

1997 ADDENDUM TO FOURTH EDITION OF AIP STYLE MANUAL

This addendum contains supplemental and revised information for several sections of the Fourth Edition of the AIP Style Manual. Much of what is contained here concerns electronic submission of text and figures to AIP, and is specific to the set of journals produced by AIP. For further information regarding journals published by AIP and its Member Societies, please visit the appropriate web site:

American Institute of Physics	www.aip.org
The American Physical Society	www.aps.org
Optical Society of America	w3.osa.org
Acoustical Society of America	www.asa.aip.org
The Society of Rheology	www.umecheme.maine.edu/sor/
American Association of Physics Teachers	www.aapt.org
American Crystallographic Association	www.hwi.buffalo.edu/ACA/
American Astronomical Society	www.aas.org
American Association of Physicists in Medicine	www.aapm.org
American Vacuum Society	www.vacuum.org
American Geophysical Union	earth.agu.org/kosmos/homepage.html

The information that follows is organized according to the section of the Style Manual to which it pertains.

II. D. SUBMISSION OF TEXT IN DIGITIZED FORM

AIP accepts author-prepared computer files for use in production. If you have used REVTeX, LaTeX, Word, or WordPerfect to compose your manuscript, AIP may be able to use your file to produce author proofs. If you are interested in participating in the program, please indicate so in the cover letter that accompanies your original submission. Please also include an electronic mail address if available. Do not send a disk with your original submission; wait for further instructions from the editorial office. Do not send the file to AIP Production until requested to do so.

AIP uses translation software to convert REVTeX, LaTeX, Word, or WordPerfect files into Xyvision composition files for production. For this project to be of benefit to both the author and the production staff, it is imperative that the guidelines as documented in either the REVTeX toolbox or the Word/WordPerfect author toolkit be followed precisely. Each file will be evaluated for appropriateness; authors will receive notice with their page proofs as to whether or not their file was used. Authors will also receive a feedback form with their proofs, detailing any problems AIP encountered in processing the file.

The REVTeX toolbox is available via anonymous FTP on the Internet from [ftp.aip.org](ftp://ftp.aip.org) in the directory `/pub/revtex`. The Word/WordPerfect toolkit is also available via anonymous FTP from [ftp.aip.org](ftp://ftp.aip.org). Move to the directory `/ems`, then follow the instructions given on the screen. If electronic retrieval is not possible, you may receive the toolbox or toolkit on disk by contacting toolkits@aip.org.

The REVTeX toolbox and the Word/WP toolkit, as well as general information regarding the compuscript program, are accessible via the AIP Physics Information NETsite (www.aip.org/epub/compuscripts.info.html). The Word/WP author toolkit FAQ ("Frequently Asked Questions") may be found at www.aip.org/aip/toolkitf.html.

V. FIGURES

Illustrations published in the journal are either scanned by AIP using a digital scanner or received electronically from the author; they are then integrated with the text of the article, creating completely electronic pages. To ensure optimal quality, **we strongly encourage you to send electronic graphics files to AIP**, rather than laser output. This is particularly useful for halftone art (screened art), shaded figures, and combinations (line art + halftone) since computer-generated illustrations output to desktop laser printers produce a screen; screened figures are problematic due to the introduction during the scanning process of an unacceptable moiré interference pattern.

Please adhere to the following guidelines when preparing your illustrations for submission:

Sizing Illustrations (Electronic Graphics Files and Hardcopy)

- **Prepare illustrations in the final published size, not oversized or undersized.** Size your illustrations according to your journal's specifications. Submit each illustration at the final size in which it will appear in the journal. The standard is 8.5 cm maximum width (3-3/8 in. or 20.5 picas) for one column. This is especially important for screened or shaded illustrations, since reduction of screened/shaded originals during the digitizing process compounds problems with moiré patterns.
- **Ensure a minimum of 8-point type size (2.8 mm or 1/8 in. high) and 1-point line width within illustrations.** Ensure that line weights will be **0.5 points** or greater in the final published size. Line weights below 0.5 points will reproduce poorly. Avoid inconsistencies in lettering within individual figures, and from one figure to the next. Lettering and symbols cannot be handwritten. Avoid small open symbols that tend to fill in if any reduction is necessary.

Preparation of Hardcopy Illustrations for Scanning

- **Number figures in the order in which they appear in text.** Label illustrations with their number, the name of the first author, and the journal, on the **front** of the figure well outside the image area.
- **Place only one figure per page (including all parts).** Place all parts of the same figure on one sheet of white bond paper, spaced 1/4 in. or 6 mm apart, and leaving a 2 in. or 5 cm bottom margin. If necessary, use a glue stick or wax on the back of the illustration. Label all figure parts with (a), (b), etc. Make sure each figure is straight on the page.
- **Do not use correction fluid or tape on illustrations.** The scanner is extremely sensitive and reproduces all flaws (e.g., correction fluid, tape, smudges, dust). *Do not write on the back of the figure* because it will be picked up by the scanner.
- **Authors' laser-generated graphics are acceptable only if the lettering and lines are dark enough, and thick enough, to reproduce clearly,** especially if reduction is required. Maximum black-white contrast is necessary. Choose a laser printer with the highest dot-per-inch (dpi) available (i.e., the highest resolution possible). Remember that fine lines in laser-generated graphics tend to disappear upon reduction, even if the oversized original looks acceptable. **Photocopies of artwork are not acceptable** — originals must be submitted for production.
- **Submit continuous-tone photographs in final published size on white glossy or matte paper.** Avoid glossy paper stock that is off-white, ivory, or colored because contrast within the illustration will be lost in reproduction. Print the photograph with more contrast than is desired in the final printed journal page. Avoid dull, textured paper stock, which will cause illustrations to lose contrast and detail when reproduced.

Preparation of Electronic Graphics Files

- **Acceptable formats:** Graphics must be submitted as PostScript, EPS (using either Arial or Times Roman fonts), or TIFF (lzw compressed). Do not send application files, e.g., Corel Draw, etc.
- **Settings:** Set the graphic for **600 dpi** resolution for line art, **264.dpi** for halftones (noncompressed), and **600 dpi** for combinations (line art + halftone). Save the files to grayscale (B/W), not color; electronic graphics files for color figures are not currently being accepted, thus color figures must be submitted via hardcopy.
- Make sure there is only **ONE** figure per file. Each figure file should include all parts of the figure. For example, if Figure 1 contains three parts (a, b, c), then all of the parts should be combined in a single file for Figure 1.
- You are still required to send hardcopies of all figures to the editor, along with a hardcopy of the manuscript.

- Do not FTP the graphics files to the editorial office or AIP unless or until instructed to do so. Full instructions will be sent to you twice: once on a hardcopy form after initial submission of your manuscript, and again via e-mail after your manuscript has been accepted for publication. Adherence to electronic submission instructions is crucial. If your electronic files are received after AIP has already processed the hardcopy illustrations, the electronic files will not be used.

Detailed instructions for submitting electronic graphics to AIP and a glossary of terms may be found on the AIP Physics Information NETsite (www.aip.org/epub/submitgraph.html).

APPENDIX A: JOURNALS OF AIP, MEMBER SOCIETIES, AND PARTICIPATING AFFILIATES

AIP Conference Proceedings

Charles Doering, Senior Editor
American Institute of Physics
500 Sunnyside Blvd.
Woodbury, NY 11797

American Journal of Physics

Robert H. Romer, Editor
Amherst College
Merrill Science Bldg., Rm. 222
Box 2262
Amherst, MA 01002

Applied Optics

John R. Murray, Editor-in-Chief
Optical Society of America
2010 Massachusetts Avenue, NW
Washington, DC 20036

Applied Physics Letters

Nghi Q. Lam, Editor
Argonne National Laboratory
PO Box 8296
Argonne, IL 60439

The Astronomical Journal

Paul Hodge, Editor
Dept. of Astronomy, FM-20
University of Washington
Seattle, WA 98195

The Astrophysical Journal and Supplement Series

Helmut A. Abt, Editor-in-Chief
Kitt Peak National Observatory
950 N. Cherry Avenue
Tucson, AZ 85719

The Astrophysical Journal Letters

Alexander Dalgarno, Editor
Harvard Center for Astrophysics
60 Garden Street, MS 14
Cambridge, MA 02138

Bulletin of the American Astronomical Society

Peter B. Boyce, Editor
American Astronomical Society
2000 Florida Avenue, NW
Washington, DC 20009

Bulletin of The American Physical Society

Barrett H. Ripin, Editor
American Physical Society
One Physics Ellipse
College Park, MD 20740

Chaos

David K. Campbell, Editor-in-Chief
Dept. of Physics
University of Illinois
1110 W. Green Street
Urbana, IL 61801

Computers in Physics

Lewis M. Holmes, Editor
American Institute of Physics
One Physics Ellipse
College Park, MD 20740

Engineering and Laboratory Notes

Robert R. Shannon, Editor
Optical Society of America
2010 Massachusetts Avenue, NW
Washington, DC 20036

Geophysical Research Letters

American Geophysical Union
2000 Florida Avenue, NW
Washington, DC 20009

The Industrial Physicist

Kenneth McNaughton, Editor
American Institute of Physics
One Physics Ellipse
College Park, MD 20740

The Journal of the Acoustical Society of America

Daniel W. Martin, Editor
7349 Clough Pike
Cincinnati, OH 45244

Journal of Applied Physics

Steven J. Rothman, Editor
Argonne National Laboratory
PO Box 8296
Argonne, IL 60439

Journal of Biomedical Optics

Joseph R. Lakowicz, Editor-in-Chief
SPIE, PO Box 10
Bellingham, WA 98227

The Journal of Chemical Physics

John C. Light, Editor
Dept. of Chemistry
University of Chicago
5735 So. Ellis Avenue
Chicago, IL 60637

Journal of Electronic Imaging

Edward R. Dougherty, Editor
SPIE, PO Box 10
Bellingham, WA 98227

Journal of Geophysical Research

American Geophysical Union
2000 Florida Avenue, NW
Washington, DC 20009

Journal of Lightwave Technology

Rod C. Alfarness, Editor
Lucent Technologies, Rm. L-143
791 Holmdel Keport Rd.
Holmdel, NJ 07733

Journal of Mathematical Physics

Roger G. Newton, Editor
Indiana University
The Poplars, Room 324
Bloomington, IN 47405

Journal of the Optical Society of America A and B

Bahaa E.A. Saleh, Editor JOSA-A
T.F. Heinz, Editor JOSA-B
Optical Society of America
2010 Massachusetts Avenue, NW
Washington, DC 20036

Journal of Physical and Chemical Reference Data

Malcolm Chase, Editor
National Inst. Standards & Technology
North NIST Building
820 West Diamond Avenue, Rm 113
Gaithersburg, MD 20878

Journal of Rheology

Morton M. Denn, Editor
Dept. of Chemical Engineering
University of California
Berkeley, CA 94720

Journal of Vacuum Science and Technology A and B

Gerald Lucovsky, Editor JVST-A
Gary E. McGuire, Editor JVST-B
Microelectronics Center
of North Carolina
3021 Cornwallis Road, Box 13994
Research Triangle Park, NC 27709

Medical Physics

Colin Orton, Editor
American Association of Physicists
in Medicine
One Physics Ellipse
College Park, MD 20740

Noise Control Engineering Journal

David K. Holger, Editor-in-Chief
Iowa State University
104 Marston Hall
Ames, IA 50011

Optical Engineering

Brian J. Thompson, Editor
SPIE, PO Box 10
Bellingham, WA 98227

Optics and Photonics News

Andrea Pendleton, Editor
Optical Society of America
2010 Massachusetts Avenue, NW
Washington, D.C. 20036

Optics Letters

Anthony M. Johnson, Editor
Optical Society of America
2010 Massachusetts Avenue, NW
Washington, DC 20036

Physical Review A: Atomic, Molecular and Optical

Bernd Crasemann, Editor
1 Research Road, Box 1000
Ridge, NY 11961

Physical Review B: Condensed Matter

Peter Adams, Editor
1 Research Road, Box 1000
Ridge, NY 11961

Physical Review C: Nuclear Physics

Sam M. Austin, Editor
1 Research Road, Box 1000
Ridge, NY 11961

Physical Review D: Particles and Fields

Erick J. Weinberg and Dennis L. Nordstrom, Editors
1 Research Road, Box 1000
Ridge, NY 11961

Physical Review E: Statistical Physics, Plasmas, and Fluids

Irwin Oppenheim, Editor
1 Research Road, Box 1000
Ridge, NY 11961

Physical Review Letters

Jack Sandweiss, George Basbas, Stanley G. Brown and Gene L. Wells, Editors
1 Research Road, Box 1000
Ridge, NY 11961

Physics of Fluids

Andreas Acrivos, Editor
Levich Institute, Steinman T1M-24
City College of New York
Convent Avenue at 140th Street
New York, NY 10031

Physics of Plasmas

Ronald C. Davidson, Editor
Plasma Physics Laboratory
Princeton University
James Forrestal Campus
PO Box 451
Princeton, NJ 08543

The Physics Teacher

Clifford E. Swartz, Editor
Dept. of Physics
SUNY Stony Brook
Stony Brook, NY 11794

Physics Today

Stephen G. Benka, Editor
American Institute of Physics
One Physics Ellipse
College Park, MD 20740

Powder Diffraction

Deane K. Smith, Editor
1652 Princeton Drive
State College, PA 16803

Radio Science

American Geophysical Union
2000 Florida Avenue, NW
Washington, DC 20009

Review of Scientific Instruments

Thomas H. Braid, Editor
Argonne National Laboratory
PO Box 8293
Argonne, IL 60439

Reviews of Geophysics

American Geophysical Union
2000 Florida Avenue, NW
Washington, DC 20009

Reviews of Modern Physics

George F. Bertsch, Editor
Dept. of Physics
University of Washington
Box 351560
Seattle, WA 98195

Surface Science Spectra

Stephen W. Gaarenstroom, Editor
General Motors Research Labs.
Analytical Chemistry Dept.
30500 Mound Rd., PO Box 9055
Warren, MI 48090

Tectonics

American Geophysical Union
2000 Florida Avenue, NW
Washington, DC 20009