak Ridge National Laboratory to conduct high-quality research and development in nationally important R&D areas if the results of our efforts do not receive the recognition needed to make them worthwhile. A few years ago, an advisory committee pointed out that although ORNL is doing some exceptional work, the results of that work are rarely reported in national journals, though less noteworthy research being performed by others often receives considerably more attention. In response to this observation, the Laboratory began to look for ways to improve ORNL's coverage in the science media. One approach has focused on increasing the number of ORNL articles published in the semitechnical literature (including journals like *Science* and *Scientific American*). Because these journals are read by audiences of as many as 100,000 or more (compared to technical journals which may reach perhaps only five to ten thousand readers), they represent an important outlet that ORNL can use to increase media coverage of its research.

This brochure is therefore designed to help potential authors at ORNL publish in these wide-circulation, semitechnical journals by providing some useful information on the journals themselves, on publishing in semitechnical literature, and on Laboratory resources available to assist authors.

INTRODUCTION

If you have an important message you want heard by a wide audience, publishing in semitechnical journals may be your answer. Consider that an article in *Science* is read by more Congressmen, interested laymen, and fellow scientists (including, perhaps, ORNL scientists) than are most ORNL technical memoranda or highly technical journal articles. The wide coverage offered by semitechnical journals can enhance your own scientific reputation nationally and can also bolster ORNL's perceived institutional standing. This writer's manual has been compiled to help you begin writing for semitechnical journals.

The front section of this brochure provides general information on publishing in these journals, including suggestions on the type of article to write, where to publish, and ways to improve your publication chances. It also includes information on Laboratory resources available to help you and gives some general information on formatting your manuscript. The purpose of this section is not to present a style guide on writing but to provide some introductory material to get you started and then to direct you to other resources available at the Laboratory for further assistance.

The back section of the manual describes about 35 semitechnical journals in which you might consider publishing. Though certainly not an exhaustive compilation, this collection of journals is a representative sample of this type of publication. In selecting the journals to be included, we considered (among other things) the relevance of the journal to ORNL research, its circulation figures, and the breadth of the audience the journal reaches. Under the label of "semitechnical journal," we have included general science magazines that reach a broad lay and professional audience, trade journals that serve mainly an industrial clientele, and various scientific society publications that reach a broader scientific community than do most highly technical journals.

SUBJECT MATTER AND APPROACH

In deciding to write an article for one of the semitechnical journals, you may question whether the subject you wish to write about is appropriate for a publication of this kind. Actually, these journals cover quite a range of topics (the journal descriptions given in Sect. 2 of this manual will give you some idea of the range of subjects covered), so choosing an appropriate topic may not be a significant obstacle. You do, however, want to approach your subject from an angle that will ensure its audience appeal. You want your article both to interest and to have relevance for a fairly large audience.

In general, the wide-circulation journals publish articles about new R&D and technology applications. They also publish review articles, policy papers, science history, instructional information, and short technical papers.

- News publications – Many journals concentrate on publishing information about newsworthy developments in science and technology (e.g., *C&E News*, *Civil Engineering*, *Industrial Research and Development*, *Laser Focus*, *New Scientist*, and *Science Digest*). Thus, they can ensure you of good, and very often timely, media coverage of important R&D breakthroughs. Frequently news publications will assign an editor to help you write articles or will have their staff do the actual writing, using the information you supply.
- Trade journals – Several journals, particularly trade journals, are chiefly interested in articles that describe applications of new technologies from which industries would benefit. Some of the journals that publish such articles include *Chemical Engineering*, *Mechanical Engineering*, *Power*, and *Power Engineering*. If you have this type of information, publishing in one of these trade journals would be an excellent technology transfer technique.

- Review articles – If you have been working in one research area for a number of years, you can make a significant contribution by writing a review article describing the research developments in your field over the past several years. *Science* would be a good medium for such a publication, because it publishes notably good review articles. Some other journals that publish review articles worthy of note are *Analytical Chemistry*, *BioScience*, *High Technology*, *Journal of Chemical Education*, and *Laser Focus*.
- Policy papers – If you're interested in dealing with matters of science policy—the policies that directly affect us as part of the research community—and especially in areas of energy and environmental policy, there are several journals you may want to consider. These journals focus on the impact of science and technology on our society, are particularly interested in such policy papers, and include *Technology Review*, *Bulletin of the Atomic Scientists*, *Sierra*, *Fusion*, and *Environment*. Note, however, that most of these journals have their own philosophical focus on science and technology issues and will usually publish only those articles which agree with that philosophy.
- Instructional material – Both *SciQuest* and the *Journal of Chemical Education*, two more of the journals described in this manual, provide information useful to science teachers, including review articles and descriptions of laboratory experiments and procedures. Science history articles are of interest to *American Scientist*, *Physics Today*, and *Science*.
- Short technical reports – Even if you have a fairly technical report, you may be able to get it published in one of these journals, especially if it is well written and presents important new findings. Both *Analytical Chemistry* and *Science* publish short technical reports. The technical depth of articles published in semitechnical journals does vary considerably and depends largely on the journal's purpose and its intended audience.

WHERE TO PUBLISH

An important step in making the decision to write for a semitechnical journal is to get a clear idea of what it is you want to say and the audience you want your message to reach. This manual provides information on a representative sample (about 35) of semitechnical journals, to help you select those best suited to your purpose. If you need more information about these or other journals, journal editors are usually quite willing to answer your questions and to give you guidance.

IMPROVING YOUR PUBLICATION CHANCES

Getting an article published in a semitechnical journal may require a different approach from that taken to get an article published in a technical journal. Whereas technical journals often base their decision to publish (or not to publish) an article on the recommendations of the referees they have selected, the publish-or-not decision for semitechnical journals is more often made by one or more of the journal's editors. The editor's decision is based not only on the technical merit of the article but also on the appropriateness of the article for the journal's audience, on how the article fits into the schedule of topics or themes proposed for upcoming issues of the journal, and on the author's writing style. You may even find yourself competing with professional writers for space in some of these publications. It is hoped that the following suggestions will save you a bit of the inherent frustrations of the publishing process and will increase your chances of having articles accepted and published, as well.

Know Your Journals

Familiarizing yourself with the semitechnical journals—their varied subject matter, styles of presentation, and audiences—will help you select the journal best suited to your needs. This brochure provides information on the editorial guidelines and publication policies of about 35 of the semitechnical journals. Included for each is information on the publisher, editor, circulation, audience, journal contents, review procedures, and special manuscript specifications. Although all this information will prove useful, your own careful perusal of recent issues of a journal of interest will give you a better feel for what the journal is looking for in the articles it publishes.

Consult the Editors

In most cases, the editors of these semitechnical journals welcome and encourage potential contributors to contact them before submitting a completed manuscript. As part of this initial contact, you may find it helpful to provide the editors with an abstract or outline of your proposed article, or you may just want to talk directly to them to explain your idea. This initial contact will give the editors an opportunity, at an early stage, to let you know if their publication would be interested in an article such as you describe. If they are, they can give you guidance on how to proceed in writing your manuscript; such guidance will help ensure the acceptability of your finished product. In some instances, articles are actually accepted (before they are written), based on this initial contact. Also, journals may assign staff writers/editors to work with you on an article, making your task much easier. If the initial contact results in a negative response (i.e., “not interested”), then you have lost little time and have possibly saved yourself much wasted effort in writing an article geared to the wrong medium.

Write Clearly

Most of the fundamental ideas of science are essentially simple, and may, as a rule, be expressed in a language comprehensible to everyone.

Albert Einstein

The first step in writing clearly is to organize your thinking. There are few things more necessary to an author than having a good idea of what he wants to say and knowing the best way to say it to reach his intended audience. The point stressed by almost all of the journal guidelines reviewed for this brochure is the need for clarity and simplicity in writing, whatever the topic. There is no magic in confusion—the obfuscated is not necessarily the profound. Jargon is not a must for scientific communication; in fact, its use often impedes understanding. There are many good writing manuals that you can consult for guidance in this area, but we would mention a few key style points applicable to any good writing:

- Define your audience
- Use concrete rather than abstract language
- Use the active voice
- Use nouns as nouns; don't turn them into verbs
- Revise

Get Writing Help If You Need It

If you are uncomfortable with the relatively informal writing style characteristic of many of these journals, you may benefit from acquiring some writing or editorial assistance, especially if this

is your first venture into the world of semitechnical publications. The Laboratory has a capable staff of editors who can help you (see "Laboratory Resources Available" below), and outside help can be obtained for you through our subcontracting arrangements. A few of the journals we included in this brochure are written mainly by professional writers who have scientific backgrounds. For these journals we would definitely encourage you to seek some writing assistance. The best assistance will, of course, come from the journal editors themselves. That initial contact could, again, prove well worth your while if the journal assigns a staff writer to work with you on your article.

Persevere

The key to success in this as in any creative endeavor is to persevere. A journal may reject your work for any number of reasons—the editors may have their quota of physics papers; perhaps two papers have already been published on that subject recently; the journal may already have accepted more papers than it can publish; the writing style in your article may be inappropriate for a given journal; or, possibly, your article may not conform to the philosophical outlook of a particular journal. It is not crucial that your article be published in one particular journal; there are many semitechnical journals of high standing that reach a significant audience. The advice of experienced writers who have been published in semitechnical journals is to keep submitting your article until it is published. Of course, you can learn from rejections, too. Don't be timid about asking why your article was not accepted.

Getting an article accepted for publication by this kind of journal may be chancier than getting one accepted for a highly technical publication because an article's acceptance may be based solely on one editor's decision rather than on the recommendations of several reviewers. So, if at first you don't succeed. . . .

LABORATORY RESOURCES AVAILABLE

One of the best resources available to a potential author at ORNL is the Technical Publications Department, part of the Publications and Visual Arts Section of the Laboratory's Information Division. TPD comprises a Central Publications Office and eight Division Publications offices, conveniently located somewhere within the area of the specific divisions they serve. The services offered by TPD through the CPO and the DPOs are many and varied, to meet the wide-ranging needs of those served. Services include editorial assistance, proofreading, composition and wordprocessing, page makeup and lay-out, and coordination of a report through the final stages before Reproduction (i.e., obtaining Patent and Laboratory Records clearances).

The assistance of a TPD editor experienced in semitechnical writing can be invaluable to a novice semitechnical writer. Normally, these special editing/writing skills are readily available within the Laboratory, but it is best to inform the Department of your special editing needs as soon as possible.

The Publications and Visual Arts Section also includes the Graphic Arts and Photography departments. The Graphic Arts Department is an Information Division service group whose chief function it is to produce the many types of art work required to support the work of this multiprogram, technically oriented organization. One small part of the Department's output is the pen-and-ink drawings, such as line graphs, bar graphs, and pie charts, as are required by most of the publications discussed in this brochure.

The Photography Department also has a talented and experienced staff, who are able to supply the photographic needs of the research staff. To expedite preparation of your art work, make sure you provide the graphics or photography staff with the exact specifications of the journal to which

you are submitting your article. Articles have been rejected or their publication delayed because the journal's guidelines were not carefully adhered to.

In addition to the professional services you as a prospective author can receive from the Information Division, you can also learn a lot from the experiences of other ORNL staffers who have been successful in getting material published in semitechnical journals. These authors may be able to advise you of the idiosyncracies of specific journals or may just give you some worthwhile advice and encouragement.

LABORATORY POLICY ON PUBLISHING

The Laboratory's policy on writing for semitechnical journals is no different from its policy on publishing books or articles for other kinds of journals. For unclassified manuscripts, there are no restrictions on the kind of journal to which an author can submit his or her work. All articles must go through the normal Laboratory document review and approval process (including Patent clearance) prior to submission to the journal.

The matter of receiving an honorarium or any kind of monetary compensation for authorship of an article or for editorial service provided to a particular journal is covered in Standard Practice Procedure No. D-3-6; in AR Bulletin 634, "Book-Writing Activities"; and in the Information Division's pocket brochure, "Guidelines for Handling Book-Writing Activities at Oak Ridge National Laboratory." The subject of royalties and their dispensation between or among the Laboratory and the author(s) is discussed in this publication, also.

GENERAL FORMATTING INFORMATION

Using the guidelines for authors published by the journals, we compiled the journal descriptions contained in Sect. 2. To supplement the guideline information where needed, we talked directly to many of the journal editors. One point that needs mentioning: although we have generally listed book reviews under "Contributed Materials" in the journal descriptions, editors generally select book reviewers (i.e., book reviews are solicited by editors).

For the most part, the journals included here give the same specifications for manuscript preparation. However, some of the journals have particular style idiosyncracies, to list all of which would be counterproductive to fulfilling the purpose of this publication. Individual authors should consult the guidelines provided by the journals themselves for specific details. Many of those published guidelines are available from the Reference Section of the Laboratory's Central Research Library.

Industry-standard document preparation guidelines are as follows:

- use 21.7 × 27.9-cm (8-½ × 11-in.) plain white paper (some require bond);
- double space the text and type on only one side of the paper;
- leave adequate margins [3.8 cm (1-½ in.)];
- use a standard typewriter and both uppercase and lowercase letters;
- use metric (SI) units throughout;
- submit no larger than 8 × 10 in. black-and-white glossies of illustrations with your manuscript;

Following these guidelines will produce a manuscript acceptable to almost any publisher.

ORNL is making significant contributions toward solving important research and technological problems; we need to ensure, however, that our work receives the recognition needed, both in the research community and nationally, to make our efforts worthwhile. This manual provides some basic

information and pointers to help you begin writing and publishing in the wide-circulation, semitechnical journals. We do need to continue to publish our research results in high-standing technical journals, but, additionally, we should try to communicate what we are doing to a much larger audience, as is made available to us by the semitechnical journals. The following section provides a brief description of about 35 semitechnical publications and is intended to be used as a handy reference to these journals.



Journal Descriptions

American Laboratory	9
American Scientist	10
American Water Works Association Journal	11
Analytical Chemistry	13
ASHRAE Journal	14
BioScience	15
The Bulletin of the Atomic Scientists	16
Chemical and Engineering News	17
Chemical Engineering	19
Chilton's Instruments and Control Systems	21
Civil Engineering	22
Energy: The International Journal	23
Environment	24
Environmental Science and Technology	25
Fusion	26
High Technology	27
IEEE Spectrum	28
Industrial Research and Development	29
InTech	30
Journal of Chemical Education	31
Laser Focus	32
Mechanical Engineering	33
Nature	34
New Scientist	35
Physics Today	36
Power	37
Power Engineering	38
Science	39
Science Digest	40
Scientific American	41
SciQuest	42
Sierra	43
Technology Review	44





Publisher: International Scientific Communications, Inc.

Editor: Dr. Brian Howard, 808 Kings Highway, P.O. Box 827 Fairfield, CT 06430 (203) 576-0500
(Telex: 964-292)

Circulation: 130,000 (plus an additional 60,000 when published in *International Laboratory*)

Audience: Experimental chemists and biologists working in academic and industrial sectors and in government research organizations

Description: Published monthly, this journal describes new ways of using instrumentation and equipment to do biological and chemical research. Each issue is devoted to one particular theme. Some of the 1982 themes were as follows: thermal analysis/chromatography, laboratory automation/laboratory computers, spectroscopy, microscopy, chemical analysis, environmental analysis, and separation techniques.

Contributed Materials:

Feature articles

Departments

"Laboratory Automation"

"Laboratory Note"

"Reference Materials"

Staff-written Materials:

Editor's page

New products

Review Procedures: The decision as to whether to accept an article is made by the editor, who is, himself, a physical chemist. An article may also be reviewed by other qualified readers, usually local university professors.

Manuscript Specifications: Standard. The manuscript should be typed double spaced, about 2000 to 2500 words, with 4 to 6 figures, and submitted in triplicate. "Articles should be written in standard English following the usual style of chemistry journals." The editors specifically request that you avoid using specialized jargon.

Comments: Potential contributors are encouraged to consult with the editor before writing and submitting an article. If an article is published in *American Laboratory*, it will also be published in *International Laboratory*, which reaches an additional 60,000 researchers throughout the world.



Publisher: Sigma Xi, The Scientific Research Society, Inc.

Editor: Michelle Press, Editor, 345 Whitney Avenue, New Haven, CT 06511 (203) 624-2566

Circulation: 130,000

Audience: Members of the research society, including students in the 500 chapters on university campuses, and researchers working at both government and industry laboratories.

Description: A broad-based, general science periodical, published bimonthly. Articles report results of R&D in numerous scientific genres (physical, earth, life, behavioral) and engineering, and some deal with science history.

Contributed Materials:

Feature articles

Book reviews (a fairly sizeable section)

Letters to the editor (short)

Staff-written Materials:

"Sigma Xi News"

Listing of books reviewed

Review Procedures: *American Scientist* is a refereed journal. When a paper is received, it is first reviewed by the editorial board to determine if it is something they would be interested in publishing. If it is, the paper is then sent to several readers in the particular field for a technical review. The review is done anonymously, and the journal selects the reviewers (authors do not submit names of possible reviewers).

Manuscript Specifications: The manuscript should be no more than 25 pages long (double spaced). No more than 10 illustrations should accompany the article. Each illustration should have a caption and a complete description.

Comments: Articles written for this publication should be neither too technical nor too specialized. Check back issues of the journal to get a good idea of the usual subject matter of articles the journal prints as well as the level of detail included. The journal editor can be consulted to see if the topic you have in mind might be of interest. *American Scientist* publishes unsolicited papers as well as invited ones.



Publisher: American Water Works Association

Editor: Nancy M. Zeilig, Editor, 6666 W. Quincy Avenue, Denver, CO 80235 (303) 794-7711

Circulation: 26,000

Audience: Those working in areas concerned with the operation and management of water supply systems, including utility personnel and researchers and engineers in this field.

Description: A monthly publication, the *AWWA Journal* deals mostly with topics of concern to those operating, managing, and supplying our water works (utility) systems. These topics are discussed from both a political (business) and a research focus. The magazine features a theme article each month, and most of the rest of the articles for the month will be centered around that theme. The feature articles fall into two categories: management and operations and research and technology.

Contributed Materials:

Major feature articles

"Viewpoint"

Letters

Staff-written Materials:

"News of the Field Update"

"Theme Introduction"

Book reviews

"Face-to-Face" (Interviews with utility managers and others)

"Law and Water" (Descriptions of recent court cases)

Review Procedures: One original and two copies of your manuscript should be submitted for review. Manuscripts are reviewed in-house first and may be accepted for publication at this point. Some articles are sent outside for additional review. Depending on the recommendations of the outside reviewers, the articles are either accepted or rejected.

Manuscript Specifications: Following are the specifications for articles written for the "Viewpoints" section. Type double spaced on plain white paper that will take pencil and ink markings and erasures. The article should run no more than 1000 words. The viewpoint should express thoughts on topics of interest to utility personnel.

The complete packet for manuscripts submitted to be considered for feature articles should include a 100-word abstract, all illustrations to be included, and all figure captions. Tables and figures should not be run in with the text but should be referenced where appropriate and put at the end of the packet.

References should be numbered sequentially throughout the text, with the first number assigned to a reference being used for any subsequent references to it. Footnotes may be used also, identified by the standard notation sequence (i.e., asterisk, dagger, double dagger, etc.). Because the title page should include (among other things) the author's affiliation at the time the article is submitted, work performed under previous auspices should be stated in the acknowledgments. Finally—an important difference here—the editors request that you write in the third person (i.e., "The author believes ...").

Comments: The journal gives preference to those articles that incorporate relevant illustrations such as photographs (8 × 10 glossies) and line drawings. The editors have provided a style sheet to show how your reference list and bibliography should be formatted. Some of the journal is made up of papers that have been presented at conferences and seminars sponsored by the Association. The editors plan what subject matter they want to cover in the journal each year, so if your article does not pertain to their selected topics, it may not be accepted or may not be published for some time. The editors do, then, advise an author when an accepted article is scheduled to be published.



Publisher: American Chemical Society

Editor: George H. Morrison, Editor, 1155 16th Street, NW, Washington, DC 20036 (202) 872-4570
[Teletype: (710) 822-0151]

Circulation: 36,000 (pass-along readership makes it about 150,000)

Audience: The analytical research community including those laboratory workers who use analytical methodology to solve their measurement problems.

Description: This journal is divided into two sections: the *A* section constitutes the magazine section; the *B* section is purely technical. The wide-ranging subject matter covers topics of interest to researchers working in all areas of analytical chemistry. As the editors of the magazine explain, articles either are entirely theoretical with regard to analysis or are reports of laboratory experiments that support, argue, refute, or extend established theory.

Contributed Material:

Feature articles (in magazine section)

Technical reports (in technical section)

Book reviews

"Correspondence" (longer, more substantive letters to the editor)

"Aids for Analytical Chemists"

Staff-written materials:

"Editor's Column"

"Focus"

"News"

"New Products"

Review Procedures: Review procedures are outlined in a publication titled "Peer Review in *Analytical Chemistry*." Generally, two reviewers are chosen based on staff recommendations. In making these recommendations, staff consider the subject matter of the paper, the experts available in a given area, and prior knowledge of the habits of proposed reviewers (i.e., those experts who are known to be slow reviewers are avoided when possible). At the time a copy of the manuscript and the proposed reviewers' names are sent to him, the editor may choose a third reviewer.

Manuscript Specifications: An extensive guide to authors, "Manuscript Requirements," is included in the January issue of this publication. This guide is designed to aid authors in writing, and editors and reviewers in expediting review and publication of manuscripts. The basic requirement is to follow industry standard in preparing manuscripts [i.e., type double or triple spaced on 8 1/2 × 11 in. paper or A4 paper, and make all supplements (tables, figures, etc.) of a size that can be shipped under the same cover as the text]. Other requirements as for title of the article, listing authorship, article scope, preparation of the abstract, format of the text, and countless other details are given in the authors' guide, also.

Comments: In addition to being allowed to suggest names of possible reviewers, authors of papers submitted to *AC* may also suggest the names of persons they do not want to review their manuscripts. If possible, the editors try to use at least one of the reviewers an author suggests.



Publisher: American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc.

Editor: Richard H. Green, Editor, 1791 Tullie Circle, NE, Atlanta, GA 30329 (404) 636-8400

Circulation: 42,000

Audience: Engineers, engineering students, architects, and manufacturers of heating, refrigerating, and air conditioning systems

Description: A monthly publication, the *ASHRAE Journal* covers such topic areas as environmental control; heating, refrigeration, and air conditioning R&D; and design and engineering news in the field.

Contributed Materials: Feature articles

Staff-written Materials:

Society communications

"Comment" (editorial)

"Departments"

Review Procedures: Any article submitted for publication must undergo editorial review and is accepted subject to the editor's recommendation. An article should be submitted at the first of the month, three months prior to the anticipated publication date (i.e., an article that you would like to have published in the May issue should be submitted no later than March 1). To expedite the review process, the editor requests that you send three copies of your manuscript.

Manuscript Specifications: Standard. The average length of accepted manuscripts is from 8 to 10 pages, with 4 or 5 reproducible glossy illustrations. Articles that discuss aspects of a specific installation or a solution to an engineering problem can be from 3 to 10 pages long. Whatever photos you deem essential may be included. However, you are cautioned not to use proprietary or trade names. A 50-word (maximum) abstract—succinct, clear and comprehensive—should accompany the article.

Comments: It would appear, judging by articles in back issues, that it helps to be a member of ASHRAE if you want to be published in the journal. The magazine publishes about five or six feature articles monthly. At least half of those in the issues we perused were written by outside (the editorial staff) contributors. However, as given in their lists of affiliations, these contributors were also ASHRAE members. In the "Invitation to Contributors," the editors specify that, "professionals who can write with authority are invited to contribute articles."



Publisher: American Institute of Biological Sciences

Editor: William G. Van der Kloot, 1401 Wilson Boulevard, Arlington, VA 22209 (703) 527-6776

Circulation: ~20,000

Audience: Professional biologists and advanced students

Description: A "nonspecialist" periodical that focuses on the myriad advances being made in the biological, medical, and agricultural sciences.

Contributed Materials:

Feature articles

Review articles

Commentaries

Editorials

Book reviews (about 15 to 20 reviews in each issue)

Cover photographs

Letters

Staff-written Materials:

"Features and News" (current topics of interest in biology research)

"Research" (expanded abstracts of research reports)

"Departments"

Review Procedures: Referees are chosen from among those competent in the field. You as an author are asked to submit the names of four potential authoritative reviewers from outside your own institution but within North America.

Manuscript Specifications: Standard format. Editorials (short statements of opinion) should not exceed 600 words; articles and commentaries (on articles published in *BioScience* and other professional journals and on current issues in the life sciences) should not exceed 5000 words (about five *BioScience* pages). This page limit includes graphic illustrations and tables, so adjust your text length to accommodate these. Except for reference style, manuscripts should conform to the *Council of Biology Editors Style Manual*. The preferred reference format is given in the *BioScience* style sheet, "Information for Contributors." The illustrations you submit with your manuscript should be of camera-ready quality. Photographs for *BioScience* covers should be color transparencies of biological subjects, especially unusual subjects or unusual photographic treatments of common subjects. Information should be included about the camera equipment used and a brief caption must accompany each photograph.

Comments: The *BioScience* editors are particularly interested in manuscripts summarizing work being done in important areas of biological investigation. These articles should be written for a broad audience of professional biologists and advanced students. Manuscripts may be edited, but no alterations are made final without the consent of the author. Papers are published in the order of acceptance. There is usually a six-month time lag between the time the article is received by *BioScience* and the time, if accepted, that it is published.



Publisher: The Educational Foundation for Nuclear Science, Inc.

Editor: Ruth Adams, Editor (Ruth Young, Managing Editor) 5801 S. Kenwood, Chicago, IL 60637
(312) 363-5225

Circulation: 23,000

Audience: Generally, laypersons and concerned scientists

Description: When founded in 1945, this journal had as its purpose to provide a forum for discussing the implications of the use of nuclear energy for peaceful and other uses. At least a third of the editorial material is still devoted to consideration of the threat of nuclear war. Published ten times yearly, the journal is now a science and public affairs journal; its contents deal generally with the impact of science and technology on public affairs as concern the environment, nuclear energy, energy issues, and especially arms control and disarmament.

Contributed and Staff-written Materials:

Feature articles

"Perspectives"

Book reviews

Film reviews (documentaries)

"Commentary"

Review Procedures: Articles to be published are generally selected by the editor and editor-in-chief (Bernard T. Feld of MIT). If the editors feel the manuscript warrants further review, it is submitted to the editorial advisory board (listed on inside-front journal cover) for their recommendations.

Manuscript Specifications: Standard. The *Bulletin* has no published guidelines. Manuscripts should be typed double spaced. The editors normally work with the authors in editing manuscripts to fit the style of the journal.

Comments: The journal contains mostly contributed rather than staff-written material. The majority of the articles published are solicited papers; about 30% are unsolicited. It is useful to confer with the editors about an article you are considering before you write it.



Publisher: The American Chemical Society

Editor: Michael Heylin, Editor, 1155 16th Street, NW, Washington, DC 20036 (202) 872-4600

Circulation: 134,000

Audience: Academic/scientific, especially members of the American Chemical Society

Description: *Chemical and Engineering News* is the official publication of the American Chemical Society. As such, the articles included in this publication try to cover the whole range of current activity in the field under discussion, comprehensively and even-handedly. Almost the entire magazine is written by the staff, but there are sometimes special reports and book reviews that are contributed.

Contributed Materials:

"Special Reports"

Book Reviews

Letters

Staff-written Materials:

Major articles

News items

Book reviews

Review Procedures: Your manuscript will be reviewed by "a few independent authorities" prior to publication. When you submit your manuscript you should send along with it the names of three or four persons, outside ORNL but in North America, who you think could act as qualified reviewers. *C&EN* reserves the right, however, to choose other reviewers as well.

Manuscript Specifications: Standard. Manuscripts for the "Special Reports" section of the journal range between 5000 and 8000 words (that's about 20 to 30 typewritten pages). The publishers request that the tone of these articles be conversational. Avoid using specialized jargon and unfamiliar abbreviations and acronyms. You may include a glossary in which you define terms not likely to be familiar to most of your readers. Write the article as a continuous narrative, use the active voice whenever possible, and refer to your own work using the first person singular (i.e., use "we" only when you mean you and someone else). A brief sketch of your career (or a resume from which one can be created) should be included. They would also like to have your photograph, an informal one (you in the lab, at your desk, or in some other work environment) would suffice. You need supply only rough sketches of the illustrations (diagrams, graphs, or tables) you want to include in the article because they like to do their own artwork to ensure a consistency of style throughout the publication. Photos that accompany the article should be 8 × 10 black and white glossies; however, if it is determined that a color photo you wish to include would in some way significantly enhance your article, its use will be considered. The publishers would also like contributions of color photos that might be used on the cover. These can be submitted as color transparencies, slides, or prints.

Comments: The publishers see their audience as being scientifically sophisticated, probably with degrees in chemistry or chemical engineering, working in the diverse areas of chemical science and technology. These could be in the chemical process industries or in academia or government. Therefore, articles written for this publication should not be written on the same level that articles written for specialists in an area would be.



Publisher: McGraw-Hill, Inc.

Editor: Nicholas P. Chopey, Editor, McGraw-Hill, 1221 Avenue of the Americas, New York, NY 10020 (212) 997-3198 (or 997-2197 or 1212) Telex: 127960

Circulation: 75,000 (close to 200,000 counting pass-along readership)

Audience: Chemical engineers and technicians in related fields in the chemical process industries. This includes persons working as chemists or mechanical engineers, and those working in R&D, design, construction, production, or technical management. As the publishers themselves state, *CE* covers "chemical technology for profit-minded engineers."

Description: This is a biweekly publication. Its subject matter is designed to give practical information to readers that they can apply on the job, as well as some idea of what is (or will be) happening generally that will affect the chemical process industries.

Contributed Materials:

Feature reports

Special reports (shorter papers on specific topics, such as "You and Your Job," "Operations and Maintenance," etc.)

"Bookshelf" (book reviews)

Letters (to the editor)

Staff-written Materials:

News items

"New Products and Services"

Review Procedures: Your manuscript will be circulated among the editorial staff and, perhaps, to an outside expert for review. Once all the evaluations are in, you will be advised as to the consensus of the reviewers (i.e., whether your manuscript is suitable for publication as it is, requires modification, needs additional information, or is not suitable for *CE*). You will be given a clear statement of their feeling and whatever guidance the editorial staff deems appropriate. If your manuscript is satisfactory—either as submitted or subsequent to revision—you will be formally notified that your manuscript has been accepted for publication. After the release of copyright has been received by *CE*, your manuscript will be tentatively scheduled for a specific issue and will at that time be assigned to one of the staff editors. Editing may be only minimal or it may be substantive, but the publishers say they will "strive to send you a copy of the edited version of your manuscript well before publication," to allow you to check it for accuracy.

Manuscript Specifications: Standard. However, the publishers request that everything (tables, figure captions, footnotes, nomenclature, and literature references) be double spaced. Manuscripts should run between 16 and 25 typewritten pages. This means that the published article would run between 4 and 6 printed pages.

Comments: The *CE* editorial staff are, themselves, trained in engineering fields and are therefore able to help you produce the kind of article both they and you will like and will be proud of. The article you submit to them does not have to be letter perfect. The editors will work with you to produce a polished final version. If you have merely an idea of a topic you would like to

pursue, send the editors an outline and they will quickly get back to you with specific comments as to how you might proceed. They will even check outlines and go over manuscript ideas before you obtain company clearance, but you must have secured this clearance and informed them of such before you submit your finished article.



Publisher: Chilton Company

Editor: Ron Kuhfeld, Managing Editor, Chilton Way, Radnor, PA 19089 (215) 964-4000

Circulation: 80,000

Audience: Both users and designers of instrumentation and controls systems for industrial purposes

Description: Published 13 times yearly, this magazine informs its readers about ways in which they can apply the latest information on instrumentation and control systems. The journal covers the spectrum of industrial processing control systems, including equipment used in automobile, petroleum refining, textile, pulp and paper, and food processing industries, to name a few. It also provides updated information on new techniques, design shortcuts, better equipment, the latest engineering developments, and solutions to existing problems. The technical articles cover the areas of measuring and transmitting, controlling and computing, and actuating—particularly in these three technologies: electronic, mechanical, and pneumatic/hydraulic.

Contributed Materials:

Feature articles

Letters

Staff-written Materials:

"Departments"

"News"

"Books"

"Events"

New products and literature

Review Procedures: Articles are reviewed by two or three of the staff editors and are then sent to the managing editor for his review. The editors' recommendations on articles are sent to the editor-in-chief, who makes the final decision as to whether the article will be accepted. The guidelines from the editors stress that the company and author are given a by-line and are responsible for the technical accuracy of the article.

Manuscript Specifications: Feature articles should run between 5 and 12 typewritten pages, double spaced (about 3 to 5 printed pages). Authors are encouraged to contact the editors before submitting a manuscript. The editors will work with you to develop a good feature article.

Comments: The editors particularly encourage articles on how to save more energy in industries, using instruments and control systems.



Publisher: American Society of Civil Engineers

Editor: K. A. (Ned) Godfrey, Jr., Editor, 345 E. 47th Street, New York, NY 10017 (212) 705-7507

Circulation: 85,000

Audience: Academic/scientific, particularly members of ASCE.

Description: *Civil Engineering* is one of a number of publications of the ASCE. Published monthly, *Civil Engineering* serves as a primary source of news of general interest to members of ASCE. It is an outlet for papers dealing with professional and ethical subjects of broad application and is a source of news of current technical and professional activities.

Contributed Materials:

Feature articles

Letters

Staff-written Materials:

Feature articles

"Engineering News"

"ASCE News"

"Calendar"

"Publications"

"New Products"

Review Procedures: A contributed manuscript is usually edited for clarity, readability, length, and—most importantly—content. The editor sometimes seeks the assistance of a reviewer who is expert in the field covered by a highly technical paper. Should there be some conflict regarding the acceptance of a manuscript for publication, the ASCE Committee on Publications makes the final decision for the society.

Manuscript Specifications: Standard. The suggested maximum length is 10 double-spaced pages. The publishers require original illustrations and prefer black-and-white glossy prints. You should direct questions about other particulars of formatting to the editor.

Comments: Contributed articles include the author's name, professional affiliation, and a very brief (one or two lines) biosketch, which includes only the author's work and educational backgrounds.



Publisher: Pergamon Press

Editor: Professor S. S. Penner, Editor, Energy Center, University of California/San Diego, La Jolla, CA 92093 (619) 452-4284

Circulation: (Not available)

Audience: Researchers working in all aspects of energy and energy-related R&D fields

Description: This journal is intended to serve as a multidisciplinary focus for activities relating to the development, assessment, and management of energy-related programs. It particularly stresses the economic, environmental, and social aspects of energy and energy systems.

Contributed Materials:

Feature articles

Notes

Review Procedures: Manuscripts are reviewed by a member (members) of the journal's editorial staff. "Prior endorsement of the manuscript by one of the associate editors will accelerate acceptance and printing." Two of these associate editors are from ORNL (see inside-front cover of a recent issue of the journal).

Manuscript Specifications: Standard. Manuscripts should be submitted in duplicate, typewritten, double spaced. Leave a wide margin for noting comments and suggested revisions. All articles and "Notes" should be prefaced by a brief abstract. Footnotes may be used and should be indicated in the text by the standard footnote symbols, in order. References should be numbered sequentially throughout. Include your tables and figures with the manuscript, but do not fix them in place. More specifics of manuscript preparation are given in the publisher's "Information to Contributors," included on the inside-back cover of the journal.

Comments: Exceptional requirements of clarity and careful documentation are required of the authors included in the pages of *Energy*, to accommodate the demands occasioned by the widely varied specialties of the readers. The publishers are actively soliciting contributions in the following areas: input-output analyses relating to energy-consuming systems, careful resource or reserve assessments of all types, energy-conservation measures and their implementations, incisive evaluation of energy-systems managements, environmental impact assessments, and policy alternatives stressing economic implications.



Publisher: The Helen Dwight Reid Educational Foundation (in cooperation with The Scientist's Institute for Public Information)

Editor: Jane Scully, Managing Editor, 4000 Albemarle Street, NW, Washington DC 20016 (202) 362-6445

Circulation: ~20,000

Audience: General public

Description: Published ten times yearly, *Environment* includes articles dealing with public issues that involve the interrelationship between science and technology and the physical, biological, and social environment. Facts and analyses must be presented in a manner that will inform public decision making.

Contributed Materials:

Feature articles

Short (two-page) "Overview" articles

Book reviews

Staff-written Materials:

"Spectrum" (excerpts from newspapers or other journals)

Editorials

Review Procedures: Submitted manuscripts are reviewed by the editorial staff. However, it appears the editors do at times recommend that a manuscript undergo a more technical review than they can give. It then becomes the editor's responsibility to suggest a reviewer.

Manuscript Specifications: The publishers prefer manuscripts that are between 2500 and 5000 words long. They have established a set of criteria (really a set of questions) to which a manuscript that is to be accepted for publication must conform. To summarize, the proposed article should first and foremost fall within the scope of the journal; it should deal with a subject of significance; and it should make an original contribution to the public's understanding of a subject. It should be objective, with conclusions following from the facts and analysis presented; it should treat controversial issues in a responsible and informed manner; points made should be scientifically accurate and supported factually; it should be adequately referenced; it should be well written, well organized, relatively free of jargon, and understandable by the intelligent, interested layman.

The journal takes responsibility for selecting photographs and lead-in excerpts, for writing photo captions, and for preparing most graphs and other illustrations that appear in *Environment*.

Comments: Articles in *Environment* are much less technical than those in many of the journals covered here. The tone is, therefore, much less formal. The subjects covered are of much more popular interest as well. Here, as in most instances, it would be to your advantage to peruse a few back issues of the magazine to get a feel for the approach you should take in your article.



Publisher: The American Chemical Society

Editor: Russell F. Christman, Editor, 1155 16th Street, NW, Washington, DC 20036 (202) 872-4600

Circulation: ~20,000

Audience: Academic/scientific

Description: A monthly publication, *Environmental Science and Technology* "reports on aspects of the environment and its control by scientific, engineering, and political means."

Contributed Materials:

Feature articles

Critical reviews

Research papers

"Notes and Correspondence"

Staff-written Materials:

"Outlook"

"Regulatory Focus"

"Departments"

Review Procedures: Contributed feature articles, critical reviews, and current research papers undergo both peer and editorial review.

Manuscript Specifications: The *ES&T* "Editorial Policy," published in the January issue of the journal, gives a description of the desired content and focus of each of the types of contributed material they publish. Further, the publishers suggest that you see the *Handbook for Authors of Papers in American Chemical Society Publications* (1978) for a detailed discussion, with examples, of how to prepare the manuscript to meet their requirements. Preparing your article with these preferred standards in mind will do much to ensure a serious consideration of your manuscript for publication.

Comments: Although we have listed only one of the *ES&T* editors, contributors are instructed to send their feature manuscripts to the managing editor but to address research manuscripts to Manager, Manuscript Reviewing Office. The names of the current holders of these positions are printed in the front of each issue of the journal.



Publisher: Fusion Energy Foundation

Editor: Marjorie Hecht, Managing Editor, Box 1438, Radio City Station New York, New York 10101

Circulation: 150,000

Audience: Laypersons who are typically pronuclear and protechnology

Description: Published monthly, this journal began solely as a fusion energy publication, but now more generally covers developments "at the frontiers of science and energy." Included are articles on innovations in technology and industrial applications of technology. The philosophical orientation of the journal is pro growth and development.

Contributed Materials: Feature articles

Staff-written Materials:

Feature articles

Interviews

News

Review Procedures: The editors of this journal want potential authors to contact them before submitting a manuscript. At this stage, the author can present his (or her) idea for an article. Based on this initial contact the editors will determine whether or not the paper will be accepted. If they agree that this topic is suited to the publication, the editors will provide advice on how the author should proceed (e.g., give guidance on manuscript format, etc.). When the completed manuscript is submitted, it will be read by both a technical and a nontechnical staff member. Occasionally a paper is reviewed by an outside specialist in the field.

Manuscript Specifications: There are no formal guidelines on how to prepare a manuscript for publication in this journal. The editors prefer to talk with each author individually before a manuscript is prepared to give individual, informal instructions.

Comments: The editors will also interview researchers, a technique that would allow you to publicize your research without taking the time to prepare a paper. Again, discuss your ideas for an interview with the editors. It should be noted that although this journal enjoys a large subscription rate, it currently is having some financial difficulties; consequently, they are behind in getting some issues out. The financial problems are a result of trying to change the magazine to a full-color publication, which requires substantial advertising money. Also, because the journal has taken both a pro nuclear and a pro development stance, firms have been reluctant to advertise in this publication.



Publisher: Technology Publishing Company

Editor: Robert Haavind, Editor, 38 Commercial Wharf, Boston MA 02110 (617) 227-4700

Circulation: 300,000

Audience: A diverse audience, including engineering managers or executives at technology-based companies, reaching both technical and nontechnical people interested in the latest technologies.

Description: Published bimonthly, *High Technology* publishes review articles on current developments in all types of technologies. Normally written by established writers or the journal's staff writers, these articles include practical information on business, industrial, military, aerospace, energy, and other technologies.

Contributed Materials:

Feature articles

Review articles

"Letters"

Staff-written Materials:

Feature articles

"Departments"

"Perspectives"

Review Procedures: Although *High Technology* publishes articles mainly from established writers (e.g., freelance writers with a scientific background who have already published in national journals), the editors are willing to consider articles from scientists who write well. You are encouraged to send an outline of the article you have in mind along with a sample of your published work.

Comments: If you do not feel qualified to write for this journal but have a good idea for an article, contact the editor. If he likes the idea, he may assign a staff writer to do the actual writing based on the information you supply.



Publisher: Institute of Electrical and Electronics Engineers, Inc.

Editor: Donald Christiansen, Editor and Publisher, *IEEE Spectrum*, 345, E. 47th Street, New York, NY 10017 (212) 644-7554

Circulation: ~100,000

Audience: All IEEE members, excluding students

Description: *IEEE Spectrum* is a monthly technical magazine in the electrical and electronics fields, which publishes technical and career-oriented articles, news for electrical engineers, and information on R&D in electrical engineering. Tutorial articles are included as well as reviews of the state of the art in specific fields. Articles should be written for a very general audience; the subject should have broad significance and appeal and be written so that it is understandable to the "average" engineer.

Contributed Materials:

Feature articles

"Forum" (letters)

Book reviews

Staff-written Materials:

"Calendar" (upcoming meetings)

News items

IEEE information

Review Procedures: Because many *IEEE Spectrum* articles are invited papers, the journal recommends that prospective authors consult with the editors about the proposed topic before writing and submitting a paper.

Manuscript Specifications: Editors for the IEEE journals have compiled a very comprehensive set of guidelines, available at the Reference Section of the Central Research Library. This publication, "Information for IEEE Authors," addresses such areas as preparation of text, including its organization; use of metric (SI) units; use of symbols and abbreviations; mathematical notations; references; and illustrations and captions.

Comments: The editors emphasize that they will work closely with authors to revise their articles, extensively if necessary, to enhance their readability and usefulness to the reader.



Publisher: Technical Publishing (Dun and Bradstreet)

Editor: Robert R. Jones, Editor and Editorial Director, 1301 S. Grove, Barrington, IL 60010 (312) 381-1840; TWX (910) 651-1924

Circulation: >105,000 (a pass-along readership of another 400,000)

Audience: Scientists in all phases of R&D, especially chemists; physicists; and chemical, electronic, and aerospace engineers

Description: A monthly publication, *Industrial Research and Development* bills itself as the international journal of research, development, and quality assurance, bringing what it determines to be state-of-the-art news of importance to people in R&D. This journal has two major divisions: "News and Technology," (primarily staff written) and "Articles" (contributed).

Contributed Materials:

Feature articles

Letters

Staff-written Materials:

Editorials

"Research TRENDLETTER"

"R/D News in Brief"

"News"

"News of Science and Technology"

Review Procedures: Manuscripts are reviewed by the editorial staff and others whom they select. Articles may need to be shortened or revised, in which case they are sent back for an author check before they are printed.

Manuscript Specifications: Articles written for this publication should be relatively short (1600 to 2000 words or 8 to 10 manuscript pages, double spaced). You should try to make your article interesting (to other than specialists), attractive (lots of snappy graphics, which the *IR&D* artists will prepare from your sketches), and concise. The *IR&D* "Author's Guide" gives specifics of preferred article content and focus, organizing tips, treatment of figures and tables, and a sample reference list. Some specific requirements of this publication are (1) use metric (SI) units, except in instances in which their use would sound ridiculous; (2) do not refer to the illustrations or tables in the text (i.e., no callouts), but make notations in the manuscript margins as to what part of the text they apply, and (3) do not use footnotes.

Comments: Some of the articles published in *IR&D* are written at the request of the editors; others are merely submitted by persons interested in writing for this publication. In either case, but especially in the latter, it would be wise to send a brief outline or summary to the editor before spending a lot of time preparing the article. This will give the editors the opportunity to offer helpful assistance and guidance at an early stage, to ensure that the proposed subject and approach will produce an article suited to this publication.



Publisher: Instrument Society of America

Editor: Alan Krigman, Editorial Director, ICON, 211 S. 45th Street, Philadelphia, PA 19104

Circulation: 25,000

Audience: Members of ISA, including engineers from industry, universities, and research communities

Description: Published monthly, this journal focuses on instrumentation technology. As an ISA publication, *InTech* includes articles, news, and other features that are likely to be of interest to those working in the field of instrumentation control. The stated purpose of the journal is "to provide a medium that serves the information needs of the profession."

Contributed Materials: Feature articles

Staff-written Materials:

"The Industry"

"The Instrumentation" (products and literature)

"The Profession"

Review Procedures: Unsolicited articles are considered for publication. The editorial staff select all articles that are to be included.

Manuscript Specifications: Articles are usually from 3 to 4 printed pages long; this means that the manuscript should be about 10 to 15 double-spaced, typewritten pages.

Comments: Authors are encouraged to study back issues of *InTech* to become familiar with the scope and style of articles printed in the journal. Prior consultation with the editors of this journal is not recommended.



Publisher: American Chemical Society, Division Of Chemical Education

Editor: J. J. Lagowski, Editor, Department of Chemistry, University of Texas, Austin, TX 78712 (512) 471-3288

Circulation: 25,000

Audience: Mainly chemistry teachers at graduate, undergraduate, and high school levels, but also some industrial chemists who use the journal to keep in touch with the different areas of chemistry

Description: This monthly publication presents material that would be useful to chemistry teachers, including review articles, descriptions of laboratory experiments and procedures that could be used in teaching, and features on safety and new curricula. This journal would not be the place to report initial research results, but it would be a good medium for retrospective articles on research or for describing applications of research work. There are two special issues each year that contain invited papers, presented at state-of-the-art symposia (sponsored by ACS, Division of Chemical Education) on topics of current research interest.

Contributed Materials and Staff-written materials:

Feature articles

Review articles

General interest articles

"Features"

"Secondary School Chemistry"

"Laboratory Experiments"

"Notes"

Review Procedures: As with other ACS publications, articles submitted to this journal are reviewed by outside reviewers, normally by two (university) reviewers qualified in the particular field of chemistry. About 20% of all articles submitted are accepted without much modification, and another 30 to 40% of them are eventually accepted, after the author revises his article in response to the reviewers' comments.

Manuscript Specifications: The *Journal* publishes guidelines to authors in the December issue each year. The "Notice to Authors" includes information on typing format, footnote and reference style, length of manuscripts, and form of illustrations. Generally, manuscripts should be double spaced, submitted in triplicate, and not more than 20 pages long, including figures, tables, and citations. Manuscripts describing experiments should be limited to 8 pages.

Comments: The editors suggest that this journal might be a good place to publish some collaborative work ORNL researchers are doing with university professors. Articles for this journal should be written so that chemists not doing research in your specific field of study can also understand the material.



Publisher: Penwell Publishing Company

Editor: Dr. Morris R. Levitt, Editor-in-Chief, 119 Russell Street, Littleton, MA 01460 (617) 486-9501

Circulation: 25,000

Audience: Includes a high concentration of graduate-level researchers, but many engineers and designers of laser and laser-related systems subscribe to the journal as well. Also includes researchers at laboratories, universities, and in industry.

Description: Published monthly (with two issues in January), *Laser Focus* presents a mixture of articles, including basic research, R&D, and systems design work. The focus is on news-breaking developments in lasers and laser applications, but review articles and tutorial information are also included. The editor explains that *Laser Focus* is reputed to be the highest-quality technical and scientific journal of the trade publications in the laser field.

Contributed Materials:

- Feature articles
- Review articles
- Fiberoptic feature
- Cover photos (with captions)

Staff-written Materials:

- Feature articles
- "Departments"
- News
- Books
- Products and Technology

Review Procedures: The review process is more informal than the review an article would undergo for a highly technical journal. Depending on the length and complexity of the manuscript, it may be reviewed by the editorial staff only, or by the staff and the editorial advisory board. In some instances, articles may also be reviewed by outside technical experts.

Manuscript Specifications: There are no published author guidelines. Feature articles can be from 2 to 12 typewritten pages, double spaced, and illustrations should be included. High-quality graphics materials (i.e., ready for publication) are preferred, but *Laser Focus* artists can do their own graphics work from legible drawings and graphs. Black-and-white photos should be of good quality; color transparencies are needed for color photos. The editors encourage researchers to submit color transparencies for the journal's cover; explanatory information should be provided with these.

Comments: The editors encourage researchers to contact them informally to discuss new developments in their work. Such information may be included in the journal's "News" section.



Publisher: American Society of Mechanical Engineers

Editor: Charles W. Beardsley, Editor, ASME, United Engineering Center, 345 E. 47th Street, New York, NY 10017 (212) 705-7782/3

Circulation: 115,000

Audience: Members of ASME, graduate-level mechanical engineers, mechanical engineering students

Description: Published monthly, this journal publishes, "readable articles" on a wide range of technologies, including information on materials development, aerospace industries, turbomachinery, computer applications, and photoelasticity. Each issue normally contains one energy-related article. Information about mechanical engineering education and professional news is also presented. *ME* publishes timely, state-of-the-art survey articles or articles describing applications of technologies. Highly technical articles or review articles are not published in this journal, which reaches a very broad audience. The editor plans a central theme for each *ME* issue.

Contributed Materials:

Feature articles

"Letters and Comment"

Staff-written Materials:

Feature articles

Editorials

"Technical Developments"

News

Review Procedures: This journal publishes both invited and unsolicited articles. The review procedure varies depending on the type of article submitted. Most unsolicited manuscripts are reviewed by one outside expert, but sometimes the editor may make the decision without outside review.

Manuscript Specifications: There are no formal manuscript specifications, but the manuscript should be double spaced, with wide margins. Both black-and-white and color illustrations are accepted. Articles generally run about 3000 words long.

Comments: The editor would prefer that authors contact him to describe the proposed article before it is actually written. The journal edits articles only minimally; the editors depend on the authors to write clearly.



Publisher: Macmillan Journals Ltd.

Editor: John Maddox, Editor, Suite 1530, 15 E. 26th Street, New York, NY 10010, USA

Circulation: 26,066

Audience: General

Description: This weekly journal, published in Great Britain, terms itself "the international journal of general science." It features articles reporting on current R&D in all the sciences.

Contributed Materials:

Review articles (generally solicited, but unsolicited ones, too, following consultation with the office)

Scientific articles

Letters to *Nature* (short reports)

"Matters Arising" (comments on articles or letters previously published in *Nature*)

"News and Views"

Book reviews

Staff-written Materials:

News

"Miscellany"

Review Procedures: Manuscripts may be submitted to either the London or the New York office, but the decision as to whether or not to publish will be made in the London office only.

Manuscript Specifications: Because of the diversity of *Nature's* readership, authors are cautioned to ensure that what they say can be widely understood. In the "Guide to Authors" (printed at the bottom of the contents page of each issue) the editors have outlined manuscript specifications for each of the types of contributed articles they publish. Covered here are such things as preferred manuscript length, number of displayed items (i.e., figures and tables), and referencing style. Consult this guide before you prepare your paper, to increase the possibility of its being accepted.

Comments: Articles published in *Nature* carry both the received date and the date of acceptance for publication. Apparent from these is a time lag of about three months between the time an article is submitted and the time it is accepted, and a time lag of about six months between the time an article is accepted and the time it is published. These time variances should be taken into account when you submit your manuscript.



Publisher: New Science Publications

Editor: Michael Kenwood, Editor, *New Scientist*, Commonwealth House, 1-19 New Oxford Street, London WC1A 1NG, England; Christopher Joyce, U.S. Editor, 813 National Press Building, Washington, DC 20045 [U.S. Office—Dee Knapp, IPC Magazines, Ltd., 205 E. 42nd Street, New York, NY 10017 (212) 867-2080]

Circulation: 85,000

Audience: General scientific community; corporation libraries; laypersons

Description: This British magazine is published weekly and features subjects covering everything from the alignment of the planets and their influence to the benefits of giving aspirin to your plants. Basically a science news magazine, the journal includes a potpourri of timely information on science and technology. The magazine is not a science journal containing long, technical papers; it publishes short, newsworthy articles that are enjoyable to read. Occasionally, the journal may devote one issue to a timely topic.

Contributed Materials:

- Feature articles
- Book reviews
- Letters

Staff-written Materials:

- "Comment"
- "This Week"
- "Monitor"
- "Technology"
- "Forum"

Review Procedures: *New Scientist* does welcome unsolicited material. The decision as to whether to publish manuscripts is made by the editorial board in London.

Manuscript Specifications: There are no guidelines on manuscript format; it is assumed that manuscripts will be presentable (double spaced, wide margins, etc.). Articles are generally rather short (~2 to 3 printed pages). Manuscripts should be submitted to Michael Kenward in the London office, but you can contact the U.S. office for information.

Comments: Potential contributors are encouraged to study back issues of *New Scientist* to get an understanding of the style, subject matter, and technical depth of articles presented in the journal. For an article to be accepted, it should be newsworthy, interesting to a broad audience, and well-written (entertaining), and it should provide information to readers that has not already been published. Authors who publish in *New Scientist* are usually professional writers who have a science background. Additionally the magazine has a large staff of writers/editors throughout the world who write for it.



Publisher: American Institute of Physics

Editor: Harold L. Davis, Editor, 335 E. 45th Street, New York, NY 10017 (212) 661-9404

Circulation: 71,500

Audience: Primarily physicists or those working in related fields, including scientists in all research sectors (universities, government, and industry)

Description: Published monthly, this publication gives a generalized treatment of physics and covers recent developments in experimental and theoretical physics. There is also some coverage, in various ways and from many standpoints, of the history of physics. One of the purposes of the journal is to provide a continuing educational service to physicists, to inform them of developments in areas of physics outside of their own field of expertise. Book reviews are also included.

Contributed Materials:

Feature articles

"Guest Comment" (of general scientific interest)

Book reviews

Letters (short, in response to recently published articles)

Staff-written Materials:

News

"Departments"

Editorials

Review Procedures: Manuscripts undergo an informal review by *Physics Today* staff and one outside expert.

Manuscript Specifications: Standard. The journal's published guidelines to prospective authors are available from the Reference Section of the Central Research Library.

Comments: Authors are asked to submit an outline of a proposed article to the editors for consideration. Based on this outline, the editors will decide if they are interested in your submitting the article.



Publisher: McGraw Hill, Inc.

Editor: Robert G. Schwieger, Editor-in-Chief, 1221 Avenue of the Americas, New York, NY 10020
(212) 997-1221

Circulation: 55,000

Audience: Managers and engineers actively engaged in power generation and plant energy systems in utilities and industry

Description: Designed for practicing engineers, this monthly publication deals with modern technology basic to the function of modernizing and applying energy, energy equipment, etc. Articles cover such topics as instrumentation and control; steam generation; energy management; pollution control; pumps, compressors, valves, and piping; turbines and diesels; and fuels and fuel handling.

Contributed Materials: Feature articles

Staff-written Materials:

Feature articles

Special reports

"Washington Update"

"Industry Notes"

"Departments"

Review Procedures: *Power* magazine has no established or printed guide to authors or review procedure. The editor-in-chief suggests that you send a one-page outline of your proposed manuscript to him for review. He will decide based on the outline whether the article as proposed would be useful to *Power*. If so, he will contact you.

Manuscript Specifications: None published. See Review Procedures, above. Each contributed feature article is edited by a staff editor, who receives a by-line at the end of the article (i.e., "Edited by..."). Feature articles are relatively short, approximately 2 to 5 printed pages.

Comments: The journal has a large staff of editors who both edit and write. A large portion of the journal, therefore, consists of staff-written material.



Publisher: Technical Publishing (A company of Dun and Bradstreet)

Editor: John Papamarcos, Editor, P.O. Box 1030, 1301 S. Grove Avenue, Barrington, IL 60010 (312) 381-1840

Circulation: 52,000

Audience: Field practitioners in the power industry

Description: A trade journal, published monthly, written primarily by field practitioners. Articles cover such topics as solutions to tricky design problems; new ways of solving old problems; and new equipment—what it does and how it does it better.

Contributed Materials: Feature articles

Staff-written Materials:

Feature articles

"Staff Report"

"Nuclear Power Engineering"

"Washington Energy Report"

"Environmentally Speaking"

"Departments"

Review Procedures: Before sending the manuscript, send the editor your story idea, giving the subject of the proposed article and your reasons for thinking this a significant topic. If the editor likes your idea and thinks it will work for this publication, he gives you the go ahead to produce your draft. In some cases, he will also, at this stage, make suggestions regarding organization or emphasis. This early correspondence almost ensures that the draft will be accepted. The draft will be edited, but if editing changes are substantial, the edited manuscript will be sent back for your approval before it is printed.

Manuscript Specifications: Because of the training and experience of the *PE* editorial staff in this field, the instructions they give to authors are fairly general. In other words, they don't feel that you as an author should have to worry with a lot of detail. What you can't do they can do for you. The manuscript can be as long or as short as you like—anywhere from 2 to 22 pages (double spaced)—as long as you get the whole story told. The editors will shorten your draft for you if it is too long to be published as submitted. One major requirement is that your manuscript include illustrations. However, you may send either finished drawings or rough sketches. The art staff redraws everything anyway.

Comments: Much of the material in this journal is staff written, including some of the feature articles.



Publisher: American Association for the Advancement of Science

Editor: Philip H. Abelson, Editor, *Science*, 1515 Massachusetts Ave., NW, Washington, DC 20005
(202) 467-4350

Circulation: 160,000

Audience: General scientific

Description: *Science* is a weekly publication that seeks to serve its readers as a medium for the presentation of important issues related to the advancement of science, particularly in areas dealing with the physical and life sciences. Articles should be written with a general scientific audience in mind.

Contributed Materials:

Articles

Reports (new research results—short papers preferred)

Letters (discussions of matters of general interest to scientists)

"Technical Comments" (letters concerning technical papers printed in *Science*)

Book Reviews

Staff-written Materials:

"Editorial"

"News and Comment"

Review Procedures: Almost all articles, reports, and technical comments are sent to two or more outside referees for evaluation of their significance and soundness. Anyone submitting a manuscript of one of these types is asked to submit along with the manuscript a letter of transmittal in which are included the names, addresses, and fields of interest of four to six persons in North America, but outside the writer's own institution, who are qualified to act as referees for the paper.

Manuscript Specifications: The editors of *Science* have compiled an extensive set of guidelines to expedite the handling and subsequent publication of your manuscript. These guidelines are published in the last issue of each volume (normally the last issue in September). This publication, "Instructions for Contributors," addresses such matters as preparation of the text and accompanying illustrations (figures and tables), use of metric (SI) units, references and notes, and equations and formulas.

Comments: Papers are edited to ensure effective communication between the author and his readers, most specifically, by eliminating ambiguities. If extensive rewriting of your manuscript is necessary to achieve this goal, the manuscript will be returned to you for your approval, to ensure the continued accuracy of meaning, before it is typeset.



Publisher: Hearst Magazines (A division of the Hearst Corporation)

Editor: Daniel E. Button, Editor, 888 7th Avenue, New York, NY 10106 (212) 262-7990

Circulation: 530,000

Audience: General (laymen)

Description: This magazine seeks both to inform and to entertain its readers in its presentation of new scientific developments.

Contributed Materials: Feature articles

Review Procedures: The editors suggest that the best place to begin submitting material is to the "Newscience" section of the magazine. They also ask that you not send a complete manuscript for review, but rather that you send a "well-thought-out query," including a writing sample, and let them judge based on these whether they would be interested in your writing a complete article for them.

Manuscript Specifications: Though they give no specifics of formatting in their guidance, the publishers do express some very definite ideas as to the kind of information they like to present in their magazine and how they like to have that information presented. Their first directive to prospective authors is to make your presentation of information "dramatic, lively, and entertaining." Cover your topic thoroughly, giving both the historical and futuristic perspectives, and try to ensure that you really have your readers' attention before you get too technical. They suggest further that you try then to keep reader attention by giving illustrative details—use metaphors and other comparisons or examples—to simplify the more technical information you present. "Include amazing facts."

Comments: In their guide to authors, the publishers of *Science Digest* express their goal as being, "to help our readers appreciate the beauty of science and the adventure of technology." This calls for a special kind of approach in presentation. If this sounds a little too popularized for what you want to say, then perhaps it would be best if you did not try to say it here.



Publisher: Scientific American, Inc.

Editor: Dennis Flanagan, Editor, Scientific American, 415 Madison Avenue, New York, NY 10017

Circulation: 715,000

Audience: General

Description: *Scientific American* is a multidisciplinary science magazine that interprets scientific and technological advances and theories. It also publishes articles about new R&D.

Contributed Materials:

Feature articles

Letters

Staff-written Materials:

"50 and 100 years ago"

Book reviews

"Science and the Citizen"

Bibliographies (lists of other supplemental readings)

Review Procedures: Before sending a completed manuscript for review, send an abstract, no more than 1-1/2 pages long, to the editorial office. The chief editor will review the abstract to determine if the magazine would be interested in your developing the idea further. If interested, the editor will give you some idea of how the article should be formatted and the subject matter approached to be most appealing to *SA* readers. Completed articles are refereed.

Manuscript Specifications: There are no published guidelines for authors submitting to *SA*. As is stated in the review procedures, the editors would prefer that you send an abstract for review first. If the idea is accepted, the editors will at that time discuss style and format.

Comments: *Scientific American* warns that unsolicited articles are submitted at the authors's own risk unless a self-addressed return envelope is included in the packet submitted. We have found that not only is it difficult to get good articles accepted by *SA*, but even when an article is accepted (and paid for), it may not be published because *SA* often accepts more articles than it will be able to publish. Not a good situation if you've already signed over the copyright to them. A point to keep in mind.



Publisher: American Chemical Society

Editor: Patricia A. Morgan, Managing Editor, *SciQuest*, American Chemical Society, 1155 Sixteenth Street, NW, Washington, DC 20036

Circulation: 35,000

Audience: General, nontechnical (high school students and informed laymen)

Description: Published ten times yearly, *SciQuest* (formerly *Chemistry*) attempts to focus on the whats, whys, and hows of contemporary science, presented in such a way as to entertain as well as inform a primarily nontechnical, but interested, audience. They particularly cover the area of atomic and molecular science activity, with specific emphasis on applications.

Contributed Materials: Feature articles

Staff-written Materials:

"Reports"

"Departments"

"Comment" (Commentary by Isaac Asimov)

Review Procedures: Because many of the articles printed in *SciQuest* are solicited, the editors suggest that before you send a completed manuscript you send a query letter accompanied by one or two short samples of your writing. Manuscripts are reviewed from the standpoints of both correctness and clarity of communication. In many cases, extensive editorial suggestions are made to ensure that the final article meets *SciQuest* requirements of style and content.

Manuscript Specifications: Though *SciQuest* does not have a fixed format, the editors suggest that you study back issues to get a good idea of what they require in their manuscripts. The major style requirement is that the article be easy to read. A typical manuscript should run between 1800 and 2000 words long (8 to 11 pages) and should be typed, triple spaced, on 8 1/2 X 11-in. paper. Other requirements include the following: use SI units; do not use footnotes; illustrations, diagrams, and photographs—all used generously in this publication—should have visual appeal and should clearly supplement the text. You may either supply your own photographs (glossies), or you may make suggestions as to where suitable ones can be found. *SciQuest* will also accept slides. Illustrations need be only carefully prepared sketches that can be completed by the *SciQuest* art staff. Specifics of preparing the suggested reading list, procedures, and other general information can be found in the *SciQuest* guide to authors. As is stated above, *SciQuest* is another publication of the American Chemical Society; therefore, the *ACS Handbook for Authors* would be another helpful resource to use in preparing your manuscript.

Comments: As stated in their author's guide, the object in writing for *SciQuest* is to generate interest and awareness in the reader, not expertise. Therefore, they suggest that using a casual, conversational style is the best way to achieve this. Most of the authors who publish in this journal are professional writers. ORNL authors who have published in *SciQuest* have received useful assistance from the journal's editors in writing their articles.



Publisher: Sierra Club

Editor: Mary Lou Van Deventer, Editorial Manager, Sierra Club, 530 Bush Street, San Francisco, CA 94108

Circulation: 180,000

Audience: General; environmentally concerned or active citizens; Sierra Club members

Description: *Sierra* is a bimonthly publication written to appeal to the "environmentally sophisticated" reader, interested in preserving wilderness areas, and against "dangerous" or "unhealthy" technologies. Most of the articles are contributed either by staff or by Sierra Club members.

Contributed Materials:

- Feature articles
- "Guest Opinions"
- Letters (short)

Staff-written Materials:

- Feature articles
- "News"
- "Politics" (impact of political decisions—made and projected—on environmental problems of interest)
- "The Observer"
- "For Young Readers"

Review Procedures: A manuscript accepted for review, based on a favorable response to your query, will be reviewed first by the editorial staff. If it passes inspection at this step, the manuscript will undergo an in-house policy review and will then be submitted for expert review. If judged to be "correct, timely, and important," the manuscript is formally accepted for publication and scheduled tentatively into the *Sierra* editorial forecast.

Manuscript Specifications: Guidelines given by *Sierra* for document preparation are sketchy, except to state that manuscripts should conform to industry standard (see the section of this document on general formatting). If available, send accompanying photos with the manuscript.

Comments: The prospective contributor should familiarize himself (herself) with the general style and tone of this publication because *Sierra* tends to publish only those manuscripts that fit the magazine's direction and style. As the official publication of an environmental group, *Sierra* is politically active against nuclear power and the opening of wilderness areas to energy exploration. It also lobbies for stronger environmental protection laws. However, the publishers of this magazine are interested in publishing articles on energy conservation and on the environment, particularly articles that have a political focus.



Publisher: Massachusetts Institute of Technology

Editor: John I. Mattill, Editor-in-Chief, Massachusetts Institute of Technology, Room 10-140, Massachusetts Institute of Technology, Cambridge, MA 02139 (617-253-8250)

Circulation: 65,000

Audience: General

Description: *Technology Review*, published eight times per year, reviews current technological and scientific advances and their effects on our culture. As part of its contents, this magazine includes a book review and comments section, comprising contributed as well as staff-written material.

Contributed material:

Features

Columns

"Books and Comments"

Letters

Staff-written material:

"First Line" (editorial)

"Trends" (new developments in areas of general interest)

"M.I.T. Reporter"

Review Procedures: *Technology Review* requests that prospective contributors query the editorial office directly about the topics of their interest, providing either an abstract or outline of the proposed manuscript before the completed manuscript is submitted. Though welcome, the office accepts no responsibility for the safekeeping of unsolicited manuscripts.

Manuscript Specifications: *Technology Review* has no printed guidelines for prospective contributors. The editor suggests that gaining familiarity with the magazine through back issues will be a helpful guide as to the preferred content and format of articles published in this magazine.

Comments: This journal depends mainly on MIT contributors for its material, but articles from other institutions are also published. Because ORNL is strong in both engineering and the social sciences, this journal may be a good medium for publishing some of your ideas.

ACKNOWLEDGMENTS

The authors gratefully acknowledge the assistance of the following persons in preparing this document. Rita L. Thearp, for her efforts in gathering the basic information included; John Holbrook, for his graphics contributions; and other staff of the ORNL Information Division, particularly, John Getsi and Jon Jefferson, for their helpful reviews of the draft; T. R. Walker, Cheryl Buford, and Bea Brown of the Composition Unit for coding and consultation on typography; and Ginger Ross, for makeup. We also thank Fred O'Hara, consultant, and Truman Anderson, for their reviews of various drafts of the document.

