

# GUIDE FOR AUTHORS

**Scope.** The JOURNAL OF CHEMICAL AND ENGINEERING DATA concentrates on two types of data: (1) Data which are ends in themselves obtained by known methods or through known concepts and extensions of such data. This area includes phase equilibria, molecular transport, and thermodynamics. (2) Data on physical properties as an aid to other studies and calculations. This category takes in physical properties, characterization, and evaluation of compounds and materials.

This journal does not publish data of transitory rather than permanent value. Examples of such are kinetic studies of ill-defined systems, unless the author is able to draw relatively broad conclusions about the effects of various factors on rates, and studies of properties and evaluation of materials which cannot be given precise chemical definition, in terms of either structure or composition.

The first group does not include data as a means to an end, as, for example, phase equilibria in the introduction of a new type of equation. The second does not include the presentation of physical properties as an adjunct to the description of a new process, or as part of an over-all picture of a particular compound.

The journal does not necessarily provide a complete article that will stand alone. The reader may have to look up prior publications. Many articles in JCED are parts of a continuing study and repetitive text would limit the data published in an issue.

The journal does not publish material already easily available elsewhere.

The following manuscript preparation guide is published to aid authors in writing and editors in expediting review and publication.

**Title.** Use specific and informative titles. A main title and a subtitle are preferred to one lengthy title.

**Authorship.** Be consistent in authorship designation. Given name and initial of second name are generally adequate for correct identification. Omit titles. Give complete mailing address of place where work was conducted. If current address is different, include it in a footnote on title page of article.

**Text.** Give essential information in a concise fashion. Avoid wordiness and unnecessary detail. Avoid unnecessary duplication between text, tables, and graphs.

**Tables.** RAW DATA. JCED exists to publish actual data. However, the author must limit the entries in a table to a useful number. For example, multiple measurements can be expressed as a mean, with a statement giving deviation.

SMOOTHED DATA. Smoothed data tables are published if they cannot be expressed as an equation, and if they serve a purpose beyond that of the raw data. For example, tables of raw thermodynamic data are usually very difficult to use. Entries in smoothed data tables should be kept to the minimum required for accurate interpolation.

**Figures and Graphs.** JCED frequently publishes graphs of data even when they repeat tables. When data points are shown on such graphs, they must be raw data, not smoothed, so as not to give a false impression of experimental accuracy and curve fit. Charts should be in such form as to be useful in engineering calculations. Whenever possible they will be published in large enough size to be read to at least ordinary engineering accuracy. Should space become a critical problem, we would choose tables in preference to graphs to provide greater accuracy.

**Nomenclature.** Follow nomenclature style of *Chemical Abstracts*; avoid trivial names. If trade names are used, define at point of first use.

Use consistent units of measurement and give dimensions for all terms. If nomenclature is specialized, as in mathematical and engineering reports, include a "Nomenclature" section at end of paper, giving definitions and dimensions for all terms. Write out names of Greek letters and other special symbols in margin of manuscript at point of first use.

**Equations and Formulas.** Write all equations and formulas clearly and number equations consecutively. Place superscripts and subscripts accurately; avoid superscripts that may be confused with exponents. Complicated structural formulas, including those containing benzene rings, must be submitted as drawings.

**Acknowledgment.** Include only necessary credits in the acknowledgment section at the end of text.

**Literature Cited.** Literature references are kept to a minimum. In some areas where much work has been done, citing all prior reference could take more space than the new data itself. Our purpose is to publish data, not literature searches. List citations at the end of the article, in alphabetical order according to author, patentee, or equivalent. Number consecutively and use appropriate number (in parentheses) to indicate reference in text. Do not list references as "in press" unless they have been formally accepted for publication. Give complete information as in following example:

- (1) Agnew, W.G., Agnew, J.T., *Ind. Eng. Chem.* 48, 2224 (1956).
- (2) Bellamy, L.J., "Infrared Spectra of Complex Molecules," 2nd. ed., p. 20, Methuen & Co., London, 1958.
- (3) DaFano, Elmer, (to John B. Pierce Foundation), U.S. Patent 2,640,031 (May 26, 1953).
- (4) Rohrback, G.H., Cady, G.H., Division of Physical and Inorganic Chemistry, 114th Meeting, ACS, Portland, Ore., September 1948.
- (5) Texas Co., *Lubrication* 40, No. 4 (1954).
- (6) Whitehead, E.V., British Petroleum Co., Ltd., Sunbury-on-Thames, Middlesex, England, private communication, 1959.

In references of type (5) do not use anonymous.

**Copy Requirements.** Send original ribbon copy and two legible carbon copies of manuscript, typed (double-spaced lines) on 8½ × 11 inch paper. Mimeograph or ditto copies are acceptable only if very clear. Send only complete copies with manuscript. If pertinent references are "in press" or unpublished for any reason, furnish copies of the work or sufficient information to enable reviewers to evaluate the manuscript.

Submit original drawing (or sharp prints) of graphs and diagrams and clear glossy photographs. Prepare original drawings on tracing cloth or high quality paper; use black India ink and a lettering set. Choose graph papers with blue cross-sectional lines; other colors interfere with good reproduction. Label ordinates and abscissas of graphs along the axes and outside the graph proper. Figure captions and legends are set in type and need not be lettered on the drawing. Number all illustrations consecutively. Supply typed captions and legends (plus courtesy lines for photos) on a separate page.

If drawings are mailed under separate cover, identify by name of author and title of manuscript. Advise editor if drawings or photographs are to be returned to the authors.

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