

Author's Guide for Submission to Japanese Journal of Applied Physics

Editorial Board, Japanese Journal of Applied Physics

October 2011

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1 About JJAP

1.1 General

The Japanese Journal of Applied Physics (JJAP) is an international journal for the advancement and dissemination of knowledge in all fields of applied physics. The journal publishes articles dealing with the applications of physical principles as well as articles concerning the understanding of physics that have particular applications in mind. The journal not only covers all aspects of modern technology such as semiconductor devices including VLSI technology, photonic devices, superconductors, and magnetic recording but also covers other diverse areas such as plasma physics, particle accelerators, nanoscience and technology, and applied bioscience. Articles in interdisciplinary areas with potential technological implications are strongly encouraged.

1.2 Publication of JJAP

JJAP is published twice a month online and monthly for the printed version. Each issue consists of Regular Papers, Rapid Communications, Brief Notes, and Review Papers. In addition, several Special Issues are published each year. These contain monographs from international conferences.

Comments and replies are also published. This section includes the comments on papers previously published in JJAP, and replies to those.

There is also a special section, "Selected Topics in Applied Physics" that highlights specific topics in applied physics. This section features rapidly developing current trends in the selected research area.

2 Scope of JJAP

2.1 Subjects covered by JJAP

JJAP publishes articles that significantly contribute to the advancements in the applications of physical principles as well as in the understanding of physics in view of particular applications in mind. Subjects covered by JJAP include the following fields:

- Semiconductors, dielectrics, and organic materials
- Photonics, quantum electronics, optics, and spectroscopy
- Spintronics, superconductivity, and strongly correlated materials
- Device physics including quantum information processing
- Nanoscale science and technology
- Crystal growth, surfaces, interfaces, thin films, and bulk materials
- Plasmas, applied atomic and molecular physics, and applied nuclear physics
- Device processing, fabrication and measurement technologies, and instrumentation
- Cross-disciplinary areas such as bioelectronics/photonics, biosensing, environmental/energy technologies, and MEMS

2.2 Types of articles

Regular Papers

Regular Papers should report original research results and include a fully developed discussion of the result and information that ensures the repeatability of experiments by the readers. There is no limit to the paper length.

Rapid Communications

Rapid Communications are short articles reporting new and timely developments with strong impact in respective areas of applied physics. The maximum length of the paper is three printed pages. To ensure prompt publication, papers will be handled swiftly in the reviewing and publication processes.

Brief Notes

Brief Notes are aimed at reporting significant improvements in instrumentation, fabrication processes and measurement techniques, as well as serving as an archive for knowledge useful for applied physics such as important material parameters, within the limit of two printed pages.

Review Papers and Invited Review Papers

Review Papers and Invited Review Papers are comprehensive reports of the background of and state-of-the-art research on a specific field in applied physics. They should provide overviews of the field to nonspecialists and aim to broaden the scope of applied physics. There is no length limitation.

Comments and Replies

Reader's comments on an original paper published in JJAP and author's reply to the comments may be published. Comments are expected to be published together with the corresponding reply when available. The length for each should be within two printed pages.

Errata

Errata announce the corrections made to published papers and paper retraction. The length should be within one printed page.

Papers for Special Issues

JJAP plans Special Issues on specific leading topics. A Special Issue is composed of Regular Papers, Review Papers, Invited Review Papers and Brief Notes. Articles submitted to Special Issues must meet all the usual standards of quality for the journal.

2.3 Citation format

Since the January 2009 issue, JJAP has started using a citation format based on six-digit article IDs instead of conventional page numbers.

The structure of the six-digit article ID is as follows:

- The first two digits indicate the issue number.
- The middle two digits indicate the article type and/or subject area.
 - 00: Invited Review Papers
 - 01: Selected Topics in Applied Physics (STAP)
 - 02: Rapid Communications
 - 1*n*: Semiconductors, dielectrics, and organic materials
 - 2*n*: Photonics, quantum electronics, optics, and spectroscopy
 - 3*n*: Spintronics, superconductivity, and strongly correlated materials
 - 4*n*: Device physics including quantum information processing
 - 50–52: Nanoscale science and technology
 - 55–58: Crystal growth, surfaces, interfaces, thin films, and bulk materials
 - 60–64: Plasmas, applied atomic and molecular physics, and applied nuclear physics

- 65–67: Device processing, fabrication and measurement technologies, and instrumentation
- 7*n*: Cross-disciplinary areas such as bioelectronics/photronics, biosensing, environmental/energy technologies, and MEMS
- 80: Brief Notes
- 91: Comments and Replies
- 92: Errata

- The last two digits are assigned according to publication order, within that issue and section.

An example of the correct citation format for an article in JJAP is:

A. Oyo and B. Buturi: *Jpn. J. Appl. Phys.* **48** (2009) 011001.

In the full-text PDF file available online and in the printed issue, the article ID appears on each printed page. A hyphen followed by a page number added consecutively is appended at the end of the article ID. For the sample article above, the printed pages would appear with this page numbering: 011001-1, 011001-2, and 011001-3. The hyphen and page numbers should not be used when citing or searching for an article.

3 Editorial Policy of JJAP

3.1 Publication criteria

(Contents) JJAP publishes articles dealing with the applications of physical principles as well as articles concerning the understanding of physics that have particular applications in mind. Articles to be published in JJAP should describe original research that significantly add to already publicized knowledge in applied physics, or open a new research area of applied physics. Those articles should be new and of interest to the community and have sound motivation and purpose.

The journal intends to accept articles that can significantly contribute to the applied physics community. The journal's intention is illustrated in a few examples of subject areas as follows:

Articles dealing with materials must contain physics to interpret and analyze the properties of materials under discussion. Report on material growth, formation or synthesis followed by routine characterization without significant physical interpretation will not be accepted. Articles dealing with devices and processing must describe the underlying physics that is novel and interesting. Description of new devices designed or fabricated using already known procedures are usually not sufficient. Articles dealing with systems, subsystems and instruments must provide a new concept or function based on physical principles. Articles describing new systems constructed essentially using existing design methods such as circuit design tools must be sent to other technology-oriented journals.

(Novelty and Originality) The journal does not accept papers that have been either published or accepted for publication, or are under consideration for publication elsewhere. Articles presenting new but obvious results, concealing too much substantial information of the research work described, and presenting only incremental progress of the work without producing any significant advancement in applied physics, will not be accepted for publication.

The journal may accept a paper that has appeared in a similar form in publications not available to the general public, such as conference books for on-site use, internal reports, and abstracts for international conferences. However, the author(s) must cite the previous publication in the reference section of the manuscript and must also provide at the time of manuscript submission a cover letter stating the previous publication with reprint(s) attached.

The use of material previously published in an abbreviated form, such as a Rapid Communication, or in a letter journal or conference proceedings, can be permitted as a part of a new article to be published in JJAP, only if the new article presents significantly more detailed data and/or results,

leading to a substantially improved understanding of the subject. An explicit note should be given when another work is cited in an article.

(Confidentiality) All articles submitted for publication in the journal are given unbiased, objective assessment by peer review. Evaluation is given solely on its scientific contribution without regard to the race, gender, religion, or political belief of the author(s). All articles are treated as confidential until they are published.

(Authors and coauthors) Authors of articles are not restricted to members of The Japan Society of Applied Physics. All those who have made significant contributions to the research work may be listed as coauthors. When a manuscript has multiple authors, one of them should be designated as the corresponding author to receive and respond to correspondence from the editors. The corresponding author is responsible for representing all of the coauthors involved in the work. The designation of corresponding author can be changed by submitting a written application to the Editor-in-Chief.

The submission of a manuscript indicates that the corresponding author certifies the following:

- The article represents original work of the listed authors.
- All the listed authors made significant scientific contributions to the research work reported, and agreed to submit the manuscript. All significant scientific contributors to the work were given the opportunity to be included as coauthors.
- The manuscript has neither been published nor submitted to other journals for publication.
- The authors accept the journal's established manuscript review procedures.

(References) Readers benefit from complete references to position the described work in the context of the current research. Moreover, it is vitally important to fully acknowledge all relevant works in view of the ethical policy of the journal. Authors should therefore ensure that their citations of previously published works are comprehensive at the time of submission. This includes references to books and to published conference proceedings containing abstracts. Authors may have to cite unpublished works such as preprints, internal reports, or results that have been reported orally at meetings. Any work that appears during the course of the review process should be added to the references. The authors should take particular care to ensure that the resource information is correct so that links to referenced articles can be made successfully.

(Citation) Authors should not use, without attribution, text, concepts, data, figures or tables in another work published by others or by themselves. Plagiarism of others' works and self-plagiarism are serious breaches of ethics and never permitted. If a direct quotation is appropriate, the original source should be properly cited. Figures, tables and other images reproduced from another source normally require the publisher's permission. Articles violating this rule will be rejected.

3.2 Editorial procedures

(Review process) The following review process will take place when a manuscript is received by the Editor-in-Chief.

1. Upon receipt of a manuscript by the Editor-in-Chief, an acknowledgement of receipt will be sent to the author(s) via e-mail. The Editor-in-Chief chooses an editor to handle the manuscript review.
2. The submitted manuscript will be subjected to screening review for its scope, novelty, completeness, English level, and conformation to JJAP policies. A manuscript not passing the screening review will immediately be returned to the authors.

3. The editor in charge will select an expert reviewer to evaluate the manuscript.
4. As a result of review, if the editor determines that minor revision by the author(s) is necessary, the manuscript will be returned to the authors for revision.
5. Manuscripts returned to authors for revision should be resent promptly. If the revision cannot be finished within three months, the manuscript will be regarded as having been withdrawn.
6. The Editor-in-Chief will finally decide whether to accept the manuscript for publication.
7. Authors can submit a written appeal against rejection only once.

(Manuscript revision) For revising a manuscript after the first review process, authors are requested to respond fully to the reviewer's comments that have been sent by the editor. If the revision cannot be finished within three months, the manuscript will be regarded as having been withdrawn. On submitting the revised manuscript, authors are encouraged to attach a concise reply to all the reviewer's recommendations and criticisms together with a list of the manuscript changes. These materials will normally be forwarded to the reviewer. Some authors copy out each of the reviewer's comments and include their response immediately after. It is helpful for the reviewer if the locations of manuscript changes are indicated, for example, in the attachment of a second copy of the manuscript with the changes highlighted or underlined.

(Acceptability decision) When the revised manuscript is submitted after the first round of reviewer's report and the editor finds that the authors' responses and revisions are persuasive, the manuscript is judged to be acceptable for publication by the editor. Otherwise, the editor concludes that a further review process is necessary. The Editor-in-Chief makes the final decision on a paper that has been judged to be acceptable by the editor, after considering the contents of the paper and the review records.

(Reviewer candidate list) Authors may submit a list of experts who are considered to be especially suited to review their article. This is particularly welcome when a highly specialized expertise is required for reviewing the article. The editor is, however, not obliged to select a reviewer from that list.

3.3 Author appeal

(Author appeal) Authors may appeal a rejection of the article judged by the editor. For making an appeal, a request in written form together with all relevant information should be sent to the Editor-in-Chief. On the Editor-in-Chief's request, the Editorial Board members may review the case on the existing record or may ask for additional expert opinion. The Editor-in-Chief will make the final decision on the appeal, which will be sent to the authors and/or reviewers. This appeal process is carried out only once.

4 Ethical Policy for JJAP/APEX

The following statement of ethical standards applies to all authors, reviewers and editors of scientific papers that are published in JJAP and APEX.

4.1 Research results

Source material of experiments and research results should be recorded and retained for reasonable time after publication, in a manner that allows analysis and review by other scientists. Exceptions may be appropriate to preserve privacy or to assure patent protection.

Fabrication or falsification of data or reporting intentionally selective data to mislead or deceive the readers is a serious departure from professional conduct. Authors should strive not to allow misrepresentation of their data, and not to include other's data or research results without permission from

the original authors or publishers. Plagiarism is a serious breach of ethics and is defined as the substantial replication, without attribution, of significant elements of another article already published by others or by themselves. Explicit acknowledgement should always be given when another work, by others or by themselves, is used in an article.

In case an error is discovered in a published or submitted article, the authors are obliged to make a prompt correction, by publishing an erratum or retraction of the article with approval by all the authors of the article published or submitted.

4.2 Authorship

All individuals who have made significant scientific contributions to the research work should be given the opportunity to be included as coauthors. Other persons who have contributed to the study should be acknowledged, but not identified as coauthors. The sources of financial support for the research project should be disclosed.

Every coauthor should be aware of the content of an article to be submitted, agree to its submission, and share appropriate responsibility for the work. Any individual unable to take appropriate responsibility for the article should not be included as a coauthor.

Duplicate submission is the most common ethics violation encountered. It is unethical for authors to publish articles describing essentially the same research result in more than one journal. It is also unacceptable for authors to submit the same manuscript concurrently to more than one journal.

4.3 Peer review

Peer review provides advice to the editors concerning the publication of research results, and this is an essential step of the scientific publication process. Although reviewing manuscripts is time-consuming and sometimes difficult to pursue, all scientists have an obligation to do a fair share of reviewing.

Reviewers' names are kept confidential and may only be disclosed to journal editors, who are also obliged to maintain confidentiality. All ideas and information that have been obtained during the review process must be kept strictly confidential and not used for competitive advantage.

Reviewers should give unbiased, objective assessment to all manuscripts offered for publication. Reviewers should also disclose to the editorial office any potential conflicts of interest due to direct competitive or collaborative relationships with an author(s), and avoid cases in which such conflicts preclude an objective reviewing.

Comments made by reviewers may be seen by the authors. Reviewers should refrain from subjective personalized criticism of the authors. Reviewers' comments should be given in a way whereby authors can understand the basis of the comments and judgments, so that they can be used by the authors to improve the scientific quality of the article.

Reviewers are expected to provide relevant references that have not been cited in the article. They should also call the journal editors' attention to any substantial similarity between the manuscript and any paper already published or being submitted elsewhere.

4.4 Conflict of interest

All authors are requested to inform the editorial office of any potential conflicts of interest in advance of submitting an article (e.g., employment, stock ownership, patent licenses, etc). Similarly, all reviewers are requested to inform the editorial office of any potential conflicts of interest in advance of reviewing an article (e.g. being a collaborator of one of the authors, etc.). When it is recognized that objectivity and fairness cannot be ensured, the activity should be avoided or discontinued.

5 Submission Guideline

JJAP seeks articles that significantly contribute to advancements in the applications of physical principles as well as in the understanding of physics in view of particular applications in mind. It is very important to ensure that the content of your article fits well with the scope and intent of the journal.

Before preparing your manuscript, you are advised to read this Submission Guideline as well as the descriptions in About JJAP (p. 2) and Editorial Policy of JJAP (p. 4). Moreover, reading the Reviewer Guideline may be helpful to understand what the reviewer looks for in your article.

5.1 Originality

As a basic rule of scientific publication, a manuscript to be submitted to the journal should be original. A manuscript having essentially the same content as what was or will be published elsewhere will not be considered for publication in JJAP. On submission of manuscripts, please pay careful attention to the followings:

- Manuscripts should not have been published elsewhere.
- Duplicate submission is unethical. Do not submit manuscripts that have been accepted or are under active consideration for publication elsewhere.
- The journal may accept a paper that has appeared in a similar form in publications not available to the general public, such as conference books for on-site use, internal reports, and abstracts for international conferences, but the author(s) must cite the previous publication in the reference section of the manuscript and also must provide at the time of manuscript submission a cover letter stating the previous publication with reprint(s) attached.

The authors are requested to read also the Ethical Policy of JJAP/APEX to avoid ethical violation.

5.2 Types of papers

JJAP publishes various types of papers to match the authors' demands. When submitting a manuscript, please follow the requirements of content, length limit and style recommendation of the respective type of paper that you are willing to contribute, as is summarized below.

JJAP plans Special Issues on specific leading topics. A Special Issue is composed of Regular Papers, Review Papers, and Brief Notes (occasionally). Authors of Special Issues are also requested to follow the same requirements as explained in the following:

Regular Papers (RP)

- RPs are original research papers with well-developed discussions on the results obtained in respective fields of applied physics. They must provide sufficient information to ensure the repeatability of experiments by readers.
- There is no length limit to the paper.
- The abstract should be no more than 150 words.
- Papers should include sections with titles, such as Introduction, Experimental Methods, Results and Discussion, etc.
- Papers should cover all references which are appropriate and adequate to the work. Full papers typically have approximately 30 or more references.

Rapid Communications (RC)

- RCs are devoted to the rapid publication of new research works that attract the attention of and exert beneficial impact on researchers working in their respective fields of applied physics. RCs will be published biweekly online and printed monthly.
- The maximum length is three printed pages (about 3090 words).
- The abstract should be no more than 100 words.
- RCs should not be divided into sections.

Brief Notes (BN)

- BNs are aimed at reporting significant improvements in instrumentation, fabrication processes and measurement techniques, as well as serving as an archive for knowledge useful for applied physics such as important material parameters. The research topic described must be of interest to researchers working in the field of applied physics. BNs will be published monthly.
- The maximum length is two printed pages (about 2060 words).
- The abstract should be no more than 100 words.
- BNs should not be divided into sections.

Review Papers (RV) and Invited Review Papers (IR)

- RVs and IRs are comprehensive reports of the background and state-of-the-art research on a specific field in applied physics. They should provide overviews of the field to nonspecialists and aim to broaden the scope of applied physics.
- Prospective authors should consult the editors concerning the subject and content *before* submitting manuscripts.
- Manuscripts should be written as concisely as possible although no limitation on length is specified.
- The abstract should be no more than 150 words.

Comprehensive Reviews (HR)

- HRs are comprehensive reports that include the English translation of review papers published in the Japanese language journal of the Japan Society of Applied Physics, *Oyo Buturi*.
- There is no length limitation.

Comments and Replies (CR)

- CRs include comments from the readers who have read the papers already published in JJAP and responses from the author(s) to those comments.
- Neither abstract nor key words are necessary.
- The maximum length for comment or reply is two printed pages (about 2060 words).

Errata (ER)

- ERs announce the corrections made to published papers and paper retraction.
- The length should be within one printed page.

5.3 Submission

Papers should be submitted via the web-based editorial system. The authors should prepare the following items before submission, and then follow the instructions on the Web submission page.

- A single electronic file in PDF, which must contain the main body, tables, figures, and photographs: Please refer to the “Instructions for Preparation of Manuscript” available at the journal’s Web site for the required format.
- Agreement Form for Copyright Transfer and Publication Charge Payment: This form, signed by the author, should be sent to the Editorial Office by fax or e-mail at the time of paper submission. Papers without this agreement will not be published.

- List of recommended reviewers: Authors are strongly encouraged to suggest several experts whom they consider particularly suited to review their paper. The editor is, of course, not constrained to select a reviewer from that list.
- Reference materials, if any.

6 Others

6.1 Publication charge

Authors or their institutions are requested to pay the publication charge according to the following rates when the paper is accepted.

¥13,000/printed page

More information is available at our Web site.

6.2 Copyright

Copyright for an article submitted to JJAP is transferred to the Japan Society of Applied Physics when the manuscript is accepted for publication by JJAP Editorial Board. For the details, please see The Copyright Policy of JSAP.

The authors may use all or part of their article in compilations or other publications of their own work on the condition that written notice be sent to

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6.4 Note

This guide is also available at our Web site and the information will be updated more frequently.