

Rules for the Authors

I. General Aspects

1. Papers devoted to the following fields in the physics and technology of semiconductors are published in the journal:

Atomic Structure and Nonelectronic Properties of Semiconductors;

Electronic and Optical Properties of Semiconductors;

Semiconductor Structures, Interfaces, and Surfaces;

Low-Dimensional Systems;

Amorphous, Vitreous, Porous, Organic, and Microcrystalline Semiconductors; Semiconductor Composites;

Physics of Semiconductor Devices;

Fabrication, Treatment, and Testing of Materials and Structures.

2. Two copies of the paper should be submitted. The following formatting of the text is recommended: Times New Roman font, point size 14, 1.5 linespacing or Times New Roman font, point size 12, double linespacing. The margins should be as follows: 3 cm left; 2.5 cm top and bottom; 2 cm right; the text should be justified left and right. The use of other fonts with a point size of 12–14 points is allowed. A decreased font (brevier) should not be used anywhere in the manuscript.

Each copy of the paper should include the title page, text, and separate pages with the abstract, references, tables, figure captions, and figures themselves.

The total volume of the paper should not, in general, exceed 20 pages (not including the figures).

The number of figures in the paper should not exceed six, including figures with letter designations (for example, Fig. 1a and Fig. 1b are considered two figures).

The authors must sign an Agreement on Transfer of Copyright addressed to the publisher (two copies). The form of the agreement can be found on the Internet (http://www.ioffe.ru/journals/ftp/dog_engl.doc).

3. In preparing the manuscript, one should take into account that the reviewer formulates his/her evaluation concerning the following aspects: (a) whether the paper is in line with the scope of the journal; (b) whether properly formulated new scientific results are reported in the paper; (c) whether the conclusions of the paper are reliably verified; (d) whether the content of the paper is presented sufficiently clearly; and (e) for which group of readers the paper is of interest.

II. Style of a Paper

1. The style of the paper should be clear, informative, and concise. Avoid long sentences. Bear in mind that

clarity of presentation has the highest priority. Avoid the introduction of “homemade” new terminology and jargon. Do not use abbreviations to excess. All abbreviations should be written out fully upon first mention, even such widely used abbreviations as I – V (current–voltage) characteristic, IR (infrared), and QW (quantum well).

2. The pages of the text should be numbered. To facilitate readability, it is recommended to divide the text into sections and divide large sections into subsections (for example: 1. INTRODUCTION, 2. EXPERIMENTAL, 3. RESULTS (3.1. *Photoluminescence*, 3.2. *Infrared Spectra*, etc.).

3. In the INTRODUCTION, the worldwide level of studies in the field under consideration should be assessed, unsolved problems in this field should be stated, and the main objective of the study should be clearly formulated. In describing the experimental technique, the details of well-known methods should be omitted by referring to available previous publications; however, it is necessary to emphasize the main distinctive features of measurements. As a rule, the data are illustrated by figures and are listed in tables.

Avoid duplication of information, do not repeat in the text the contents of tables or figure captions. In the CONCLUSIONS, state the main new results and direct the reader’s attention to the changes and additions that this study introduces into the global state of the problem or issue under consideration.

4. References to previous publications are given in the order as they are mentioned in the text and according to the numbers as they are listed in the REFERENCES; these references are given in square brackets: [1–5], [3, 4–7], or [8]. The footnotes should be numbered continuously, and each footnote should be printed on the page to which it refers. Notes to tables should be formatted typically as follows—Note: The data were obtained ... or $*x = 0.1$.

III. Formatting

1. The title page should have a top margin of 5–6 cm, the title (in boldface), the list of all authors (initials and surnames), and corresponding affiliations (without abbreviations). The address of the corresponding organization should be given below on a separate line (postal index, city, and country). For timely contact, an *e-mail* address should be given.

2. The abstract is an important introductory part of the paper and is a stand-alone document; it should not contain abbreviations and references to other publications. The abstract should be brief (no more than 100 words) but, at the same time, highly informative. The abstract should be written in Roman type with the same size and linespacing as the main text; it should be printed on a separate page.

We would like to draw attention to the fact that, according to the new rules of publishing the journal, it is necessary to indicate the subject of the paper using the PACS (Physics and Astronomy Classification Scheme) classification. The PACS indices (no less than two) facilitate computer search for publications on the basis of subjects and fields: the larger the number of indices, the faster and more accurate the search. The PACS indices are written on a separate line. Individual PACS indices are separated by commas, for example, PACS: 61.72.Cc, 61.72.Ji, 61.80.Fe, 71.55.Cn.

The PACS indices can be found on the Internet under the rubric Condensed Matter:

<http://www.aip.org/pacs/pacs08/pacs0860.html> combined with another site, or

<http://www.aip.org/pacs/pacs08/pacs0870.html>.

3. References. Use a number in brackets when citing references in text. The list of references is formatted in the following way:

For journals: Author's initials go before the surname with a space between the initials. The name of the journal is written in the standard *CASSI*-abbreviated form in plain text. The volume number follows the journal title and is written in bold, with a preceding comma and without the word *vol.* If the page numbering in the references journal is not continuous, the issue number is written in parentheses in plain text following the volume number with a comma placed after the issue number and is followed by the page number. The year of publication (in parentheses) follows the page number.

For books: Initials and surnames of all authors are listed. The title of the book is italicized. If the book is published in Russian, only the English translation of the title is cited. The publication information follows the title (and edition) in parentheses in the order of publisher, city, year. The publisher's name is generally written in a standard shortened form. Volume number (Vol.), part number (Part), chapter number (Chap.), and page numbers follow the publication information. If information is available about the publication of a Russian book translated into English, French, or German, the publication information of both the original and translated work should be cited. The same applies to a book translated into Russian.

For articles from a collection of articles. Initials and surnames of all authors should be given. Initials and surnames of all editors should be given {followed by Ed(s), separated by comma). Next follows the city (with colon), publisher, year, and pages (pp.).

For dissertations. The information is given in the following order: (1) author's surname (followed by initials without a space), (2) title of dissertation (if available), (3) *Cand. Sci./Doctoral (Faculty) Dissertation*, (4) city, (5) publisher [if Russian, transliterate in English], (6) year of publication, and (7) page number(s).

It is undesirable to refer to publications that are not readily available to the average reader (for example, student and departmental conferences).

We give below an example of correct formatting of the list of references.

REFERENCES

1. N. A. Poklonski, V. F. Stelmakh, V. D. Tkachev, and S. V. Voitkov, *Phys. Status Solidi B* **88**, K165 (1978).
2. H. A. Bethe and E. Salpeter, *Quantum Mechanics of One- and Two-Electron Atoms* (Academic, New York, 1957; Fizmatgiz, Moscow, 1961).
3. B. I. Shklovskiy and A. L. Éfros, *Electronic Properties of Doped Semiconductors* (Nauka, Moscow, 1979; Springer, Berlin, 1984).
4. Yu. I. Ukhonov, *Optical Properties of Semiconductors* (Nauka, Moscow, 1977) [in Russian].
5. Yu. A. Goldberg, in *Handbook Series on Semiconductor Parameters*, Ed. by M. Levinshtein, S. Rumyantsev, and M. Shur (World Sci., London, 1999), Vol. 2, p. 1.
6. *Handbook of Mathematical Functions*, Ed. by M. Abramovitz and I. A. Stegun (Dover, New York, 1971; Nauka, Moscow, 1979).
7. H. J. Krenner, A. Zrenner, and G. Abstreiter, in *Abstracts of 26th International Conference on Physics of Semiconductors* (Edinburgh, Scotland, UK, 2002), Part 1, p. 204.
8. K. W. Stone, N. S. Fatemi, L. M. Garverick, et al., in *Proceedings of 25th IEEE Photovoltaic Specialists Conference, Washington, 1996* (IEEE, New York, 1996), p. 1421.

4. In figures' captions, it is not allowed to use special graphic symbols (circles, triangles, and so on); these symbols should be numbered in the figure itself. Correct listing of the curves' parameters is clear from the examples: $V = (1) 0.1$, $(2) 0.3$, and $(3) 0.5$ V; $N_a = (1) 5 \times 10^{16}$, $(2) 1.2 \times 10^{17}$, and $(3) 1.8 \times 10^{18}$ cm⁻³.

IV. Formulas, symbols, and equations

1. Only Latin and Greek letters are used as designations of physical, mathematical, and chemical quantities. Different quantities should not be designated using the same letter (for example, n is the charge-carrier concentration, the refractive index, and just an integer; x is the fraction of a chemical element in an alloy $\text{In}_x\text{Ga}_{1-x}\text{As}$ and the geometric coordinate). If there are a large number of quantities, lowercase letters, Gothic font, and superscripts and subscripts can be used, in addition to conventional designations.

It is desirable to choose letters, abbreviations, or numbers that are easily understandable in the context of English semantics: V_{in} and V_{out} for input and output voltages; V_{oc} for open-circuit voltage, I_{sc} for short-circuit current, and N_0 for the initial value of some quantity.

Italic is used to designate physical quantities, like a , j , V , and t .

If the subscripts for designations of physical quantities are formed as a result of abbreviation of some

surname, Roman font is used: k_B (the Boltzmann constant), E_F (the Fermi energy), and T_C (the Curie temperature).

2. Proportionality is indicated by the symbol μ , for example, $I \propto V_m$. The fact that a quantity is approximately equal to some value is represented either as, for example, ~ 30 mV or as $V \approx 30$ mV. The ranges of the values are written correctly as, for example, $t = 10\text{--}20$ min (the representation of 10...20 min or $10 \div 20$ min is incorrect); the units of measurements are written only after the second value.

Samples dimensions are written as 5×5 mm or $200 \times 200 \times 1$ mm; however, we use 5×5 mm² for an area.

3. Formulas in the text should be numbered continuously. It is desirable to write formulas so that they are not multileveled. To this end, use $\exp x$ instead of e^x . Represent fractions using a slash; brackets should be also arranged carefully so that it is easy to differentiate the numerator from the denominator. Avoid multilevel indices like B_{q_z} . When writing very long formulas that can require more than three transfers from one line to another, introduce separate symbols for some of the components of this formula. Especially, authors should avoid the situation where the denominator cannot be completely arranged in the column.

V. Figures

Each figure should be presented on a separate A4 sheet, including figures with letter designations (for example Fig. 1a and Fig. 1b are reproduced on two different sheets). Margins on all sides should be no less than 2.5 cm.

Plots in the figures are presented so that all points and lines are clearly seen and do not merge when the figure is decreased to the column size (80 mm); on a journal page, all symbols and letters should have a size no smaller than 1.5 mm and no larger than 3 mm.

When choosing the type of representation of curves and lines, one should take into account the following priority in the designations adopted in the journal: (i) solid line; (ii) dashed line; (iii) dashed-and-dotted line; (iv) dotted line; and (v) other designations (alternation of short and long dashes, etc.).

The marks indicating divisions on the axes should be directed inward of the figure's field. A figure should not be overloaded with points, curves, and numerical designations. You should also limit the number of inscriptions in the figure itself; it is recommended to use numerical or lettered designations and, if possible, to transfer the explanatory comments to the caption or text.

Names of physical quantities on the axes and in the figure's field are written in Roman font (for example, Intensity), and designations of physical quantities (and their subscripts and superscripts) are given in Latin and Greek letters. The lettered Latin designa-

tions of physical quantities are italicized (U , I , t). International designations for units of physical quantities should be used. The name or designation of a quantity plotted along the axis is separated from the corresponding unit by a comma and a space. It is recommended to position common decimal multipliers of measured quantities in front of the corresponding unit rather than near divisions on the axis; for example, I_s , 10^{-5} A or Current, 10^{-5} A.

Numbers at divisions on axes are written horizontally. The numbers of curves ($1, 2, 3, \dots$ or $1', 2', 3'$, etc.) and the designations of the figure's parts (a, b, c, \dots) should be written in italic, without enclosing them in parentheses. Examples:

within the figure itself:

n -GaAs;

$$E_{\text{CdTe}}^{LO} = 0.1 \text{ meV};$$

$$T_K^{2\Omega} = 10 \text{ mK};$$

on the axes:

$$N_{\text{GaSb}} d_0^{3/2}, \text{ cm}^{-3/2};$$

$$M_H^{1/3}, \text{ arb. units};$$

Intensity, arb. units;

Length, μm .

We stress that it is recommended to write arbitrary units on the axes as arb. units.

If there is a file with a halftone figure, it is desirable that this file should be presented on a floppy disk or sent by e-mail.

Additional useful information can be included in figures. It is recommended to write inscriptions of this type in the figures (except for cases where italics are used, as mentioned above) using lowercase letters in Roman font. The Editorial Board has the right to change the formatting of figures that do not comply with the above requirements.

We ask authors to follow our guidelines and prepare papers carefully. Manuscripts formatted not according to these rules may be sent back to the authors. We thank all who assist the Editorial Board in improving the quality of the journal. We are grateful to you for your collaboration.

Editorial Board