

Instructions to Authors

Authors interested in publishing their papers in *Indian Journal of Engineering & Materials Sciences* should send manuscript, in triplicate, to **The Editor, Indian Journal of Engineering & Material Sciences**, National Institute of Science Communication (NISCOM), Dr K S Krishnan Road, New Delhi 110 012, India. Submission of a manuscript will be held to imply that it has not been previously published and is not under consideration for publication elsewhere, and that, if accepted, it will not be published elsewhere.

Aim & Scope—Indian Journal of Engineering & Materials Sciences aims to publish original research papers—those present new results—related to the theory and practice of different aspects of engineering and materials sciences. Areas include: Aerospace engineering, Mechanical engineering, Metallurgical engineering, Electrical engineering, Electronics engineering, Computer science and engineering, Civil engineering, Environmental engineering, Materials science, Instrumentation, Heat transfer and Fluid mechanics.

Typescript—Papers must be written clearly and concisely in English. They should be typed (double spaced) with ample margins on all sides on white bond paper (290x215 mm). The abstract, tables, figure captions and the list of references should be typed on separate sheets. All sheets should be numbered consecutively.

The title Page—The title should be short, specific and be useful in indexing and information retrieval. The byline should give initials and names of the authors and the name and address of the institution where the work was done. The permanent, or present, address of the authors, if different from the address given in the byline, may be given in a footnote. Authors should suggest a short running title, if the title is very long.

Abstract—The abstract should indicate the scope of the work and the principal findings of the paper. It should not exceed 200 words. The abstract should be informative and be in such form as to be used by abstracting periodicals without modification.

Data—Only such primary data as are essential for understanding the discussion and the main conclusions emerging from the study should be included. All such secondary data as are of interest to a specific category of readership may, if necessary, be deposited in the editorial office (or retained by the authors) for supply on demand. A footnote to the effect may be inserted at a suitable place in the paper.

Tables—Tables should be typed on separate sheets of paper without any text matter on the page. They should be numbered consecutively in Arabic numerals and should bear brief titles. Column headings should be brief. Units of measurement should be abbreviated and placed below the headings. Nil results should be indicated and distinguished clearly from absence of data. The same set of data should not be

represented both by tables and by figures. Inclusion of structural formulae inside the tables should be avoided as far as possible. Tables should be referred to in the text by number and not by terms like ‘above’, ‘below’, ‘preceding’ or ‘following’

Illustrations—All illustrations must be numbered consecutively in Arabic numerals. Captions and legends to the figures should be self-explanatory and should be typed on a separate sheet of paper and attached at the end of the manuscript. Line drawings should be made with Indian ink on white drawing paper (preferably Bristol board), cellophane sheet or tracing cloth. Free-hand drawing is discouraged. Authors are advised to use standard drawings kits, stencil sets, etc. In addition to the originals, two sets of blueprints or Photostat copies should be sent. For satisfactory results in reproduction, the graphs and line drawings should be drawn to approximately twice the size to be printed. The size of letters, numerals, dots, lines, etc. should be sufficiently large to permit reduction to double column or single column size as required in the journal without loss of details. In the case of photographs, prints must be on glossy paper and contrasty. If an illustration is taken from another publication, reference to the source should be given and prior permission secured. Illustrations should be covered by thick cardboard to protect them from creases, folds and broken corners during transit. Figures should be referred to in the text by numbers and not by terms like ‘above’, ‘below’, ‘preceding’ or ‘following’.

Spectra curves and XRD patterns should be included only if they pertain to new compounds and are essential to the discussion; otherwise, only significant numerical data should be included in the text.

Structural Formulae—The number of structural formulae should be restricted to the bare minimum. Wherever the purpose is adequately served, chemical or common names should be preferred. Structural formulae should be numbered in sequence and referred to in the text by their numbers. Reaction schemes should be numbered as schemes or charts and should be referred to in the text as ‘Scheme 1’ or ‘Chart’, etc., and not by expressions like ‘below’, ‘above’, ‘preceding’ or ‘following’.

References—References to literature, numbered consecutively, must be placed at the end of the paper. In the text, they should be indicated by superscript numbers in sequence.

Reference to a research paper, should carry names and initials of authors followed, in order, by the title of the periodical in the abbreviated form (*italics*), the volume number, the year within circular brackets and the page no. [e.g. Chaudhary S N, Prasad K & Chaudhary R N P, *Indian J Eng Mater Sci*, 8 (1999) 289]. For names of periodicals, the standard abbreviations listed in the *International Serials Catalogue* (ICSU-AB) should be used. If a paper has been accepted for publication, the name of the authors and the journal should be given followed by the words “in press” within circular brackets. [e.g. Gowda B H L, *Indian J Eng Mater Sci*, (in press)].

Reference to a book should include, in the following order: names and initials of authors, the title of the book (*italics*), name of publisher and place of publication within circular brackets, and year [e.g., Frank P I & David P D *Fundamental of heat and mass transfer* {John Wiley & Sons

Inc., New York), 1986}]. If the reference is to the work of an author or edited by a different person, the fact that it is cited from the source book should be clearly indicated [e.g., Okamura K, Sato M, Seguchi T & Kawanishi S, in *Controlled interphase in composite materials*, edited by Ishida M (Elsevier Science Publishers, New York), 1990, 209].

Proceedings of conferences and symposia should be treated in the same manner as books. Reference to a paper presented at a conference, the proceedings of which are not published, should include, in the following order, names and initials of authors, title of the paper (*italics*), name of the conference, place where the conference was held, and date [e.g., Kurkjian C R & Inniss D, *Strength and fatigue of silica*, paper presented at 7th International Conference on Physics of Non-crystalline, Cambridge, UK, 1991)].

Reference to a thesis should include the name of the author, title of thesis (*italics*), university or institution to which it was submitted and year of submission [e.g., Pundhir D S, *Study of aerodynamic performance of a contra-rotating axial compressor stage*, Ph.D. Thesis, Indian Institute of Technology, New Delhi, 1990].

Reference to a patent should include names of patentees, county of origin (*italics*) and patent number, the organization to which the patent has been assigned within circular brackets, data of acceptance of the patent and reference to an abstracting periodical where available [e.g., Kennedy J P & Faust R, *US Pat.* 4,910, 321 (to the University of Akron), 1990].

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Mathematical Material—Equations must be clearly written, each on its own line, well away from the text. All equations must be numbered consecutively in Arabic numerals with the number in parentheses near the right-hand margin. Indices or superscripts must be indicated in pencil with a V sign and subscripts with a Λ sign, ‘oh’ and ‘zero’, k, and kappa, ‘ell’ and one, etc., must be clearly distinguished. For example, the following scheme of underlining in colour may be used—blue for Greek, red for German (gothic), green for script and brown for bold-face. Authors must indicate wherever special characters (Greek, German, Script, Vector, Tensor, matrix, etc.) are required. Vectors must be underlined by a wavy line and tensors by two wavy lines. The SI system of units and symbols is recommended.

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