

JOURNAL OF MICROWAVE POWER AND ELECTROMAGNETIC ENERGY

INSTRUCTIONS FOR SUBMISSION OF

MANUSCRIPTS

Revised January 2007

I. OBJECTIVES OF THE JOURNAL

The purpose of Journal of Microwave Power and Electromagnetic Energy (JMPEE) is to publish the results of original research that contribute significantly to the understanding of the theory and application of electromagnetic (microwave and RF) heating and related effects between 1 kHz and 1 THz. Preference will be accorded to manuscripts that develop new concepts, applications or experimental approaches. Manuscripts that are primarily theoretical in nature should be directed toward explaining important results previously not understood, making important predictions that can be experimentally tested, or developing significant advances in theory.

Submission of a manuscript to JMPEE implies that the same work has not been published nor is under consideration for publication elsewhere. This policy also applies to material submitted for publication in an electronic database system of a public nature, which IMPI considers to constitute prior publication. In addition, no legal restrictions must exist, e.g., those associated with the filing of patents. Papers that have been presented at scientific conferences are acceptable submissions, providing that substantial new material has been added in preparing the manuscript.

The Editor-in-Chief, Dr. John A. Pearce (editor@impi.org) was appointed by the IMPI Board of Governors as the JMPEE technical editor and has the final responsibility for all editorial decisions. The Editorial assistant, Lauren Hynson (managingeditor@impi.org), is located in the IMPI headquarters office, and is responsible for processing all manuscripts received and serves as the point of contact during the review process.

II. PREPARATION OF THE MANUSCRIPT

Manuscripts should be written in clear, concise English and should be condensed as much as possible, compatible with overall clarity. Please use the attached Style Guide as a reference when preparing the manuscript for submission.

The following items should be assembled for the initial submission of an abstract:

- A cover letter
- One Electronic Disc containing the following:
 - One editable copy of the manuscript, complete with inserted figures (low-resolution), figure captions and references. Please submit as a .doc or .rtf file. Do NOT submit as plain text or ASCII. Refer to the Style Guide for manuscript preparation details.
 - One PDF copy of the manuscript, complete with figures and captions.
 - One high-resolution copy of each figure, saved separately and named appropriately (e.g. Fig1.tif, Fig2.jpg, etc.)
- One printed copy of the manuscript.
- Completed and signed Copyright Release forms and Page Charge forms
- A list of three to six potential reviewers for the manuscript. Be sure that the suggested reviewers are not affiliated with the research or organization(s) submitting the manuscript.

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(If sending via courier, the telephone number should be included:+1.804.559.6667.)

Please note, failure to include any item from this list will delay review and publication, therefore, it is very important to include all of these items in your initial submission.

IV. THE REVIEW PROCESS

Upon receipt, the JMPEE editorial department reviews the document and files for completeness, grammar and spelling, as well as to ensure all paperwork is properly received. Manuscripts will not move forward in the publishing process until all documentation listed above (see “III. Manuscript Submission”) are received. The Editor-in-Chief first judges whether its content falls within the scope of JMPEE. Manuscripts that, in the judgment of the Editor, are commercial in nature, not innovative or not of sufficient interest to the readers of JMPEE will be returned to the author without review. After approval from the Editor-in-Chief, the manuscript is then given a Manuscript Number and entered into review.

After reviews have been completed, the assessments will be reviewed by the Editor-in-Chief and sent to authors for revision. Reviewers have the option of recommending “acceptance in the present form” (only very minor editing by editorial staff is required), “acceptance with minor revision” (some editing is required, but further review will not be necessary if corrections are made to the satisfaction of the Editor-in-Chief), “acceptance with major revisions” (a second review will be necessary) or “rejection”.

The author must reply to the specific recommendations of the reviewers and in an accompanying letter indicating those recommendations that have been incorporated into the revision and the reasons why any may have been disregarded. Please note that authors are only required to make changes that improve the technical content or clarity of the manuscript. Suggestions that represent the reviewer’s point of view or manner of expression as opposed to the authors’ should be carefully considered but need not be followed.

The revised manuscript should be returned to the JMPEE editorial department within 20 days, unless the required modifications are too extensive to be made in that time frame.. A revised manuscript received beyond the 20-day period will be considered an expired submission and may be removed from the publication queue.

The revised manuscript will be reviewed to ensure that all required changes have been made for publication. If a second review is required, the revised manuscript, including the specific list of revisions incorporated, will be sent to the original reviewers for final approval.

V. FINAL MANUSCRIPT SUBMISSION

The FINAL ACCEPTED VERSION of the manuscript must be submitted electronically, either on disk or by email. The version on the disk MUST exactly match the final version accepted in hard copy. Clearly label the disk or electronic file with the manuscript number, the corresponding author’s last name and “Final Version” (e.g. 762-Knoerzer-FINAL.doc). Send any revised equations, figures or tables as separate files in a similar manner (e.g. 762-Table2-FINAL.doc)..

Proofs:

Proofreading of galley pages is the responsibility of the corresponding author. Corrections other than printer’s errors should be avoided, and substantive changes will require editorial approval. Corrections should be listed in a separate document or hand-written on the file using contrasting ink. Corrections exceeding one sentence and insertions should be typed on a separate sheet of paper, and their intended location should be noted on the galley proof. It is the responsibility of the submitting author to ascertain that all co-authors agree with the corrections before the proofs are returned. Proofs must be returned by the deadline provided (never less than 5 business days) or the paper may be removed from the publication queue for that issue. Galley proofs and documentation may be returned by fax with the understanding that all originals MUST be sent to the IMPI office as soon as possible. No paper will be published or assigned to a specific issue until the proofs have been returned with author approval or a list of changes to be made prior to publication.

JOURNAL OF MICROWAVE POWER AND ELECTROMAGNETIC ENERGY

MANUSCRIPT STYLE GUIDE

Revised March 2006

I. General Formatting Guidelines

TEXT SPECIFICATIONS

Use 10-point Times, Times New Roman or Symbol (when appropriate) fonts ONLY. Use the following options creating the document:

- Turn off automatic end-of-line hyphenation.
- Do NOT use graphic representations of special characters (e.g., Greek characters, math symbols, etc.) in the body of the text when the characters can be entered using the Symbol font or other character rendering.

HEADINGS: Use capitals, bold and left-justified.

Subheadings: Use title case, left-justified and in bold, italicized lettering.

Sub-subheadings: Italicize and underline, using left-alignment.

PAGE SPECIFICATIONS

- Side margins: not less than 2.5 cm.
- Top and bottom margins: not less than 3 cm
- Use 22 x 28 cm (8.5 x 11 in.) or A4 paper size
- Double space throughout
- Print on one side of paper only
- Number all pages of a manuscript consecutively, including the title page, tables, references, etc.

UNITS

For JMPEE, the units of measure must be converted to SI (Système Internationale).

EQUATIONS

Please use MathType or Equation Editor whenever possible to create complex equations. The following specifications should be followed:

- All equations should be in Times and Symbol fonts
- Ten-point fonts should be used, with 8-point super- and sub-scripts.
- Variables should be italicized, e.g. X_a ,
- Matrices and vectors should be in boldface, e.g. $\mathbf{E}(x,y,z)$ or $\mathbf{E}(r)$.
- Complicated equations should be saved as a graphic file, numbered consecutively (e.g. Eq1.gif).
- Vector calculus: Please use $\nabla \cdot \mathbf{V}$ rather than $\text{div}(\mathbf{V})$ and $\nabla \times \mathbf{E}$ rather than $\text{curl}(\mathbf{E})$ or $\text{rot}(\mathbf{E})$.
- Mathematical functions should be formatted using the following examples: $\ln\{\textit{argument}\}$, $\log_{10}\{\textit{argument}\}$, $\sin(\theta)$ and $\tan(\phi)$.

FIGURES

When submitting the manuscript, be sure to save each figure separately, as a high-resolution image. Acceptable formats include .eps, .pdf, .jpg, .psd, .gif and .tif. The following guidelines should be used when creating figures:

- Lettering should be no smaller than 10 points.
- Lines should be no thinner than 0.5 point.
- Avoid using complex textures and shading unless you wish to have your images printed in color (extra fees apply).

Color photographs and artwork may be printed in the Journal at an additional charge to the author. Please call the Managing Editor to obtain the cost.

II. Manuscript Composition

TITLE

Provide a brief and informative title to assist in the classification and indexing of the paper. Do not use trade names of drugs or abbreviations. Avoid uninformative titles such as "Studies on ...".

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List full names of all authors, and list institutional affiliations of all authors below. It is implicit in listing a person as an author that s/he has agreed to co-author the manuscript and is in full agreement with its content. Group all authors with the same affiliations together (i.e., "Author A and Author C are affiliated with X-Co. Author B is affiliated with Y-Co."). Do not abbreviate or use footnotes to denote affiliations. The symbol * should be used to indicate the author to whom correspondence should be addressed.

ABBREVIATIONS AND ENDNOTES

If desired, authors may list all abbreviations used in the paper in tabular format to be placed near the beginning of the paper. Textual endnotes, numbered consecutively, should be brief and kept to a minimum.

ABSTRACT

An abstract of not more than 250 words should succinctly present the problem and experimental approach and state major findings and conclusions. It should be self-explanatory and suitable for reproduction by abstractive services without rewriting. If a reference must be cited, complete publication data must be given [White, R. H. (1982) JMPEE 21, 4271-4275].

KEY WORDS

List the key words for the document that an interested party would use to locate your paper if searching through a reference guide.

INTRODUCTION

The introduction should state the purpose of the investigation and its relationship to other work in the field. Extensive reviews of the literature should be avoided unless the manuscript is a review article. However, adequate background should be provided to establish the state of the art in the subject area of the manuscript, and how the present work advances the state of the art. The foundational physical principles of the subject area should appear in this section. We reserve the "Methods" section for principles and results specific to this manuscript.

METHODS

Derivations: The framework of the assumptions must be described and justified in sufficient detail. An adequate number of intermediate steps must be provided in the derivation to fully support the mathematical deductions obtained. Details published elsewhere in refereed archival literature need not be repeated, but should be briefly summarized and must be cited.

Numerical model studies: It is necessary to describe the foundational physical relationships used in the model (Helmholtz, Laplace, Navier-Stokes, energy balance, etc.), the type of model (quasi-static, wave equation, etc.) and the type of numerical method used (FDM, FEM, FDTD, etc.) in sufficient detail to allow duplication of the results. All parameters of the model space geometry (spacing, grid type, basis functions, etc.) and the numerical solution (convergence criteria, type of polynomial, etc.) must be specified. Any post processing calculations used for data display (energy calculations, lumped equivalent impedance or admittance calculations, S-parameter calculations, etc.) must be described. All physical properties used in the calculations (permittivity, conductivity, specific heat, density, etc.) must be clearly stated (preferably in a table) with references for their source and justification of the choice of values used. If measured by the authors, the experiments and results must also be described, unless published elsewhere in archival literature.

Experimental studies: The materials and methods should be described in sufficient detail to enable others to repeat the experiments. All methods of calibration must be described, along with some indication of the overall accuracy and repeatability in the measurements. Data must be reported with attention to the appropriate number of significant figures as reflected in the calibration methods used, and SI units are required. Heating experiments must include a description of the heated object in terms of its dimensions and either its mass or volume. Some estimate of the applied power is also required. Analogous information is required in other types of experiments.

Novel experimental procedures should be described in

detail, but procedures previously published in refereed archival literature should be briefly summarized and referred to by citation of both the original work and any published modifications. Whenever hazardous materials or dangerous procedures are utilized, the necessary precautions should be stated.

RESULTS

The results should be presented concisely. Tables and figures should be used only if they are essential for the comprehension of the data. The same data should not be presented in more than one figure or in both a figure and a table. As a rule, interpretation of the results should be reserved for the Discussion.

DISCUSSION

The purpose of the discussion is to interpret the results and to relate them to existing knowledge in the field. In general, observe the utmost brevity consistent with clarity and avoid personal polemics. Information given elsewhere in the manuscript should not be repeated in the Discussion. Exhaustive reviews of the literature should be avoided.

ACKNOWLEDGMENT(S)

Acknowledgments should include financial support, technical assistance, advice from colleagues, gifts, etc. Prior permission must be obtained from persons whose contribution to the work is acknowledged in the manuscript.

APPENDIX

An appendix contains necessary background information not included in the text. Its use is optional.

REFERENCES

References should clearly identify the original contributor to the work being cited. References are to be listed by last name of the first author, alphabetically. Multiple publications in a single year by an author are indicated alphabetically by sequence of reference in the manuscript — i.e. (1998a), (1998b), etc. The reference should be indented after the first line (see below). The accuracy of the references is the responsibility of the author. Papers that are in preparation or have been submitted but not yet accepted should be cited in the text as unpublished experiments or personal communications. The author must obtain written permission to cite the unpublished work of others or to use material taken directly from a copyrighted publication.

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Archival Journal Articles:

Metaxas, A.C. (1985). "Network Analysis on Radio Frequency Prototype Industrial Applicators." *J. Microwave Power*, 20(4), pp.197-216.

Conference Proceedings:

Trabelsi S., S.O. Nelson, and A.W. Kraszewski (2001c). "Universal calibration for microwave moisture sensors for granular materials," *Proc. 18th IEEE Instrum. & Meas. Technol. Conf.* pp. 1808-1813.

TABLES

Use tables only when the data cannot be presented clearly otherwise. Tables may be created using a word processor's text mode or table format feature (preferred). If the text mode is used, separate columns with a single tab and use a line feed (return) at the end of each row.

- Tables should be numbered consecutively.
- Provide a brief title for each table and a brief heading for each column.
- Clearly indicate the units of measure. Data should be rounded to the nearest significant figure.
- Explanatory material referring to the entire table is to be included as a footnote following the last line of the table.

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Each chart or schematic should be embedded (low resolution) in the editable document, as well as saved as a separate file in graphic format (.eps, .jpg, .gif, etc.) and submitted with the manuscript with the electronic files. Structures may be represented in hand-drawn artwork or as prints produced using a drawing package.

FIGURE LEGENDS

The legend should be written in 10-point font, italicized. Include the figure number and a brief description, preferably one or two sentences or descriptive phrases. It should be understandable without reference to the text and should not include new material that is not in the text. Explain all symbols and abbreviations used in the illustrations. The use of error bars on the data points is recommended.

FIGURES

Figures should be used only to document experimental results or methods that cannot be adequately described in the text. The same data should not be presented in more than one figure or in a figure and table(s). Figures used in previous publications may be included providing they are adequately cited and permission is obtained for re-publication.

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