

Information for Contributors to *Journal of Materials Research*

1. **Articles.** *Journal of Materials Research* publishes original research reports comprising a complete, detailed, self-contained description of a research effort. All articles must contain an abstract (see item 3).

2. **Rapid Communications.** *Journal of Materials Research* also publishes short submissions which contain important new results and are intended for accelerated publication. Rapid Communications are given priority in handling and do not require an abstract.

3. **Abstract.** An abstract must accompany each article. The abstract should be typed (double-spaced) on a separate page. It should be adequate as an index and as a summary. It should give all subjects, major and minor, concerning which new information is presented. It should give the conclusions of the article and all numerical results of general interest. The abstract should avoid the use of jargon and other terminology which would render its essence inaccessible to the non-specialist.

All abstracts should be indexed according to the key word scheme developed by Materials Research Society. A description of this scheme may be obtained from the editorial office.

If desired, authors may also classify their work according to the 1985 version of the Physics and Astronomy Classification Scheme (PACS). A description of this scheme appears in December, 1984 issue of *Physics Today*. Although this PACS classification is optional, it renders an author's work more readily available in automated retrieval systems, provided the subject matter of the work is appropriate for the PACS scheme.

4. **Manuscripts.** Manuscripts are accepted with the understanding that they have not been copyrighted, published, or accepted for publication elsewhere. Manuscripts must be in English, typewritten, double-spaced on one side of the page, on 8½×11 inch durable, opaque, white paper. An original and two (2) copies must be submitted. Margins should be a minimum of 1 inch on both sides of the paper to permit editorial notations. Manuscripts must be submitted with a cover letter containing the name, address and telephone number of the author to whom correspondence should be addressed. No original artwork will be returned without a specific request in writing.

5. **Style.** Authors are expected to follow the conventional writing, notation and illustration style prescribed in the American Institute of Physics *Style Manual* which is

available from the AIP, 335 East 45th St., New York, NY 10017 for \$7.50 prepaid. Authors should also study the form and style of printed matter in this journal. The SI units should be used.

6. **Illustration.** All illustrations must accompany submitted manuscripts and, like the text, must be in triplicate (one original and two copies). Every illustration must be referred to in the main text in consecutive numerical order. A caption (legend) must accompany each illustration. Captions must be typed doubled-spaced on a sheet of paper at the end of the manuscript. Drawings should be planned with oversize lettering and wide-spaced coordinates to be reproduced satisfactorily within single-column width (85 mm., or 3⅜ in.). Principal letters on figures are reduced to approximately 1.5 mm or 1/16 in. or, if a Leroy lettering device is used, to #060, regardless of the overall size of the drawing. For best results, draftsmen should be given a recent copy of this or any other journal published by the American Institute of Physics to familiarize themselves with the proportions to be followed.

Line drawings are preferable to photographs and must be made with India ink on plain white paper or tracing cloth. Coordinate paper is not acceptable, illustrations must be held, with rarest exceptions, to 8½×11 in. High-quality glossy prints with sharp even lines and lettering may be submitted in place of original drawings when these are of exaggerated size and awkward to handle.

Photographs of standard apparatus in a laboratory setup are not instructive and should not be included. No heavy writing should be made on the backs of photographs and photographs should not be clipped or stapled so as to mar the picture. The figure number and the author's name should appear on the back of each illustration.

All photographs, including micrographs, should be good quality, continuous tone black and white prints. Micrographs should contain a fiducial mark which indicates explicitly the scale length which is being shown. Specification of the reduction ratio in the caption is not adequate. Any arrows or lettering in the micrograph must satisfy the same scaling restrictions as those indicated above for line drawings.

Unless otherwise indicated, all photographs will be reduced to single-column width. Any special instructions regarding the scaling and placement of photographs should be written on the back of all the photographs involved.

Authors must assume responsibility for the quality of computer-generated graphs or charts. It is necessary to exercise control over the computer-driven printer so that the lines of a graph are dark enough for reproduction. If the labeling on a computer-generated plot is of poor quality, professionally hand-lettered characters should be superimposed on the plot. Computer-generated plots made up of small horizontal and vertical line segments may be rejected if the segments are not short enough.

7. **Mathematics.** Mathematical expressions should be typewritten as completely as possible, with unavailable symbols being carefully inserted in ink. Special care should be given to make equations and formulas clear to the typesetter, and each letter or symbol inserted in the manuscript in handwriting should be identified in the margin the first time it occurs in the text. Capital and lower-case letters should be distinguished where there could be confusion. Fractional exponents should be used to avoid root signs. Extra symbols should be introduced to avoid complicated exponents or where it is necessary to repeat a complicated expression a number of times. The solidus (/) should be used wherever possible for fractions. Mathematical derivations that are easily found elsewhere in the literature should not be used. Rather, the references should be cited.

8. **References.** References should be collected and typed (double-spaced) on a separate page. They should be numbered consecutively and arranged thus:

¹A. B. Smith, *Phys. Rev.* 41, 852 (1932).

²H. Lamb, *Hydrodynamics* (Cambridge University Press, Cambridge, England, 1940), 6th ed. pp. 573, 645.

A list of the abbreviations for the names of journals appears in the *Style Manual*.

9. **Tables.** All but the simplest tabular material should be organized into separate tables. Tables should be numbered with Roman numerals and typed on sheets at the end of the manuscript. Captions should be sufficiently descriptive to make the data in the table intelligible without referring to the text. Complicated column headings in the copy of the table should be avoided. If necessary, symbols which are explained in the caption should be used. A double horizontal line should be used below the caption, a single line below the headings, and an

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other double line at the end of the table. Long tables should, if possible, be submitted in a form ready for direct photoreproduction. Photoreproducible tables (including captions) should be typed single-spaced on an electric typewriter with Elite type or an equivalent proportional-spaced typeface, and should be designed to fit in one journal column (85x250 mm, or 3 $\frac{3}{8}$ x9 $\frac{7}{8}$ in.) or across two columns (175x250 mm, or 7x9 $\frac{7}{8}$ in.) Since they will be photoreproduced by a factor of 0.75, photoreproduction should be anticipated by making the typing-area dimensions of the table $\frac{4}{3}$ larger than the final column and page dimensions given above. Detailed instructions for preparing camera-ready tables are available from the Editorial Office.

10. Publication. Publications charges defray a major portion of the cost of the production of this journal. Consequently, authors' institutions or companies are urged to pay a publication charge of \$70 per printed page, which entitles them to 100 reprints. An appropriate form will be mailed to the author upon acceptance of manuscript.

11. Correspondence. Manuscripts are to be submitted to the *Editorial Office, Journal of Materials Research, Xerox Webster Research Center, 800 Phillips Road, 0114/38D, Webster, NY 14580.*

No correspondence should be sent to the Editor about proofs, reprints, or publication charges. Authors will be notified by the Editor if their paper has been accepted for publication. Authors will also be notified

when their paper is sent to the American Institute of Physics. All subsequent correspondence about a particular paper should be addressed to the *Editorial Supervisor, Journal of Materials Research, American Institute of Physics, 335 East 45th St., New York, NY 10017.* Reference must be made to the author, journal, and scheduled date of issue.

12. Proofs of Articles will be sent to the author for review and should be returned promptly to the *Editorial Supervisor, Journal of Materials Research.* A few alterations in proof are unavoidable, but the cost of making extensive alterations or of correcting mistakes caused by careless preparation of the manuscript will be charged to the author. Unless corrected proofs are returned punctually, publication of the paper will be delayed.

MRS-Europe Fall Meeting Program Takes Shape

Three Symposia Focus on Advanced Materials Research and Development for Transport

The three symposia comprising the upcoming 1985 MRS-Europe Fall Meeting in Strasbourg will include contributions from 40 invited speakers and panelists, as well as numerous contributed and poster presentations. The meeting to be held November 26-29 at the Council of Europe, will explore both materials science and engineering aspects of "Advanced Materials Research and Development for Transport."

The meeting will open Tuesday morning with a plenary session addressing recent cooperative efforts in the area of materials research and application for transportation. A panel of five experts from Europe will explore the political as well as the scientific aspects of this trend. Panelists and their topics are:

- J. P. Massué (Scientific Advisor to the Parliamentary Assembly, Strasbourg, France)—Recent development of the European Network on Advanced Materials by the Conference of the European Research Ministers
- J. G. Wurm (EC, Brussels, Belgium)—New EC efforts for R&D in materials
- W. J. G. Bunk (DFVLR, Cologne, West Germany)—Needs for advanced materials R&D for transportation
- A.-Y. Portnoff (Science et Techniques, Paris, France)—Impact of advanced materials on technological systems
- D. Altenpohl (Aluisse, Zurich, Switzerland)—Doing more with less primary materials.

Symposium A: Light Metals

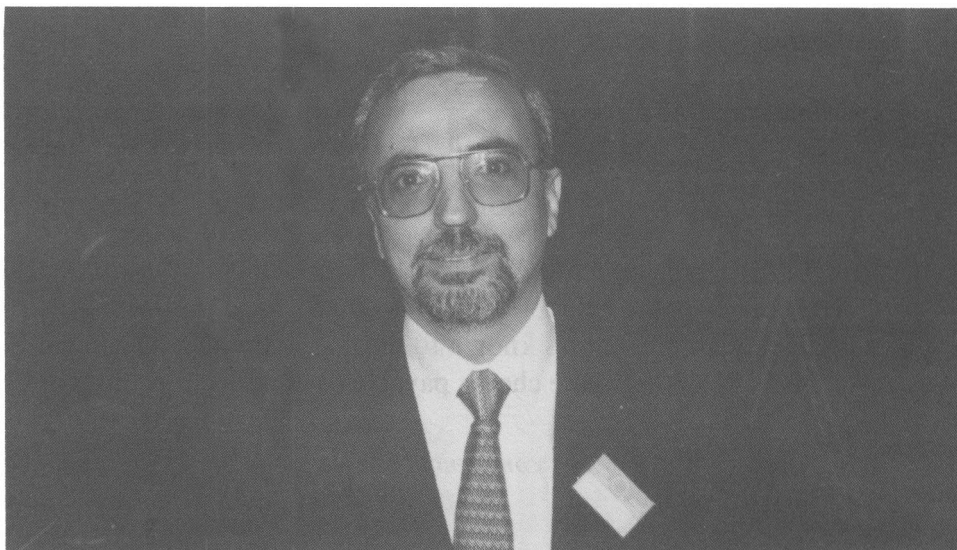
This symposium will address materials science and engineering aspects of advanced

light metals for transportation with an emphasis on aluminum alloys. Topics will include: aluminum-lithium, rapid solidification technology and powder metallurgy, alloys for elevated temperature use, and advanced fabrication alloys (superplastic forming, casting, and welding). Some of the invited speakers and their topics are:

- Shiro Sato (Sumitomo Light Metals Industries, Japan)—Present and future of aluminum alloys for transport in Japan
- F. Ostermann (Vereinigte Aluminium-Werke AG, West Germany)—Criteria for selection of aluminum for modern trains

- P. Kandachar (Fokker Aircraft Factories B.V., The Netherlands)—Applications for advanced aluminum alloys in aircraft
- T. H. Sanders, Jr. (Purdue University, U.S.A.)—Fundamentals of aluminum-lithium alloys
- P. Sainfort (Cegedure Pechiney, France)—Basic hardening mechanisms in aluminum-lithium alloys
- P. J. Bridges (Inco Alloy Products, UK)—An aluminum-lithium alloy made by mechanical alloying

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Emanuele Rimini, University of Catania, is a member of the MRS-Europe Organizing Committee and organizer of IBMM-86.