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(Revised July 1996)

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Manuscripts sent by **conventional mail** should be submitted in triplicate to the Editors, Physical Review, 1 Research Road, Box 9000, Ridge, NY 11961. The manuscript, includ-

ing the abstract, references, and captions, should be neatly typed in English, on good letter-size (e.g., $8\frac{1}{2} \times 11$ in. or A4) white paper with ample margins. (The first copy, used for production purposes if the paper is accepted for publication, must be typed on one side of the paper only; additional copies, used for review purposes, may be typed on both sides of the paper.) The type size and line spacing should be sufficient to accommodate editorial markings and should be legible to our keyboarders (no more than three lines per inch and no more than 88 characters per 6 inches). It should be carefully proofread by the author. Poor reproductions are unacceptable, as are unclear or excessive handwritten insertions. For general format and style consult recent issues of this journal and the *Physical Review Style and Notation Guide*, available via ftp to aps.org in the /pub/jrnls directory as the `style_guide` files (include filename suffix .pdf, .ps, or .tex). Additional style guidelines can be found in the Fourth Edition of the *AIP Style Manual*, which may be obtained for \$10.00 (prepaid) from the American Institute of Physics, c/o AIDC, 64 Depot Road, Colchester, VT 05546, telephone: 800-488-2665.

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The **title** should be concise but informative enough to facilitate information retrieval. The **abstract** should be self-contained (contain no footnotes). It should be adequate as an index (giving all subjects, major and minor, about which new information is given) and as a summary (giving the conclu-

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Notation should be clear, compact, and consistent with standard usage. Each symbol must be individually legible. **Equations** should be neatly typed or written in ink, punctuated and aligned to bring out their structure, and numbered on the right. (a) Diacritical marks (tildes, etc.) can be put over any symbol, including indices, but not over groups of symbols. (b) Three-vectors will be set in roman boldface type and should be marked in the manuscript with either a black wiggly underline or an arrow over the character. More general vectors, matrices, etc., are usually set in lightface italic type, although boldface may alternatively be used. (c) Any numerical fraction can be put on one line, e.g., $\frac{1}{2}a$. Use that form rather than $a/2$, and never use $1/2a$, unless you mean $1/(2a)$. The solidus should be used instead of built-up fractions in running text.

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The decision on whether results should be published in long tables depends on the precision of the data, i.e., whether they can be read accurately enough from a figure, and on how many readers are likely to use the numbers relative to the space needed in the journal. If additional numerical data can be obtained from a data center, from the author, or from another source either as tables or on tape, indicate how and in what format they can be obtained.

Figures should be planned for the column width of the *Physical Review* (approximately 8.6 cm, or $3\frac{3}{8}$ in.). In some cases where the figures contain a great deal of detail, $1\frac{1}{2}$ or 2 columns may be used. Wasted space at the top and bottom should be avoided. Carefully prepared figures, suitable for digital scanning, are required (original India-ink drawings or glossy prints; computer-generated figures, if of sufficient quality, are acceptable). Figures must have a clear background and unbroken lines with as much black-white contrast as possible. *Final-journal-size* originals or prints are preferable to oversized originals. Avoid small open symbols which tend to fill in upon reduction, small dots and decimal points, and shading or cross-hatching that is not coarse enough to withstand reproduction. The lettering and plotted points on the figures should be large and clear enough that they will be legible on the journal pages (final journal size of lettering should be at least 2 mm). Inconsistently large or too heavy lettering should be avoided. Line weights should be consistent throughout a figure, with a final line weight of at least 0.18 mm (0.5 point). Figures reproduced directly from an automatic plotter or computer printer must have lettering of the correct size and style (e.g., MeV instead of MEV, unslashed zeros) and curves that are smooth and of sufficient line weight to allow suitable reproduction. The resolution of the drawing software and the output device should be set as high as possible (preferably 600 dpi or higher). Very fine lines in laser-generated illustrations will disappear under

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